Quality management in Australian higher education: A critical review

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QUALITY MANAGEMENT IN AUSTRALIAN HIGHER EDUCATION:
A CRITICAL REVIEW

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B.A. (Hons), M.Sc. (Research), Grad. Cert. Ed.

This thesis is presented in fulfilment of the requirements for the degree of Doctor
of Philosophy

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Edith Cowan University

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USE OF THESIS

The Use of Thesis statement is not included in this version of the thesis.
ABSTRACT

Quality management in higher education is a politically contentious issue in Australia, as it is in North America, New Zealand, and many European countries. The Australian government has instituted a quality management system for higher education that it claims will improve university efficiency, accountability and quality. Critics assert that the current quality management system is detrimental to universities and undermines the capability of universities to deliver maximal benefits to individuals and to society. Evaluation of the basis of conflicting claims is necessary to enable decisions about the usefulness of current practices and decisions about whether existing quality management arrangements should be retained, modified and developed, or replaced, or abolished.

Previous research has established that ‘quality’ is used in multiple and contradictory ways within Australian higher education. Other research has stressed the need for a holistic or systemic approach to quality management in higher education. The research presented in this thesis uses multiple methods (document analysis, critical systems) within a ‘critical management’ theoretical perspective to examine the consistency and coherency of the quality management system in Australian higher education 1999-2003, and concludes with recommendations for change. The thesis contributes to knowledge primarily through the ‘scholarship of integration’. The research findings are analysed in the context of literature from three disciplines, from educational evaluation, from quality management in industry, and from the philosophy of higher education concerned with the purposes, roles and relationships in higher education.

I conclude that the current quality management system is fundamentally flawed, and I argue that development and modification of the current system cannot overcome these difficulties. The analysis presented in the thesis does not support a return to traditional university management practices. I conclude that ‘post-traditionalist’ writers on university management provide a suitable basis from which to address the substantive issues within debates about university quality. Within a post-traditional framework of values, the literature on evaluation, on efficacy and failure of quality management in industry, and some marginalised parts of commercial quality management literature, can be used to avoid known mistakes that lead to invalid, inappropriate, ill-adapted, or counterproductive systems of quality management. With appropriate adaptation and
sensitivity to the context of higher education, some research from these disciplines could usefully inform the thinking and practices of university managers and policy makers in Australia, and the future approach to ‘quality’ management in Australian higher education.
DECLARATION

I certify that this thesis does not, to the best of my knowledge and belief:

(i) incorporate without acknowledgment any material previously submitted for a degree or diploma in any institution of higher education.

(ii) contain any material previously published or written by another person except where due reference is made in the text; or

(iii) contain any defamatory material.

I also grant permission for the Library at Edith Cowan University to make duplicate copies of my thesis as required.

Signature

Date: ...
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I would like to thank my three supervisors, Sue Stoney, Tony Fetherston and Margaret Sims, for their help and support during the period of my candidature. I would like to thank Sue for encouragement and support in the early stages of this research, especially in the selection of the topic area for study. I would like to thank Tony for the help he gave me to reduce the scope of the research and his useful comments on written drafts, and in supervision. I would like to thank Margaret for her attention to the final drafts of my thesis and her helpful suggestions for changes to the presentation of my findings.

I would also like to thank the anonymous reviewers of the eleven conference papers that were used as part of the process of ‘testing’ ideas and analyses presented in this thesis. I would like to thank David Seth Preston for his patience as editor of the book *Contemporary Issues in Education*, in which some of the ideas presented in this thesis appear as Chapter 8.

I would like to thank my work colleagues, Judy Kulisa and Erin Donovan for their willingness to take on program co-ordination during the period of my candidature, and Margaret Sims as program director for her support for the program during my partial absence. My thanks also to Judy for proof reading the final draft of this thesis.

I would like to thank Terry Love for typesetting, help in transforming my hand drawn diagrams to electronic format, and for the personal support he has given. Finally, I would like to thank my daughter Mashallah Love, for her helpfulness, for her understanding when sometimes I had to work at weekends or in the evenings, and for her presence, which helped me keep things in perspective.
CONTRIBUTIONS TO KNOWLEDGE

The research presented in this thesis contributes to the ‘Scholarship of Integration’. The scholarship of integration seeks to make connections across disciplines to provide a more coherent view of knowledge and to provide a more integrated and more authentic understanding of life through connections within and beyond the academy (Boyer 1992, p87; Kemmis, Marginson, Porter & Rizvi 2003). The research presented in this thesis contributes to higher education research in a number of ways:

- The research clarifies the sources of conceptual confusion about ‘quality’ in Australian higher education.
- The research identifies how roles found in commerce, such as ‘customer’ and ‘stakeholder’, have been assimilated into Australian higher education, and the implications of this assimilation for roles, relationships and purposes of higher education.
- The research elucidates the tacit assumptions about causality (referred to as ‘mental models’ in management literature) that policy makers and university managers used when they reported on quality management in Australian higher education in the period 1999-2003.
- The thesis integrates these finding with research from both educational evaluation and from management research.
- I suggest possible future directions for quality management and educational evaluation in Australian higher education that build upon a post-traditional perspective on university management.
- The research also contributes to practice in multi-method research because the project required cross-comparison of data gathered by a variety of methods not previously used together within a critical management research.
- The research has so far generated eleven published peer-reviewed papers plus a published book chapter. Currently, I have one further book chapter in progress and a journal article in the second stage of review.
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CHAPTER 1
EXECUTIVE SUMMARY

Introduction
This research presented in this thesis critically examines the conceptual basis and practical application of the quality management system in Australian universities in the period 1999-2003. The thesis examines whether the system of quality management in Australian universities is:

- Philosophically andconceptually well grounded;
- Whether the methods chosen are appropriate to the context of higher education and consistent with other research findings in higher education;
- Whether the methods are plausibly likely to achieve their intended outcomes, of improvement of quality and accountability of universities; and
- Whether existing quality management practices have adequately incorporated existing knowledge about the reasons for failure of quality management in the commercial context.

The thesis will conclude with recommendations for changes to existing Australian system of university quality management.

Background to the Research
This study arose from a different project. I began to review the literature on student attrition to see what could (or should) be done to reduce levels of student attrition in two professional degree programs. The literature on quality management interprets high student attrition as indicative of low quality educational provision and low student attrition as indicative of high quality education provision (Karmel in DETYA, 1998b, p10). When I examined the literature on student attrition, it became clear that the research on the reasons for student attrition did not support this simplistic interpretation of the data. The research literature on student attrition is extensive and asserts that the reasons for student departure are complex and cannot be reliably correlated simply with the quality of the student’s educational experience, (Baird, 2000; Bean & Eaton, 2000; J. B. Berger, 2000; Braxton, 2000; Braxton, Brier, & Hossler, 1998; Braxton, Milem, & Sullivan, 20000; Johnson, 2000; Kuh & Love, 2000; Laden, Milem, & Crowson, 2000;
McInnis, Hartley, Polesel, & Teese, 2000; Rendon, Jalomo, & Nora, 2000; St John, Cabrera, Nora, & Esker, 2000; Stage & Hossler, 2000; Tierney, 2000; Tinto, 1993; Yorke, 1999b), for further discussion see (Cooper, 2002e). I began to examine the research basis of other ‘quality measures’ and found similar dissonances between the findings of educational research and assertions about quality and interpretation of data used as its ‘surrogates’. The ideas for the research presented in this thesis emerged from the dissonances found.

Early on in the research process it appeared that one of the reasons for simplistic assumptions about the relationship between educational quality and its supposed ‘indicators’, had occurred because quality management in Australian higher education had been viewed in isolation from relevant information and research from a variety of disciplines and sub-disciplines. These include:

- The philosophy of higher education concerned with purposes, roles and relationships in higher education;
- Research into higher education evaluation and conceptualisation of quality in education;
- Management theory concerned with assumptions about the nature of roles, relationships and purpose in commercial management and its implications for the conceptualisation of quality;
- Empirical research in management concerned with efficacy and reasons for failure of quality management in commerce.

Later in the research process, it emerged that this limitation had been compounded by apparent selective use by government policy makers of information and advice provided in reports commissioned by government on matters related to quality in higher education.

The need for a ‘holistic’ or systemic approach to research and planning in quality management in higher education has been suggested elsewhere (Ison, 1999; Yorke, 1999a). The benefits of a holistic approach are that it permits quality management in higher education to be situated in the broader context of higher education policy, of management theory, and of evaluation research, and allows integration of research that has previously been separated by disciplinary boundaries. Such an approach would also
make it easier to identify unintended consequences and beneficial or adverse interactions of disparate higher education policies.

**Research Problem, Hypothesis/Research Issues and Contributions**

The research problem is:

**Research problem:** There are conflicting claims about the appropriateness of commercially derived quality management methods to Australian higher education. Supporters of the use of commercially derived quality management methods assert that these methods have potential to improve university efficiency, accountability and quality, (Gallagher, 2000; Harman & Meek, 2000a, 2000b; Kemp, 2000, p56; Kemp, 1999b; Nelson, 2002e). Critics assert that current quality management methods are detrimental to universities and undermine the capability of universities to deliver maximal potential benefits to individuals and to society (Marginson, 2002; Marginson & Considine, 2000), (De Lacey & Moens, 1990; Senate Employment Workplace Relations Small Business and Education Committee, 2001; Vidovich, 1998). Evaluation of the basis of conflicting claims is necessary to enable decisions to be made about the usefulness of current practices, whether existing quality management arrangements should be retained and developed, modified, replaced or abolished.

The research problem generates six interrelated questions, each concerned different types of issue. The issues are: ‘Concepts of Quality’; ‘Context of Education: Purposes, roles and relationships’; ‘Rationale for Quality Management’; ‘Quality Measurement’; ‘Commercial Quality Management Methods’; ‘Conclusions and Implications’. Each question generated sub-questions that are addressed in the research.

**Question 1: Concepts of quality**

What conceptualisations of quality are found in Australian higher education in the period 1999-2003, and what are the implications of any differences for interpretation of data about higher education?

a) How are ‘quality’, ‘quality assurance’ and ‘quality improvement’ conceptualised in quality management documentation in policy, strategy and evaluation reports in Australian higher education?

b) Is usage consistent?
c) Does the documentation indicate awareness of difference between different technical usages and everyday usages and the implications of these differences for measurement?

d) What is the relationship between ‘quality’ and ‘standards’?

e) What are the implications of these findings for the research problem?

**Question 2: Context of higher education: purposes, roles and relationships**

What is the relationship between the intended purposes of Australian higher education, the roles and relationships required to achieve these purposes, and concepts of quality?

a) What purposes, roles and relationships are assumed in quality management documentation in policy, strategy and evaluation reports in Australian higher education?

b) If a customer relationship is assumed, how does this influence other roles and relationships?

c) Are the purposes roles and relationships found in the documentation consistent with the purposes, roles and relationships implied by the concepts of quality identified in Q1?

d) What are the implications of these findings for the research problem?

**Question 3: Rationale for quality management**

Are the recommendations of the Australian government for processes of quality management in higher education consistent with government ideology and its intended purposes for higher education?

a) What is the Australian government rationale for higher education quality management?

b) Are the rationale(s) consistent?

c) How does quality management as implemented privilege particular assumptions about universities, students and the academic role?

d) What are the implications of these findings for the research problem?

**Question 4: Quality measurement**

Are the quality management methods adopted by Australian higher education adequate when assessed against established standards of educational evaluation?
a) What data is identified in the documentation examined, as indicative of ‘quality’?

b) Is the conceptualisation of quality consistent for different ‘quality indicators’, and consistent with the findings about the context of higher education, as found in Q2?

c) Is there agreement in the documentation about the interpretation of the meaning of data for quality?

d) Is there an adequate theoretical basis to justify the inferences about quality found in the documentation?

e) How are the difficulties of interpretation and representation of meaning identified in the evaluation literature reflected in the approaches to the interpretation of data reported in the documentation?

f) What evidence is there from the documentation of attempts to monitor unintended outcomes of quality management?

g) What evidence is there of holistic approaches to quality management?

h) What evidence is there of processes intended to ensure that intended outcomes are realistic within the resources available?

i) What are the implications of these findings for the research problem?

**Question 5: Commercial quality management methods**

How has existing research about efficacy and failure of quality management practices in industry-affected policy and practices for quality management in Australian higher education?

a) What commercial ‘management advice’ is reflected in quality management documentation in policy, strategy and program evaluation in Australian higher education, and how has it been adapted to the context of higher education?

b) What claims are made about the effectiveness of quality management measures?

c) Is there evidence in the documentation of awareness of the research on effectiveness and modes of failure of commercial quality management methods in industry?

d) What are the limitations of applicability of commercial quality management methods because of differences in context?
e) What are the implications of these findings for the research problem?

**Question 6: Conclusions and implications**

Refer back to the research problem and assess:

a) Are the criteria, against which Australian university quality is judged justifiable and realistic?

b) Are current Australian quality management strategies and methods plausibly likely to achieve their intended objectives?

c) What are the implications of these findings for:

i) Australian higher education policy

ii) Australian higher education management

iii) Quality management in other educational and public service contexts

iv) Theory development

v) Future research

The research presented in this thesis is exploratory. This research contributes to higher education research in a number of ways. Firstly, the research clarifies the sources of conceptual confusion about 'quality' in Australian higher education. Secondly, it identifies how roles found in commerce, such as 'customer' and 'stakeholder', have been assimilated into Australian higher education, and the implications of this assimilation for roles, relationships and purposes of higher education. Thirdly, the research elucidates the tacit assumptions about causality (referred to as 'mental models' in management literature) that policy makers and university managers used when they reported on quality management in Australian higher education in the period 1999-2003. Finally, it integrates these finding with research from both educational evaluation and from management research to suggest possible future directions for quality management and educational evaluation in Australian higher education. The research also contributes to practice in multi-method research because the project required cross-comparison of data gathered by a variety of methods not previously used together within critical management research.
Justification for the Research

The research problem is important for a number of different reasons. Arguments for the importance of Australia universities to society include the contention that universities are important by virtue of the potential for universities to:

- Develop new knowledge, (Nelson, 2002b);
- To transform individuals, (Australian Vice-Chancellors Committee, 2002a);
- Promote social cohesion, (DETYA, 1998b)
- To strengthen democracy, change social attitudes and increase tolerance (DETYA, 1998b; Nelson, 2002b);
- To contribute to the economy directly; (Nelson, 2002b) or
- To contribute to future prosperity by their role in building a knowledge economy (Chubb, 2001; Considine, Marginson, Sheehan, & Kunnick, 2001; Kemp, 1999b; Nelson, 2002b; M. Peters, 2001);

Both supporters and critics of current government quality policy agree that universities are important and state that they want universities to perform their roles as well as possible (Australian Vice-Chancellors Committee, 2002b; AV-CC, 2000a; Group of Eight, 2000; Nelson, 2002b; National Tertiary Education Industry Union, 2002; National Union of Students, 2002). There are differences in position however on many key issues relevant to judgements about higher education quality. Points of contention include:

- Appropriate balance between diverse goals;
- How universities achieve their goals;
- How success should be judged, who should judge or evaluate university performance;
- How evaluations should be disseminated; what are the appropriate responses to perceptions of failure;
- Whether and how success can or should be measured;
- Where control of universities should lie and how funds for higher education should be allocated.
Some of the differences are concerned with 'ends' and are political, whilst others are concerned with choice of 'means' by which ends can be achieved, and are technical.

The Australian government and the Australian Vice-Chancellors' Committee (AVCC), the committee representing Australian University Vice-Chancellors (Presidents), assert that quality improvement is a high priority for Australian Universities (Chubb, 2001; Kemp, 2000; Nelson, 2002e). The Australian government provides several justifications for the importance of quality management, including the argument that quality management is important because public money and student fees fund Australian universities (Nelson, 2002b, p3). It is argued that this gives the public in general, and students and their personal financial sponsors, such as parents, an entitlement to have evidence that the money received by universities is used efficiently and effectively (Nelson, 2002b). The same arguments applied to the quality management system for Australian universities, suggest that the public has a right to expect, at least, that the quality management systems instituted under government policy are well conceived, efficient, effective, and are plausibly likely to deliver the outcomes that have been promised. The director of the Australian Universities Quality Agency (AUQA) has also expressed his view that there is a need for research to see whether AUQA has made a difference to quality in higher education (Woodhouse, 2002, p19).

One measure of the significance of a problem is the measure of the number of people affected by policy decisions. In 2000, 695,500 students were enrolled in Australian universities (Nelson, 2002b, p8). The economic significance of universities provides an alternative measure of significance. In 2002, the higher education sector received $4.2 billion per year from Federal government. This figure increases to $6.4 if government support of the Higher Education Contribution Scheme (HECS) student loan scheme is included (Nelson, 2002d, p ix-3) and total revenue of $10.4 billion to Australian universities (Nelson, 2002b, p9). Universities are significant contributors to invisible export earning (Nelson, 2001; Nelson, 2002b) through on-shore and offshore programs for overseas fee-paying students. The direct income was $947 million in 2000 (Nelson, 2002d)) and the spending of on-shore overseas students indirectly supports the local economy, estimated at $3.7 billion in 2000 (Nelson, 2001, p43). One rationale for quality management used by the Australian government is that because the education export market is important, quality assurance is essential to maintenance of the reputation of Australian universities, (in the research briefs to D. Anderson, Johnson, & Milligan, 2000b, p 2; and Harman & Meek, 2000b, p v-vi).

Universities direct their funds towards internal quality management units whose task it is to ensure compliance with government quality requirements, to report on quality to government and the AUQA, and to satisfy each university’s own internal quality monitoring needs. Both academic staff and administrative staff direct some time towards quality management tasks, both because of formal institutional requirements and because academic staff have their own information needs to help them assess the strengths and weaknesses of their work and make informed changes.

Increased expectations of transparency and public accountability are reflected in recent comments by the Ombudsman in New South Wales that indicate there is a growing trend towards judgement of quality of university administration and management processes on a similar basis to other public bodies such as local councils (Contractor, 2001). Implied or explicit promises made by universities in prospectuses and advertising material may now form a basis for compensation claims, unless they can be fully
justified. This judgement requires that the programs, as delivered to the students, must be consistent with explicit or implied promises of prospectuses, about how students should understand terms like 'quality' and 'standards'.

The Australian Quality Council state that successful implementation of quality improvement in organisations requires that all elements of each organisation share understandings of the quality improvement process, assumptions and concepts and values (Australian Quality Council, 2000; DETYA, 1997). Implicit in this requirement, is an understanding that the shared assumptions, and concepts should not only be explicated, but should also be coherent and consistent with other accepted relevant bodies of knowledge.

The crux of all these arguments is that universities are important to Australian society for a variety of reasons. There is an expectation that universities perform their functions at least efficiently, effectively and transparently, although many, including the current Federal government minister Brendan Nelson would want to add other considerations such as equity (Nelson, 2002b, p2), to this minimalist 'bottom line'. Claims are made that various commercial quality management methods and practices (such as benchmarking, strategic planning, performance indicators, competition policy, and 'deregulation') provide a means to ensure institutional transparency, efficiency and effectiveness (Kemp, 2000; Kemp, 1997, 1999a; Nelson, 2002b). The corollary of this is the expectation that the quality management processes should be: conceptually well founded; well suited to the context of higher education; plausibly likely to achieve the intended outcomes and to avoid adverse unintended outcomes.

**Research Design, Methodology and Methods**

A critical management perspective was selected as this problematises the issue of the tacit assumptions, and places management methods in their historical, social, political and philosophical context. This research uses multiple methods within a critical management/critical systems theoretical framework, because real world problems often make the use of multiple methods desirable (Mingers & Brocklesby, 2003, p227; Mingers & Gill, 1997,). The use of multiple-methods requires careful attention to ensure that methods are combined in a theoretically permissible way (Mingers & Brocklesby, 2003).

The methods used include:
• Documentary analysis to elicit conceptual assumptions about Australian higher education ‘quality’ and ‘quality management’ within policy documents, management strategy documents and evaluative reports;

• Narrative story-telling is used to examine the interrelationship between managerial discourse, the politics of Australian Higher Education and issues of legitimation;

• Qualitative systems dynamics methods are used to examine consequences of interrelationships and feedback loops within a university when the combination of current Australian higher education policies is viewed holistically.

The data analysis examined and analysed three types of documentation pertaining to quality in Higher Education in Australia. First, government policy on quality management in Higher Education was analysed to establish the dominant (or ‘hegemonic’) presentation of the ideology of quality management in Australian Universities and to elucidate any inconsistencies and internal contradictions. Second, the formal ‘quality plans’ for five universities in Western Australia, representative of a variety of types of university, were analysed. The purpose was to establish the formal response of university management to governmental quality management policy; to find out how university management modified commercial practices to suit their mission and the context of education; and to find out whether the plans publicly reported any difficulties or misgivings about the application of commercially derived methods in an educational context. Thirdly, an analysis was made of two evaluative reports conducted under the AUQA guidelines to audit ‘quality’ in clusters of programs. The purpose of this was to find out how review panels reported the application of quality policy in real situations, their awareness of contradictions and their observations about the application of commercial quality management methods to higher education and their acceptance or otherwise of the quality management system.

A critical management/critical systems perspective was influential in two distinct ways. Firstly, critical management perspectives informed ‘boundary decisions’ about what data was deemed relevant to the research problem and what to exclude (Ulrich, 1991, p106). Secondly, a critical management perspective requires awareness of the importance of the ideological and political dimension of quality management in Australian higher education, not found in functionalist management perspectives. The problem of boundary issues is important because if validation of quality measurement
instruments is premised upon problem boundaries that are drawn too narrowly, the validation process depends upon unsound assumptions and the measures derived by this process become worthless for their intended purpose. A critical systems perspective was influential in the choice of method to examine the systemic pressures at an organisational level when university managers respond strategically to the combination of quality management and other higher education policy.

Outline of the Thesis

The structure of the thesis is based upon the model proposed by Perry (1998), with minor adaptations. The main adaptation is that the answers to the research question, conclusions and implications are presented in two chapters (Chapters 5 & 6) instead of a single chapter, as in the Perry structure.

Chapter 1: presents an overview and executive summary for the whole thesis.

Chapter 2: The internal structure of chapter 2 departs from the Perry model, primarily because the research is inter-disciplinary. First, this chapter provides a contextual background for the research and includes an overview of the development of Higher Education in Australia, its purposes, landmark policies, and changing conceptions of quality and a description of the current mechanisms for quality management through the AUQA and its processes. Next, there is discussion and conceptual analysis of the different meanings of ‘quality’ in everyday life, in management, and in education. Finally, the chapter provides a review of relevant research drawn from three separate disciplines. The disciplines are:

- Educational research, including existing research into quality management and measurement in higher education;
- Management research into the efficacy and modes of failure of quality management in commercial contexts;
- Perspectives on management research in commerce and in public service contexts: including a brief outline of both functionalist and critical management perspectives and their implications for research into quality management;

The literature review will be used to contextualise the research problem, to establish the extent to which the problem can be resolved from existing research, and to identify gaps in the existing research. The research questions emerged from the gaps in the research identified in chapter 2.
Chapter 3 presents an overview of literature relevant to the research design. This includes: a discussion of the epistemological assumptions that inform this research; the theoretical framework of the research; questions of theoretical commensurability in multi-method research; critical research design, and the implications for methods, research validity, triangulation and legitimate inference, and ethics; the nature and meaning of models from a critical perspective; the rationale for choice of methods. This chapter includes a table showing the connections between the design, the rationale and the data collection methods, the data and the limits of data validity.

Chapter 4 describes the research processes, findings and preliminary analysis, and includes discussion of any methodological issues that emerge in gathering the data and undertaking the analyses.

Chapter 5 analyses the data gathered and discusses the extent to which the data answers the research questions.

Chapter 6 presents answers to the research problem and discusses the implications of the research findings: for the future of quality management in Australian higher education; for quality management in higher education in other contexts and non-profit organisations in Australia; and for future research.

References are formatted according to the conventions of the American Psychological Association (5th version). This section includes all references for the main body of the thesis. This section does not include references relevant to appendices, which are presented at the end of each document included in the appendices.

Appendix 1 contains two items: a list of acronyms and abbreviations, and a glossary of terms.

Appendix 2 contains eleven published conference papers that I have written related to the research presented in this thesis. Submission of conference papers to peer review was used as a method to test the validity of the research process and analysis. Feedback from the anonymous reviewers was used to strengthen arguments and links with existing literature. The papers also provide a formative indication of the development of the research process.

Appendix 3 contains four items that relate to the research data: data and assumptions behind the systems model developed during the research; details of documents in each data set; coding themes; additional data not discussed in the thesis.
References for the main thesis are formatted according to the guidelines of the American Psychological Association (5th version). The appendices include published papers from this research, in pre-print form, with a short commentary. The papers included in the appendices, and their associated references are formatted according to the guidelines of the conference proceedings in which they were originally presented.

**Summary of Research Findings**

The research presented in this thesis indicates that policy and practices of quality management in Australian higher education between 1999-2003 were not conceptually consistent, even when viewed from within the ideological perspective of government policy makers. In commercial quality management and measurement, the term ‘quality’ has several very narrowly defined specialist technical meanings related to the basis of assessment. These specific technical usages differ from the everyday meaning of quality found in daily life and used in politics and in educational evaluation. Within Australian higher education, distinctions between the various specific technical meanings and the everyday meanings have not been preserved. Carelessness of usage has facilitated misrepresentation and has masked several inconsistencies. Analysis of the different meanings of quality showed contradictory concepts of ‘standards’ within the Australian higher education quality management system.

Both Australian government policy and individual Australian universities expressed commitment to the idea that universities should achieve diverse educational goals. The research found that in practice, however, the use of commercial quality management methods premised upon customer relationships and commercial goals, tacitly imported assumptions about relationships, roles and goals found in business, and this marginalised and undermined universities’ educational roles and relationships and non-commercial goals when universities evaluated their performance. The substitution of commercial roles and relationships has the effect of commodifying higher education because the purposes of higher education have been evaluated as if they were the same as commerce, and as if the educational ends were achievable through the roles and relationships found in commerce.

Data about universities, used as ‘quality indicators’, were interpreted as if students had a customer relationship with universities, even though students were rarely explicitly referred to as customers of universities in the documents examined. This created conflict and inconsistency in the implied roles and relationships for staff and students.
and the implied purposes and mode of operation of the educational process. Some documents discussed the importance of satisfying stakeholders, but this research concludes that, within the documentation examined, the idea of stakeholder representation was a device used primarily to legitimate managerial decision-making, and not a means to engage constructively with the diverse expectations of parties external to universities. There are a number of reasons for this conclusion. In the documentation examined, decisions about which groups of people were identified as stakeholders in Australian universities, and which stakeholders’ wants were judged as important, appeared to be manipulated according to whether claimed interests of stakeholders aligned with government or managerial policy. This research found there was no consistency about who was considered a ‘stakeholder’, and sometimes the term appeared to exclude students or academic staff, at other times, students and academic staff were included. The basis of inclusion or exclusion was neither consistent nor made explicit and appeared to be manipulated to give preference to groups whose (assumed) interests aligned with managerial interests in government and in universities. In some instances the wants of stakeholders were assumed rather than canvassed, and were often assumed to be monolithic within each stakeholder group.

In the documentation examined, neither policy makers nor university managers adequately acknowledged the difficulties with the application of the concept of stakeholder representation to large organisations that operate in an arena of contested values about both ends and means, or the implications for practical action and representation. Unacknowledged questions about stakeholder representation in Australian higher education include:

- Determination of the basis for decisions about who should be included as a legitimate stakeholder in Australian higher education;
- How those included can be effectively and adequately represented;
- Who has the legitimate mandate to adjudicate inevitable stakeholder conflicts;
- On what basis such adjudication should occur; and
- Problems about representation of the interests of future stakeholder and non-human interests;

This research concludes that although the concept of stakeholders is one that might be applied very locally by individual programs and courses, which serve identifiable
groups of students and professions, there are practical and conceptual difficulties in application of the concept of stakeholder representation to a university system, or even at the level of a whole institution.

Significant problems with current methods of quality measurement emerged from the documents examined in this research. Firstly, methods of data selection, and the interpretation of the meaning of data about Australian higher education, did not accord with standards of good practice in educational evaluation and interpretation of meaning of data was not consistent with the findings of existing research into higher education. Poor interpretation of the meaning of data about higher education misleads policy makers, managers and the public alike and Reed (1995) claims that this is the most important cause of poor policy. There was evidence from documentation that Australian higher education was processing more students at less cost to the Australian government, but no evidence within government policy documents that policy-makers had adequately assessed whether the educational goals for Australian universities were realistic within the reduced financial resources available.

The findings of research into efficacy and failure of commercial quality management methods in industry and recommendations for management practices did not appear to be known to either policy makers or managers in Australian higher education, from the sample documentation examined. The applicability of this body of research to Australian higher education had not been previously assessed. Analysis in this thesis indicates that there are some useful insights for Australian higher education management to be gained from the findings of research into efficacy and failure of commercial quality management methods in industry. For example, Cameron and Sine (1999) suggest that organisational cultures that prioritise ‘error prevention’ have better outcomes than those that prioritise ‘error detection’, however, the documentation on quality management in Australian universities analysed in this thesis, shows a strong dominance of a culture of accountability (and error detection) over process improvement (and error avoidance). Another important insight of research into commercial quality management is the observation that erroneous tacit assumptions (or ‘mental models’) of managers and mistaken assumptions about causality in complex organisations, can lead managers to believe that they have improved outcomes. This can occur even when their interventions and actions have compounded process difficulties, undermined the possibility of process improvement and contributed to reduced quality and efficiency in the long term. Repenning and Sterman (1997, p51-52) argue that this
misattribution is one factor that produces a ‘fundamental bias’ against process improvement, and is avoidable only if managers and organisations take active steps to avoid this bias. Many of the systemic management and organisational features indicative in industry of a fundamental bias against process improvement were found in the quality management systems for Australian higher education. Another finding by Repenning and Sterman (1997, p44) that has particular relevance to Australian higher education, was that efficiency was found to decrease in the early stages of process improvement programs because process improvement took time away from production but the benefits of process improvement were time delayed. If management applied pressure to maintain or increase efficiency before the benefits of improvement were realised, process improvement and process integrity were generally compromised because the workforce sought ways to apparently meet competing goals that could not be genuinely achieved within the available time. The long-term danger of this practice identified by Repenning and Sterman (1997) was increased risk of entrenchment of a culture that valued appearance of success more than underlying quality, and ultimately such a culture damages the integrity and viability of the whole organisation. These studies strongly caution against trying to improve quality at the same time as staff are pressurred to increase efficiency.

Many of the weaknesses of the Australian university quality management system appeared to arise from untested tacit assumptions (referred to as ‘mental models’ in management literature (see for example (Repenning & Sterman, 1997; Senge, 1992) about the context of higher education, especially the nature of assumed roles, relationships and purposes in higher education and in commerce. It is suggested that the approach to quality management described in the sample documentation, appeared plausible only because issues were presented:

- *As if* the assumption that the objects and relationships of business were broadly similar to those of higher education;
- *As if* a fairly mechanical application of selected principles from commercial quality management were certain to improve quality irrespective of other contextual factors and irrespective of the findings of research in industry; and
- *As if* it were true that all universities in Australia were inefficient and therefore able to achieve the required cost savings without loss of quality.
Research from the disciplines of educational research, educational evaluation and from business management indicates that all these assumptions are contrary to what is known about the nature of education, good practice in evaluation and the application of quality management principles in commercial organisations and the history and context of Australian universities.

This thesis concludes that the management practices consequent upon the quality management system and practices adopted in Australia are likely to undermine the capacity of universities to improve fundamentally the quality of their processes, if the practices of quality management reported in the documents reflect the culture and practices that now exist in Australian universities. It is also likely that the practices described will entrench a culture where quality improvement is not possible, rather than to produce desired outcomes of improved efficiency and quality in Australian higher education. Quality management in Australian universities needs to be developed to take account of the nature of the roles, relationships and purposes of education rather than trying to overlay the roles, relationships and purposes of commerce. Many quality management methods are predicated upon customer relationships, which apply poorly in education. Stakeholder participation in higher education has not been developed beyond a tokenistic appeal used to legitimate managerial decision-making. Commercial quality management methods referenced to customer wants cannot accommodate multiple stakeholders in place of customers, especially where fundamental values are contested. Any new development of quality management should also take account of research findings, from the commercial sector, about the reasons for failure of quality management methods, which suggest that while fundamental quality improvement processes are being developed, efficiency decreases.

**Definitions**

There is a glossary of terms at the end of the thesis.

Mental models: Set of tacit assumptions about causality that informs (managerial) decision-making and action

Quality: definitions of quality are discussed more fully in Chapter 2.

Quality management: "the management of quality control and quality improvement, and of those aspects of the overall management functions that determines and components the quality policy" (from van Vught and Westerhiejden, 1992), the design
and maintenance of quality assurance mechanisms’ (Harman & Meek, 2000b, paragraph 2.21, page 13).

Postmodern/ postmodernism/ postmodernist: is used to refer to epistemology rather than the epoch, unless otherwise stated, see Chapter 3 for further discussion.

**Delimitations of Scope and Key Assumptions**

**Figure 1.1: Delimitations of Research**

This research project is concerned with Australian higher education. Although there are some parallels between the higher education system in Australia and that in other countries, there are also important differences in history, in political context, in funding and in purpose. An outline of the Australian context is provided in this thesis. Discussion of similarities and differences between the Australian higher education system and university systems in other countries is beyond the scope of this thesis. Readers interested in the application of the findings of this research to higher education systems in other countries will have to use their own knowledge of other contexts to make judgements about relevance and application. There is a vast international literature on the dynamics of teaching and learning, and discussion of many teaching and learning issues, such as student motivation and learning style, is limited in the interests of brevity.
The discussion is restricted to research sources available in the English language. Because the focus of the research is Australian higher education, this restriction is less significant than it might be in other research projects. This restriction means that the section of the review of literature that summarises international critiques of higher education quality management methods to assess their relevance omits materials not available in English. The research made only very limited use of materials that could not be sourced either in Australian libraries or electronically. This restriction was adopted because:

- The focus of the research is Australian higher education;
- The main research focus is neither comparative nor historical;
- Electronic sources provide access to a very wide range of recent internationally published materials;
- Australian libraries hold a good stock of print based international material;
- The section of the thesis that considers international critiques intends to identify only those critiques relevant to the Australian context, as this research does not require the identification of either all sources or all critiques.

The prime focus of the research is concerned with the implications of Australian higher education quality management for quality in teaching and learning functions of universities. Because there is often claimed to be a nexus between teaching and research (see for example discussion in Coaldrake & Stedman, 1998), the implications for university research of quality management methods are not ignored, however they will be considered only incidentally to the teaching and learning function. This restriction will primarily affect the focus in the third part of the research method that examines the effects of strategy at an organisational level on decision-making by academic staff and managers, and the discussion in the final section. The reason for this restriction is that space does not permit in-depth discussion of quality management in relation to both teaching and research functions of universities. The effects on research have been discussed already in more detail (for example, Becher, 1994). The choice to make teaching and learning functions the prime focus is guided by the observation that all Australian universities have some teaching function, and for most, it is their major function, supplemented to a varying extent by research. The analyses presented here could be extended to include comprehensive analysis and discussion of the effects of
Australian quality management system on the research functions of universities, but this would be a different research project.

**Limitations**

In research that draws material from a broad spectrum of disciplines, as any project based in critical theory must, it is no longer possible in a lifetime to become acquainted with even all major relevant published sources and material. The volume of potentially relevant published material is such that both conscious selection and serendipitous factors determine what sources are actually read and used. Although the bounds for the literature have been drawn as tightly as is reasonably possible, time and chance have both determined what material has been reviewed even within the parameters set by the delimits. The empirical part of this research is small scale, exploratory and primarily based upon documentary analysis. Organisational practices and culture as experienced in real-life may well vary from what is described in the documentation. Practices and cultures change over time, and the examples provided in this thesis provide a snapshot of reports of formal organisational practices, which by now will have changed and be different.

**Conclusions**

The intended purposes of quality management in Australian higher education are of improved efficiency and effectiveness, increased accountability and of provision of useful information to policy makers, potential students and employers (Kemp, 1999a). It was concluded that methods of quality management, as reported in the sample documentation examined in this research, were unlikely to achieve their intended purposes for a variety of reasons. Firstly, conceptualisations of quality were inconsistent and not well matched to either the explicit purposes of higher education or to the roles necessary to achieve the intended outcomes. Secondly, evaluative methods found in the sample documentation are of a type judged unlikely to provide reliable data of use to policy makers, employers or potential students, because the sources of data are too narrow to provide a reliable picture of overall program quality, even when data is accurately interpreted (Stufflebeam, 2001, pp14-20). This negative conclusion is compounded because the assumed meanings of data used as surrogates for quality were not consistent with relevant research findings in higher education pertinent to accurate interpretation of the meaning of the data about higher education. This conclusion casts doubt on both the claim that the quality management system examined provides useful
data and claims that the quality management system provides adequate accountability. Thirdly, the quality management system described in the sample documentation, relied extensively upon the use of numerical data as 'indicators of individual and institutional performance'. Other research has argued that the use of this data for performance management purposes was a significant factor that in the long-term undermined process integrity and product quality (Deming, 1986, pp 67-77; 1993, pp 46-49; Walton, 1989, p 36).

The deficiencies identified by the research presented in this thesis are fundamental, systemic, and not amenable to significant improvement through minor modifications. The future direction of quality management in Australian universities is a political question, and the answers to this question are influenced by the ideological commitments of the speaker. Higher education policy in Australia has been strongly influenced by neo-liberal economic thinking for nearly two decades, and two problems are posed for neo-liberals by the findings of this research. Firstly, because of the commitment of neo-liberals to 'small' government, quality management systems are only justifiable if the benefits derived from their costs are demonstrably greater than the benefits likely to accrue if the same resources were distributed directly to universities without the need for bureaucratic surveillance. No evidence was found that this question had been addressed. Secondly, the quality management system described in the documentation was premised on the assumption that universities should be accountable to government. In this thesis, I argue that the methods chosen for accountability are not adequate and raise the broader question of how primary accountability to government can be legitimated at a time when the Australian government contributes a decreased proportion of total funds to universities. The sample documentation showed that government policy initially suggested that students had a customer relationship with universities (Kemp, 1999a), and this implies a direct accountability between universities and students. This position however, left no justifiable role for accountability to government beyond consumer protection, and the concept of student customers has not been an explicit part of government policy since 1999. More recent documentation implied that the government sought accountability on behalf of stakeholders in universities (Nelson, 2003), but the research presented in this thesis found that stakeholders' interests were used tokenistically within the reports examined. A genuine concern for stakeholder representation would need to address issues of effective mechanisms for representation of stakeholders and resolution of conflicts of interest,
and would have to allow that, at times, stakeholder interests may not align with those of
government or university managers.

For those who reject the assumptions of the neo-liberal position, this research has
different implications. Those in Australian universities who would like to see a return to
methods of university management common in Australian universities before 1987,
referred to in this thesis as traditionalists, will find support in this research for some of
their claims, especially for their opposition to the application of corporate quality
management methods to universities. The findings of this thesis do not support the
continuation of the quality management methods evidenced in the documents studied.
This does not imply automatic validation of previous management systems. Some of the
criticisms of past methods of university management seemed to be valid. The
implications of this thesis are that traditionalists need to address the criticisms of their
opponents, especially the criticisms of post-traditionalists, to produce a defence of those
values that are central to their position and use this as a basis to develop an adaptation
of past management practices, where they have been deficient.

In this thesis, post-traditionalists within university management are those who reject the
market-oriented values of neo-liberal corporate management, but who are also critical of
some aspects of traditional methods of university management. The findings of the
research reported in this thesis broadly support the position taken by post-traditionalist
writers on university management who oppose commodification of higher education
through the application of corporate management methods but do not favour a return to
the management practices of the past. Post-traditionalists accept external accountability
and evaluation but assert that any form of evaluation must be appropriate to the intended
purposes of higher education and balance the requirements of those external to
universities with the requirements of the teaching and learning process and those
internal to universities. A valid criticism of the post-traditionalist position is that the
management arrangements favoured by post-traditionalists are undeveloped and
untested. One contribution of this thesis is to suggest an approach to university quality
management and evaluation from a post-traditionalist perspective. The conclusions
presented in this thesis suggest that post-traditionalist quality management could be
developed around three 'reversals' of management priorities or practices found in this
study.

The first requirement would be to reverse the priority between accountability and
process improvement. When accountability is tied to rewards or punishments this
encourages a culture of apparent compliance with requirements, rather than a culture that supports the development of sound processes, in reality. To avoid this, fundamental process improvement must be given greater priority than apparent accountability (for example accountability through process improvement), as suggested in some methods of commercial quality management (Australian Quality Council, 2000). This represents the first reversal of the priorities found in the documentation examined in this thesis.

The second change would be to reverse processes by which commercial management methods are incorporated into university organisation. The existing practices aim to make universities' management practices align with those in business. This is unsound because purposes of higher education are different from those of business. The processes, roles and relationship required to achieve educational purposes differ from those required to achieve commercial purposes. A reversal of current priorities would begin with research into how governance and management systems in universities can be developed to suit the purposes of universities and their multiple educational roles in Australian society in the 21st century. The design of these systems would learn from research into commercial management practices about practices that improved efficacy and the causes of failure, but would ensure that any commercially derived management practices were appropriately adapted to the purposes and context of Australian higher education and implemented in a manner consistent with the circumstances required for efficacy in the educational context. This represents the second reversal of the priorities found in the documentation examined in this thesis.

The third reversal of priorities concerns the direction of the gaze of management systems within universities. The management systems found in this research facilitate top down surveillance of academic staff to ensure (apparent) compliance. Marginson and Considine (2000, p252) have suggested that post-traditional university management should focus upon how management systems can be developed that will best support the core work of universities undertaken by academics. A university management system designed on this basis would first identify what was required to enable academic staff to do their job better and design management processes from this perspective. This change of focus is consistent with the recommendation to prioritise process improvement. Quality management systems for higher education designed on these principles would be suited to the context of Australian higher education and would learn from the mistakes in quality management in the commercial sector. This represents the third reversal of the priorities found in the documentation examined in this thesis.
CHAPTER 2
RESEARCH ISSUES

Introduction

Chapter 1 provided an overview of the research presented in this thesis. Chapter 2 provides a review of the background literature in management, in evaluation research and in higher education to indicate the degree to which the research problem has been addressed within existing literature and to identify the gaps in existing knowledge. The internal structure of this chapter departs somewhat from the Perry model, primarily because the research is inter-disciplinary. The intention of this chapter is to:

• Outline the Australian context of higher education, and the origins of the current arrangements for quality management;

• Present an overview of the historical development, policy context and current quality management structures of Australian higher education;

• Examine existing conceptualisations of quality;

• Identify relevant existing critiques of quality management in higher education from Australian and international sources;

• Identify relevant literature on quality measurement in higher education from Australian and international sources

• Outline findings of empirical research into the limitations and reasons for failure of commercial quality management in industry; and

• Identify theoretical perspectives on quality management in commerce.
The first section of this chapter comprises this introduction. The intention of the second section of Chapter 2 is to locate the research problem in context through discussion of the historical development of higher education in Australia, milestone policies in Australian higher education and to summarise the development of policy and practices for quality management in Australian higher education. The purpose of this part of the thesis is twofold. Firstly, it provides necessary background information to enable judgements about the relevance to Australian higher education of critiques of higher education quality management developed in other countries. Secondly, it is intended to provide the reader not familiar with Australian higher education with sufficient detail to enable them to make judgements about the adequacy of the research findings in the Australian context and their relevance to other contexts. The second part of the first section provides a description of higher education quality policy in Australia since 1987.

The third section of Chapter 2 provides an overview of literature on the conceptualisation of 'quality' and the differences between concepts of quality in everyday life, in commercial quality management, and in higher education. This section examines everyday conceptualisations of quality, different ways in which quality has been conceptualised in commercial quality management based upon the work of
Cameron and Sine (1999) and summarises Vidovich’s (2001) analysis of quality discourses in Australian higher education for the period 1991-1999. The final part of section three synthesises the implications of section three for the research problem.

The fourth section examines different perspectives on higher education quality management in higher education found within the Australia and international educational research literature. The fifth section provides an overview of the issues in quality measurement in higher education, including the literature on educational evaluation. The sixth section of Chapter 2 summarises the empirical research on the efficacy and reasons for failure of quality management in commercial context. The seventh section of Chapter 2 draws from the literature on quality management in organisational theory. This part of the review examines the origins of quality management in the literature on management and organisational theory, and describes alternative perspectives on commercial and public sector management in organisational theory, the implications of different management theories for quality management, and the relationship between theory and advice on quality management. The purpose of section seven is to identify an appropriate theoretical basis for the research. The eighth section of Chapter 2 draws together the implications of the first seven sections, identifies gaps in existing research and uses the findings of the literature review to develop the research questions addressed by this thesis.

The research problem

Research problem: There are conflicting claims about the appropriateness of commercially derived quality management methods to Australian higher education. Supporters of the use of commercially derived quality management methods assert that these methods have potential to improve university efficiency, accountability and quality (Gallagher, 2000; Harman & Meek, 2000a, 2000b; Kemp, 2000, p56; Kemp, 1999b; Nelson, 2002e). Critics assert that current quality management methods are detrimental to universities and undermine the capability of universities to deliver maximal potential benefits to individuals and to society (Marginson, 2002; Marginson & Considine, 2000; De Lacey & Moens, 1990; Senate Employment Workplace Relations Small Business and Education Committee, 2001; Vidovich, 1998). Evaluation of the basis of conflicting claims is necessary to enable decisions to be made about the usefulness of current practices, whether existing quality management arrangements should be retained and developed, modified, replaced or abolished.
This problem is important for a number of reasons. It is estimated that 45% of current school leavers will attend university at some time in their lives (Kemp, 1999a, p8). 107,622 international students were enrolled in Australian universities in 2000, either on-shore or offshore (Nelson, 2001). The number of international students studying in Australia has increased rapidly over the past decade (Gallagher, 2000, p13; Nelson, 2001), and it was estimated that international students contributed $3.7 billion to the Australian economy in 2000 (Nelson, 2001). For those who attend university it is important that the experience they receive should be worthwhile. It has been argued that how well universities perform their role indirectly affects many others in society, including employers of graduates, the clients of professionals who have been educated at universities, and society at large through the economic, social and cultural benefits of research (Coadrake & Stedman, 1998, p26). In 2002, Australian universities had budgets of $10.4 billion (Nelson, 2002b, p5). Universities gained funds, in 2000, from government sources (46%), from HECS (18%), from overseas and domestic full fee courses (12%), investments (3%), and from other sources (21%) (Nelson, 2001, figure 1.21). For those funding higher education, and as taxpayers, this includes almost all Australians, it is important that the money contributed is used well (DETYA, 1998b; Kemp, 1999a; Nelson, 2002b). For both the supporters and critics of current quality management system, the importance of universities is not disputed, although there is more diversity of opinion about the relative importance of various purposes of higher education, and especially the appropriateness of different means to achieve intended purposes, and how costs should be apportioned.

Over the past two decades, Australian higher education and university management have become more entrepreneurial (Gallagher, 2000, p1). Claims have been made that commercially derived quality management methods, implemented through deregulation and increased competition and application of 'user pays' mechanisms (Nelson, 2002c) have already delivered, and will continue to deliver, a variety of benefits to students, employers and society (Gallagher, 2000, p25 p49; Group of Eight, 2000, p22; Kemp, 1997; Nelson, 2002c, p6) (Senate Employment Workplace Relations Small Business and Education Committee, 2001, p92). Critics of the use of commercial quality management methods in higher education assert that Australian higher education management practices, based upon commercially derived quality management methods, were adopted for reasons of political expediency (Vidovich, 1998; 2001, p250), are based upon contradictory concepts of quality (Vidovich, 2001, p250), undermine the capability of higher education to achieve its educational goals (Senate Employment
Workplace Relations Small Business and Education Committee, 2001, p22 & p26), and ultimately reduce the capability of universities to deliver the potential benefits to either individuals or to society that could derive from a flourishing system of higher education (Marginson & Considine, 2000) especially the ‘social role’ of universities (Senate Employment Workplace Relations Small Business and Education Committee, 2001, p26), National Tertiary Education Union Submission to the Senate Employment Workplace Relations Small Business and Education Committee, 2001, p92).

The primary basis of selection of literature is relevance to aspects of the research problem. Doctoral students are often warned against attempting inter-disciplinary research, and I did not set out to undertake interdisciplinary or multi-method research, but the real life problem could not be adequately resolved within disciplinary boundaries and both educational research and management have traditionally drawn from the insights of other disciplines. Insights from different disciplines provide complementary perspectives on problems, but create extra difficulty for the researcher in handling different assumptions about validity.

The research presented in this thesis contributes to the ‘Scholarship of Integration’ (Boyer 1990, pp 18-21; Boyer cited in Coaldrake & Stedman, 1998, p23). The scholarship of integration seeks to make connections across disciplines to provide a more coherent view of knowledge and to provide a more integrated and more authentic understanding of life through connections within and beyond the academy (Boyer 1990, pp 18-21; Boyer 1992, p87; Kemmis, Marginson, Porter & Rizvi 2003).

Interdisciplinary work ‘integrates knowledge and modes of thinking from two or more disciplines’ (Boix-Mansilla & Gardner, p1). Boix Manzilla and Gardner view interdisciplinary work as ‘a purposeful means to reach a cognitive or practical goal...as opposed to as an end in itself’ (Boix-Mansilla & Gardner, pp1-2).

This research is intentionally interdisciplinary, and aims to integrate research findings from educational research, including educational and social program evaluation; and organisational theory, including management theory. Both education and organisational theory are already ‘interdisciplinary’ disciplinary areas. The traditions in both disciplines, is to integrate and apply insights from various social sciences, to the study of ‘teaching and learning’ or of management. The interdisciplinary nature of the study has some advantages, but creates a number of problems. One advantage of interdisciplinary approaches is that real world problems do not respect disciplinary boundaries, so analysis of research problems often benefits from an interdisciplinary...
approach (Mingers & Brocklesby, 2003). Another advantage is that by combining material across disciplines, unquestioned assumptions in one discipline may be more obviously exposed through the juxtaposition with perspectives drawn from other disciplines, or through attempts to integrate modes of thinking from two or more disciplines (Fuller, 2003; Nowotny, 2003). One disadvantage is that interdisciplinary work increases the quantity of potentially relevant material and the researcher cannot have the same expertise in all fields as the specialist, and this may increase reliance on secondary sources. Selection becomes a difficult task. The guiding principles for selection of material in this thesis were to include literature drawn from different disciplines that challenge the adequacy of orthodox assumptions about quality management in universities. Another pitfall of interdisciplinary research is the need for awareness of the dominant epistemological and ontological biases in different disciplines, and the differing ways in which issues of validity are discussed (Sperber, 2003). Sperber illustrates the problem when he shows how interdisciplinary work between anthropology and psychology drew completely different hostile criticisms from specialists in each field, unless presented differently to each audience. The psychologists found anthropological approaches too unstructured and criticised the methods because of the difficulty of replication, while anthropologists criticised psychological research for its lack of attention to difference in constructed meaning.

**Australian Higher Education: History and Context of and Quality Management**

This section provides a brief overview of the historical development of Australian higher education and the development of policies and practices to manage quality in Australian universities. The first part outlines the history and context of Australian universities. The second part outlines the development of quality policy in Australian higher education. The final part summarise the implications of Australian higher education history, context and practices for the research problem. The information about the context of the research is provided to allow other researchers to make informed judgements about the transferability of the research findings to different contexts (Lincoln & Guba, 1985, p298).
There are three parts to this section. The first part briefly outlines the history of Australian higher education. The second briefly describes key policy decisions since the 1970's. The final part summarises the implications of this section for the research topic.

**History of Australian higher education:** Australia's first universities developed in a colonial context. As a nation state, Australia commemorated the Centenary of Federation in 2001, and the oldest of Australia's 'Sandstone' or established universities arose during the colonial period (I. Allen, 2000, p16; The University of Adelaide, 2003; The University of Melbourne, n.d.; The University of Sydney, 2003; The University of Tasmania, 2001). The oldest universities in Australia were modelled on British universities and were influenced by the ideas of Newman (De Lacey & Moens, 1990) but the colonial context meant that in the 19th century, Australian universities were less central to social and political culture within Australia than their English counterparts. British universities in the 19th century, and especially Oxford University, had a significant role in the education of the professional and administrative classes: politicians for Westminster; bishops for a global church; and administrators for a global empire and colonial service (Preston, 2002). In the United States, although Harvard university was founded in the colonial period in 1636, it attained an important independent role in the education of lawyers, doctors and colonial leaders (Arif & Smiley, 2003), and was well established independently of English universities by the 19th century. The colonial period in the USA ended earlier and more fully than in Australia, and during the 19th century US universities developed their own direction, influenced by both English and German ideas of university (Levine, 2000).
By contrast, nineteenth century Australia was on the receiving end of British university cultural exports, as an administered colony, and its newly formed universities had a more limited role as a source of education of the professional and administrative classes. Australian university education was perceived as being a less preferred option for those who could not attend an English university. It was not until 1946 that the University of Melbourne became the first Australian university to confer a PhD degree (D. Anderson et al., 1997, Chapter 9, p1).

The effects of this colonial heritage are still evident today. Of the post-war Australian Prime Ministers, three (Gorton, Frazer, Hawke) attended Oxford University, three (McMahan, Whitlam, Howard) attended Sydney University, two attended Melbourne University (Menzies and Holt), one (Hawke) attended the University of Western Australia and three (Chifley, McEwen, and Keating) were not university educated (Plowman, 2000). The effects of the ‘cultural cringe’ on higher education (where the ‘cultural products’ of England are assumed to be of more value than those locally produced) remain (D. Anderson et al., 1997, Chapter 1). Australian universities still regularly recruit overseas staff to fill university teaching and research positions, and Australian university staff are much more likely than their British colleagues to have gained at least one of their degree level qualifications overseas (D. Anderson et al., 1997, Chapter 8, p1).

Unlike Britain and North America, for the majority of Australian students there is no tradition of moving away from home to study, or of residence within a university precinct or campus (Marginson & Considine, 2000). Australia is a large highly urbanised country with a high proportion of the population living in the metropolitan capital cities or larger regional centres. Most Australian students attend a university in their home city, commuting daily to university, and often remain in the parental home until their studies are complete. Only a small proportion of students, generally those from rural and remote areas of Australia, and international students, reside on campus (Marginson & Considine, 2000). Few urban students leave their home city to attend university, there is little tradition of interstate movement of students (Marginson & Considine, 2000), and only a very small percentage of Australian students study overseas (Marginson, 2002; Marginson & Considine, 2000). International students make up a larger proportion of students at Australian universities, even though the total number of international students is lower than the USA or the UK (Marginson & Considine, 2000; Nelson, 2002b). Because international students are not spread even
across all universities and all disciplines, at some universities in some disciplines, the majority of students are international (Marginson & Considine, 2000)

Australian universities are ‘young’ in world terms. The oldest ‘sandstone’ group of Australian universities were founded under individual State legislation, each with financial support and accreditation of their home State, between the middle of the 19th century and the end of the second decade of the 20th century (The University of Adelaide, 2003; The University of Melbourne, n.d.; The University of Queensland, 2002; The University of Sydney, 2003; The University of Tasmania, 2001; The University of Western Australia, n.d.). These universities remained small and did not become significant in international terms until after 1945 (D. Anderson et al., 1997).

The three ‘Redbrick’ universities (Australian National University (ANU), Monash University and the University of New South Wales) were established in the immediate post-war period 1945-1961, and these institutions had a more applied focus than the ‘Sandstone’ universities. Marginson and Considine note that the ANU shares similarities with ‘Sandstone’ universities, while the University of New England is classified as ‘Gumtree’ university despite its earlier foundation because of its regional remit and lack of medical school (Marginson & Considine, 2000, p190). The next phase of university expansion saw the foundation of the ‘Gumtree’ universities, between 1960 and 1975 (Marginson & Considine, 2000). These were modern universities; originally of a more innovative and radical focus (Marginson & Considine, 2000). The pre-1987 Australian universities, like their English counterparts, were managed collegially (De Lacey & Moens, 1990), and operated under the auspices of State regulation.

Teachers’ Colleges and Technical Institutes were first established in the late 19th and early 20th century, separately from universities, managed independently by the Department of Education in each State, to provide vocational and technical training to sub-degree level (De Lacey & Moens, 1990). In the mid 1960’s, the Martin report recommended the establishment of Colleges of Advanced Education (CAEs) to provide vocationally oriented courses (Maling and Keepes in Meek & Wood, 1998, Chapter 3). During the 1960’s and 1970’s CAEs incorporated many of the Institutes of Technology and Teachers’ Colleges (Maling and Keepes cited in Meek & Wood, 1998, Chapter 3). The Colleges of Advanced Education were founded as ‘teaching only’ institutions in the 1960’s, initially teaching mostly vocational diplomas, but by the 1980’s the CAE’s were teaching undergraduate degrees and coursework degrees at Masters level (see Maling and Keepes in Meek & Wood, 1998, Chapter 3). Maling and Keepes argue that the
programmatic differences between CAEs and universities had diminished by the 1980’s (Meek & Wood, 1998, Chapter 3).

The CAEs inherited a bureaucratic-autocratic style of management from the teachers’ colleges (De Lacey & Moens, 1990); see also (Burton, Cook, Wilson, & Australian Dept. of Employment Education Training and Youth Affairs, 1997; Marginson & Considine, 2000). Culturally, they were primarily bureaucratic managerial rather than academic (Marginson & Considine, 2000). The Dawkins reforms of 1988-1992 established a Unified National System of higher education, incorporating both CAEs and universities into a single system (Maling and Keepes in Meek & Wood, 1998, Chapter 3; De Lacey & Moens, 1990). There were amalgamations between colleges and universities, and the distinction in funding formula, role, title and governance between different higher education institutions disappeared (Meek & Wood, 1998). Former colleges and technical institutions acquired a broader role of research, teaching and postgraduate education (Maling and Keepes in Meek & Wood, 1998, Chapter 3).

Since the formation of the Unified National System, various changes in higher education policy and reliance on market mechanisms by both Labor and Coalition governments (Meek & Wood, 1998) have reduced government per capita funding for universities (Marginson & Considine, 2000). The pace of deregulation of universities has intensified since the mid 1990’s (Meek & Wood, 1998, p7) and led to the formation of quasi-markets (Marginson & Considine, 2000), necessitating a corporate style of university management (Meek & Wood, 1998). A small number of public and private universities were founded during the 1990’s, and Australia’s newest universities are less than 10 years old. There are currently 39 universities in Australia, 37 public universities and 2 private universities, plus 2 institutes offering undergraduate courses (Nelson, 2003).

**Key milestones in Australian higher education policy since the 1970’s:** Until the reforms of the Whitlam government in the first half of the 1970’s Australian universities (as opposed to Teachers’ Colleges or Technical Institutions) were relatively socially elite institutions, established and formally regulated by the state governments but with a high level of autonomy in academic matters (De Lacey & Moens, 1990). Universities received public funding from the States, but most charged tuition fees to students (the exception was University of Western Australia, for most of its history, according to Marginson and Considine (2000, p54)). Teachers’ colleges were state funded and did not charge fees, but students were indentured to work for the education department on
graduation. An important milestone in the post-war history of the Australian university was the social justice agenda of the Whitlam government in the 1972-1975, which in 1974 enacted a Bill that abolished student fees at universities (Nelson, 2002c, p1), underwrote cost of fees from the Federal budget and introduced a stipend to cover living costs (Marginson & Considine, 2000, p24). This extended the Federal government role in higher education (Gallagher, 2000; Nelson, 2002c, p1). The decision by the Whitlam government to remove university fees to students marked the beginning of the era of active Federal government intervention in universities. This foreshadowed the end in Australia of university as a form of education available primarily to the financial and social elite and paved the way for the progressive opening up of universities to a more socially, financially and intellectually diverse group of students (Coaldrake & Stedman, 1998, p3), but also marked increased Federal government scrutiny of, and intervention in, university education (Nelson, 2002c, p1).

The next key policy initiatives stemmed from the ‘clever country’ policies of the Hawke government in the 1980’s and the beginning of Australian government policy to use higher education as a driver of economic growth (Candy & Maconachie, 1997, p2), (although Marginson and Considine (2000, p22) argue that the Martin reforms, which established the CAE’s were motivated by similar concerns). The overt purpose of this policy was to transform the Australian economy from its high dependence on ‘primary’ production in agriculture and mining with relatively undeveloped manufacturing and service sectors, to a less vulnerable economic base through a higher economic contribution from tertiary services industries, in the ‘knowledge economy’. This economic strategy required more of the population to be educated to a higher level. As Marginson and Considine (2000, p28) observe, a covert (and possibly prime) political purpose served by the expansion of higher education in the eighties was that it absorbed excess youth unemployment. However, neither Labor nor Coalition governments have been willing to foot the bill for this expansion. The per capita figures for university spending illustrate that not only has per capita government funding for universities fallen progressively since 1987, but there has also been a progressive shifting of the burden of cost, with students bearing an increasing proportion of the cost of higher education courses through the Higher Education Contributions Scheme (HECS) (Australian Vice-Chancellors' Committee, 2001c; Megalogenis, 2001).

The recent phase of university reform began in 1987 with the amalgamation of CAEs and Institutes of Technology with universities that:
• Ended the binary higher education system;
• Began the massification of higher education;
• Marked the beginning of the market philosophies in Australian higher education (Marginson, 1987);
• Began the practice by Federal government department responsible for higher education, of using institutional performance measures to ‘steer at a distance’ (Vidovich, 1998); and
• Marked the start of a progressive shift in the burden of cost away from Federal government and back towards the student (Australian Vice-Chancellors' Committee, 2001b).

Figures show that this latter process has accelerated since 1996 (Australian Vice-Chancellors' Committee, 2001b), as the Howard Coalition government has intensified its program to strengthen (pseudo) markets into public services and has pursued policies to extend the privatisation of higher education (Gallagher, 2000). The current political context of higher education policy in Australia, as in many other countries, is one where economic aspects of quasi-market ideology have been strengthened (Marginson in (Meek & Wood, 1998, Chapter 6) and are being applied to non-commercial enterprises (government, education, health, welfare) in an ideologically driven attempt to commodify human interactions that had previously been judged according to different standards (Salvaris, 2000).

There is agreement that the global education market has assumed greater importance as a factor influencing higher education policy (see, for example, Back et al., 1997; Kemp, 1999a; Marginson, 2002; Porter & Vidovich, 2000), but that there is less agreement on how deterministic global forces are in shaping university governance, and hence management and curriculum. Marginson and Considine (2000, p40-53) observe that supporters (for example, Gallagher, 2000) and some opponents of corporatisation of higher education (for example, Porter & Vidovich, 2000) have presented forces arising from globalisation as irresistible, but Marginson and Considine (2000) argue that the case for deterministic forces has been overstated by both proponents and opponents of current policy.

Summary: Historically there have been three management cultures within Australian universities. A culture of collegial management developed at many pre-1987
universities, a culture of bureaucratic management was established in the CAE’s, which were the forerunners of the new universities, and corporate management cultures that have developed in many universities since 1987, in parallel to existing collegial and bureaucratic cultures (Marginson & Considine, 2000, p85). When managerial cultures exist alongside collegial cultures, tensions arise at the interface between the two systems (Cooper, 1998). The status of Australian universities is still closely tied to their origins. There are contextual differences between Australian universities and those in Europe and North America. The Australian colonial context meant that the first Australian universities developed their postgraduate and research role much later than the first universities in the United States or Europe.

Since the 1970’s higher education in Australia has undergone major changes that have affected: the funding of higher education; the proportion of the population entering university; changes in government perceptions of the fundamental role and purpose of education and the nature of the relationship between the university, the student, society, business and government. The implications of context for the research problem are that the issues facing Australian universities, whilst similar in some respects, differ in other ways from those facing European or North American universities and relevance of international research findings have to be considered in relation to the Australian context. Likewise, the relevance of this study to international research on quality in higher education will need to take account of differences in context.

**Quality management in Australian higher education**

There are five parts to this section. The first part discusses the sources of research used to develop quality policy in Australia. The second part describes the development of quality strategies since 1987-1999. The third part outlines the legislative structure of quality management since 2000. The fourth part describes the performance management ‘tools’ provided by government and the fifth part outlines the quality management mechanisms.

**Sources of Australian research into higher education and quality:** Since the 1990’s, the Australian government has sponsored research projects into different aspects of higher education, many of which have some implications for quality in higher education. For the purposes of this research, the reports can be categorised into four different types. The first group of research projects have as their primary objective collection and presentation of information about higher education. They typically offer
little interpretation (see, for example, Andrews et al., 2000; Back et al., 1997; DETYA, 1998a; Miller & Pincus, 1997; Shah & Burke, 1996). These research projects present data about higher education. These reports are neutral in the sense that the data is generally not interpreted in the report, but partisan in the sense that they reflect the values and priorities of those who made decisions about the type of data deemed relevant to higher education and quality by those who sponsored the studies. The second group of government sponsored research projects have been primarily concerned with issues of technical validation of research instruments, such as surveys, to assess statistical error and limitations of technical reliability, but do not analyse the meaning of the data collected (for example Guthrie, 1997; Long & Johnson, 1997; McInnis, Griffin, James, & Coates, 2001). These research projects contain data about the limitations of accuracy of various data gathering techniques for reliability, but do not primarily discuss interpretation and meaning. The third group of research projects focuses on comparison of policy options within given parameters, and are based upon assumptions not open to scrutiny within the report (for example (D. Anderson et al., 2000b; Harman & Meek, 2000b). The findings of all these kinds of research projects have prompted debate, for example the Course Experience Questionnaire Symposium (Hand & Trembath, 1999). Some have had a discernable effect on government quality policy, for example, the reports of Harman and Meek (2000b), and Anderson (2000b), are cited in the documents that outline the structure and remit of the AUQA (DETYA, 2000a). The parameters of the studies and their guiding assumptions are not open to question by the researchers. Even when the researchers who undertake these studies conduct the research impartially, the overall validity of the findings of the study may be compromised by partiality in the prescribed research parameters and initial assumptions.

The fourth category of research reports have been primarily concerned with issues of the interpretation of data and the links between existing theory and research (for example (D. Anderson & Johnson, 1998; McInnis & Hartley, 2002; McInnis, Hartley et al., 2000; Meek & Wood, 1998). Sometimes these reports are cited as informing policy decisions, however, when the research findings have not accorded with Australian government policy direction, the analysis within these reports seems to have been ignored, as illustrated by the two examples that follow. The Australian Department of Education, Training and Youth Affairs commissioned McInnis, et al. (2000) to report on the implications of national and international research on student non-completion in tertiary education for the interpretation of Australian vocational and higher education attrition data. Among their findings in this report, McInnis et al. concluded that, in
higher education, teaching quality was not likely to be a major factor in student non-completion. The report was published, but there is no evidence that this analysis either prompted widespread debate in Australian higher education about the meaning of student retention data, or that the report influenced the interpretation of attrition data in Australian government policy on higher education quality (see analysis in Chapter 5). Similarly in another Government funded research report, Marginson (in Meek and Wood 1998, Chapter 6), put forward a plausible analysis, based upon an empirical study, that the higher education 'quasi-market' did not function according to classical market theory and warned that market forces would not enhance quality. The report by Meek & Wood (1997) was published contemporary with the West report (1998b), but drew very different conclusions about the operation of the higher education market. There is no evidence that Marginson's caution prompted discussion in government at that time about the limitations of the application of a classical market model of supply and demand in higher education or the implications for Australian higher education quality.

Other sources of Australian higher education research include studies sponsored by the Australian Vice-Chancellor’s Committee (AVCC), who have sponsored relevant research projects and reports (for example Australian Vice-Chancellors' Committee, 2001a, 2001b, 2001c; AV-CC, 2000a). The National Tertiary Education Union (NTEU), the union representing Australian university academic and general staff, have also sponsored studies and reports that have relevance for higher education quality management (for example, Winefield, Stough, Jagdish, & Gillespie, 2001) as have independent research centres such as the Centre for the Study of Higher Education (CSHE) (McInnis, 2001) and the Chifley Centre (Considine et al., 2001), and interest groups like the 'Group of Eight' (Go8), a pressure group of elite Australian universities (Group of Eight, 2000). Like the government-sponsored studies, each organisation aligns its research focus to coincide with its interests, through the choice of what to investigate, how to investigate, what questions to pose, and what assumptions to make in framing the study. Finally, there are Senate Inquiry reports, for example (Senate Employment Workplace Relations Small Business and Education Committee, 2001). The Australian government sponsors more research into higher education than any other group and so is better placed to frame research studies according to its priorities and ideological commitments. Because Australian government research goes to tender, however, the assumptions and commitments that underpin government research are much more likely to be explicitly stated than those of other research groups.
Quality strategies during the period 1987 to 1999: The issue of quality management in higher education first came to prominence when the ‘established’ pre-1987 university sector, became concerned that ‘massification’ of higher education would lead to a lowering of standards (De Lacey & Moens, 1990). This coincided with concern in the government sector about efficiency and effectiveness in universities, for example the Hudson report in 1986 (Candy & Maconachie, 1997). Quality policies since 1999 have been shaped to some extent in response to the perceived deficiencies of each previous phase of quality management initiatives since 1987. For this reason, this account briefly outlines changes to strategies for quality management in higher education from 1987-1999.

In the early period (1987-1993), quality was conceptualised in conventional ways as standards within disciplines (D. Anderson et al., 2000b; Australian Vice-Chancellors Committee, 1992; Candy & Maconachie, 1997; National Board of Employment Education and Training, 1992). By the end of this period the equation of quality with academic standards had been criticised on a number of grounds including the difficulties in judging standards across disciplines, and the problem of judging equivalence of standards between institutions (D. Anderson et al., 2000b). From this time onwards, the philosophy and methods of commercial quality management began to influence strategies for quality management in higher education.

In the period, 1993-1995 a ‘whole of institution’ approach to quality assessment was implemented (Vidovich, 1998). The critiques of this approach, and of previous approaches, focused on the inward looking nature of this type of assessment, because standards are determined wholly within academia (D. Anderson et al., 2000b; Kemp, 1999b), the impossibility of comparison between degrees from different disciplines and different institutions (Kemp, 1999b) and the lack of coherence of accreditation procedures for courses and institutions (Kemp, 1999b).

In 1996, a new Federal government was elected and in the period 1996-1998, and while Amanda Vanstone was Minister for Employment, Education Training and Youth Affairs, quality policy stalled (Vidovich, 2001). During the period up to 1999, universities were encouraged by financial incentives to take part in quality assurance initiatives, but had the formal option of non-participation (Vidovich, 2001). A study of university governance by Marginson and Considine (2000), observed that the definitions of quality and accountability they encountered during 1997-8, reflected the
values of private sector rather than the traditional public sector (Marginson & Considine, 2000, p4).

**Formal legislative structure for university quality management since 2000 – The Higher Education Quality Framework:** Since 2000, the Australian Commonwealth government has centralised ‘quality issues’ in its discussion of higher education policy. Australia has a Federal system of government and responsibilities for higher education are shared between the Commonwealth (Federal) government and the governments of each State or Territory. In 2000, the Commonwealth government agreed a Higher Education Quality Assurance Framework with the State and Territory governments. The Ministerial Council for Education, Employment, Training and Youth Affairs (MCEETYA) was originally established to manage aspects of higher education policy where the Federal and the State governments’ responsibilities overlapped. In 2000, the Council approved a ‘Higher Education Quality Assurance Framework’, which clarified the demarcation of responsibilities between the States/Territories and the Federal government, and the Council became the ‘owner’ of the Australian Universities Quality Agency (AUQA).

In the Higher Education Quality Assurance Framework, the Commonwealth government retained responsibility for funding, performance data and receiving quality plans for university. The States and Territory government retained responsibility for accreditation of new universities and for higher education courses offered by institutions not accredited as universities in their States/Territories. The universities were responsible for maintenance of academic standards. An ‘independent’ agency, the AUQA, was established to undertake quality audits (DETYA, 2000a). The Australian Universities Teaching Committee (AUTC) was established to promote ‘quality teaching’ in Australian universities, in the same legislation.

**Commonwealth government performance management ‘tools’:** The Higher Education Framework for Quality Assurance lists performance management tools ‘provided’ by the Commonwealth government (DETYA, 2000a). These include:

- A ‘benchmarking manual for higher education institutions’ (see McKinnon, Walker, & Davis, 2000);

- The system-wide Graduate Destinations Survey (GDS), a survey administered by the Graduate Careers Council of Australia, which provides information about the employment outcomes and status of recent graduates;
• The undergraduate Course Experience Questionnaire (CEQ), which surveys recent graduate perceptions of their undergraduate university experiences; and

• A postgraduate experience survey (PREQ), which surveys students who have completed postgraduate courses about their experiences.

The government also funded the development by the Australian Council for Educational Research (ACER) of the Graduate Skills Assessment (GSA) test, which was an assessment designed to be used to test the 'generic skills' of both entering and graduating students. The test was described as a 'voluntary instrument'. The other 'performance management' measure cited in the Quality Assurance Framework was the publication of reports to illustrate 'the diversity of the sector' and provide comparative data across a range of indicators. These reports, entitled 'The Characteristics and Performance of Higher Education Institutions', collate information about the differing characteristics and profile of the staffing and students at different universities, and 'outcome measures' such as 'retention rates' and summaries of the information about 'graduate outcomes' (DETYA, 2000a). Universities that receive public funding for student places, are required to submit the information required by the 'Characteristics and Performance' reports in their annual reporting 'profiles' and 'portfolios'.

The design of the performance measures seemed to be premised upon the assumption of 'student as customer' (Kemp, 1999a), which reflected the recommendations of the 1998, West Report (West, 1998a) and influenced the brief or government interpretation of other reports produced in the period 1998-2000. The full implications of a customer relationship between students and universities were not discussed, even though other writers have questioned whether the idea of students as customers is compatible with the methods and purposes of higher education (Dunkin, 2002; Scrabec, 2000). Three questions emerge, if students are customers. 'What 'product' (including services) are students buying from universities?' 'How does the customer relationship between universities and students affect the rights of other parties (such as industry and government)?' 'Is the 'customer' relationship compatible with the overall purposes of universities or the intentions of government policy, as stated in other government policy documents?' (Cooper, 2002b, 2003c).

The Australian Universities Quality Agency and the Australian Universities Teaching Committee: In the period between 1996 and the establishment of the AUQA in 2000, the government sponsored several research reports into issues related to
university performance, quality assurance and accreditation, see, for example (I. Allen, 2000; D. Anderson et al., 1997; D. Anderson & Johnson, 1998; D. Anderson et al., 2000a, 2000b; Andrews et al., 2000; Andrews & Tiemin, 1998; Blainey & Maloney, 2001; DETYA, 1997, 1998a, 1998b, 1998c, 2000b; Gallagher, 2000; Guthrie, 1997; Hand & Trembath, 1999; Harman & Meek, 2000a, 2000b; Harvey-Beavis & Robinson, 2000; James et al., 1999; Long & Johnson, 1997; E. Martin, 1997; McInnis, James, & Hartley, 2000; McKinnon et al., 2000; Meek & Wood, 1998; Miller & Pincus, 1997; Pargetter et al., 1998; Walker, 2000; West, 1998b), and consulted with the Australian Vice-Chancellor's Committee (Australian Vice-Chancellors' Committee, 1999). Two reports, by (D. Anderson et al., 2000b) and (Harman & Meek, 2000b) in particular were influential in the final shaping the AUQA. Anderson, Johnson and Milligan (2000b), were commissioned to review current Australian and international arrangements for quality assurance and accreditation, including the New Zealand and the British arrangement for quality assurance. As a result of their review, they proposed the 'Modern Australian Model' (MAM) for quality assurance and accreditation that established the basic principles that underpinned the eventual development of the AUQA. Anderson et al. were especially concerned with the need to maintain the confidence and co-operation of all parties involved in higher education, namely the universities, the Commonwealth government and the State/Territory governments. They recommended that the new system should be based upon acceptance of principles of self-accreditation and self-assessment by universities, that universities should set their own goals, and that the assessment produced by universities should be externally audited by an independent external agency, capable of maintaining the trust of all parties. The Anderson report also suggested that as part of the review process, panels with discipline related expertise (including employers of graduates) should review practice at faculty, school and departmental level, giving 'particular weight to degree standards and outcomes' (D. Anderson et al., 2000b, p77).

The brief of Harman and Meek (2000b) was also to review and report upon alternative methods of quality assurance and accreditation, and especially to evaluate the Modern Australian Model against criteria of 'credibility; effectiveness, legal clarity for students and providers; and ability to promote improvement and good practice,' (Harman & Meek, 2000b, pvi). According to Harman and Meek (2000 paragraph 25, p(x)) the government brief for their report specified that quality assurance and accreditation mechanisms should satisfy a number of criteria:
The mechanisms relating to self-accrediting institutions should not be solely at their discretion; there needs to be some external review or audit of the claims made by institutions about quality and standards; the mechanisms should be credible with international and domestic interest groups and be able to protect the international reputation of Australian awards; the mechanisms should help satisfy Australian taxpayers of value for money; any audit mechanism should have rigour, but at the same time be cost effective, not necessarily intrusive and be able to retain the co-operation of public universities; and the mechanisms should provide legal clarity for students and providers and be able to promote good practice and facilitate improvement (Harman & Meek, 2000, paragraph 25).

Harman and Meek recommended that the new quality agency should:

- Be a joint Commonwealth, State/Territory and university initiative
- Conduct institutional audits on a five-yearly cycle
- Be independent at arms length from both government and higher education
- Have tripartite funding from Federal government, States/Territories and higher education institutions

Harman and Meek (2000b) also recommended that the terms of reference for the new quality agency should be to:

- Review the mechanisms for quality assurance, monitoring performance and academic standards, and in enhancing quality within higher education institutions;
- Produce reports that are made public;
- Identify and disseminate the good practice;
- Undertake and sponsor studies related to good practice in quality assurance and academic standards

(Harman & Meek, 2000b, paragraph 37 pxiii-xiv).

The discussion paper on the MAM produced by the Australian Vice-Chancellors' Committee (1999), supported many features of the proposed Modern Australian Model, but differed in its recommendations about the funding and control of the proposed audit body. The AVCC proposed that the new university Quality Agency should be funded and controlled entirely by the university sector, and should be a university owned, not-for-profit company. The AVCC emphasises the importance of universities having the freedom to set their own aims and objectives. The role of the auditors was to check that the quality systems and processes are adequate for monitoring whether universities had
achieved their stated objectives. The AVCC did not consider that it would be appropriate for the Audit agency to make judgements about the suitability or otherwise of each universities' objectives or come to conclusions about the quality of universities' research or academic outcomes (Australian Vice-Chancellors' Committee, 1999).

The AUQA was eventually established as part of the Higher Education Quality Assurance Framework in March 2000. The Agency was incorporated as a not-for-profit company owned by the member of the Ministerial Council (MCEETYA) (DETYA, 2000a). This document states that the AUQA is responsible for:

- conducting quality audits of self-accrediting institutions and State and Territory accreditation authorities on a five yearly basis;
- providing public report revealing the outcomes of these audits;
- reporting on the criteria for the accreditation of new universities and non-university higher education awards, as a result of information obtained during the audits of institutions and State and Territory accreditation processes; and
- reporting on the relative standards and international standing of the Australian higher education system and its quality assistance processes, as a result of information obtained during the audit process (DETYA, 2000a, p16).

The AUQA quality management processes require universities to individually collect data to prove that they have met their self-determined goals and to establish processes to ensure continuous quality improvement, as recommended by the AV-CC. Contrary to the recommendations of Harman and Meek, who advised that 'standards' were not part of the 'new' quality agenda, and the AVCC who advised against any attempt to compare standards of academic outcomes, the AUQA has a role in reporting on 'relative standards', which inevitably means making judgements about outcomes of institutions (DETYA, 2000a). These quality processes are externally audited, once every five years by the AUQA, but the agency is managed by MCEETYA. It relies on tripartite funding, and therefore, from the perspective of the higher education institutions, and is only quasi-independent of government, because of government domination of funding and the management body. Quality management became a condition of Federal government funding (DETYA, 2000d). Vidovich (2001) observes that this represented a departure
from previous ‘soft touch’ policy, which relied upon offering universities incentives to participate, but allowed universities the formal option of non-participation.

The Australian Universities Teaching Committee (AUTC), replaced the Committee for University Teaching and Staff Development (CUTSD), and was established at the beginning of 2000. The brief of the AUTC was:

- To propose strategies to deal with emergent issues in teaching and learning;
- To identify effective methods of enhancement of teaching and learning;
- To encourage dissemination and adoption of enhanced methods of teaching and learning;
- To promote collaboration and exchange of information about teaching and learning nationally and internationally; and
- To manage ‘prestigious Australian Awards for University Teaching’ (DETYA, 2000a).

The Higher Education Quality Assurance Framework document explicitly tied university staff development and teaching and learning research to the quality management processes for universities. Vidovich (2001, p257), has argued that quality management in Australian universities can be usefully analysed in terms of its mix between incentive and coercion, ‘carrots and sticks’. She notes a progressive slide during the 1990’s away from incentive based approaches to quality management by government, and towards coercive approaches. Participation in AUQA audit processes is compulsory for universities that seek access to government support, and provides (one of) the ‘sticks’; the AUTC program is all that remained of the incentive or ‘carrots’ to encourage Australian university engagement with quality.

**Summary:** Quality strategy in the period 1987 to 1999 had three distinct phases. In the earliest phase, quality was assessed through disciplinary reviews. In the middle phase, ‘whole of institution’ approach to quality was initiated. In the period 1996 onwards, universities were encouraged to take part in quality assurance processes; participation remained voluntary throughout this period. Strategy for both political parties developed within a framework of neo-liberal reform.

In 2000, the Higher Education Framework for Quality Assurance established structures that significantly changed quality management processes in higher education in the
period after 2000. The government passed legislation to establish the Australian Universities Quality Agency (AUQA) and to monitor quality in Australian universities. Commonwealth government funding was conditional upon university participation in quality management. This compelled all public universities, and private universities that sought government support, to participate in external audit processes.

**Implications for the research**

Policy for quality management appears to have developed by a process of trial and error, as each policy development attempts to overcome the perceived deficiencies of past policy. The most recent policy draws heavily on models of quality management developed in commercial settings. There is no evidence of a systematic attempt to examine whether the desired policy outcomes of maintenance of standards, cost reduction and improvement of accountability are mutually compatible in practice. This makes the guidelines for the quality audit, as contained in the AUQA mission statement, appear more like a ‘wish list’ than a well researched agenda, where the objectives are matched to realistic strategy for their achievement. Performance measures derived from a quasi-market perspective on higher education were premised upon the tacit assumption that students are ‘customers’ of universities.

Questions arising from this section: The claim that students have ‘customer relationships’ with universities raises four questions. The differences between the AQUA guidelines and the research reports on which they are based, raises the question whether the yardsticks for the assessment of quality is realistic. The questions are:

- What ‘product’ (including services) are students buying from universities?
- How does the customer relationship between universities and students affect the rights of other parties (such as industry and government)?
- Is the ‘customer’ relationship compatible with the overall purposes of universities or the intentions of government policy, as stated in other government policy documents?
- Are the criteria against which university quality is judged, realistic when judged in the overall context of higher education policy?

**Conceptualisations of Quality**

The conceptualisation of quality in higher education quality management is problematic because there are multiple interpretations of the meaning of quality (Blass, 1999; Cheng
Vidovich (2001) identified that slippage between different meanings of quality occurs. The purpose of this section is to tease out different meanings of 'quality' in different technical and non-technical discourses relevant to higher education to *explicate how and why*, slippage occurs when the discourses are mixed. This section examines how quality is defined in everyday language, and in specialist literatures on quality both in commercial quality management and in Australian higher education. It is relevant to examine and contrast everyday and specialist usages because quality management in Australian universities has a significant political dimension (Sachs, 1994, p22). The political rationale for quality management in Australian higher education operates within both everyday language in political speeches, and within specialist technical discourses of education and management in policy documentation intended for audiences within higher education.

Figure 2.3: Concepts of Quality in Higher Education.

The first part of this section briefly examines the everyday usage of quality and the implications of this. The second part of this section summarises the work of Cameron and Sine (1999) who have identified six conceptually different definitions of quality found in commercial quality management literature. The third part of this section summarises the work of Vidovich (2001) on the discourses of quality in Australian higher education in the period 1991-2001, and the final part summarises the
implications of the whole section for research into quality management in Australian higher education.

**Concepts of quality in everyday life**

In everyday language, 'quality' has multiple meanings determined by context of use. In most contexts quality has an appreciative dimension tacitly related to the values of the speaker, and as a descriptor 'quality' may function hegemonically to privilege the values of dominant interests. The Pocket Oxford Dictionary, 4th edition, revised 1967 (Fowler & Fowler, 1942, p654), provides the following common use definition:

> Degree of excellence, relative nature (of poor &c. q; made in three qq.; q. matters more than quantity), general excellence (has quality, is good); attribute, trait, faculty; (has many good qq, the q. of courage, the qq. of a ruler) (arch., vulg.) social standing (people of q., the q.) the upper classes; (of voice or sound) timbre.

(Fowler & Fowler, 1942)

A more recent version of the Penguin English Dictionary offers a similar, but less detailed, definition:

1a degree of excellence; grade. b superiority in kind; high standard. c archaic high social position. 2a peculiar and essential character; nature. b an inherent feature; a property. 3 a distinguishing attribute; a characteristic.

(R. Allen, 2002, p720)

The definitions illustrate that when used adjectivally and without qualification, 'quality' implies goodness or excellence. When accompanied by supplementary qualifying descriptors, the qualifiers may indicate relative excellence (or the lack thereof). When used as a noun, the appreciative dimension of 'quality' remains, despite an apparent neutrality of meaning implied by the dictionary definitions quoted above. For example, when describing the qualities of a person, only attributes thought admirable by the speaker would be listed (unless the meaning were ironic).

Because of the appreciative dimension of 'quality', its meaning in any statement is intimately tied up with the values of the user. Cameron and Sine claim that in everyday life quality is transcendentally referenced, that people recognise quality without need to define its attributes. An implication of this is that if the meaning of quality is tied up with the implicit assumptions and values of the speaker, quality is both invisibly and flexibly referenced. In such situations, there is the capacity for its dominant meanings to be co-opted by powerful interests within each different context of application. The archaic or vulgar use of quality as meaning upper class, as cited in the quotation from
the Pocket Oxford dictionary in the quotation cited above (Fowler & Fowler, 1942), provides an historic example of a hegemonic usage of 'quality' in the context of pre-war British society.

To summarise: the everyday meaning of quality is defined normatively, based upon tacit values, can be contextually variable and is open to hegemonic co-option by powerful interests.

**Conceptualisation of quality in management**

Quality management methods require measurement of quality. Everyday definitions of quality do not permit this, because its meaning is variable and tacitly referenced to the values of the speaker. Quality management literature uses 'quality' technically, with meanings different from those used in everyday life. From the literature on quality management in commerce, Cameron & Sine (1999) identify six distinct technical conceptualisations of quality, summarised in Table 2.1.

**Table 2.1: Concepts of quality, from Cameron & Sine (1999)**

<table>
<thead>
<tr>
<th>Concept of quality (C&amp;S)</th>
<th>Definition: &quot;Quality is...&quot;</th>
<th>Example</th>
<th>How measured?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transcendent (1)</td>
<td>Quality can not be defined but can be recognised</td>
<td>Innate excellence or beauty</td>
<td>Perceived by those who are sensitive but cannot be measured.</td>
</tr>
<tr>
<td>Product-based (2)</td>
<td>'unpriced attributes contained in each unit of priced attribute'</td>
<td>Extra desired features (by the customer?) or durability</td>
<td>Measure 'features' that exceed (customer) expectations</td>
</tr>
<tr>
<td>User-based (3)</td>
<td>Fitness for use Satisfies customers</td>
<td>Fulfills customer expectations</td>
<td>Measure level of customer satisfaction</td>
</tr>
<tr>
<td>Production based (4)</td>
<td>Conforms to specifications</td>
<td>Reliable</td>
<td>Measure against what is promised (to the customer?)</td>
</tr>
<tr>
<td>Value base (5)</td>
<td>Best for price; Best for actual use</td>
<td>Provides value for money (to customer)</td>
<td>Efficiency based upon cost per unit</td>
</tr>
<tr>
<td>System-based (6)</td>
<td>System to produce services that satisfy customers</td>
<td>Accepted systems for quality assurance adhered to</td>
<td>Check whether systems are in place and adhered to</td>
</tr>
<tr>
<td>Cultural (7)</td>
<td>Organisation's culture supports the constant attainment of customer satisfaction through integrated use of training, techniques and tools</td>
<td>Quality as a 'mindset' throughout the organisation in all aspects of work</td>
<td>Examine whether the organisation supports customer satisfaction in an integrated way</td>
</tr>
</tbody>
</table>

Cameron and Sine apply Juran's differentiation between big Q and little q definitions of quality. According to this distinction, big Q definitions of quality reference quality to the adequacy of the systems with the organisation, while little q definitions of quality reference quality to features of the product. Cameron and Sine observe that definitions two, three four and five, in Table 2.1, reference quality to the product, while definitions six and seven reference quality to features of the organisation. Further distinctions can
be made. In Table 2.1, definitions two, three and five, reference quality to customer values or perceptions of the product, and definitions six and seven use customer satisfaction as the referential point for judging the quality of organisational processes and so five of the six technical definitions of quality are referenced to customers’ values or perceptions (Cooper, 2002b). Definitions of quality referenced to customers, depend for meaning on the organisation having a customer relationship to its ‘clientele’ (Cooper, 2002b). The concept of customer is defined in terms of a commercial relationship between a person or entity as customer, and a business whose main purpose is to make a profit. This raises questions about compatibility of goals when commercial quality management methods are applied in non-commercial contexts (Cooper, 2002b).

To summarise: conceptualisations of quality in commercial quality management rely on technical definitions that differ from the everyday understanding of quality; and with one exception, are meaningful only if a customer relationship is presumed. Technical measures of quality use measurements such as ‘customer satisfaction’ or ‘product conformity to specification’ as surrogates for quality. In a capitalist commercial setting, because an important primary aim of business is profitably selling ‘products’ to customers, these surrogates align well with the purposes of the enterprise. In non-profit contexts, such as higher education, no such alignment can be presumed.

**Conceptualisation of quality in Australian higher education**

Before the 1990’s, Australian higher education referenced judgements of adequacy of higher education to ‘standards’ (D. Anderson et al., 2000b; Candy & Maconachie, 1997; Harman & Meek, 2000b; Vidovich, 2001), and discussion of quality in higher education in Australia before the 1990’s presupposed standards. Harman and Meek (2000b) refer to this as the ‘old’ quality debate. When the terminology of ‘quality’ first became prominent in Australian higher education in the early 1990’s, several writers commented on the imprecision of the term as applied to higher education, variously commenting on ambiguity (Lindsay, 1994, p2) and diversity of meaning (Sachs, 1994, p23), and quality was considered, by some, to be indefinable (Higher Education Council, 1992, p6). Since the ascendancy of commercial quality management methods, which Harman and Meek refer to as the ‘new’ quality debate, other discourses of quality have emerged. Harman and Meek (2000b) imply that there is a clear conceptual difference between the ‘old’ and the ‘new’ quality debates. They claimed that the old debate was concerned with assessment of the comparability of ‘inputs’ against national and international standards whilst the ‘new’ quality debate is concerned with the
effectiveness of management processes, the assessment of outputs, monitoring institutional performance and assessment of how well 'employer and other needs' (Harman & Meek, 2000b) are met.

When Harman and Meek expand their description of 'new' quality, some conceptual problems become evident. They claim that the 'new' conceptualisation of quality is concerned with,

> the achievement of quality outcomes; the establishment of appropriate management processes to monitor achievement and the extent to which specified goals and objectives are being met; assessing the suitability of graduates for the workforce and professions; and providing information to stakeholders in order to assure them of the quality and credibility of outputs' (my emphasis) (Harman & Meek, 2000b, p8).

The immediate problem with this statement, as a definition, is that it is partially self-referencing; 'quality' is defined in terms of quality outcomes and assurance of quality.

Vidovich identified three contradictory discourses about quality in Australian higher education policy documents that were evidenced in both the period 1993-1995 (Vidovich, 1998) and in the period 1999-2001 (Vidovich, 2001). She refers to these as 'excellent standards', 'quality assurance' and 'quality improvement'. She notes also that in policy documents there is slippage between the three concepts (Vidovich, 1998; 2001) and this finding undermines the simple picture of a sharp demarcation between conceptually tidy 'old' and 'new' concepts of quality presented by Harman and Meek. The three discourses identified by Vidovich are outlined next.

Standards, or 'excellent standards', in higher education are internally referenced within academia, loosely conceptualised, and rarely explicitly defined. This is explicated if it is assumed that those who are knowledgeable in their discipline claim the capacity, by tacit process, to both recognise 'excellent standards' and agree on judgements about relative standards and The Higher Education Council (HEC) position that quality was not definable, provides an example of the belief that quality is transcendent, recognisable but not definable (Higher Education Council, 1992). The remnant of this belief is also evidenced in Vidovich's (1998), account of the reluctance of the Committee for Quality Assurance in Higher Education (CQAHE) to make known the criteria by which they judged quality and performance of universities in the period 1993-1995. In the Committee's appeal to tacit knowledge, the conceptualisation of standards shares many features with the everyday usage of the term 'quality'. Traditions of external moderation and examination, whereby academics employed by other
universities moderate samples of student work or examine theses, provide examples of this approach. The disciplinary reviews in Australian higher education during the late 1980’s and early 1990’s provide another example (D. Anderson et al., 2000b). According to Vidovich (2001, p.250) standards within universities are internally referenced within academia and are about excelling in inputs and output.

Several writers have noted that there is a fundamental tension between the concepts of quality assurance and quality improvement in higher education (Sachs, 1994; Vidovich, 1998, 2001; Yorke, 1999b). Quality assurance in higher education has as its primary rationale the idea that universities should be able to demonstrate their accountability to ‘audiences’ who are to external universities. Quality improvement is concerned with finding ways to improve how tasks within the organisation are performed, and therefore provides information for internal audiences within universities (Sachs, 1994, p.24). Although quality improvement has sometimes been used to demonstrate accountability, as recommended by Sachs (1994, p.25), and assumed for example in the Australian Business Excellence Framework (Australian Quality Council, 2000), this usage ignores the tensions between information collected to inform internal decision-making to enable learning, without punitive consequences, and information released for public audiences which has consequences for reputation and perhaps for funding (see, for example, Vidovich’s (1998, p.225) example of the response of a Sydney university senior manager discussing the failure of Sydney university to be placed in the first tier of universities in the first year of CQAHE reporting). Yorke (1999a) also argues that improvement does not ensure quality of outcomes, if the level of outcomes was low at the start.

Harman and Meek (2000b, p.10) acknowledge that different ‘perspectives’ on quality can be ‘confusing and frustrating’ (Harman & Meek, 2000b, p.10), but claim that the different perspectives on quality also have ‘positive aspects’. They cite the work of Birnbaum who reports that his study found that US college presidents had disparate views on quality in higher education, which he categorized as ‘meritocratic’, ‘social’ and individualistic’. Those who viewed quality ‘meritocratically’ referenced their judgments to how well their institution conformed to scholarly norms determined within the academic profession. Those who viewed quality ‘socially’, referenced judgments to how well their institution satisfied the needs of important constituencies such as employers or communities and those who referenced quality ‘individually’, referenced judgments about the performance of their institution in terms of how well
programs developed the capacity of students. Birnbaum’s categories, as described by Harman and Meek (2000b), illustrate the significance of different perceptions of the primary purpose of higher education. Birnbaum’s work illustrates that there is a diversity of opinion about the main purpose of a university, which then has consequences for judgements about quality. The difference of opinion among college presidents about the purposes of higher education means that different presidents reference their judgements about success or failure in different ways because they valued different goals. Harman and Meek’s account of Birnbaum’s work illustrates why it is necessary to examine the purposes of Australian higher education in discussion of quality.

Harman and Meek (2000) are wrong in believing that their report of Birnbaum’s work illustrates different concepts of quality, per se. The significance of Birbaum’s work as provided in their account is the recognition that different judgements about quality stem from different conceptualisations of the purposes of higher education. The importance of this distinction is that the debate about the purposes of higher education is conducted in a different arena from the debate about quality management methods. The debate about the purpose of higher education is a political debate about the relative value of different educational ends and about the relative merit of competing claims for resources to finance different educational goals. The political debate about the purpose of higher education is a debate about ideology and about values, about what should be done. By contrast, the debate about quality management and quality assurance is a technical debate about how best to manage processes in universities and how best to measure what universities do once the purposes of higher education have been identified. There has been an extensive research agenda on the technicalities of quality measurement in Australian higher education, as discussed in section 2.2; however, there has been more limited political discussion about the competing purposes of higher education, even though the need for this discussion has been raised (see for example, Myton, 2001).

Discussion of both ‘quality assurance’ and ‘quality improvement’ in higher education has been confused by ambiguity. There is ambiguity about what is being judged: whether it is ‘inputs’, ‘processes’, or ‘outcomes’ (D. Anderson et al., 2000b; Vidovich, 2001). There is inconsistency between stated policy and the affects of policy about whether uniformity or diversity in university provision is desirable (Marginson & Considine, 2000; Meek & Wood, 1997; Vidovich, 2001). The formal position of the
Australian government is to encourage diversity (see for example, the AUQA terms of reference, DETYA, 2000a). Marginson has argued that the structure of the higher education quasi-market will tend to encourage uniformity (in Meek & Wood, 1998). Vidovich (1998) observes that although during the period 1993-1995 the official government position supported diversity, when universities were ranked by the CQAHE, the placement of universities, in the first round, seemed to reflect the values and aspirations of the traditional or ‘Sandstone’ (longest established) universities rather than those of other sectors who may have different aspirations. This encourages uniformity (Meek & Wood, 1997). Media attempts to compare universities and construct league tables, an action that should be anticipated by policy makers when information is released, further undermine the claimed intention to judge each institution according to its unique goals (Vidovich, 1998). The significance of this is that the choice of goals and purposes of higher education influence choice of what is deemed relevant to evaluate, as evidenced by Birnbaum’s findings reported in Harman and Meek (2000b) and discussed previously. Desire for uniformity would lead to universities being measured against a single set of criteria; diversity would imply that evaluation data would be uniquely different according to the goals of the institution and the data gathered would not be comparable. There has been extensive discussion on the different interpretation of diversity in Australian higher education (for example Coaldrake & Stedman, 1998; Marginson & Considine, 2000; Meek & Wood, 1997; Vidovich, 1998), and this issue is examined in more detail in section 2.4, in the discussion of different perspectives on university management in Australia.

Harman and Meek (2000) summarise previous definitions of quality provided by Lindsay and Middlehurst, but fail to account adequately for either the conceptual differences uncovered by the work of Vidovich (1998) in higher education, or by the work of Cameron and Sine (1999) in commerce, or in this review. This is significant because the report by Harman and Meek in which these statements appear was commissioned by DETYA. Their report provides the basis for government conceptualisation of quality as ‘fitness for purpose’ (Nelson, 2001) and the idea that universities should set their own goals and objectives. Harman and Meek (2000) recommended that quality in higher education should not be concerned with ‘standards’. This is consistent with a conceptualisation of quality as fitness of purpose. They failed, however, to elucidate adequately the implications of multiple conceptualisations of quality for both the conceptualisation of purposes of higher education and for choice of
methods of evaluation and measurement of quality. This limitation may have been due to the parameters of the original research report.

To summarise, in Australian higher education, judgements of adequacy (or quality) are referenced to standards, quality assurance or quality improvement. The relationship between these concepts has not been fully explored. The relationship between quality assurance, quality improvement and standards depends upon assumptions made about the purposes of higher education. Differences in purpose of education imply different means of measuring quality. Discussion of purposes of higher education raises political questions about the relative importance of different interests within higher education, and where control of higher education ought to reside.

**Conceptualisation of quality: Implications for the Research Problem**

The everyday meaning of quality is different from the multiple technical meanings of quality found in the literature on commercial quality management. The meaning of quality found in the literature on higher education before the adoption of commercial quality management methods aligned more closely with the everyday meaning than the technical meanings found in commerce. The everyday meaning of 'quality', which aligns with the traditional meaning of quality in education, is problematic because it is flexibly and invisibly referenced to the values of the speaker and, therefore, open to hegemonic co-option by powerful groups. Commercial definitions of quality are explicitly referenced but do not align with everyday usage. This situation has potential to cause confusion when technical meanings of quality are used in everyday contexts, such as political speeches, prospectuses or when quality evaluation reports are released to the media. Commercial definitions of quality depend for their meaning on the assumption of commercial relationships between businesses that sell products to customers with the primary purpose of making profit. The assumption of a commercial relationship between a business whose main purpose is to make a profit, and a customer who will buy a product, is reasonable in a commercial context, but raises questions about compatibility of goals when commercial quality management methods are applied in non-commercial contexts. This potentially limits the usefulness of commercial definitions of quality from the perspective of higher education, because universities have different goals from commercial businesses, and it is not self-evident that the concept of product and customer is meaningful in the context of higher education. This omission indicates the need for research to clarify the significance of differences in context.
This section has raised a number of issues that have relevance for the research problem. These include implications for quality management:

- Different conceptualisations of purpose(s) in higher education and the desirability or otherwise of diversity;

- Different judgements about what is being judged within the organisation (inputs, output or process) (D. Anderson et al., 2000b; Blass, 1999; Vidovich, 1998); and,

- Whether the purpose of reporting is to (re)assure external audiences or to gather intelligence for use within the organisation.

Evaluation for different purposes leads to different decisions about what is deemed appropriate to assess, how measurement should take place, who should have access to the information and what actions and consequences arise from the data collection (Blass, 1999), and see section 2.5 of this chapter for further discussion.

Multiple incompatible discourses create difficulty for practical application of quality management and judgements about its efficacy (Cameron and Sine, 1999). It is important to clarify these relationships because otherwise ‘quality strategies’ (either quality assurance or quality improvement) may assume erroneously, that all stakeholders share ontologically and epistemologically similar perspectives on quality, and fail to recognise and accommodate important differences in reasoning about quality that render organisational changes ineffective or counterproductive (Australian Quality Council, 2000; DETYA, 1997). Managers require a coherent and consistent understanding of quality to enable them to exercise judgement, and make decisions about relevant data collection and interpretation (Australian Quality Council, 2000). This raises questions about what happens when policy makers and managers attempt to develop quality management methods based upon inconsistent or contradictory conceptualisations of quality. The differences identified in this section between the technical and everyday usages help to explain the persistence of inconsistency and ambiguity about the conceptualisation of quality in Australian higher education, discussed in the previous section. Decisions about the appropriate point for assessment of quality in education (whether inputs, outputs or processes) are linked to assumptions about the role and purposes of higher education and cannot be resolved in isolation from that body of literature. The implication of this is that the conceptualisation of quality in higher education must be integrated with explicit understanding of the purposes of higher education in Australian society.
The analyses of the previous sections have a number of implications for research into the adequacy of conceptualisation and practical application of quality management in Australian higher education. Vidovich’s (1998) work identifies three discourses about quality in quality management in Australian higher education and suggests that these discourses are not mutually compatible. Cameron and Sine’s (1999) analysis of conceptualisation of quality in the commercial context provides a basis for further differentiation in the conceptualisation of quality. Application of Cameron and Sine’s analysis of the conceptual differences within commercial quality management should enable elucidation of more detailed differentiation of conceptual differences in usage of terms ‘quality’, ‘quality assurance’, and ‘quality improvement’ in Australian higher education and a better understanding of the overlaps and contradictions in conceptualisation of quality within quality management documentation in Australian higher education. This could be achieved through integration of analysis of the discourses in Australian higher education, and comparison with both Cameron and Sine’s work on conceptual distinctions within commercial quality management, and with literature on the conceptualisation of purposes of higher education. Such an analysis would have value from a management and organisational perspective because it would elucidate the reasons for the contradictions and tensions facing university managers and academics, and would permit a clearer assessment of whether current Australian university quality management practices were likely to strengthen Australian higher education and meet stated government policy objectives.

The conceptual analysis in this section highlights some difficulties in application of concepts of quality to higher education. The everyday meaning of quality (to which the concept of standards seems to appeal) has the advantage of being easily understood in everyday life, which is useful from a political perspective, but disadvantages from a quality management perspective because quality is defined normatively, based upon tacit values, is contextually variable and is open to hegemonic co-option by powerful interests. Conceptualisations of quality in commercial quality management have a potential advantage because they were designed to facilitate measurement, but have a number of different disadvantages. Firstly, there are multiple mutually incompatible conceptualisations of quality in commercial quality management and care must be taken to align conceptualisations and data collection methods, so that the interpretation of meaning data is relevant to an articulated definition of quality. Secondly, commercially derived conceptualisations of quality have the disadvantage of reliance on technical definitions that differ from everyday understanding of quality and are not compatible
with everyday usage. This increases the potential for misunderstanding, especially because quality in higher education has a political dimension where everyday meanings, rather than technical meanings, predominate. Thirdly, the commercial definitions of quality were developed for a commercial environment, assume commercial relationships, and are consequently referenced to customers, products and commercial goals. This raises the question of whether commercially derived concepts and practices of quality management are applicable to non-commercial contexts such as education and public services, which have different goals and relationships.

In summary: For university managers there is a need for clarity about the meaning of quality in higher education, as the slippage between different conceptualisations of quality, although possibly politically expedient, is unhelpful from a practical perspective. The analyses presented in this section quality suggest that further work is needed to identify points of compatibility and differences between various conceptualisations of quality in Australian higher education. A starting point for this would be to integrate and synthesise conceptual analyses of quality in Australian higher education, beginning with Vidovich's (1998; 2001) work, with analyses of the conceptualisation of quality within commercial quality management, beginning with Cameron and Sine's (1999) work, with relevant literature on the purposes of higher education and relevant literature on educational evaluation. This section suggests the importance of further exploration of the literature to determine the limits of applicability of the methods of commercial quality management, which are premised upon business goals and relationships, to a context where non-commercial values and relationships predominate.

Unanswered questions arising from this section:

- What are the differences in context between Australian higher education and commerce, and what are the implications of this for the use of commercial quality management methods in Australian higher education?
- Can 'quality' in higher education be conceptualised in ways that reduce ambiguity, or is it preferable to distil what is useful from the multiple meanings of quality and use a different distinct terminology for each facet of what is now called 'quality'?
- What is the relationship between 'excellent standards' and the technical meanings of quality derived from commercial management?
Issues in Research into Higher Education Quality Management and the Australian Context

There is a large quantity of international research and publication on higher education quality management, much of which has some relevance to the Australian context and this research. The intention of this section is to identify the most important issues of contention in higher education quality management relevant to the Australian context and to examine briefly the arguments used to support the major positions. Within the scope of this thesis, it is not possible to identify the multiple sources of similar arguments in different countries. Some reference will be made to international literature on quality management in higher education if the issues described are similar to those found in Australian higher education. The aim is to identify and summarise the main contentions in this field rather than to provide a comprehensive annotated bibliography citing all possible sources.

Quality management, as part of educational management, has been concerned with philosophical issues connected with the scope, the mandate, and rationales for management of professional academic staff. It has also examined technical research on the benefits and disadvantages of different types of organisational arrangements and different methods for managing quality in higher education, including discussion of the application and effectiveness of various quality management techniques. Research into quality management in higher education is concerned with a range of conceptual (why manage quality in higher education) and technical issues (how to manage quality in higher education).

This section of the review is organised into three parts. The first part presents different perspectives on conceptual issues of dispute between supporters and critics of the use of commercial quality management in higher education. The second part identifies key issues of contention about technical issues that relate to quality management in Australian higher education. The third part outlines the implications of this for the research problem addressed in this thesis.

Why manage quality in higher education: three perspectives

This part outlines three different ideological positions on quality management in Australian higher education: the ‘neo-liberal’ perspective, the ‘traditionalist’ perspective and the ‘post-traditionalist’ perspective. The neo liberal ‘enterprise’ perspective supports corporate approaches to management, but retains some expectations of public
service (Marginson & Considine, 2000). There are two main sources of criticism of managerial/corporate enterprise management in universities. The first source of criticism derives from those who believe that collegial management of universities, as practiced in Australia before the 1980's, the ‘golden age’ of Australian universities, is the most appropriate form of management for Australian universities. This position, the ‘golden agers’ or traditionalists, is exemplified in Australia in the work of De Lacey and Moens (1990). The second source of criticism comes from those who are critical of market-based corporate approaches to university management but accept that there were deficiencies in collegial management of universities as practiced in Australia prior to 1980. These critics do not advocate a return to structures of the past, but a ‘reinvention’ of university management, different from an uncritical acceptance of the dominant corporate management style. This second position is referred to as ‘post-traditionalist’ by Marginson and Considine (2000), and is exemplified in Australia by writers such as Marginson and Considine (2000), and in the USA by writers such as Tierney (1999; 2001).

The review of the history of university management in Australia, presented in section 2.1 of this chapter, identified three ‘historical’ Australian university management cultures: the collegial culture in pre-1987 universities, the bureaucratic-autocratic culture in former CAE’s and the more recent corporate culture shaped by neo-liberal government policies on higher education management (Marginson & Considine, 2000; Meek & Woods, 1997). By 1998, the conflict in Australian universities between management cultures was between ‘collegial’ culture (supported by traditionalist values) and ‘corporate’ culture (supported by a neo-liberal enterprise values). Marginson and Considine (2000) in their study of university governance in 1998, found evidence that where collegial management culture was strongest in the pre-1987 universities. They also found that senior management had established separate parallel corporatist forms of management, alongside collegial management structures. Marginson and Considine (2000) present no evidence of surviving bureaucratic cultures, or of conflicts between bureaucratic management cultures and corporate management cultures. This may be because their sample included fewer ‘new universities’ than pre-1987 universities or it may have been because the bureaucratic cultures of CAE’s had disappeared without a struggle as corporate values displaced bureaucratic values.

There are dangers in ‘labelling’ the perspectives on university management as ‘neo-liberal’, ‘traditionalist’ and post-traditionalist’ because such an exercise may obscure
diversity within each position and may over-accentuate difference between positions (Alvesson & Deetz, 1996). It is not automatically assumed here that any position is internally coherent, even in its own terms, or that any position is fully formed or that the assumptions within each position are completely monolithic. At the risk of obscuring nuances and differences within each of these perspectives, the different responses of the ‘neo-liberal’, ‘traditionalist’ and ‘post-traditionalist’, to the question “Why manage quality in higher education?” will be compared next.

### Table 2.3: Perspectives on university management

<table>
<thead>
<tr>
<th>Central concerns</th>
<th>Neo-liberal enterprise</th>
<th>Traditionalist</th>
<th>Post-traditionalist</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concept of quality</td>
<td>Technical definition of quality, especially &quot;fitness for use&quot; (Harman &amp; Meek, 2000b)</td>
<td>Quality as standards and reputation, derived from everyday usage</td>
<td>TQM is insufficient without underlying philosophies and goals to give it purpose and direction (Tierney, 1999, p94)</td>
</tr>
<tr>
<td>Epistemology</td>
<td>Unclear</td>
<td>Knowledge as objective</td>
<td>Knowledge as subjective, constructed (Tierney, 2001)</td>
</tr>
<tr>
<td>Academic freedom</td>
<td>Out-moded</td>
<td>Traditional value</td>
<td>Needs revised concept of academic freedom (Tierney, 2001)</td>
</tr>
<tr>
<td>Standards</td>
<td>Ambivalent,</td>
<td>Fixed, referenced to norms of discipline</td>
<td>?? Not fixed, ?? because of subjectivist position on knowledge?</td>
</tr>
<tr>
<td>University orientation</td>
<td>External (quasi) Market-oriented</td>
<td>Internal academic orientation</td>
<td>Internal and external orientation (Marginson &amp; Considine, 2000) (Tierney, 1999)</td>
</tr>
<tr>
<td>Academic/managerial divide</td>
<td>Managerial predominant</td>
<td>Academic predominant</td>
<td>Integrated balance of academic and management (Marginson &amp; Considine, 2000, Tierney, 1999)</td>
</tr>
<tr>
<td>Quality</td>
<td>Customer or consumer-based</td>
<td>Disciplinary-based</td>
<td>Balance of academic and external evaluation</td>
</tr>
<tr>
<td>Diversity</td>
<td>Diversity in student choice will evolve in response to market forces</td>
<td>Diversity in new knowledge will emerge if academic freedom is protected</td>
<td>Diversity in opportunity will emerge if considerations of equity, funding and purpose are adequately addressed (Marginson &amp; Considine, 2000)</td>
</tr>
<tr>
<td>Future</td>
<td>Quasi-market driven</td>
<td>Return to golden age</td>
<td>?? Proposals for re-invention?? ‘Stimulated academic heartland’ (Marginson &amp; Considine, 2000)</td>
</tr>
</tbody>
</table>

The three perspectives on management differentiated in the last section have different answers to this question of why manage quality in higher education. The differences arise from contrasting values and beliefs on a range of issues pertinent to quality management in higher education, as summarised in Table 2.3, and discussed in the remainder of this part.
Neo-liberal enterprise perspective on university management: Supporters of the use of commercial quality management in Australia and elsewhere, claim six main benefits of application of commercial quality management methods to higher education. Firstly, they claim that the introduction of competition will increase efficiency and quality in higher education (Kemp, 1999a). Secondly, they claim that the introduction of a customer focus to universities will be of benefit to students and employers because it will provide increased choice to students (Kemp, 1999a) and will force universities to become more responsive to the wants and needs of those outside academia (Swenson, 1998). According to (Marginson & Considine, 2000), however, the claim is made, without evidence, that students’ prime concern is ‘value for money’ and policy makers assume, without evidence, that universities will become more efficient as they compete for students and for research grants. Thirdly, it is argued that universities need to have quality assurance mechanisms to assure Australian students that the courses are of an acceptable academic standard (D. Anderson et al., 2000b). A similar argument is made in the UK that there is a need to ensure that degrees from different institutions are of similar standing (Thompson, Tyler, & Howlett, 1995).

A fourth associated claim is made that Australian universities need to have a quality assurance agency because of precedent in other countries and hence, it is claimed, there is an expectation by international students that quality of universities will be externally assured (DETYA, 1999; Kemp, 2000). In the UK the claim is also made that universities need quality assurance to bolster the confidence of cross national ‘purchasers’ of higher education and hence the income derived from the international education ‘market’ (Yorke, 1999a, p19). Associated with this claim, is a desire to prevent the establishment, in Australia, of ‘Diploma mills’, organisations selling qualifications without requiring evidence of academic achievement (DETYA, 2000a). Fifthly, supporters of commercial quality management argue that the use of institutional performance indicators aids institution-wide performance analysis (Kemp, 1999a, Chapter 1). Sixthly, supporters of commercial quality management claim that universities need to progressively improve their standards by using feedback from quality data (Skilbeck & Connell, 2000, p6). University management and staff need to evaluate what they do, so that they can find ways of improving what they do and to enable dissemination of good practice (DETYA, 2000a).

Marginson and Considine (2000, p245) argue that the Australian government does not want to recreate universities as completely private commercial institutions, because
government still has some ‘public service’ expectations of Australian universities. They consider that Australian universities are part of what they call ‘the public sector variant’, which uses some of the ‘conditions and techniques of business (such as competition, scarcity, marketing, goals defined in terms of money) grafted onto existing public bureaucracies now opened up to external pressures’ (Marginson & Considine, 2000, p236). Marginson and Considine argue that Universities are still public institutions, and consequently there are expectations that universities will be ‘accessible to general use, to serve broad based communities on an equitable basis, to conduct their own affairs according to principles of accountability, openness and transparency, and in the case of universities, to contribute to national policy objectives’ (Marginson & Considine, 2000, p245-246).

These public service expectations generate three additional neo-bureaucratic management requirements, which in purely private enterprise would be much weaker or non-existent. The first requirement is that universities should be accountable to external parties for how resources are used (see, for example, D. Anderson et al., 2000b; Kemp, 1999a, and in the UK see, for example, Quality Assurance Agency, 1998). The second requirement is that universities ought to be transparent in their dealings with students and staff (Contractor, 2001). The third requirement is that universities ought to be responsive to the needs of groups external to academia, such as student, employers, government and societal requirements (see for example, Kemp, 1999a; Nelson, 2002b) and aware of equity considerations (Kemp, 1999b; Nelson, 2002a, 2002b).

Neo-liberal approaches to the management of universities have been criticised both by academic traditionalists and by ‘post-traditionalists’. The discussion that follows examines the similarities and differences between traditionalist and post-traditionalist critique.

**Traditionalist perspective on university management:** Traditionalists, support collegial management of universities, as practiced in the ‘golden-age’ of Australian universities (usually considered to have occurred sometime between 1950 and 1987), and would like to see a return to this academic culture and associated management practices. Traditionalists concur with those among the neo-liberal who prioritise maintenance of academic standards, but are concerned that corporate management of universities fundamentally undermines the professional position of academics in a number of ways. Firstly, traditionalists argue that collegial management respects the professional judgement of the academic because academics manage themselves and all
aspects of their work, without interference from those whose priorities are not primarily concerned with academic work (De Lacey & Moens, 1990, Chapter 3). A 'customer relationship' between lecturer and student undermines the possibility of university learning because it denies the responsibility of the learner and the authority of the teacher (Bellah, 1999). Secondly, within this frame, academic freedom, institutional autonomy and disciplinary integrity provide important means to ensure intellectual diversity, and to facilitate primary commitment to truth (De Lacey & Moens, 1990, pp56-63). According to this view, primary commitment to truth is necessary both for the creation of new knowledge and to support consensus on standards within disciplines and the peer-mediated mechanisms for their maintenance. According to this line of argument, an academic's first professional allegiance is to further knowledge in their discipline, not to further their employer's interests. Academic freedom and strong disciplinary identity combine to allow academics to pursue new knowledge without managerial interference in academic matters, and, since according to this frame of reference universities are self-governed by academics, institutions have to be free of government interference in academic matters.

The educational role of universities, for traditionalists, is concerned with dissemination and progression of disciplinary knowledge developed over more than 2,000 years since Greco-Roman times, through the active teaching of students (see the discussion of Newman in De Lacey & Moens, 1990, p4). The purpose of university education is to foster in students a liberal education through an appreciation of how disciplines developed, and to extend the boundaries of human understanding (within their chosen discipline). Within this concept of the purpose of learning, traditionalists consider it is important to support a fixed concept of standards appropriate to each discipline, and, like De Lacey and Moens (1990, pviii), often oppose widening access to university education.

**Post-traditionalist perspective on university management:** The central concerns of post-traditionalists differ from those of the traditionalists. The concerns of post-traditionalists are shaped by fundamentally different ideological beliefs about the nature of knowledge and the purposes of education. Concerns about equity (Tierney, 2001) and funding issues (Marginson & Considine, 2000) have been central to the arguments of post-traditionalists, and Tierney, for example argues that the traditional concept of academic freedom is not defensible (Tierney, 2001). Some of the differences can be illustrated by comparison of the meaning of 'diversity' for traditionalists and post-
traditionalists. All positions, including neo-liberals, claim to value 'diversity' in higher education (Meek & Wood, 1998), but as Marginson and Considine (2000, Chapter 7) have noted, how 'diversity' is valued, varies. The focus of the traditionalists is on preservation of 'intellectual diversity' premised upon individual academic freedom; post-traditionalists such as Tierney argue for the importance of maintenance of 'diversity of access' to universities through focus on equity issues (Tierney, 2002). Marginson and Considine (2000) discuss how funding arrangements and choice of financial control systems influence the diversity in higher education provision offered by universities. Marginson and Considine (2000, p220) argue from their research that the current quasi-market arrangement intensifies the vertical diversity between institutions, so differences in status and resources tend to increase, but tends to reduce the horizontal diversity in the education 'market', as the only way that lower status institutions can improve their position is by mimicking higher status institutions.

Post-traditionalists recognise the limitations of past forms of collegial management (Marginson & Considine, 2000), and are aware of how collegial management perpetuated white, male, upper middle class privilege by practices that effectively excluded women and members of other social marginalised groups (Burton et al., 1997; Freyd, 1998; Tierney, 2001). The Burton report into the position of female academics in Australian universities, for example, found indirect discrimination and lack of transparency in traditional collegial management (Burton et al., 1997). Collegial management as traditionally practiced, encouraged the appointment of staff drawn from a narrow portion of society (Rodan, 2001), perpetuated many forms of class, race, and gender discrimination and resisted claims by supporters of equal opportunities for increased appointment of women (Burton et al., 1997; Roe, 2001) and other 'minority' groups (Tierney, 1997). The position of traditionalists is illustrated by discussion in De Lacey and Moens (1990, Chapter 6) of 'affirmative action' programs to support gender equality in Australian universities. They oppose affirmative action on the grounds that it undermines academic freedom and traditions of meritocracy, which they consider as values that are more important. The position of post-traditionalists is illustrated by Tierney's discussion of academic freedom, where he argues that it is necessary to recognise the hegemonic potential of academic freedom where collegial processes limit access to academic positions (Tierney, 2001).

The second point of difference between the traditionalist and post-traditionalist critique of neo-liberal corporatism is based in different conceptions of 'knowledge'.

66
Traditionalists such as De Lacey and Moens (1990), argue from an objectivist understanding of knowledge, which assumes that academic work achieves a progressive unfolding of new knowledge through discovery and improved technique. By contrast, post-traditionalists such as Tierney (2001), argue that ‘knowledge’ is subjective, socially and ideologically constructed rather than objective and eternal. According to this position, what is valued in traditional syllabi and disciplines reflects only Foucauldian ‘claims to power’ rather than objective claims to truth, and therefore has no special claims to status. Traditionalists, from assumptions of objective knowledge, argue for fixed standards in disciplines, whilst post-traditionalists accept that ideas about what knowledge is, and how it should be taught can change as values and technologies change, and this can legitimately change judgements about appropriate assessment methods, curricula and standards.

Beyond this, the post-traditional position in the standards debate is unclear. The neo-liberal position on standards is also ambiguous. Marginson and Considine state, without comment, that the original Dawkins expansion policy was implemented without ‘attention to career options or ways to mark out a new pathway for less academically formed students’ (Marginson & Considine, 2000, p29). The problem of competing tensions between maintenance of standards and rapid growth in student places at university has been raised in the UK by the Institute of Directors, the Dearing inquiry and Confederation of British industry and the claim has been made that maintenance of standards across the university sector is unrealistic (Blass, 1999). Instead, it is suggested that universities should aim to maintain standards only for the top 10% (of the whole population in academic attainment), while for students in the 11th to 35th percentile of the population, the aim should be to provide ‘educational advantage not previously available’ (Blass, 1999, p4). By implication, improvement of academic standards generically would be even less realistic as a goal, unless it was assumed that ‘standards’ are referenced to inputs rather than outputs. Such an assumption, however, would be inconsistent with explicit statements of neo-liberals, who press the case for measurement of quality by assessment of outputs rather than inputs (see the brief given for key research reports, for example, D. Anderson et al., 2000b; Harman & Meek, 2000b). The question of whether standards for degrees should be fixed or norm-determined has also been raised (D. Anderson et al., 2000b; Harman & Meek, 2000b; Yorke, 1998).
Post traditionalists are sympathetic to some of the overt aims of neo-liberal policy. They agree, for example, that universities need to be transparent in their dealings with students and staff (Tierney, 1999), that universities need to be responsive to groups external to academia (Tierney, 1999), that management of universities needs to be efficient (Tierney, 1999). They also believe that university management and staff need to evaluate what they do (Tierney, 1999), so that they can evaluate their work and identify whether practices can be improved when shortcomings become apparent (Tierney, 1999). The interpretation of these goals, however, differs because whilst post-traditionalists accept the corporatist critiques of the links between collegial management of the past and the perpetuation of social elitism, they reject the corporatist solution, because like the traditionalists, they reject the commoditisation of education and believe that education is fundamentally different from commerce (see, for example, Humes, 2000). Post-traditionalist critiques of corporate management of universities agree with traditionalists who argue that education is fundamentally dissimilar in its goals and processes from commerce, and that this makes the direct transfer of commercial quality management inapplicable to education (Humes, 2000). Like traditionalists, post-traditionalists assert that universities do not have a ‘customer relationship’ with student or with any other party (Dunkin, 2002; Scrabec, 2000). Universities have different types of goals from commercial organisations (Scrabec, 2000), the expectations of students are diverse (Blass, 1999) and not always solely concerned with economic considerations (Marton, Hounsell, & Entwistle, 1997). Post-traditionalists, therefore accept some of the critiques of traditional university management arrangements, but do not accept that application of minimally adapted commercial management methods will deliver appropriate solutions for universities. The similarities and differences between the three perspectives are summarised in Figure 2.4.
Figure 2.4: Key points of agreement and difference between the three perspectives on university management

There is significant difference between neo-liberals, traditionalists and post-traditionalists in what they see as the desirable future of higher education. Whereas neo-liberals support a ‘corporatised’ or ‘enterprise’ vision of higher education, traditionalists would like the future to become more like the past ‘golden age’, post-traditionalists do not see either the neo-liberal ‘reforms’ or the traditionalist solution to the future of universities as either desirable or viable options. Both Tierney (1999) and Marginson and Considine (2000) provide suggestions for alternative future directions for universities from a post-traditional perspective. It is interesting to note similarity in some of the recommendations, even though they arose from different theoretical concerns, and from studies of academic institutions operating in very different environments. Post-traditionalist recommendations for future university management are discussed further in Chapter 5 of this thesis.

Summary: Although the debate about quality management in universities may appear, at first sight, as one between essentially conservative traditionalists and neo-liberal modernisers, a third position of ‘post-traditionalist’ critique was identified within the literature. The different positions gave rise to fundamentally different views on why (and whether) quality ought to be managed in higher education. There is disagreement
about whether standards can or should be maintained, whether increased access to higher education is a commendable or deplorable policy, and although there is apparent agreement that diversity in higher education is a 'good thing', there are differences in what is understood by 'diversity'. Traditionalists and post-traditionalists find it difficult to reconcile the idea of students as customers with the idea of students as learners. Neoliberalists argue that corporate styles of management have reformed university governance in ways that are beneficial to society; traditionalists dispute this interpretation, while post-traditionalists accept there are some benefits, but see problems with reduction of educational processes to commercial transactions. These differences stem from differences in belief about:

- The purposes of higher education;
- The relationship between universities, government, the professions and society; the nature of knowledge;
- The nature of the teaching and learning relationship; and
- The importance of different values to society.

Differences in value positions of writers with respect to these issues change how the meaning of 'quality' in higher education is conceived.

**Effective management methods and quality in higher education**

Supporters of neo-liberal corporate management argue firstly that corporate approaches to management of universities will improve university management, where collegial management has failed, for example by improved accountability and responsiveness to those external to academia (Kemp, 1999a; Nelson, 2002b). Secondly that commercial quality management methods can easily be applied to universities if the relationship between universities and students and employers can be made to resemble the (quasi-) market arrangements found in business between suppliers, businesses and customers, for example institute a customer-provider relationship between students and universities (Kemp, 1999a). Thirdly, neo-liberal supporters of corporatisation of universities claim that universities should also be externally evaluated and that these evaluations should be made public (Kemp, 1999a; Nelson, 2002b). Neo-liberals argue that external evaluation is beneficial because otherwise universities have no incentive to take seriously the wants and needs of external parties (Kemp, 2000). According to supporters of the neo-liberal approach to university management, quality audits or evaluations should be made public.
to enable students to make informed choices about quality, standards, and value for money; to protect the reputation of universities; and, so that good practice can be disseminated (from the brief provided to Anderson, et al. (2000b). Similar reasons are given in the UK by the Quality Assurance Agency (1998). Finally, supporters of public dissemination of quality reports also claim that information needs to be publicly available to enable system wide improvement of universities, to improve quality processes and outcomes at individual institutions as well as disseminate good practice, leading to overall system improvement (D. Anderson et al., 2000b).

There have been a number of arguments against quasi-market corporatisation of higher education, the most damaging arguments against the neo-liberal position are: claims by Marginson and Considine (2000), that quasi-markets in higher education do not increase either efficiency and quality; and, findings in the USA that competition in higher education does not reduce cost (Yao, 1999). Marginson and Considine argue that ‘market ‘segmentation’ means that the prestigious universities are protected by ‘positional factors’, against the need to compete, because their reputation, prestige and access to social advantage, ensures that ‘demand’ for student places always exceeds supply. They argue that ‘in a demand driven market system, the elite universities that lead the system do not respond to demand’ (Marginson in (Meek & Wood, 1998, p94). According to this analysis, competition only really exists at the bottom end of the ‘education quasi-market’ ((Marginson & Considine, 2000; Marginson in Meek & Wood, 1998, Chapter 5). For these reasons, Marginson argues, any increase in quality within the elite institutions is incidental to the competitive environment, but at the lower end of the education market, competition is likely to lead to cost cutting and a reduction in quality, Marginson (in Meek & Wood, 1998, Chapter 5, p92). Thus, according to this argument, in elite institutions, quality is de-coupled from market forces, while for non-elite institutions; ‘efficiency’ comes at the expense of quality. In the United States, a study by The US National Commission on the Costs of Higher Education reported that according to their analysis, competition in higher education sometimes leads to increased costs as compared to a non-competitive situation (Yao, 1999). Taken together, these analyses cast doubt on the assertion that competition in higher education is an effective means of simultaneously reducing costs and increasing quality.

The arguments against external scrutiny are concerned with cost, governmental control, and arguments about the reliability and validity of external judgements about quality. Yorke (1999a), in the UK, makes a pragmatic ‘efficiency’ argument against external
scrutiny, claiming that the cost of extensive external scrutiny, at a time of reducing financial resources, may not be money well spent, especially when evidence indicates that most British universities perform satisfactorily. Vidovich (1998) sees quality management as a strategic attempt by government to increase its control over universities whilst government financial support decreased. She argues that quality management provides a suitable mechanism for government to ‘steer at a distance’, when funding is tied to performance measures (Vidovich, 1998).

Both Reed (1995) and Yorke (1999b) argue that judgements about educational quality are inherently unreliable because of the difficulty in collection, acquisition and interpretation of data that validly reflect educational quality independently of other variables. If Yorke and Reed are correct, this creates practical difficulties for the establishment of any fair system of external assessment, discussed in more detail the section 2.5 of this chapter, but this argument also directly challenges the claim by supporters of neo-liberal management that publication of evaluative reports usefully assists consumer choice in higher education. Yorke concludes that: ‘The severe challenge for extra-institutional quality assurance is how to make itself an activity which demonstrably adds value to institutional activities’ (Yorke, 1999a, p23). In other words, Yorke suggests that external quality assurance is only justifiable if it achieves a clear balance of benefit over liability.

A number of critics have also argued against publication of quality audits or evaluations on different grounds. Writers (for example, Coaldrake & Stedman, 1998; Vidovich, 1998; Yorke, 1999b) commented on the undesirability of evaluative data being used to create ‘league tables’ of universities, as happened in the UK (Yorke, 1999b) and during the period 1993-1995 in Australia. Vidovich (1998) provides evidence from the early 1990's showing that although the government officially did not present the university evaluations in the form of league tables, the media used data from public evaluation reports to construct higher education league tables. Meek and Wood argue that publication of comparative data increases pressures on institutions to conform, reduces diversity of provision, and may decrease institutional responsiveness to external wants and needs (Meek & Wood, 1998). Interviews with university managers conducted by Vidovich (1998) indicated that during the period 1993-1995, Australian institutions were keen to find out the basis of assessment used by the CQAHE, the external review body, so they could adjust their operations as far as possible to the Committee’s
perceptions of good practice. This finding supports Marginson and Considine's (2000) assertion that public comparison would tend to reduce diversity.

On the question of compatibility between cost cutting and quality improvement there are clear ideological differences. Supporters of neo-liberal policies claim that competition has forced universities to become more efficient. Others, including the Australian Vice-Chancellors' Committee (AVCC) claim that pressure to improve quality is unrealistic at a time of decreasing student per capita income. They question some of the suggested sources of efficiency, especially the implication that increased use of technology will reduce costs. The AVCC claim that electronic teaching options do not produce cost efficiencies, because: they are labour intensive; the cost of keeping up to date with new knowledge is increasing; and, a more diverse cohort of students requires more support (AV-CC, 2000b, p10), and this was acknowledged by the government (Nelson, 2002b, p13; 2002e, p41).

Summary: There is disagreement about the most appropriate form of university management. Supporters of neo-liberal corporate management of universities argue that policies that encourage this style of management have made universities more efficient and more receptive to the needs of employers and students. There is agreement that the per capita cost to the government of Australian higher education has fallen in real terms since 1987, and in that sense, higher education has become cheaper (Australian Vice-Chancellors' Committee, 2001a; Nelson, 2002d). There is agreement that universities receive feedback from students and employers more frequently. There is disagreement about the meaning of these changes for quality. Supporters of neo-liberal policy interpret decreased cost as an indicator of increased efficiency by universities (DETYA, 1998b, p12), whilst both traditionalist and post-traditionalists argue that cost cutting has been achieved at the expense of quality (Australian Vice-Chancellors' Committee, 2001a; Chubb, 2001; Marginson & Considine, 2000). Supporters of neo-liberal reforms argue that universities have become more genuinely responsive to the needs of students and employers (DETYA, 1998b, p11). Both traditionalists and post-traditionalists argue that, in some circumstances, over-responsiveness to students and employers undercuts the effectiveness of the education process (Coaldrake & Stedman, 1998; Considine et al., 2001, p iv; De Lacey & Moens, 1990; Senate Employment Workplace Relations Small Business and Education Committee, 2001). Some have argued that the education quasi-market cannot be depended upon to deliver increased responsiveness, reduced cost, or maintenance of quality (Marginson & Considine, 2000; Yao, 1999).
In addition to disagreement about the form quality management should take, there is disagreement about the mechanisms for accountability centring on such questions as:

- To whom universities should be accountable;
- How accountability should be achieved;
- Whether there should be diversity or uniformity of in institutional goals;
- How diversity is measured
- Questions of how (and whether) university performance should be measured, whether, inputs, outputs, outcomes, or processes or ‘value added’;
- How responsiveness to the wants and needs of different external parties should be weighed and balanced;
- Who should evaluate university performance;
- What constituency should be the audience for quality reports; and
- What consequences should result from adverse quality reports

**Australian Higher education quality management: Implications for the research problem**

Within the literature on quality management in higher education, there were at least three very different ideological perspectives on why and whether quality ought to be managed in higher education. It was not clear from the literature whether any of the positions was based upon an ideologically and epistemologically coherent set of assumptions. The different perspectives were based upon different values and beliefs about the purposes of universities, their relationship to society, and the nature of knowledge, and gave rise to different beliefs about how quality should be measured, what data it was relevant to collect, how the data should be interpreted and who the audience constituted the proper audience for the evaluation. This has relevance for the research problem because it indicates that the values that inform quality management in Australian higher education are contested. An implication of this is that if educational evaluation is based in tacit values of experts, as argued in section 2.3, this is likely to produce a variety of different judgements about quality. If quality is based in technical definitions of quality, this is likely to prompt disagreement about the adequacy and appropriateness of different definitions.
Is the current Australian government rationale for quality management coherent in its underlying assumptions? If not, what are the options for making it more coherent? Are there coherent alternatives?

**Research into Quality Measurement in Higher Education**

The research problem addressed in this thesis is concerned with quality management, but decisions about quality management rely upon interpretation of data gathered through processes of quality measurement. At an organisational level, quality management systems are used to encourage or coerce employees to prioritise the goals of the organisation through integration between quality management systems and employee performance monitoring systems. Managerial decision-making relies on quality measurement to produce data and interpretations of data, about processes, outcomes and output (Walton, 1989). Managerial judgement about what is happening within an organisation depends upon the quality of the data that informs managerial decision-making, and the 'mental models' used by managers to interpret significance of the data (Repenning & Sterman, 1997).

In educational research, the traditional source of expertise on the measurement and assessment of quality, before commercial quality systems were introduced, was found in literature on evaluation of education and social programs. Quality measurement in higher education, as part of the discipline of educational evaluation, has been concerned with the conceptual issues of measurement and evaluation in higher education. This includes both discussion of philosophical and ethical issues concerned with meaning, interpretation, fairness and neutrality, and discussion of practical issues concerned with how an evaluator should retain independence, whilst achieving the necessary closeness with informants and their context, and how issues of reliability and validity of different measurement techniques should be resolved. Research into quality measurement is concerned with both conceptual issues in quality measurement, such as the nature of the relationship between measurement and judgement in evaluation; and with technical issues in quality measurement, such as identification of the limits of technical accuracy of the different measurement methods. Since the ascendency of the use commercial quality management methods in higher education, the literature on evaluation does not appear to have informed Australian government policy on evaluation of higher education.
The first part of this second section identifies key issues from the literature on quality measurement in higher education. The second part examines Stufflebeam’s meta-evaluation of evaluation methods. The third part outlines the implications of this for the research problem addressed in this thesis.

*Quality and evaluation*

Patton defines evaluation as ‘evaluation-making judgements of merit and worth, or *valuing*’ (Patton, 2001, p157). According to Stake (2001, p3), ‘evaluation is *first*, the search for goodness and badness, for merit and shortcoming, for quality’, where quality is a construct defined by the speaker. He claims that evaluation is not primarily about facilitation of decision-making or satisfaction of certain criteria, it is about perceptions of goodness or its lack, especially perceptions of those directly affected by the program. This conceptualisation of quality aligns more closely with the ‘everyday’ definition of quality than with the technical definitions of quality found in the literature on commercial quality management, discussed in section 2.4 of this chapter. Patton (2001) contrasts evaluation and quality assurance, see Table 2.3.

**Table 2.3 Comparing Program Evaluation and Quality Assurance from Patton (2001, Figure 1, p158)**

<table>
<thead>
<tr>
<th>Program evaluation</th>
<th>Quality assurance</th>
</tr>
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<tbody>
<tr>
<td>Focus on program processes and outcomes</td>
<td>Focus on individual processes and outcomes</td>
</tr>
<tr>
<td>Aggregate data</td>
<td>Individual clinical cases</td>
</tr>
<tr>
<td>Goal based judgement</td>
<td>Professional judgement-based</td>
</tr>
<tr>
<td>Intended for decision makers</td>
<td>Intended for clinical staff</td>
</tr>
</tbody>
</table>

Patton (2001, p158) stated that both program evaluation and quality assurance had their origins in accountability. According to Patton (2001) ‘Program evaluation began with an emphasis on summative judgements about whether a program was effective or not, but has shifted to improving program effectiveness (“formative evaluation”)’. He contrasts this with ‘quality assurance’, which focuses on data gathering for the purpose of enhancement of quality improvement. He claims, however, that the goals of quality assurance and evaluation have merged over time and the distinctions have become less clear, and both now tend to combine both formative and summative assessment. This assessment accords with the definitions of quality assurance used in Australian Higher education policy where quality assurance has a strong focus on summative assessment.
The relationship between measurement and judgement in educational evaluation:

Several major challenges for educational evaluation emerge from the literature on quality in evaluation literature. Problematic issues in educational evaluation include:

- The relationship between ideology, values and judgement;
- Debates about the goals for evaluation, especially whether ‘uncovering the truth about a program’ is a realistic goal;
- The need for compromise between accuracy and comprehensibility;
- The intervention of interpretation between measurement and representation; and,
- Difficulty in development of measurements of quality independent of other factors.

Other issues discussed included the importance of assessment of unintended outcomes of programs and the importance of consideration of the intended use of the evaluation, and the intended audience for the report.

For the evaluator, differences in values cause problems at several points in the evaluation process. At the outset, there may be differences of opinion about what constitutes quality (Stake, 2001) and how it should be recognised, because ‘by our definition of quality, we support or oppose different modes of evaluation’ (Stake, 2001, p4). ‘Stakeholder’ groups, who are directly affected by the program, make judgements according to their experiences and their expectations and wants, while evaluators and other ‘connoisseurs’ who are not participants in the program, make judgements about programs on the basis of scholarly analysis, and the formal goals of the programs (Stake, 2001). For Stake (2001, p4) this raises two important issues. Firstly, there needs to be a model of ‘stakeholding’ to determine who is included as a stakeholder, and secondly a position needs to be taken on how the evaluator balances stakeholder perceptions of quality with expert or evaluator perception. In the following quotation Stake argues that evaluators and analysts can provide useful input to the evaluation process, but that other perceptions are also important,

It will sometimes be useful to draw upon the experiences of experts, of connoisseurs. It is important to know their perceptions of quality, their formulas, and their standards. Certainly theirs are not the only important perceptions. Teacher, students and other stakeholders all have important perceptions. The usefulness of connoisseurs often is their ability to provide language for comprehending the quality others recognize but cannot communicate. It will sometimes be useful to draw upon the skills of quantitative analysts, but measurement is not the ultimate representation.
There is no obligation for the evaluator to aspire to some weighted synthesis of various images. The analyst is an expert at identifying factors insufficiently discerned. With expert help, a panorama of awareness of quality is there for the evaluator to discern.

(Stake, 2001, p8).

Ultimately, Stake tends towards a position that argues that quality is better thought of as constructed by participants rather than being defined by experts and connoisseurs, or thought of a property inherent in the evaluand (Stake, 2001).

At the initial (scoping) stages, decisions are made about the purpose and scope of an evaluation, and these decisions are influenced by the values of those who provide and interpret the brief. At the next stage decisions are made about methods, how to gather data, what approach to take, what questions to ask of whom, what data are relevant to the purpose and scope of the evaluation. Once again, decisions about what data to collect, and how to collect data, depend on value judgements. When the data has been gathered the evaluator interprets data, the evaluator represents their findings in their report, and someone decides who will have access to the report. Mabry (2001) highlights the significance of perspective and ideology to all stages of evaluation:

> Which question should we be asking: What is good methodology? Or what good is methodology? Even if we could agree on methods, representing the truth about program quality requires more than sound designs and data collection, more than credible analytical methods. How are we to decide which issues are focal, whether there are standards appropriate for determining program quality, which stakeholder interests should be prioritised, which groups constitute right-to know audiences? (Mabry, 2001, p24).

At each stage in the evaluation process, contested values and the diverse ideological positions of the evaluator, the users of the evaluation, the multiplicity service users, funding bodies and the service managers, compete. This conflict has the potential to influence decisions that ultimately shape the focus of evaluation, decisions about relevance of data, interpretation of data, summative judgements, the representation of judgements in the final evaluation report, and decisions are made about who has access to the report findings. This supports the conclusion that one of the most important consequences of the different discourses on quality in higher education, is that the assumptions of each discourse have different implications for the answers to question about what should be measured, why it should be measured, how data should be interpreted, and what audience should receive the evaluation.
There is broad agreement in the literature on evaluation in education that different stakeholders have competing, values, preferences and perceptions of the purposes of a program and the degree to which purposes are met Patton (2001, p161; Stufflebeam, 2001). There is less agreement on how to respond to differences in values. Either the evaluator or the dominant stakeholders may bias the identification of focal issues within an evaluation, the choice of method, decisions about representation of dissenting opinion, interpretation of data, and judgements arising from the evaluation (Shadish & Leviton, 2001). Some evaluators argue that the concerns of stakeholders should provide the dominant organising principle for evaluation (Guba & Lincoln, 1981; Shadish & Leviton, 2001), while others argue that the usefulness of the evaluation to those who can directly change program delivery, should be paramount (Patton, 2001).

Shadish and Leviton (2001) argue that all evaluation should aim to take a pluralistic approach that allows the multiplicity of value positions of different stakeholders to be represented. They argue that ‘Evaluations require pluralistic input on values perspectives, just as they require pluralism in methods.... No single stakeholder group has a monopoly on truth and justice, and any of them can oppress the rest.... Ideological extremists of many persuasions have claimed ownership of the single true value position, or that they are the appointed ones whose judgements should hold sway’ (Shadish & Leviton, 2001, p183). Shadish and Leviton (2001) and Stake (2001) propose that evaluation should seek out the values and priorities of different stakeholders, ‘descriptively’ rather than ‘prescriptively’ representing the multiplicity of values and priorities. In the final report evaluation, they prefer a multiple descriptive synthesis to a single synthesis. A significant weaknesses of approaches to evaluation shaped by stakeholder perceptions include the contentions that: empowered stakeholders may bias evaluations by excluding questions important to overall judgements of merit; validity of stakeholder guided approaches depends upon the assumption that stakeholders are credible informants; and stakeholder conflicts of interest may adversely influence evaluation (Stufflebeam, 2001, pp87-88).

Patton (2001) accepts that no evaluation can answer all potential stakeholder questions equally well, because ‘stakeholders typically have diverse and competing interests’ (Patton, 2001, p162). He argues that a ‘utilization’ focus in evaluation provides the most appropriate response to this problem.

Evaluation stakeholders are people who have a stake – a vested interest – in evaluation findings. For any evaluation there are multiple possible
stakeholders: program funders, staff, administrators, clients or program participants. Others with a direct, or even indirect interest in program effectiveness may be considered stakeholders, including journalists and members of the general public, or, more specifically, taxpayers, in the case of public programs. Stakeholders include anyone who makes decisions or desires information about a program. No evaluation can answer all potential questions equally well. This means some process is necessary for narrowing the range of possible questions to focus the evaluation. In utilization-focused evaluation this process begins by narrowing the list of potential stakeholders to a much shorter, more specific group of intended users. Their information needs, i.e. their intended uses focus the evaluation.


Patton argues that although stakeholders want both 'truth' and 'useful information', there is a tension between these two goals and argues that evaluation should use the 'information needs' of primary intended users to dictate the focus of the evaluation. In taking this stance, he rejects the possibility that evaluations can ever aspire to provide an 'objective' assessment of a program, and considers that the aspiration to find 'the truth' about a program is a misguided goal. He suggests a realistic aim for evaluators is to provide information that will be useful to the people who are in a position to make changes to program delivery (Patton, 2001). Patton argues that those who are most likely to actively use the evaluation should be most prominent in framing the questions addressed. He claims that it is not sufficient to target an organisation as the recipient of an evaluation; it must be a specific person who has sufficient interest to act on the results of the evaluation. Thus for Patton, the primary purpose of evaluation is to improve the information base of decision-making.

On the issue of interpretation and representation of data, there was widespread agreement that interpretation of data and its representation in evaluative reports is complex and difficult to achieve well. Mabry questions whether evaluators can ever know a program well enough to represent it fairly (Mabry, 2001). She suggests that 'All representation is misrepresentation' (Mabry, 2001, p20). Stake agrees that interpretation and representation are the hardest part of evaluation claiming:

Representaton is a slippery concept... Representation requires interpretation. Measurement is easy. Evaluators are challenged to give meaning to events, relationships, needs and aspirations, far more complex than their data can convey. The representations created by an evaluator seldom mirror the things they observed.

(Stake, 2001, p9).

Another potential conflict identified by Mabry (2001) is the difficulty posed by the need to form close relationships with people whose work is being evaluated in order to get
comprehensive program data, and the requirement to maintain independence of judgement.

Several writers explore the limitations of accuracy within program evaluations. The main tensions identified by the writers are between accuracy, comprehensibility and cost of evaluation, especially when evaluations are used for performance measurement purposes. Stake (2001) argues that there is a need for compromise between accuracy and the ability to make sense of, and use, information. He believes that neither case studies nor performance indicators can present a completely accurate picture, he states:

The evaluator constantly seeks compromise between accuracy and comprehensibility. Both the case study and the performance indicator mislead. Both suggest meanings and precision not found in the object itself.

(Stake, 2001, p9).

Wholey (2001) raises the importance of consideration of the balance between cost and accuracy. There is a clear requirement that the data should not introduce bias to the extent that it affects conclusions about the achievement of program goals, but also, systems should not be too expensive or too cumbersome to implement.

As agencies implement performance measurement systems, they should balance the costs of data collection against the need to ensure that data are sufficiently timely, complete, accurate, and consistent to document performance and support decision-making; in particular that data are sufficiently free of bias and other significant errors that would affect conclusions about the extent to which program goals have been achieved (see U.S. General Accounting Office, 1996, pp24-28, cited in Wholey, 2001, p207).

Patton’s (2001) solution to this problem is to work closely with the evaluation users to collect only the most essential data identified in consultation with the information users.

Both accountability demands and program improvement concerns require comprehensive program information systems. We’ve learned that such systems should be designed with the direct involvement of intended users; that information systems should be focused on critical success factors (not data on every variable a software expert can dream up); that systems should be streamlined with utility in mind; and that program improvement systems benefit from both qualitative and quantitative information, both case and aggregate data.

(Patton, 2001, p158)

The consensus between writers is that it is necessary to accept reduced accuracy of quality evaluation in the interests of cost, comprehensibility and useability, but it is important those who use the evaluations are aware of the limitations of accuracy, and
the danger inherent in the assumption that evaluations of quality provide an accurate, comprehensive picture of program quality.

Other relevant points emerge from the literature. Wholey (2001) argues the importance of inclusion of unintended outcomes in any evaluation of program quality (Wholey, 2001, p203) in addition to evaluating the program against its intended outcomes. In the literature on quality in higher education, Yorke (1999b) expressed concern that if student attrition were used as a performance indicator for measuring university quality, universities might be unwilling to accept students who appeared risky in terms of non-completion, if they felt that high student attrition would be equated with low quality. Yorke argues that such a move would have undesirable consequences for equity of access. This example supports Wholey’s (2001) assertions about the importance for evaluation of looking for unintended outcomes of programs, and accords with arguments that the effects of higher education policy need to be examined holistically (Ison, 1999), or systemically (Yorke, 1998; 1999a, p16).

Patton discusses the relationship between evaluation, quality assurance and management.

The cutting edge for both program evaluation and quality assurance is designing genuinely useful and meaningful information systems for accountability and program improvement with a focus on excellence and ongoing learning rather than control and punishment. The best systems of program evaluation and quality assurance will use shared processes and data and will be designed using basic principles of organizational development, lifelong learning, and positive reinforcement.

(Patton, 2001, p159, emphasis in the original)

In this quotation, Patton discusses the potential use of quality assurance and evaluation reports in management and argues that evaluation and quality assurance should be designed to assist and support organisational development and employee learning and should not be used coercively. Blass, in the UK made a similar point when he argued that how the information is used, is as important as the quality of the information received (Blass, 1999), whether it is used constructively to promote improvement or whether it is used punitively.

**Summary:** The literature on evaluation and quality yielded a number of insights including the suggestions that:
• Evaluation and quality assurance should be designed to be consistent with the basic principles of organizational development, lifelong learning, and positive reinforcement;

• Where there are conflicting values and priorities, there is a recommendation that evaluators take a descriptive rather than a prescriptive approach to representation;

• Multiple descriptive synthesis based upon a commitment to pluralism and accurately reflecting multiple points of view is preferable to a single synthesis in the final evaluation report;

• An evaluator is seldom able to mirror the things they observed because of difficulties with representation;

• Total accuracy is an unrealistic goal, but accuracy should be sufficient that conclusions about the extent to which program goals have been achieved, should not be compromised;

• Although there is merit in using stakeholder concerns as a basis for determining important issues, conflicts of stakeholder interests and the limitations of stakeholder perceptions must be recognised;

• Values have clear implications for choice of quality indicators; in addition to evaluating whether program goals have been achieved, it is important to look for unintended outcomes;

• It is important to approach organisational analysis holistically.

Choice of ‘surrogates for quality’, and guidelines for interpretation of meaning: According to Reed, poor interpretation of data is a major cause of faulty policy (W. S. Reed, 1995). Existing literature on quality management in education indicates awareness that it is difficult to combine data from multiple sources. Owlia and Aspinwall (1996), for example, weighted different factors when they interpret and combine data from multiple sources but Stake (2001, p8) rejects this approach as invalid. Synthesis disregards differences of underlying values and assumptions implicit in the different conceptualisations of quality, and overlooks the disputes about the different bases from which interpretation of ‘quality indicators’ proceeds.

Cheng and Tam (1997, p30) based upon the work of Cameron and Whetton (1983), analysed the appropriateness of different conceptualisations, or models, of quality in schools. The approach they suggest uses different conceptualisations of quality to
evaluate different parts of the organisation and discusses limitations for the usefulness of different approaches. In their work, they cited seven technical specifications of quality, summarised in Table 2.4.

**Table 2.4 Models of Education quality from Cheng and Tam (1997 p24)**

<table>
<thead>
<tr>
<th>Concept of education quality</th>
<th>Conditions for model usefulness</th>
<th>Indicators, key areas of quality evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goal specification model</td>
<td>Achievement of stated institutional goals, conformance to given specifications</td>
<td>Institutional goals are clear, consensual, time-bound and measurable; when resources are sufficient to achieve goals and conform to specifications</td>
</tr>
<tr>
<td>Resource-input model</td>
<td>Achievement of need resource inputs for the institution</td>
<td>Clear relationship between inputs and outputs; when quality resources for institution are scarce</td>
</tr>
<tr>
<td>Process model</td>
<td>Smooth internal process and fruitful learning experiences</td>
<td>Where there is a clear relationship between process and educational outcomes</td>
</tr>
<tr>
<td>Satisfaction model</td>
<td>Satisfaction of all powerful constituencies</td>
<td>Demands of the constituencies are compatible and cannot be ignored</td>
</tr>
<tr>
<td>Legitimacy model</td>
<td>Achievement of institution's legitimate position and reputation</td>
<td>When survival and demise among institutions must be assessed, when environment highly competitive</td>
</tr>
<tr>
<td>Absence of problems model</td>
<td>Absence of problems in institution</td>
<td>When no consensual criteria for quality but strategies needed for improvement</td>
</tr>
<tr>
<td>Organizational learning model</td>
<td>Adaptation to environmental changes and internal barriers, continuous improvement</td>
<td>When institutions are new or changing; when environmental changes cannot be ignored</td>
</tr>
</tbody>
</table>

Cheng and Tam's analysis is based on earlier work by Cameron and Whetton and like the definitions of quality identified by Cameron and Sine in commercial settings, the models of quality used by Cheng and Tam rely on technical definitions of quality that differ in meaning from the everyday usage and have a specific restricted meaning. It is interesting to note the restrictions they identify to the use of different models of quality, especially the relationship between resources and different models of quality, and requirements in some models for consensus in values and the ability to satisfy different constituencies. This analysis raises the question of whether it is useful to use the terms 'quality' and 'quality assurance' to describe such disparate ways to evaluate worth in relation to limited specific environment conditions or questions. Their research also leaves open the question of the reliability of surrogate measures as indicators of quality.
Judgements about the reliability of particular surrogate measures as 'indicators of quality' depend upon whether a plausible theoretical model can be developed to guide interpretation (Sterman, 1991). An adequate model would have to explicate the assumptions made within the model (Sterman, 1991). The model should also offer a theoretical explanation capable of guiding interpretation of the meaning of the surrogate measure in a range of situations, provide theoretically grounded guidance about the limitations of applicability of the model, and make explicit conceptualisation assumptions (Sterman, 1991).

Two writers (Chun, 2002; Harnisch, 2001) independently observe that the process for the development of 'quality indicators' in education frequently prioritises ease of data collection rather than utility or meaning. In discussion of school assessment, Harnisch writes,

The typical situation in assessment design, however, may be viewed as the reverse of architecture. The primary aim in architecture is to please the client, while carefully adhering to an understanding of the necessary constraints. In school test design, we often see the designers worrying about satisfying their own needs (efficient administration and easy-to-score tests) or construction codes (technical test and measurement standards) instead of serving students' interests. To produce assessments of educational value and of high quality, designers must follow students' needs for more challenging and useful work and teachers' requests for more direct, timely, useful, and practical information.

(Harnisch, 2001, p254)

In other words, Harnisch claims, assessment tests for children in school are often chosen for their ease of administration and technical features to enable comparison, rather than for their benefit to students or their usefulness to teachers. Chun (2002) makes a similar claim, that in higher education measures of quality are selected, and continue to be used, based on ease of data collection, even though the claimed interpretations of meaning cannot be sustained when subject to scrutiny.

To summarise Interpretation of meaning depends both on the assumed definition of quality and on assumptions about the relationship between data and quality. There are tendencies to select data for its ease of collection rather than because of the validity of the underlying assumptions about the relationship of the data to quality. Poor interpretation and representation of data leads to poor policy. Interpretation should be guided by reference to an explicit theoretical model capable of explaining the relationship between the data and its claimed meaning. It is always necessary to make
compromises between accuracy, cost and comprehensibility. Evaluations should look out for unintended outcomes, as well as intended outcomes.

**Evaluation of evaluation methods in education**

There have been many different approaches to program evaluation, as evidenced by the debates considered above. This part of the thesis examines the work of Stufflebeam who has evaluated different approaches to program evaluation. Stufflebeam (2001) published details of a method to categorise different evaluation approaches, and to compare their strengths and weaknesses. For the purposes of his review, Stufflebeam defines an evaluation as ‘a study designed and conducted to assist some audience to assess an object’s merit and worth’ (Stufflebeam, 2001, p11). He identified twenty-two different approaches to program evaluation and placed each into one of four categories.

The first category, which he calls ‘pseudo-evaluations’ (Stufflebeam, 2001, p13) ‘includes approaches that promote invalid or incomplete findings’ (Stufflebeam, 2001, p11). He places ‘public relations inspired studies’ and ‘politically controlled studies’ in this category. The second category, which he calls ‘Questions-and Methods-oriented Evaluation (Quasi-evaluation Studies)’ (Stufflebeam, 2001, p16), includes all the ‘questions’ or ‘methods’ focused approaches to evaluation. Both ‘Objectives-based Studies’, where programs are evaluated against their own objectives, and ‘Accountability studies linked to payments or sanctions’ fall into the sub-category of questions oriented approaches. Three different approaches to educational testing, ‘objective testing’ through standardised multiple choice norm referenced testing, ‘outcome evaluation as value added testing’ where the change in students’ test performance is measured and ‘performance testing’, where students produce ‘authentic’ (rather than multiple choice) responses to evaluation tasks, are also included in this category. This category also includes several other single-method approaches to evaluation such as case study, ‘connoisseur’ and ‘cost-benefit’ approaches.

The third category, which Stufflebeam calls ‘Improvement-accountability oriented evaluation’ includes four approaches to evaluation. In ‘Decision/Accountability Oriented Studies’, the purposes of evaluation are to improve organisational processes, and to provide retroactive accountability to consumers. In ‘consumer-oriented’ studies, the purpose of the evaluation is to protect consumers against shoddy programs. In ‘accreditation’ evaluations, the purpose is for an expert professional body to ascertain whether programs meet minimum standards and how performance can be improved, and
whether they should continue to be approved to deliver public services. The fourth category, which Stufflebeam calls ‘social agenda and advocacy approaches’ includes ‘client centred studies’, ‘constructivist evaluation,’ ‘deliberative democratic evaluation’ and ‘utilization focused evaluation’.

Many of the debates and issues raised by Stufflebeam have already been discussed in the previous sections. The approaches that Stufflebeam identifies as ‘Social advocacy’ approaches are not discussed in detail, as these are multi-method approaches to evaluation that arose from the perceived deficiencies of single ‘method and question’ based approaches. The evaluation issues raised by social advocacy approaches have been discussed in the preceding discussion. The remainder of this part will give closer attention to eight approaches identified by Stufflebeam. These have been selected because preliminary review of literature on quality management in Australian higher education indicates that these will be pertinent to the analysis of data. These are: ‘public relations’ inspired studies, ‘objectives based’ studies, the two approaches to ‘accountability’ studies, three approaches to ‘educational testing’.

‘Public relations-inspired’ studies have as their primary purpose the intention to use data ‘to convince constituents that a program is sound and effective’ (Stufflebeam, 2001, p13)

The public relations approach may meet the standards for addressing all right to know audiences but fails as a legitimate evaluation approach, because typically it presents a program’s strengths, or an exaggerated view of them, but not its weaknesses’

(Stufflebeam, 2001, p13).

Pseudo-evaluations, including public relations inspires studies, according to Stufflebeam (2001, p13) ‘deceive through evaluation and can be used by those in power to mislead constituents or to gain or maintain unfair advantage over others especially those with little power.’

‘Objectives based studies’ are usually conducted internally to determine whether a program’s objectives have been achieved. The weaknesses of objectives-based evaluation according to Stufflebeam (2001, p18) is that such studies, lead to

Terminal information that is neither timely nor pertinent to improving a program’s process; that the information is often far too narrow to constitute a sufficient basis for judging the object’s worth; that the studies do not uncover positive and negative side-effects; and that they may credit unworthy objectives.
Stufflebeam considers that objectives-based studies are most appropriate in assessing 'tightly focused projects that have clear supportable objectives' (Stufflebeam, 2001, p17).

The accountability/payment by results approach 'typically narrows the evaluative inquiry to questions about outcomes' (Stufflebeam, 2001, p18) and uses program personnel to record and demonstrate their achievements, coupled with outside assessment of accomplishments. According to Stufflebeam, the main advantage of accountability studies is that they are popular with politicians and constituent groups because of their aim to improve public services. This approach also has the advantage that it provides program personnel clear expectations against which to plan, execute and report on their programs. He claims that in some circumstances fair competition between comparable programs can be a means of improving services. The main disadvantages of the accountability linked to payment approach is that,

Accountability studies often result in invidious comparisons and thereby produce unhealthy competition and much political unrest and acrimony among service providers and between them and their constituents. In addition, accountability studies often focus on too limited set of outcome indicators and can undesirably narrow the range of services. Another disadvantage is that politicians tend to force the implementation of accountability efforts before the needed instruments, scoring rubrics, assessor training etc. can be planned, developed, field-tested, and validated. Furthermore, prospects for rewards or threats of punishment have often led service providers to cheat in order to assure positive evaluation reports. In schools cheating to obtain rewards and avoid sanctions has frequently generated bad teaching, bad press, turnover in leadership and abandonment of the accountability system.

(Stufflebeam, 2001, p20).

Stufflebeam then assesses the advantages and disadvantages of three approaches to educational testing. The advantage of objective testing is that it is relatively cheap and easy to administer. The disadvantages are that it measures only a limited range of lower level skills and does not adequately reflect achievements of either disadvantaged or gifted students. It is also a poor approximation to what teachers actually teach and may be a 'better indicator of the socio-metric levels of the students in a given program, school or district than of the quality of the teaching and learning' (Stufflebeam, 2001, p22). ‘Outcome measurement as value-added’ has the advantage that it references each student’s performance to their own previous performance. This overcomes the criticism of objective testing that it reflects socio-metric rather than educational factors, and over time may enable system improvement, but if the test is based upon narrow or low level
skills, the process shares many of the limitations of objective testing. In addition, critics suggest that in a situation where the determinants of academic progress are complex, it is not fair to assign the complete responsibility for students' academic progress to the teacher (Stufflebeam, 2001). Performance testing where students perform 'authentic tasks' rather than multiple-choice assessment has the advantage that the measures approximate more closely to skills nurtured by education, such as writing, computation and experiment. The process also avoids student guessing during testing, but this is offset by the disadvantages that this form of testing is much more expensive and time consuming to administer, the results are difficult to compare and, according to Stufflebeam (2001) have dubious reliability.

'Decision/Accountability Oriented Studies', differ from the 'accountability/payment by results' approach because they collect comprehensive data about the program and its context. The evaluation is directly framed by stakeholders concerns and the intention is to help program staff incorporate a continuous use of evaluation into their work to assist with planning. Program payment is not tied to the results. In these studies, the evaluation is framed by the concerns of greatest importance to stakeholders and the evaluator works with, and reports directly to, the program and stakeholder groups. 'Accreditation' approaches ascertain whether programs meet minimum standards and how performance can be improved, and whether they should continue to be approved to deliver public services.

Stufflebeam (2001, p80) rated all the approaches utility, feasibility, propriety and accuracy. He concludes that only nine of the twenty-two approaches to evaluation have sufficient merit to be suitable for continued use and further development. The approaches he identifies as suitable for further development include the accountability/improvement approaches (three variants), the social agenda and advocacy approaches (four variants) but only two of question/methods approaches, the 'case study' approach, and in educational testing the 'outcomes monitoring/value added approach'. The outcomes monitoring/value added approach, he considered useful only in its narrow sphere of application. Otherwise, he judges that it was too narrow in the questions it addressed and the information upon which it was based. The worst approaches he identified as the 'politically controlled studies', 'public relations', 'accountability, especially payment by results', 'clarification hearings' and 'program theory based approaches' (Stufflebeam, 2001, p89).
Stufflebeam’s meta-evaluation of evaluation methods provides a useful collation of the strengths and weaknesses of different approaches to evaluation, the importance of matching the choice of method to the intended use, and the need for evaluators to maintain their integrity. To achieve this, he recommends that evaluators obtain independent reviews of their evaluations. This will enable others to check the adequacy of data collection and interpretation.

**Implications of Quality Measurement for the Research Problem**

The literature on educational evaluation and measurement raised a number of important issues. The literature on educational evaluation emphasised the importance of values in shaping evaluation at every stage in the process, and also that evaluations were always partial and could never accurately represent ‘truth’, because, in evaluations, it is always necessary to make some ‘trade-offs’ between accuracy on the one hand and comprehensibility and cost on the other. In a situation of contested values, different people hold different values and make different judgements about how any that trade-off should be made. The literature on educational evaluation raised the issue of the difficulty of interpretation and fair representation and the problem of finding acceptable proxies independently of other factors, for use as ‘quality indicators’. All these issues are likely to be significant for this research because of contested values in Australian higher education. The literature also suggests:

- The importance of looking for unintended outcomes of programs;
- The importance of designing evaluations to be useful to the people who are in a position to make changes the programs;
- The importance of considering how evaluations will support organisational development; and
- Recommends that evaluation not be used punitively.

The literature on educational evaluation made some recommendations about how to respond constructively to these conditions. These suggestions include:

- Adopt a pluralistic approach to representation of conflicting values and avoid attempts to synthesise differences in values and perspectives;
- Select data for its relevance to program improvement and its significance, rather than for its ease of collection or processing;
• Take a holistic and systemic perspective on higher education, to accommodate the complexity of the interrelations between different aspects of quality;

• Identify specific theoretical models that provide a sound basis for the selection and interpretation of quality indicators or surrogates for quality and can justify the choice of data used as surrogates for quality and provide guidance on how meaning should be interpreted from data.

To summarise: Differences in beliefs and values influence judgement about the appropriateness of different conceptualisations of quality, the method of selection of data, its interpretation, meaning and representation, and in Australian higher education values are contested. To respond constructively requires evaluative methodology sensitive to the conflicting values and complex interrelationships between quality and other factors, and care taken in identification of the limitations of the accuracy of the evaluation.

Questions arising from this section:

• Do current approaches to quality measurement incorporate advice from evaluation literature to enhance the validity of the design of data selection and interpretation by, for example, taking a holistic approach to evaluation; looking for unintended outcomes; identifying appropriate models to guide the selection and interpretation of data?

• Can satisfactory models be developed to guide the selection of data for the assessment of higher education quality and for the interpretation of meaning of data about higher education?

• Is it useful to use the global term ‘quality assurance’ or ‘quality improvement’ for the limited goals of evaluation assumed in the different technical definitions (or models) of quality, especially as there is a lack of fit between technical concepts of quality and the everyday meaning of quality?

**Research into Efficacy and Failure of Quality Management in Commerce and Industry: Some Key Findings**

This section examines closely the findings of two key research projects, on efficacy and failure of quality management programs in industry, as reported in Cameron and Sine (1999) and Repenning and Sterman (1997). Both studies begin from the observation that quality management in commercial settings has apparently not universally achieved the
claims of its proponents. Both research projects sought to explain why organisations with apparently successful quality management projects failed to find this success reflected in standard measures of commercial success, such as increased profitability. Cameron and Sine (1999) note that although there have been many publications on commercial quality management, there has been little research into the *efficacy* of quality management. They developed the research project from an earlier finding of Peterson and Cameron (1995), that only three percent of published articles on TQM where empirical studies, most were commentaries (59%) or single case studies (39%). Both these research projects sought to address this deficiency.

The basis of selection of these two research projects was:

- Each project team had comprehensively reviewed existing research literature on efficacy of quality management in commercial organisations literature prior to their research;
- The two research projects illustrate contrasting approaches to problems of assessment of efficacy and reasons for failure;
- Both report the findings of large scale empirical research undertaken by well respected management research teams;

Taken together the two studies illustrate the usefulness of interdisciplinary research as the studies come from different disciplinary fields within management research, but their findings are complementary. In this instance, the earlier study addresses research issues raised by the findings of the second study. Repenning and Sterman (1997) seek to explain the ‘paradox’ of quality management, and the reasons, in organisational terms why apparently successful quality initiatives did not translate into commercial success. Cameron and Sine (1999) set out to establish whether the ‘ambiguous relationship’ between quality management and organisational performance could be explained by differences in organisational quality culture.

There are important contrasts between the two studies. Although both research projects are concerned with the question of whether quality management enhances organisational effectiveness, the two studies examine the problem by use of different methods of data analysis and through collection different kinds of data. The study by Repenning and Sterman (1997) sought to explain why a high proportion of quality improvement projects in industry have been less than completely successful and why, even when initially projects have been apparently successful, they have not been able to
maintain success. Repenning and Sterman's (1997) research took a systemic perspective on quality management. Their intention was to use this to integrate the insights of two different types of approach to quality management: those that focus on changes to the physical structure of work processes; and those that focus upon the behavioural component of those working in organisations. The study by Cameron and Sine (1999) examined organisational quality culture to empirically test whether different quality cultures were positively or negatively related to organisational effectiveness.

Both research teams began from the observation that some firms with apparently successful quality management programs have failed to achieve commercial success, have apparently done less well than competitors who do not use quality management or have failed to maintain the success of their programs. The studies are reported in reverse chronological order, because in some ways the earlier study answer questions raised by the later study, and the later study confirms the significance of, and need for, the earlier research.

**Quality culture and organisational effectiveness**

The later study, by Cameron and Sine (1999), uses traditional management research methods to survey upper and middle management in 68 firms over a three-year period. They identified four different quality cultures: “absence of quality emphasis”, “error detection”, “error prevention” and “creative quality”. The “absence of quality emphasis” was characteristic of those firms where quality was not a senior management priority. A culture of “error detection” was characteristic of those firms where management effort was expended on detecting errors and correcting them. A culture of “error prevention” was found in those firms where management effort was focussed on finding ways to change processes to avoid errors. A culture of “creative quality” was found in those firms where management aimed to “surprise and delight” their customers by exceeding customer expectations and hence win their loyalty. The research was triangulated against other measures, including the responses of participants to scenario descriptions during training workshops. Cameron and Sine correlated organisational quality culture with data about organisational effectiveness, as assessed by three independent measures. They found a modal type of organisational quality culture was characterised as “error detection”, with “error prevention”, being the next most common designation. They found few organisations categorised as having “creative quality” cultures. In their analysis Cameron and Sine described “absence of quality” and “error detection” culture as “less advanced” cultures compared with “error prevention” and “creative quality”,

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which they described as more advanced quality cultures. They found organisations with
a culture of “creative quality” most positively correlated with their measures of
organisational effectiveness. They concluded that culture was more important than
leadership attributes. They also found no instance where an organisation had moved
from one culture to another. In the conclusions, they suggest that: ‘The exact process by
which such advancement may occur is also a fruitful area for additional organisational
research’ (Cameron & Sine, 1999, p22). To some extent, the research of Repenning and
Sterman (1997), published two years prior to the publication of Cameron and Sine’s
research, is relevant to answering this question.

The paradox of quality: process improvement, human factors and failure

Repenning and Sterman’s (1997) research and subsequent related studies (Keating,
Oliva, Repenning, Rockart, & Sterman, 1999; Repenning & Sterman, 2001; Repenning
& Sterman, 1997) offer insight into the reasons why it is difficult to implement and
sustain cultures of error prevention and continuous process improvement. Repenning
and Sterman’s research aimed to produce the basis for theory to explain why quality
management has apparently been less successful than its exponents had hoped. Their
intention was to produce a systemic representation of the interdependencies between
human behaviour and the physical structure of work processes. Causal loop diagrams
were used as a means to represent the inter-relationships between process factors and
human factors (Repenning & Sterman, 1997). They identified four factors that militate
against fundamental quality improvement. As a result of this analysis, Repenning and
Sterman identified four reasons why it was easier for management to adopt error
detection approaches to quality management than error prevention approaches. They
further identified how time delays between actions and outcomes can mislead managers
in their understanding of the causes of low productivity or quality and can lead them to
make decisions and develop strategy that aggravates the situation they want to rectify.

The original research project collected detailed data from several large commercial
firms in the USA. Repenning and Sterman (1997, p 22) summarise their findings in the
following way:

Three methods of improving the throughput of a process were identified:
increasing work pressure and control structure, defect control and defect
prevention. The key failure mode we identified starts with managers
erroneously attributing the cause of low process capability to worker
‘laziness’ or ‘lack of discipline’ rather than to fundamental problems within
the process. The cognitive and social psychology literature suggests such
misattributions are likely and indeed, they are observed in numerous
organisations. Given this misattribution, managers react by choosing the first option, increasing control and production pressure. Improvement programs in such settings fail because increasing production pressure and control limit the effectiveness of process improvement activities, thus creating the situation, low process capability that managers set out to correct. Soon these beliefs become embedded in the culture, routines and even the physical structure of the organisation perpetuating the cycle.

The next part summarises the main points of Repenning and Sterman’s analyses. For brevity, this summary omits many details of their original argument and several of their diagrams.

Repenning and Sterman (1997) begin by diagrammatically representing the relationships between gross throughput, net throughput, defects, and rework of defects. They identify two main strategies to increase throughput, either to expand capacity through capital investment or to persuade the workforce to become more productive by working harder. Repenning and Sterman found that when people are under pressure to meet targets, in the short term, they respond by ‘working harder’ that is, they focus their efforts on throughput and defer tasks that do not immediately increase production, see figure 2.5.

Figure 2.5 Two possible responses to the requirement to increase throughput, adapted from (Repenning & Sterman, 1997, figure 3)
When time is spent on process improvement, this obviates the future need for defect correction and ultimately frees up this time to be spent on further improvements, a phenomenon sometimes referred to as the 'virtuous cycle' of improvement. People have limited time available. When pressure is applied to increase throughput at the same time as a requirement to improve processes choice must be made about whether to spend time on process improvement activities, or whether to spend time on defect correction or 'rework'. If workers spend time on improvement, they have less time to spend on rework or tasks that will immediately improve their current throughput. If increased production and re-work is prioritised, less time is available for process improvement activities. Time spent on process improvement may ultimately repay itself when it leads to a reduction in defect introduction, which reduces rework effort required, but there is a time lag before this effect will be apparent and it will not improve short-term throughput results, see figure 2.6.

Figure 2.6 The 'virtuous cycle' of improvement shown with the responses to pressure to increase throughput (Repenning & Sterman, 1997, figures 2&4)
Repenning and Sterman argue that time delays between process improvement and the effects of process improvement on reduction of rework, lead to behavioural biases against fundamental improvement. In the third diagram Repenning and Sterman represent schematically the interplay between the physical structure of the organisation and behavioural decision-making. In a situation of finite resources, they claim there are four behavioural biases against fundamental improvement. Firstly, defects are more tangible than process problems. It is easy to see that something is wrong, but it is often difficult to determine accurately with certainty the underlying process contributions to the cause of the problem. Secondly, defect correction and process improvement work at different speeds. It is usually a time consuming process to identify improvements, retrain people to make the improvements and to alter organisational systems, whilst it is generally (individually) quick to fix problems. In a situation of pressure, it is quicker to improve throughput by spending time on defect correction. Thirdly the outcomes of ‘defect correction’ are more certain, known and immediate than the outcomes of process improvement to reduce problems. There is immediate feedback when a defect has been corrected, the results of process improvement are uncertain and may ultimately fail. It is suggested that there is a bias towards choosing the certain and immediate over the uncertain and long term. Fourthly, future process improvement does nothing to diminish the current stock of ‘defects’. The benefit of correction can be easily accounted (Repenning & Sterman, 2001). The problem with prevention is that, even though prevention may produce great benefit, this benefit cannot be tangible accounted with certainty (Repenning and Sterman (2001). These tensions can be represented, as shown in figure 2.7.
Figure 2.7 Behavioural biases against fundamental improvement, when there is a focus on throughput and finite resources, adapted from (Repenning & Sterman, 1997, figure 5)

Repenning and Sterman claim the effects of these biases on managerial judgement are neither acknowledged nor understood. They claim that, in addition to the bias against fundamental improvement, managerial judgement was also adversely affected by a misattribution of the causes of low throughput. This misattribution occurs because in everyday life people make judgements about causality that are referenced to covariance and contiguity in space and time. When things that are proximal and seem to co-vary, people tend to assume they are causally related. According to Repenning and Sterman (1997), in complex situations where the effects of some events occur at a distance from the cause and with time delay, people are much less likely to understand the causal relationship. In the situations described in their research, this characteristic behaviour pattern explains why managers tend to blame low throughput on worker laziness rather than on process problems. Repenning and Sterman (1997) argue that this behaviour pattern occurs because differences in the salience and availability of information, and the disparate effects of time delays on outcomes, lead managers to make mistakes in their judgement about the causes of low throughput. Managers see that they get greater
throughput from the workforce when they put pressure on them to work harder. Because of this, it is tempting for managers to believe that the workforce is either lazy or under-utilised and the rational response is to ‘squeeze out the slack’, rather than to recognise that the workforce have just diverted their time away from process improvement activities, the consequences of which are not immediately obvious.

As managers put pressure on the workforce, the workers focus on production and defer any tasks that do not immediately increase output. Process improvement activities, as they do not contribute to immediate throughput, are deferred. To management it appears that pressure has successfully encouraged the workforce to expend more effort and appears to affirm the assumption that the workforce was slacking, see figure 2.8.

![Diagram](image)

**Figure 2.8: Origins of misattribution, adapted from (Repenning & Sterman, 1997, figure 5)**

The apparent success of techniques of greater employee pressure and surveillance, according to Repenning and Sterman (1997) reaffirms the management belief that the problem of low output rests with lack of effort. This occurs because it appears at first as if increasing the pressure on the workforce is a successful strategy to increase output. Management are therefore encouraged to maintain or increase pressure and surveillance.
If the pressure on the workforce is prolonged or increased further, the workforce is caught between conflicting goals of demands to increase throughput, and demands to complete tasks necessary for long-term quality maintenance and improvement that reduce their ability to maintain output in the short term. People look for ‘work arounds’ that will enable them to appear to ‘meet the metrics’ that are intended to measure output and quality. Tasks that are not monitored or measured are left undone, even though the longer-term effects of these omissions may be severe, see Figure 2.9

![Diagram](image)

**Figure 2.9 Production pressure, short cuts and process integrity, adapted from Repenning and Sterman 1997, Figure 7 page 18**

Repenning and Sterman (1997, p22), summarise their conclusions:

> Under time pressure and faced with multiple, incompatible objectives, workers will erode standards, cut corners, fail to follow up and resolve problems, and fail to document their work. They will keep the work arounds secret from management and manipulate metrics to appear to be in compliance with objectives when they in fact are not’

They provide examples from their research of how this occurred:

> Product development managers improved the reported product development time not by making any fundamental improvements in the product development process, but by shifting away from risky and time-consuming breakthrough products to emphasise faster and easier line extension
products. The reported product development time fell, but at a cost of reducing the rate of innovation, threatening the competitiveness of the firm...

And

Manufacturing engineers facing an imminent launch of a new product made ad hoc changes to parts and tooling to resolve problems, but were too busy to report the changes to the design engineers. The design engineers then developed new parts based on the erroneous drawings, leading to still more problems in the next generation of products.

Repenning and Sterman argue that these types of change took place because workers were not able to satisfy conflicting goals of process improvement and increased output pressure, and so sought ways to apparently meet conflicting requirements and targets. The workarounds they developed, however, often eroded the longer-term capacity of the organisation because they failed to look after the long-term consequences of their actions, or through actions that responded to immediate pressure but created problems elsewhere in the organisation, as in the example above where ad hoc changes were not documented and maintenance was compromised.

This research highlights the importance of holistic examination of how quality-monitoring systems interact with organisational reward and punishment systems. This research of Repenning and Sterman (1997) provides a possible explanation for some of the findings of Cameron and Sine (1999), which they were unable to explain. Repenning and Sterman’s work provides a possible explanation for Cameron and Sine’s finding that cultures of “error detection” were more common than culture of “error prevention”, and offers possible reasons for their finding that there was no evidence of change in quality culture over time in the organisations surveyed. As Repenning and Sterman (1997) explain, once the culture of an organisation changes to one of conflicting goals where secret workarounds become commonplace and fundamental capability reduces, it becomes impossible to institute process improvement unless the culture can be changed. This, they argue requires a complete rethinking of the assumptions from which management proceeds. Repenning and Sterman claim that it is difficult to institute process improvement once this stage has been reached.

Change requires significant change to the customs, practices and culture of the organisation. Repenning and Sterman (1997) claim this can only be achieved when management throughout the organisation change their habitual ways of thinking, or ‘mental models’, that they use as a basis for judgement. This is necessary to enable managers to recognise and eliminate conflicting goals and support process
improvement, and to understand that a short-term effect of process improvement is likely to be a reduction in immediate output. Repenning and Sterman have found that these steps are unlikely to occur without organisation-wide training that provides managers with improved understanding of the role of their mental models in managerial decision-making and allows managers to re-conceptualise their understanding of how their decisions affect the choices of others.

In subsequent work, building upon the findings of Sterman and Repenning (2001) and Keating, Oliva, Repenning, Rockhart and Sterman (1999) explored the ‘improvement paradox’ in more detail. Their research suggested that the implementation of successful quality improvement programs depend upon employee ‘pull’, commitment to improvements by employees who see the program as feasible and beneficial, at least as much as management ‘push’, achieved through adjustment of organisational incentives, training, support and management requirements for participation. Keating et al. (1999) identify four factors as being crucial to maintaining successful quality improvement. Firstly, there must be recognition by management that complex processes are difficult to improve (and the more complex the processes and the organisation the greater the time lag before productivity gains will be realised – the ‘improvement half-life’). This means that productivity will get worse before it gets better as people divert their time away from production while they identify sources of systemic problems and redesign systems of work. Management with a commitment to quality improvement must expect either higher costs or lower output in the initial stages of the improvement process. Secondly, effectiveness depends upon the adequacy of the selected methodology for quality improvement, and the authors point out that quality tools are more highly developed for manufacturing than service industries. Thirdly, there must be adequate support and training for quality initiatives. Fourthly, the workforce is likely to be less committed to quality improvement if they believe that productivity gains will lead to redundancies. Some of the pitfalls identified by Keating, et al. (1999) include:

- The dangers of management identifying ‘stretch objectives’ or objectives that do not seem feasible, as a challenge, because unrealistic goals erodes commitment;
- Mistake of setting unrealistic timeframes for the achievement of quality improvement goals for complex tasks or tasks that require co-operation across different parts of a complex organisation, because this leads to an erosion of goals;
- Mistake of application of quality improvement methods that have been successful in one part of a firm to dissimilar problems elsewhere, where the methods are unsuited.

Finally, the authors suggested that it is important to examine the effects of quality improvement organisations across the organisation as a whole, as successful quality improvement in one part of an organisation may have harmful affects, or cause problems for, other parts of the organisation. They conclude (Keating et al., 1999, p33-34) that,

The failure of promising programs is a symptom of the organizational and economic challenges involved in making them work. Managers are often unprepared for the interactions of improvement programs with processes outside the programs’ apparent focus. The improvement paradox arises because it is difficult to anticipate the wide-ranging effects of improvement, especially when the intended changes are so clearly beneficial and the unintended adverse effects are delayed or occur in other functions or organizations. Companies can strengthen the self-reinforcing processes that can lead to sustained improvement by actively managing the feedbacks that limit program success. Managers must carefully plan the roll-out of a new program to ensure demand for participation does not outstrip training and support infrastructure. Staffing, resources, and goals must be consistent with the improvement half-life of the process to prevent effort squeeze. If employees are free to allocate time to improvement, are adequately trained, and program scope remains focused, initial results will build commitment. By activating the virtuous cycle of employee pull early in the process, rapid productivity gains will follow, sustaining the program without command-and-control management. However, managers should anticipate a slowdown in improvement results as the complexity of the problems addressed increases. Managers may need to adopt new process improvement techniques to reduce complexity. Management must also recognize the feedbacks arising from other improvement programs, organizational units and the market. Decision rules and procedures throughout the organization should be reviewed even if they do not appear to be affected by the improvement program. In short, managers must become adept in understanding their organization as a dynamic system.

Summary: The empirical studies of quality management in the commercial sector reviewed in this section indicate that quality management has not always been successful in improving the efficacy of the organisation as measured by standard business outcomes. Cameron and Sine's (1999) research indicates that organisations where the organisational culture is focused on process improvement, rather than error detection were more likely to be judged as effective. Repenning and Sterman (1997) found that quality improvement through process improvement was difficult to achieve and maintain. They argued that this happened because in complex situations managers tend not to be aware of the complexity of the interaction between causes and effects,
especially where there is a ‘time delay’, or where the effects happen ‘at a distance’ from the cause. This leads them to misinterpret the causes of low capability and to fail to understand the full effects of their interventions, leading managers to have misplaced confidence in strategies that actually undermine the long-term capability of the organisation, and to institute measures that set up conflicting goals for employees. Ultimately, these management practices encourage the development of a culture antithetical to both process improvement and quality maintenance.

**Implications of research into reasons for efficacy and failure for the research problem**

Research into the efficacy and failure mode of quality management methods has implications for research into quality management in higher education. The two research projects reported here used different methodologies, but they provide corroborating evidence that commercial quality management processes have not always delivered the benefits expected. Cameron and Sine’s (1999) research shows that only certain ‘cultures’ of quality management seemed to correlate with improved commercial outcomes, while Repenning and Sterman’s (1997; 2001) research and that of Keating et al. (1999) showed the importance of a systemic perspective in understanding the relationship between human factors and organisational process factors. Based upon observations of processes in large commercial firms, the work of Keating et al. (1999) makes suggestions about how management can improve the chances that a quality management program will successfully achieve process improvement.

The studies reviewed in this section are important to the investigation of quality management in Australian higher education because they draw attention to the need to be aware of a number of possible dimensions to the problem not discussed in the higher education literature. These include:

- The problem of misattribution and its affects on managerial understanding of organisational processes, judgements and managerial evaluation of effectiveness of interventions;
- The usefulness of a systems perspective in understanding complex problems and in identifying unintended consequences of interventions;
- The significance for efficacy of different organisational quality cultures;
• The damage to quality culture that occurs when management unwittingly establishes conflicting goals through the combined effects of interventions intended to address discrete management problems;

• The importance of managerial ‘mental models’ in managerial sense-making and judgement.

Management interventions (of which quality assurance is an example), change the internal dynamics of organisations in complex ways that may give results that are not always anticipated by those initiating the interventions (Forrester, 1972, p273; Wolstenholme, 1990). What remains to be tested is whether there are significant contextual differences between higher education and commerce that would make it unsafe within higher education to rely on the findings of research into quality management in commercial settings.

Questions arising from this section:

• What are the implications for quality management of Australian higher education of research about the effectiveness and modes of failure of quality management in commercial contexts?

Organisational Theory and Quality Management,

The concepts of quality assurance and quality management have their origins in theories of management found within organisational theory. The underlying assumptions and perspectives that inform both conceptualisation of quality and rationales in quality management, are derived from theories of management within organisational theory. The tacit assumptions of management and organisational theory have been shaped by the historical, political and social context of management and the epistemological framework within which contemporary management and organisational theory was located (M. Reed, 1996; Burrell & Morgan, 1979). The contested basis of organisational analysis has been referred to as the ‘paradigm wars’ within organisational theory (Clegg & Hardy, 1996; Burrell, 1996; Alvesson & Deetz, 1996; M. Reed, 1996; Ackroyd, 1994; J. Martin, 1992; Mingers & Gill, 1997). An early and influential attempt to differentiate between the theoretical bases for organisational analysis was provided by Burrell and Morgan who proposed a typology to distinguish between ‘mainstream’ organisational studies that proceeded from normative assumptions about social structure and adopted a positivist epistemological position about knowledge and research method. Burrell and Morgan’s typology and the theoretical and epistemological contentions,
between critical and other perspectives and within the critical perspective, are discussed more fully in the section of this chapter on critical management.

Reed (1996) takes a different approach and descriptively differentiates between six theoretical perspectives from which organisational analysis proceeds. He describes differences but instead of placing perspectives into schema that contrast opposing differences in assumptions, Reed identifies each category by its unique interpretive meta-narrative and choice of ‘problematic’ within organisational theory. Table 2.5 outlines the categories used by Reed.

Table 2.5 Reed’s theoretical positions for organisational analysis from (M. Reed, 1996, p34)

<table>
<thead>
<tr>
<th>Meta·narrative</th>
<th>Major Problematic</th>
<th>Illustrative/ exemplary perspectives</th>
<th>Contextual transitions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rationality</td>
<td>Order</td>
<td>Taylor, Fayol, Simon, classical OT, decision theory scientific management</td>
<td>From Nightwatch to industrial state</td>
</tr>
<tr>
<td>Integration</td>
<td>Consensus</td>
<td>Human relations, functionalism, contingency, corporate culture, Durkheim, Parsons, Barnard, Mayo</td>
<td>From entrepreneurial capitalism to welfare capitalism</td>
</tr>
<tr>
<td>Market</td>
<td>Liberty</td>
<td>Theory of firm, transaction costs, population ecology, liberal OT</td>
<td>From managerial capitalism to neo-liberal capitalism</td>
</tr>
<tr>
<td>Power</td>
<td>Domination</td>
<td>Neo-radical Weberians, critical/ structural Marxism, labour process theory, institutional theory, Weber, Marx</td>
<td>From liberal collectivism to bargained corporatism</td>
</tr>
<tr>
<td>Knowledge</td>
<td>Control</td>
<td>Ethnomethod, organisational culture/symbol, post-structuralist, post-industrial, post-Fordist/ modern, Foucault, Garfinkel, actor-network theory</td>
<td>From industrialism/ modernity to post-industrial/ postmodernity</td>
</tr>
<tr>
<td>Justice</td>
<td>Participation</td>
<td>Business ethics, morality and organisational behaviour, industrial democracy, participation theory, critical theory, Habermas</td>
<td>From repressive to participative democracy</td>
</tr>
</tbody>
</table>

The rest of this section takes an historical perspective on organisational theory to trace the theoretical relationship between organisational theory, management theory and the conceptualisation of quality. The approach taken compares Reed’s (1996) categories and other epistemological analysis, including typologies produced by Burrell and Morgan (1979) Alvesson & Deetz (1996) and Boje (1999a). This section is divided into five parts. The first part examines industrial management theories that dominated theorisation about management until the late twentieth century, and their influence within current conceptualisations of quality. This part discusses the influence of scientific management, human relationship management theory and classical theory in public administration, on the conceptualisation of quality in non-profit organisations. The second part provides an overview of challenges to industrial management theory and concepts of public administration that prompted fragmentation of management theory and changes to assumptions about public administration since the late 1970’s. The third part examines market oriented management theories and their influence within
current conceptualisations of quality. The fourth part contrasts different post 1970’s management advice on quality improvement. The final part examines critical management theories, both modern and postmodern, perspectives on quality management.

To summarise: The main effect of the paradigm wars was to prompt re-evaluation of the relationship between theory and practice in organisational research. For management theory this:

- Provided competing platforms for critique of past management orthodoxies;
- Offered new bases for empirical research into the practice of management (Burrell & Morgan, 1979); and
- Opened the way for diversity in practical management advice.

The ‘paradigm wars’ are relevant for this research problem because they highlight the importance identifying implicit theoretical assumptions underpinning the management theories used to justify different approaches to quality management. The paradigm wars also highlighted the importance of awareness of how tacit assumptions drawn from social theory (about human agency, structure, motivation, decision-making, social power) affected perceptions of legitimacy of management theories and practices.

**Industrial Management and Public Administration until the mid 20th century**

Modern western management theory has its origins in the late 19th and early twentieth centuries. The field was divided between public administration concerned with management in government service, and industrial management concerned with the management of industrial labour and processes. Industrial management theory developed in Europe and in the United States in the early twentieth century (Pugh & Hickson, 1993). The primary focus of western public administration in Europe was the management of imperial colonial administration and military infrastructure. Industrial management theory in the first half of the twentieth century addressed the issues of management of a low skill factory based industrial workforce (M. Reed & Hughes, 1992). Two distinct approaches developed within industrial management based upon differing assumptions about human nature (McGregor, 1995). ‘Scientific management’ and the ‘human relations’ theories, termed by Macgregor’s theory X and theory Y (McGregor, 1995, p56), are both founded in positivist, functionalist sociological assumptions. For most of the twentieth century, ‘scientific management’ and the
‘human relations centred management’ dominated management thinking and prior to the 1970's these perspectives were rarely challenged. The discipline of public administration developed separately during this period, although practices from industrial management sometimes crossed over at the level of routine work within organisations, as evidenced by the use of time clocks to monitor staff attendance and work-study methods applied to routine tasks in public bureaucracies.

Organisational theory in the early twentieth century was dominated by the concept of ‘scientific management’, epitomised by the work of Frederick Taylor (Pugh & Hickson, 1993, p134-137) and Henri Fayol (Pugh & Hickson, 1993, p126-130). Scientific management had as its meta-narrative the application of rational scientific method to the management to the industrial production processes (M. Reed, 1996, p35). The meta-narrative drew justification by reference to analogies between the organisation and a machine, tacitly placing human and non-human material together to be ordered and controlled, its central concern was the maintenance of order and control and the focus of management was on how to control and co-ordinate a workforce assumed to be inherently intractable (McGregor, 1995). Scientific management spawned methods including ‘work study methods’ to assess how long tasks should take and to rationalise how employers and machines could be most efficiently co-ordinated. It used methods to deskill complex work by breaking work into simpler tasks. Traditional operational research and ‘hard’ systems theory, derived from Newtonian natural science were sometimes applied to optimise the ‘human-machine’ interaction and workflows. For scientific management the central quality concerns are technical efficiency and product conformity and this aligns with Cameron and Sine’s definition 3 in Table 2.1.

In the 1930’s and 1940’s the ‘Human relations centred management’ movement of Mayo, Barnard, and later Likert and Macgregor, challenged the central assumptions of scientific management that the goals of industrial management were best achieved by simplification of work through increased division of labour coupled with coercive industrial discipline and supervision (McGregor, 1995; Pugh & Hickson, 1993). Human relations management had as its meta-narrative the value of social integration, and the ‘naturalness’ of ‘system’ harmony (M. Reed, 1996). The meta-narrative drew justification by reference to analogies between the organisation and the ‘family’ or ‘community’, based upon tacit assumptions about goodness and naturalness of harmonious family and community relations. The structural-functionalist view of society that is implicit in this meta-narrative, assumes the necessity of ‘system
equilibrium' and naturalises the processes through which the 'fit' between the organisation and its environment is achieved (M. Reed, 1996). Ideologically the human relations management movement was more concerned with the social 'problem' of maintenance of societal consensus than merely control (coercion) of the workforce.

The management methods derived from human relations centred management movement made use of research from psychology into human motivation, especially humanistic psychology. From the 1940's onwards, the influence of humanistic psychologists, such as Maslow, was integrated into this approach to help industry align work conditions and organisation with intrinsic human motivations (McGregor, 1995) and thus avoid the need for close surveillance and coercive management. This approach to management focused on modification of work structure, the physical environment and the use of benevolent (paternalistic) management methods. For human relations centred management the central quality concerns are humane systems of production and the legacy of this concern is reflected in the inclusion of employee welfare systems within the 'quality systems' approach in Cameron and Sine's sixth definition in Table 2.1.

Public administration is concerned with administration of functions of government. Modern 'western' administrative practices developed in 19th century developed from military origins and hence assumed norms of management by command within hierarchical organisational structures (Meyer, Webster, & Stevenson, 1985, p14). Public administration grew in importance during the 20th century, although its functions changed during the 20th century, as empires disintegrated, and governments in developed nations increased intervention and regulation in health, education, economics and welfare, and required more complex taxation gathering mechanisms. Embedded with the concept of public administration is the value of 'impartiality' or 'universalistic' 'depersonalised' decision-making (Boje, Gephart, & Thatchenkery, 1996, p27; Schafffer, 1973, p438, 26), and concepts of 'public good' and 'public interest'. Traditionally it was recognised that the standards for judging management of public administration differed from those for judging management of industry (Caiden, 1975; Pugh & Hickson, 1993, pp145-6). From a classical public administration perspective, quality was not a primary concern; the priority was to achieve the desired policy outcomes. The criteria for judgement of effectiveness were concerned with achievement of policy outcomes rather than efficiency in resource usage, (Drucker cited in Zifcak, 1994, p10).
Within this conceptualisation of public administration, the ‘public servant’ has ‘upward accountability’ (Corbett, 1996, p197), is answerable to their immediate superior, and ultimately to those whose policy legitimates the function that the servant performs: to politicians and senior bureaucrats, not ‘outward accountability’ to the public who are recipients of services (Corbett, 1996, p198). This has implications for both the basis of judgements about ‘goodness’ of performance, and for perceptions of where accountability rests. The values of public administration mean that the public servant who fails to act impartially, or who makes decisions influenced by personal gain is judged more harshly than their counterpart in commerce. Another difference between public service and commerce occurs because the strategic priorities of public service are determined by politicians, who have political, rather than commercial, priorities (Byrt & Bowden, 1989). Many studies on public administration have concluded that bureaucracies inevitably became inefficient over time (Meyer et al., 1985; Pugh & Hickson, 1993). Parkinson, in his classic studies of the British navy and of the British colonial administrative services and the League of Nations found that the number of employees continued to increase even when the functional role of the organisation had reduced (Pugh & Hickson, 1993). He observed that the organisational dynamics within bureaucracies meant that over time they became increasingly inefficient and moribund. He suggested that this was because (in a highly stratified organisation): for status reasons overworked officials wanted subordinates not rivals, thus numbers of subordinates increased over time; people did not want to supervise subordinates who might be more competent than themselves so they would appoint less competent subordinates; expenditure rose to meet income; and where there was no ceiling on income, bureaucracies expanded even as their work reduced (Pugh & Hickson, 1993, p 117). Peter and Hull (Pugh & Hickson, 1993, p120), suggested that people were promoted to the level of their incompetence and argued that classical pyramids horizontally divided by class (or gender?) barriers remain efficient longer that egalitarian organisations because at the lower levels there are more people who are not able to be promoted beyond their competence level because of discriminatory promotion practices (Pugh & Hickson, 1993, p 120). Because the public servant is accountable to policy makers and not directly to the public, accountability is to those who formulate policy and manage its implementation, not to those who receive services. Judgements about quality in public administration prior to the 1980’s reflect these priorities. Before the 1980’s the relationship between the ‘public servant’ and the public was not conceptualised as a customer relationship (Corbett, 1996). After the 1980,
public management adopted a pseudo-developed market-based theory of management and this had implication for how the concept of quality was framed. Critical management theory has consistently questioned the ideological basis of this shift, but has not been influential in shaping alternative public management practices.

The influence of management theories on public administration, and the implications for conceptualisation of quality are summarised in Figure 2.10.

**Figure 2.10: Quality and Public Administration: Ideological separation and diffusion between public administration and industrial/commercial management ideologies and techniques**

To summarise: In the first seven decades of the 20th century, industrial management theory and public administration developed separate practices based upon different
conceptualisations of purpose and accountability. Judgements about quality and its lack in public administration were not referenced to commercial considerations, but to ideas of impartiality and public good as determined by politicians or senior bureaucratic policy makers. Management theory, in both industrial management and in public administration, was framed within the precepts of functionalist sociology and naturalised societal power relationships.

Challenges to industrial management theory and public administration:

The last two decades of the twentieth century saw fragmentation of management theory (Clegg, Nord, & Hardy, 1996; M. Reed, 1996). During the second half of the twentieth century three separate challenges to the traditions of industrial management emerged: awareness of a transition to a post-industrial economy in North America, Western Europe and other countries such as Australia; the Japanese post-war industrial recovery; and the emergence of critical sociology and its application to organisational theory. During the same period, the core values of public administration were challenged by increased mistrust of paternalistic public service provision, from both conservative and radical sides of politics.

These disparate influences challenged management theory in different ways. Awareness of transition to post-industrial society changed the focus of management away from concerns about managing a low skill factory workforce towards the task of management of a more highly skilled workforce providing services in circumstances that made close surveillance difficult. The Japanese economic recovery challenged assumptions of American industrial superiority and complacency about management, as claims were made that the apparently miraculous recovery of Japanese industry had occurred because Japanese industry used superior organisational and management methods (Walton, 1989). One response to this was renewed interest in organisational culture and a diminution of interest in organisational psychology. Critical sociology challenged the sociological and epistemological basis of management theories, some organisational theorists re-examined their fundamental assumptions and this prompted what, in the history of organisational theory has became known as ‘the paradigm wars’ outlined at the beginning of this section. Changes in the functions of public bureaucracies between the mid 19th century and the mid 20th century (Curnow & Spann, 1975, pp44-46), from a primary focus on colonial, military and public order administration, to a more diverse remit of administration of defence and policing, plus public services such as education, welfare, infrastructure management, utilities and
health, and a widened electoral enfranchisement, meant that the voting public had more frequent contact with public officials. Changes in public expectations meant that users of public services expected that services would become more responsive to their preferences.

Awareness of the post-industrial society affected management theorists in Western Europe, North America and Australia, while the Japanese recovery had the most impact on management theory originating in the United States, and critical sociology had most influence on management theory originating in Europe (Marsden & Townley, 1995). Mistrust of paternalistic public service affected confidence in traditional approaches to public administration.

**Post-industrial management:** In the context of management literature, the post-industrial society is one where service industries have replaced manufacturing as important sources of employment and wealth creation. Post-industrial economies are characterised by growth in ‘white collar’ professional and semi-professional modes of employment, and ‘pink collar’ unskilled and semi-skilled service jobs and by loss of ‘blue collar’ manual jobs in manufacturing. Management of service workers requires different management strategies from industrial management because of the different characteristics of service work including: lack of easily measurable and tangible product; the direct relationship with the customer; requirements of team working; practical difficulties in employee surveillance; and difficulties with simple output measurement. This led to a re-framing of industrial management methods to accommodate the concerns of post-industrial management and paved the way for the later emergence of market-oriented theories of management. In response to post-industrial conditions, Drucker developed a business management method of ‘management by objectives’ (MbO) (Pugh & Hickson, 2000, p160). This was based upon the management of employees through regular individual supervision meetings where objectives were jointly agreed. Periodically, managers met with individual employees to jointly review progress and revise objectives in the light of performance, cyclically setting objectives, reviewing performance and revising objectives. It is a matter of contention in organisational theory whether post-industrial forms of employment have increased employee personal autonomy, as the employee has freedom to decide how and when tasks are completed within the agreed framework (Pugh & Hickson, 1993, p146) or decreased autonomy, as in Boje’s (1995) example of Disneyland where even apparently spontaneous employees’ action are micro-managed.
Ducker’s work has been influential in the development of commercial quality management methods, for example the business excellence models (Australian Quality Council, 2000), which use objective setting, cyclical review, strategic planning and cascading plans, now commonly used in corporate style management of Australian higher education.

Summary: The focus of management theory changed as the relative importance of manufacturing and service industries changed. Management by objectives arose directly from this and is now a key feature of the business excellence quality model.

**The Japanese industrial recovery:** The Japanese industrial base was destroyed at the end of the Second World War. During the immediate post war period Japanese industry competed in the international export market only in mass produced low value, low quality goods (Walton, 1989, p12). By the 1970’s Japanese industry produced high quality goods, successfully competed on both price and quality with American companies in international markets and had reduced the market share of American companies in the American domestic market (Walton, 1989, p17). W Edwards Deming worked with Japanese industrial management for several periods during the 1950’s and began to publicise Japanese management methods in the United States. He suggested that American industry had much to learn from the methods of Japanese industry, especially in their approaches to quality management (Walton, 1989). Quality became centralised in management theory especially in North America, through the accounts of Deeming (Walton, 1989) and Ouchi (Pugh & Hickson, 1993, p158), and others (Whitehill, 1990) of management practices in Japan.

The key features of Japanese organisation and management noted by contemporary American commentators were: that American and European societal culture differed significantly from Japanese societal culture and this had implications for interpersonal norms and values; and management in Japan was premised upon the four ‘sacred treasures’ of lifetime employment, seniority based promotion and wages, consensus decision-making and ‘enterprise’ unions (Whitehill, 1990, p88; see also Walton, 1989). Societal culture influences many expectations and attitudes, including attitudes to cooperation and competition, personal values, the work-personal life relationship, the importance of duties and obligation (Whitehill, 1990), and interpersonal cultural norm such as avoiding arrogance and complacency and attitudes towards individualism.

The descriptions given by these writers note that the attitude to quality management in Japanese firms, where quality was considered the responsibility of all employees who performed quality inspection as a simultaneous part of the production role, differed from those in the USA where quality inspection was a separated specialist function performed after manufacture was complete. The relationship between organisational culture and the societal culture of the society is discussed by several writers (see for example, Trice & Beyer, 1993, p340-342; Whitehill, 1990; Walton, 1989), who have varying views on the extent to which Japanese business practices would be culturally acceptable in the USA (Trice & Beyer, 1993). It is noted that some organisational features, like life-long employment applied only to some classes of Japanese workers, and excluded, for example, women (see Kotter & Heskett, 1992, especially Chapter 11). The study of Japanese business models encouraged a re-examination of the role of management in shaping organisational culture and leadership attitudes in response to environment.

Summary: The Japanese post-war industrial recovery challenged American assumptions of business superiority, shook complacency, promoted awareness of alternative management practices, and provided a context in which previous unexamined assumptions about management could be questioned. Selected Japanese management practices were influential in promotion of quality management and the associated quality management practices that emerged later in western countries, and prompted questioning about the relationship between management and culture. Japanese management methods were influential in promotion of ‘whole of organisation’ approaches reflected in Cameron and Sine’s definition six and seven, in Table 2.1.
Public administration and the mistrust of paternalism: Neo-liberal political critique distrusted the expansion of public administration into both provision of social services and policies redressing societal inequalities, which it judged as ill-conceived social engineering (Heywood, 2003, p53-57). The neo-liberal political critique (based upon classical liberal economic commitments wedded to organic conservative social policy) of government involvement in public services is based in the classical liberal beliefs in the value of non-intervention by government in economic relationships between citizens combined with ‘social Darwinism’, the belief that intervention to reduce the effects of social inequality is unhelpful because it supports those who are less ‘fitted’ to survive (Heywood, 2003, p54) and undermines the family (Heywood, 2003, p 97). The neo-liberal (‘New Right’) economic critique of traditional public administration argued that planning was economically inefficient because it dampened competition, stifled entrepreneurialism and increased the prevalence of monopolies and lacked the ‘discipline’ of the profit motive (Heywood, 2003, p55-56; Zifcak, 1994).

By contrast, radical libertarian mistrust of paternalism was based upon a critique of professional power and critique of the ideological and value laden nature of the concept of impartiality (Ferguson, 1984). Critiques of professional power argue that professional knowledge can be used to replace debate about values and ends (about what should be done), with discussion about technical issues concerned with the choice of technique (how pre-determined ends should be achieved). Some argue that powerful professional groups claim they are acting in the ‘public good’ when they are merely furthering their own sectarian interests or the sectarian interests of other powerful interests (see for example, Illich’s critique of professional power in a variety of ‘helping professions’, 1977, 1987). The conventional management studies’ view of the relationship between managers and experts is that expert professions disrupt the normal power arrangements in hierarchies (see for example Perrow, 1986). The radical view mistrusts professional and expert judgements because of the ways in which expert knowledge can be used to mystify or obscure the decision-making process, (see, for example (Illich, 1987).

Critics of impartiality suggest that impartial application of policy does not guarantee justice, if the underlying policy is unjust (Hinman, 2003). When underlying policy, or where contemporary or historical practices have been unjust, then partiality may give a more just outcome than impartiality, as for example with positive discrimination (Hinman, 2003). Scepticism about paternalist public administration was fuelled by some
well-publicised policy failures, where public interventions in the 1970’s exacerbated the situations they were intended to ameliorate (see, for example Hoos, 2003).

**Summary:** Awareness of post-industrial society led to realisation that societal and organisational changes posed different management problems in both commercial and public sector management. Post-industrial society changed the focus of functionalist based management theory, from concern with internal industrial relations and workforce management, to concern with an external customer relations and management and a ‘market focus’, and appealed to ideas of transparency and accountability to the public as service users. Japanese industrial revival prompted a readiness to look beyond the ‘theory x/theory y dichotomy and a re-assessment of the relationship between organisational culture, management and quality. Challenges to assumptions in social theory and epistemology made space for multiple perspectives within organisational theory. Concomitant with this, sociological and cultural explanations of organisational functioning gained credibility and reliance upon psychological explanations diminished. Mistrust of the established norms of public administration emerged from a variety of political positions and included allegations of paternalism, misuse of professional power, dissatisfaction with traditions of accountability to management rather than service users, ineffective intervention, ‘created dependency’ and inappropriate social engineering (Heywood, 2003). Policy failures, perceived unresponsiveness of public services to the wishes of service users and allegations of professional arrogance combined to reduce public confidence in paternalistic approaches to public service and increase demands for government public services to become more responsive and accountable to the users of public services, rather that their bureaucratic managers and political masters. This critique paved the way for public acceptance of market-oriented public service provision. This dissatisfaction provided a rationale, acceptable across the political spectrum, for demands that public services be made more responsive and accountable to users.

In both the USA and Europe, these trends led to a re-examination of existing theory, assumptions and practices that reduced the dominance of both ‘scientific management’ and ‘human relations perspectives’. Market-oriented management theories and methods developed in the USA in the early 1980’s and have been applied rigorously in the UK, but to a lesser degree in many other countries (Bonwitt, 2001) eased by dissatisfaction with earlier norms of public administration. Critical management perspectives had little influence in the USA in the 1980’s (Clegg & Hardy, 1996) and non-positivistic
(interpretivist and critical management) studies have only recently become publishable in the USA (Senge, 2003). Meanwhile in Europe, Australia and New Zealand critical management was more influential and academics began to dissect the theoretical basis of management studies and to locate management within its sociological and political context.

**Market-oriented management theories**

By the 1980's the post-industrial challenge and the shock of the Japanese revival had reduced confidence in the adequacy of established industrial management theories. Against the political backdrop of the Reagan era in the United States, market-oriented management theory emerged and became influential in both Britain and Australia. Mainstream American post-industrial management theory was both market and customer oriented, and still grounded within functionalist sociology (M. Reed, 1996, p40). The post 1980's period is characterised by ‘fads’ in management advice (Bing, 1995) and there is criticism about sloganeering, a guru culture, and weak theorisation, especially within mainstream American popular management ‘advice’.

Market-based theories emerged most forcefully in the 1970's and 1980's (M. Reed, 1996, p39) and have as their meta-narrative the belief that unconstrained market forces provide the simplest and the best mechanism to achieve distribution of physical and social goods, and to enable individual choice (M. Reed, 1996). This position draws justification from tacit acceptance of biological and ecological analogies of organisation and neo-Darwinian concepts of ‘survival of the fittest’ (who are implicitly by the assumptions of this argument also the most deserving of survival) combined with the assumed impartiality and inevitable irresistibility of ‘market forces’ (M. Reed, 1996). The central concern of market-based theories and liberal organisational theory is liberty (M. Reed, 1996, p34) where liberty is construed in its classical liberal sense as freedom of the individual from interference from the state and other individuals.

Market-oriented theories of management dominate current management thinking. For this reason it is essential to examine the precepts of market oriented theories more closely. Reed (1996) argues that a problem with normative organisational theories is that ‘system interests’ are defined from a perspective that does not question the moral and inevitable rightness of assumptions of prevailing social power relationships.

These (functionalist) approaches treat ‘organisation’ as constituting a unitary social and moral order in which individual and group interests and values are simply derived from overarching ‘systems interests and values’
uncontaminated by sectional conflict and power struggles (Willman 1983). Once this unitary conception is taken for granted as an ‘accepted’, ‘natural’, and virtually invisible feature of organisation, power, conflict and domination can be safely ignored as being ‘outside’ the framework’s field of analytical vision and empirical concern. (M. Reed, 1996, p39)

From mainstream organisational theory perspective the ‘proper concerns’ of liberty, in the market perspective, are bounded and do not extend beyond enabling those internal and external to the organisation to exercise their ‘economic rights’ in a more or less unfettered way. The social impact of the organisation is external to consideration unless it adversely affects ‘customer loyalty’ or the ability of the organisation to recruit the staff it requires.

Externally, market-oriented management methods focus on finding ways of ensuring ‘customer loyalty’. The public face of ‘customer loyalty’ involves satisfying real needs of customers, better. The darker side of customer loyalty involves manufacturing customer needs through manipulative advertising that plays on human weakness, greed and fears or by coercive methods, enforced by creation of technological dependency and market dominance. Some market-oriented management methods have brought the market ‘inside’ the organisation either through encouraging ‘intrapreneurs’ to use their creativity on behalf of their employer (Pinchot, 1987), or by encouraging employees individually to compete for financial and status rewards within the organisation, for example through awarding individual determined performance pay, through the use of individual contracts and the practice of awarding short-term performance dependant contracts. This contrasted sharply with management practices reported in Japan (Whitehill, 1990) where traditions of lifelong employment and promotion or pay increases based upon seniority still prevailed in the 1980’s (at least for men).

The meaning of ‘quality’, from a market-based view of organisations is closely tied to ensuring that customers remain ‘loyal’ to the organisation, through production of products of ‘sufficient quality’ to satisfy customer ‘desires’ (manufactured, or otherwise) or which, for other reasons customers feel compelled to buy. Value-for-money and product reliability are of secondary importance from this perspective as long as the customers are satisfied. These factors are important only if the customers insist on them. From this perspective, customer perception of value and reliability is what matters and this may be independent of the actual features of the product or its production cost. In this model, by tacit appeal to Adam Smith ‘the invisible hand’ of the market,
efficiency of production is presumed when the extent to which market forces operate within the organisation is maximised (Heywood, 2003, pp 55-56).

Since the 1980's there have been successful policy attempts at government level in many OECD countries to extend the market ethos and the priorities of the commercial business sector to previously 'not for profit' 'public' services such as education, public transport, welfare and health (Blondal, Field, & Girouard, 2003; Bonwitt, 2001; Salvaris, 2000). Supporters of market capitalism (and some opposing market capitalism) sometimes appeal to the concept of ‘stakeholders’ to suggest that others who are not party to individual contracts, in some circumstances, have interests and rights that individual contracts should not be permitted to infringe. Weiss (1995) identifies some practical problems with stakeholder theory in modern society and some theoretical tensions between market based assumptions and stakeholder theory.

According to Weiss (1995), stakeholder theory faces a number of theoretical problems including: boundary issues concerned with deciding where to draw boundaries between those who have legitimate interests and those who do not; legitimacy issues concerned with what legitimates the idea that persons not directly involved in a commercial relationship have the right to have their interests considered; and difficulty in weighing the conflicting claims between and within stakeholder groups.

Weiss (1995) argues that stakeholder theory depends upon ‘implicit social agreements’ to which ‘all members of society are party’. This enables stakeholder theory ‘to identify and legitimate the interests of stakeholders who are not directly involved, such as communities, who may be affected indirectly as a consequence of the activities of an enterprise’ (Weiss, 1995, p5). Weiss argues that these implicit social agreements are problematic in the market economy of modern capitalism because they run counter to the existing social contract for business in contemporary society, which he refers to as ‘the minimalist morality of modern capitalism’ (Weiss, 1995, p6).

Practical problems arise about how the interests of stakeholder groups can be known and whether interests of a single stakeholder group can be assumed to be homogeneous. Even if stakeholder interests are known and homogeneous, there is a question about whether stakeholder interests can be effectively pressed. Weiss argues that, in commercial settings, managers traditionally derive their authority from their role as agents of the owner. He argues that Stakeholder Theory makes claims to change the
basis of managerial authority away from simple representation of the interests of the owner.

Stakeholder Theory as it is generally discussed provides an implicit ideology that defends increasing the power of a particular kind of manager; those who work in large administrative structures in business, in non-profit organizations and government and identify with other managers as members of a professional (class) rather than with the organization within which ...they are employed.... Stakeholder Theory offers a way to articulate the interests of members of this class, legitimize its claims to authority and establish its autonomy from other institutions in society (Weiss, 1995, p11).

In a statement that seems to share some of the assumptions of New Class Theory, as explicated by Sawyer (2003), Weiss claims that Stakeholder Theory serves to strengthen the professional managerial class against both the capitalist owner classes and workers, because stakeholder theory gives the ‘professional managerial class’ the responsibility for balancing and responding to the competing claims of stakeholders.

**Summary:** Key commitments of market-based management theory are: the assumption of a normative unitary social order; an emphasis on maximising individual economic liberty; external focus on satisfying customers wants; assumed legitimacy of a capitalist framework of maximising profit for shareholder and where the creation and manipulation of customer wants to this end is permissible; competition is assumed to benefit the customer by making firms more efficient; affects of business on non-customers are assumed to be irrelevant to business planning, provided the business operates within the current legal framework of the country where it is based.

**Fad cultures: markets, management advice, organisational development and quality**

A softening of some of the practical ‘certainties’, has given rise to what has been unflatteringly described as a ‘fad culture’ (Bing, 1995, p617) for practical advice on corporate management. The period since the 1980’s has seen a proliferation of management advice and methods, the so-called ‘fads’ and gurus, within management and organisational development, because of the diverse sources of management advice on offer. Post-industrial management advice on organisational development and quality (sometimes described in terms of quasi-radical rhetoric) combines advice about how to respond to the challenges of post-industrial society, and often suggests an emancipative potential of the alternative management methods. Most business advice since the 1980’s has been influenced by perceptions of Japanese quality management culture, theories or practices and the conditions of post-industrial society. This part will contrast four different sources of advice: Deming, Peters and Waterman, Senge, and the
Benchmarking movement, each of which has been influential in quality management practice. The choice was difficult because there have been many different systems developed, for which a case might have been made. The choice was based upon the following considerations.

The work of W. Edwards Deming was chosen because he is considered by many as the founder of the ‘quality movement’ in the United States (Gitlow, 2001, p1), and accepted by other systems as knowledgeable about quality management in Japan (Evans, 1994; Senge, 1994), and the only writer chosen who had first hand knowledge of Japanese management. The work of Peters and Waterman was chosen because their work has been influential in shaping practices within ‘Business Excellence’ models of organisational development, and their work is widely cited, (for example Cheng & Ming, 1997; Evans, 1994). The work of Peter Senge was chosen because he developed the concept of ‘learning organisation’ as a method to implement quality improvement and his ideas have been influential in many areas of management, especially public service. Finally the ‘Benchmarking’ method was chosen because the Australian government has provided universities with a Benchmarking manual (McKinnon et al., 2000) as one of the ‘performance management tools’. The four sources of advice, Deming’s ‘System of Profound Knowledge’, Peter and Waterman’s ‘Excellence model’, Senge’s ‘Learning organisations model’, and ‘Benchmarking’ illustrate different ways in which the Japanese quality experience have been integrated into American business advice.

**W. Edwards Deming ‘s ‘System of Profound Knowledge’**

W. Edwards Deming trained as a physicist and worked in the US Agriculture Department during the 1930's, where he met Walter A Shewhart who had pioneered statistical methods of sampling. During WW2, Deming taught Shewhart’s methods of sampling to the people working in the US defence department, who used these methods to assess the quality of munitions (Walton, 1989). Deming went to Japan in 1947 and 1951 as part of the American delegation to oversee Japanese elections. Whilst he was there, the Japanese Union of Scientists and Engineers asked him to teach them Shewhart’s statistical control methods for quality improvement (Walton 1989). On the basis of Deming’s advice, Japanese management rebuilt its industrial base, and credited its success to Deming’s methods (Walton 1089). From his experience and observations, Deming developed his ‘System of Profound Knowledge’ to provide a theoretical basis for understanding quality management (Deming (1993)).
Deming's 'System of Profound Knowledge' rested upon four main ideas (Gitlow, 2001). Firstly, he held that it was important to look at the industry in the context of the whole system of which it is a part, including suppliers, customers, shareholders and employees, regulators, community, environment and competitors, and to consider the affects of management decision-making in the context of this web of relationships. Secondly, his theory of variations states that all processes contain some variability, but that variability may arise from two different types of cause: special cases, where it is caused by events extrinsic to the system, and systems causes, where the variation occurred as a result of system processes. Most commonly, management makes the mistake of assuming that variation is due to extra-system causes, when it arises from a feature of the process, and intervention based upon this error frequently aggravates the original problem, and increases variation. The third feature of the theory concerns the relationship between information and meaning, where he asserts that information is not knowledge, and that it is theory that allows people to make sense of and interpret information and experience, and this also permits both prediction and learning. Finally, he believes that people get an intrinsic motivation from the joy of seeing that they do things well.

At its simplest, Deming suggested that the task of management was to offer leadership that would support workers to produce better products and services more easily and more cheaply (Deming, 1993). In 1986, Deming offered the following critiques of American management practices (Walton, 1989). He claimed that American management had failed for a number of reasons. Firstly, post-war conditions meant that America had a 'sellers' market for manufactured goods because European and Japanese industry had been weakened by the war. This meant that firms could be financially successful even if they produced poor quality goods and services were poorly managed. Deming believed that generally product and service problems resulted from faults in management systems and processes, rather than from worker carelessness (Gitlow, 2001, p2), and was unimpressed by American management that 'badgered its workforce into solving problems that rightfully should be handled by the management themselves.' (Walton, 1989, p241) Deming claimed the focus of American management on increasing stock values and dividends instead of trying to increase product quality and ensure the long-term survival of the company was mistaken. He also argued strongly against 'retroactive' management such as:

- focus on the end-product – look at reports on sales, inventory, quality in and quality out, the annual appraisal of people; start the statistical control of
quality and the QC-Circles for operations, unfortunately, detached from management’s responsibility; apply management by numbers, MBO (management by objectives), work standards (Walton, 1989, pix).

Instead, he emphasised the importance of attempting to achieve stable systems for work, through the use of statistics to detect the causes of trouble in the processes and systems within the organisation, and to remove them, one by one. He argued strongly against localised optimisation within organisations, because the organisation as a whole can only function as well as its least functional part.

Deming observed how his advice was absorbed into Japanese cultural and organisational structures over a period of thirty years and eventually distilled these observations into management advice, from which many other quality management systems developed. His advice was by no means orthodox, and challenged many of the assumptions of American business management. Its main points can be distilled into fourteen points of advice, and seven points of warning. Deming, from Walton (1989, p35-36) identified that it was necessary to:

‘Create constancy of purpose for improvement of product and service’,

Deming suggests that management should focus on staying in business, providing jobs, and rather than focus on making money should;

‘Adopt a new philosophy’,

He suggested that management have been too accepting of ‘sullen’ service and ‘bad workmanship’ (sic) and that management did not have an adequate vision of how things could be different, so did not seriously aim to try to improve these things.

‘Cease dependence on mass inspection’,

Deming believed that it was a mistake to rely on end of line inspection and that it was better, to enlist workers to find ways to avoid defects through changes to processes.

‘End the practice of awarding business on price tag alone’

Deming suggested that firms should seek long-term stable relationships with suppliers who will produce good quality materials.

‘Improve constantly and forever the system of production and service’

Deming said that firms should keep looking for ways of doing things better.

‘Institute training and retraining’,

The purpose of this was to ensure that employee knew how to do their job correctly, and could ask questions if processes and procedure were not clear. He also recognised that
many employees learnt their job from other employees, who had not themselves been trained, and errors would be replicated if this happened.

‘Institute leadership’
Deming argued that the job a supervisor is to lead, not to just tell people what to do or to punish them for mistakes

‘Drive out fear’
Deming emphasised that it was essential that management help create an environment where employees felt secure enough to ask how to do things if they don’t know

‘Break down the barriers between staff areas’
Deming identified it was an important role for management to ensure that they created a climate that encouraged individuals and units within the organisation to support each other. This meant avoiding the establishment of a culture that (deliberately or unwittingly) rewards individuals or teams that competed against each other. For this reason, Deming argued strongly against schemes that rewarded individual performance or the performance of teams within the organisation. The reason that he rejected individual and team rewards was that if one group strives to meet its goals at all costs, this often may create problems in another area, and also makes people reluctant to consider the impact of their practices on the work of those outside their team.

‘Eliminate slogan, exhortations, and targets for the workforce’
Deming argues that slogans and targets do not help employees do a better job. They are not an adequate substitute for designing better processes, providing better training or sourcing better materials.

‘Eliminate numerical quotas’
Deming argues that numerical quotas often harm both quality and efficiency because if there are quotas, people will try to meet them irrespective of the damage to the company. Deming claims quotas guarantee high cost and inefficiency, as well as low quality.

‘Remove barriers to pride and workmanship’
Deming believes that most employees would like to be able to do a good job, and get personal intrinsic personal satisfaction from doing their work well. He claims that misguided supervisors, faulty equipment and defective materials often prevent people from doing a good job, and argues that it is the role of management to remove any impediments that prevent employees from being able to do a good job.
‘Institute a vigorous programme of education and retraining’

Deming argues that if firms make cultural changes and changes to methods of work, then thorough training of both management and employees must precede the changes to ensure that the management and workers are educated in the new methods including teamwork and the use of any statistical techniques.

‘Take action to accomplish the transformation’

Deming argues that a critical mass of people in the organisation need to understand the fourteen points (and seven deadly sins) and that good leadership from top-level management. Good leadership is understood as decision-making informed by a systemic or holistic approach where the role of management is to support and enable quality. This is contrasted with misguided management, where managers see their role as primarily concerned with exhorting employees to improve performance, and enforcement of compliance with new practices through rewards or sanctions.

The ‘seven deadly sins’ of management, according to Deming are when management does not have long term plans for staying in business and employees are insecure; when there is an emphasis on short-term profits; when managers job-hop and are never there long enough to see projects through; when management attempt to rely on figures alone to inform decision making; excessive medical cost (USA); excessive warranty costs (USA); (Walton, 1989).

At first reading, Deming seems to be offering fairly conventional advice, but some features of his advice do not sit easily with conventional management theory. His suggestion that maximisation of profit is less important than staying in business and providing jobs, does not fit easily with market-based theories of management or with market capitalism generally. His suggestion that businesses should seek stable relationships and stop buying materials on price alone, contradicts market-based management practices of seeking the cheapest source of materials, as do his arguments against annual performance appraisal and performance related pay for staff, and his arguments against the utility of competition within the workforce. Deming argues against numerical performance measurement for staff, against end-of-line quality inspection, attempts of management to increase productivity through increased surveillance and pressure on the workforce. His position on these issues contradicts both the practices and the theory of scientific management, as does his opposition to piece rate payment, which he claims encourages everyone to maximise their own benefit, if necessarily at the expense of causing problems elsewhere in the organisation. For
Deming, the purpose of statistics is to identify process problems, not to measure worker effort. He argues it is counter-productive to use statistics to measure worker effort because it undermines teamwork, made insufficient allowance for variation arising from instabilities introduced by the system of production and unconnected with skill and effort, and encourage workers to take shortcuts in processes, which compromise quality (Gitlow, 2001).

Deming’s perspective on workforce management is not inconsistent with the management theory of human relations theorists, but differs from human relations theorists in its use of data to identify process problems, and its focus on the importance of product and service quality. Deming’s advice also differs from human relations management theorists because he questions the primacy of the profit motive. His asserts that managers have misplaced their priorities when they consider that it is more important to focus on increases to dividends and share prices than to raise the quality of the product or services. For Deming, quality was ‘a predictable degree of uniformity and dependability, at low cost and suited to the market’ (Gitlow, 2001, p2), and thus focuses both on the features of the product and its value independent of the customer, and upon its suitability for sale in a stratified market. The conventional interpretation of Deming’s work places him with Cameron and Sine’s seventh definition of quality, because he insists on the need to change organisational culture. There are some reasons to question this interpretation, however. Although a ‘quality’ culture is a necessary condition for successful quality management in Deming’s system, it is not by itself sufficient. It would be simplistic to assume that Deming defines quality in terms of whether an organisation had a culture supportive of quality. The descriptions he provides are more complex and seem to imply a concept of quality much more like the everyday meaning of quality or Cameron and Sine’s (1999) first ‘transcendent’ concept of quality, than any of the more restricted technical conceptualisations of quality.

**Business excellence:** Peters and Waterman (1982) claim that their method enables businesses to achieve ‘excellence’. Their advice has been influential in development of quality strategies. Their ideas have permeated quality management literature including ‘business excellence’ methods (see for example, Australian Quality Council, 2000), and their work is cited as a basis for some work on quality in higher education (for example, Cheng & Ming, 1997; Jarvis, 1988). For Peters and Waterman, an ‘excellent company’ is a ‘continuously innovative big company’ (Peters & Waterman, 1982, p13). They undertook research to find out the attributes of the ‘excellent company’, through a
combination of interviews and documentary analysis of 75 'highly regarded American or multi-national companies, from which they selected 62 American companies, omitting the European companies.

From their data, they identified eight attributes of excellent companies. They found that the companies they studied had 'a bias for action'; they did things, were not moribund. Companies were 'close to the customer'; they listened to customers and provided good service. Companies had cultures that enabled 'autonomy and entrepreneurship', encouraged risk-taking and supported the 'good try'. Companies achieved 'productivity through people', and saw workers as a source of ideas. Companies were 'hand-on, values driven'; managers got out of the offices to observe, first hand what was happening in the manufacture and service parts of the firm. Companies they studied chose to 'stick to the knitting', which means they do not diversify beyond their core business. Companies had 'simple form, lean staff', where a small senior management team directs operations. Finally, they observed that all the companies they studied had 'simultaneous tight loose properties'; they devolve operational responsibility but maintain centralised control over core values (Peters & Waterman, 1982).

Peters and Waterman’s claim their ‘excellence model’ empowers workers in ‘flat’ organisational structures. They recommend an amalgam of business practices, some of which are derived from studies of Japanese management, applied within market-based assumptions and the American cultural context, and described in the language of radical sociology. For example, Peters and Waterman discuss the importance of creating a culture of quality that encourages all employees to take responsibility for quality, but they divorce this from Japanese business practices like lifelong employment or promotion by seniority, which they do not recommend. Peters and Waterman (1982) discuss empowering workers to choose between different technical methods of achieving the goals of the organisation, but do not extend questioning beyond choice of means, they do not suggest workers scrutinise the value or morality of the business ends of the organisation. The concept of empowerment proposed by Peters and Waterman falls far short of a claim for worker cooperatives, or for industrial democracy, and it should be noted that in the ‘tight-loose coupling’ management configuration that they recommend, senior management dictate absolutely the central values of the organisation. Employees have ‘autonomy’ only for the choice of technical means of implementation. Theoretically, Peters and Waterman’s advice is built upon their observation that successful large U.S. commercial firms ‘seem to mostly possess’ the
eight attributes that they have identified as essential to excellence. It is based upon observed correlations between management practice and commercial business success. Deming, however, observed that 'success' does not necessarily correlate with good management, and can occur for a number of reasons independently of the quality of management, as happened in the post-war period when the USA had a sellers market (Deming, 1986). In the context of quality management, the approach of Peters and Waterman aligns with 'quality as organisational culture', and Cameron and Sine's seventh definition in Table 2.1.

**Learning organisations:** Senge (1992) focuses on organisational culture change when he describes the need for organisations to become 'learning organisations'. Senge discusses how organisational structures and features can be developed to maximise the likelihood that employees are enabled to improve quality. His advice is based upon the idea that everyone in the organisation should work to develop their skills in 'five learning disciplines' (Senge, 1994). The five disciplines are:

- 'Personal Mastery', which is acquisition of skills to achieve valued goals, and creation of an environment where others can develop themselves;
- 'Mental Models', the ability to identify and reflect upon our 'internal pictures of the world' and to understand how they shape actions and decision-making;
- 'Shared Commitment', which is concerned with skills to build a sense of commitment in a group through shared visions and shared strategies for achievement of visions;
- 'Team Learning' to develop skill, share understanding, and facilitate people to learn from each other, so that groups can develop intelligence and skills greater than the sum of the talents of individual group members; and
- 'Systems Thinking', a commitment to examine problems holistically. In Senge's work, this is based upon 'soft' systems dynamics.

The concept of 'learning organisation' appeals to ideas of self-development through work, and like the human relations perspective sometimes uses the language of humanistic psychology (Senge, 1992). Senge's work incorporates Deming's advice on quality management (Senge, 1994, p37). Senge comments that he believes that the guiding principles Deming's work has never been fully grasped by American firms
The concept of ‘learning organisation’ has been critiqued for its naivety about power relationships (Flood, 2002; Grey, 2001) and its over-simplification of issues in systems thinking (Flood, 2002). The concept of ‘learning organisation’ has an apparent affinity to educational contexts, and it might be expected as a subtext in writing about quality in higher education. It is hard to place Senge’s concept of quality. The focus on quality within Senge’s learning organisation aligns with ‘quality as organisational culture’, Cameron and Sine’s seventh definition in Table 2.1, however, Senge’s overt comments about quality imply a position closer to Deming’s position, and the possibility that quality is defined transcendentally, as in Cameron and Sine’s first definition.

The advice of both Peters and Waterman and that of Senge, focus on different perceived problems faced by post-industrial organisations. Peters and Waterman’s ‘excellence model’, is a response to perceptions of excessive hierarchy and diversification of function, which they claim are unsuitable to post-industrial conditions. Senge’s Learning Organisation’ appears to be both a development of the concerns of the human relations theorists to suit post-industrial conditions, with its focus on job satisfaction and self development, and a response to perceived needs for organisations to be able to respond more rapidly and effectively to changing environments in post-industrial society. Peters and Waterman’s advice is firmly tied to the values of market-based management theory, whilst the link between Senge’s advice and market theories is more tenuous because the interpretivist basis of his advice is not consistent with a belief in unitary social values. Peters and Waterman select from Japanese cultural practices, whilst Senge claims that American businesses have failed to understand how Japanese quality management works because they have tried to implement techniques and methods in isolation from their overall context in the organisation and the culture (Senge, 1994).

**Benchmarking:** Modern benchmarking began, according to Evans, when Xerox realised that Japanese office equipment was selling in the U.S. at a price lower than it cost Xerox to manufacture similar equipment. This prompted Xerox to compare its own manufacturing processes with those of its competitors to find out how Xerox could improve its processes (Evans, 1994). According to Evans,

Benchmarking is deciding what is important; understanding how you now do it and how well you do it; learning from others how they do it; and
applying what you have learnt in a way that leads to your doing it better than before. Then you do it all again (Evans, 1994, p7).

At its simplest, benchmarking is a collection of techniques to help organisations improve how they do things. Benchmarking uses statistical techniques to identify:

- How processes take place within the organisation under study;
- What process problems exist and what areas of organisational functioning could be improved;
- Whether people in similar organisations have overcome these problems; whether they have done this; and,
- How what they have done can be adapted to suit the organisation under study.

The process is then used iteratively to identify further improvements. Benchmarking advice suggests that firms should always seek to improve what they do, and may aspire to achieve 'best practice', by equalling or exceeding the best practice in their industry.

According to Evans, there are four types of benchmarking 'internal', 'competitive' 'functional/industry' and 'process/generic'. 'Internal benchmarking' takes place between divisions within an organisation, ‘competitive benchmarking’ takes place between organisations which compete directly, ‘functional/industry benchmarking takes place between the organisation and the leaders in either a specific function or the industry, and ‘process/generic benchmarking’ compares a single process in one or more dissimilar industries. Books that offer advice on benchmarking explain techniques for: identification of processes; identification of the most pressing process problems; how to find suitable partners; how to approach partners; and how to compare data.

Evans claims that benchmarking fits with the work of both Peters and Senge (Evans, 1994, p4-5), and in this does not seem to be aware of the differences in underlying philosophy between the two writers. She also claims it has been developed based on the ideas of Deming’s work (Evans, 1994, p63), but in fact only seems to refer to one aspect of Deming’s work, which in isolation from the other aspects of his work risks instead creating a system of ‘management by numbers’ of the type Deming opposed. Benchmarking, as described by Evans (1994), emphasises only those of Deming’s principles that fit easily with market based management, and has ignored those of ‘Deming’s principles’ that challenge free market ideology and the political philosophy of late-capitalism.
Advice on business advice: Bing (1995, p617), offers advice about how to live with the ‘fad’ culture of rapidly changing superficial approaches to management in large organisations. He suggests that employees should go along with it to some extent, should not challenge the latest requirements but should not ignore the central part of their job, as he rationalises that the ‘fad’ will go away soon. He compares management’s belief in the new techniques with a newly converted believer’s adherence to a religious cult (by implication strong belief impervious to evidence). He claims that whilst some techniques have potential to improve organisations, most probably do not achieve much because senior management will not adequately adapt the approach to their circumstances and because each technique is liable to be replaced by another short-lived fad, often before it can be implemented fully.

Summary: The effect of Japanese industry can be seen in all the management advice discussed in this section. Deming’s original advice on quality management based upon his experience with Japanese industry over three decades has features that are incompatible with both market-based models of management and scientific management and seem to have a broader focus than human relations theories. Prominent quality management approaches, such as ‘Benchmarking’ and ‘Excellence model’ have tried to combine simplified and selected aspects of Japanese organisational practices but have ignored aspects Japanese management practice not compatible with the assumptions of market-oriented management.

Questions arising from this sub-part:

- How has advice on quality management from commercial settings been assimilated into quality advice for Australian higher education?
- To what extent have the parts of Deming’s advice that are not compatible with market-based management been retained?
- Is the quality management advice developed primarily for commerce applicable to Australian higher education, if so, which parts and with what adaptations or limitations?

Critical management theories

According to Jackson (1991, p183) critical management science (sic) had its origins in the 1970’s when the first radical attacks were launched upon traditional management science. The early critique originated from Soft Systems thinkers, such as Checkland
(1972), and from interpretivist organisational scholars, such as Silverman (Ackroyd, 1994; Clegg et al., 1996) who questioned assumptions about the primacy of rationality in organisational and management theory, and Marxist organisational scholars, such as Baverman (Pugh & Hickson, 1993) who questioned the 'naturalisation' of power relationships within mainstream management science. The standard history suggests that Silverman was the first to challenge positivist organisational theory (Clegg, 1994, p24). By the 1990's the 'critical edge' of critical management had moved, and both soft systems thinking and Marxist organisational theory were being interrogated from alternative perspectives, especially those derived from critical theory and postmodernism of resistance. Reed (1996) provides a detailed account of the historical development of organisational studies and Jackson (2003) an account of the emergence of critical systems thinking.

The 'paradigm wars' in organisational studies began in the 1970's when some organisational theorists such as Silverman, Clegg, Burrell and Morgan (Burrell & Morgan, 1979; Clegg et al., 1996) began to critique the positivist and normative basis of mainstream contemporary and previous studies of management and organisations. There are many competing accounts of the history of the 'paradigm wars' in organisational theory (for example, Clegg & Hardy, 1996; Burrell, 1996; Alvesson & Deetz, 1996; M. Reed, 1996; Ackroyd, 1994; J. Martin, 1992; Mingers & Gill, 1997; Donaldson, 1996; Hassard, 1993). In 1979, Burrell and Morgan (1979) first published their typology and legitimised debate about alternative theoretical ways to conceptualise and represent what happens within organisations (Burrell & Morgan, 1979). In this typology (summarised in figure 2.11), Burrell and Morgan differentiate between 'paradigms' within social theory, and within organisational theory. The differentiation is according to two dichotomies. On one axis, theories are placed according to whether the underlying theoretical paradigm assumptions are objectivist or subjectivist; on the other axis, theories are placed according to whether social regulation or radical social change is assumed to be socially desirable. Burrell and Morgan differentiated between 'functionalist', 'interpretivist', 'radical-structuralist' (classical Marxist) and 'radical humanist' sociological 'paradigms' and discussed the implications of different choices of 'paradigm' for organisational theory and research, see figure 2.11. Figure 2.11 illustrates some of the key differences in assumptions about methodology and social relationships that characterise each of the four positions in their simplest form.
### Objectivist / Social order
Favours the use of the classical methods of natural science. Views social relationships naturalistically.

### Objectivist / Social conflict
Views social relationships and power as intimately tied to ideology and ideology as the product of economic relationships. Precepts of Scientific Marxism are given the status of scientific laws.

### Subjectivist / Social order
Rejects the use of the methods of natural sciences. Uses interpretive methods of inquiry for understanding social relationships. Views social relationships as a product of shared interpersonal understandings.

### Subjectivist / Social conflict
Rejects unreflective use of both the classical methods of natural sciences and the methods of interpretive inquiry. Social relationships are considered as a product of shared interpersonal understandings but the ways in which these understandings develop is open to manipulation by social institutions that encourage and propagate ‘false consciousness’.

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**Figure 2.11 Different theoretical and ideological positions, based upon Burrell and Morgan’s typology (Burrell & Morgan, 1979, p29).**

Since the 1970’s approaches to critical management studies have developed in different directions, united in their rejection of positivist organisational theory based in functionalist sociology. Some commentators criticise Burrell and Morgan’s typology because it is not comprehensive or does not do justice to some perspectives. Flood (1990, p83) argues, for example, that the framework does not provide a complete taxonomy of the different possible theoretical positions, that objectivist anti-positivist positions are excluded, (see also Jackson, 1991, p22). Alvesson and Deetz (1996, p195) object that the objectivist/subjectivist divide implicitly privileges the functionalist position, because it conceals the subjective nature of the underlying assumptions in objectivist ontology. Alvesson and Deetz (1996) also note that the typology creates artificial boundaries between theoretical perspectives by implying greater polarisation between positions than is justified. This polarisation has been used to support the (possibly false) idea that there can be no meaningful communication between research findings based in different paradigms. The question of whether the ‘paradigms’ are incommensurate has been widely debated (see for example, Ackroyd, 1992; Brocklesby, 1993; Mingers & Gill, 1997) and the issue of paradigms and their commensurability is
examined in more detail in Chapter 3, in the context of methodology. The survival of Burrell and Morgan’s typology for over two decades and its citation and use in recent work indicates that researchers still find it useful despite its incompleteness and contested conceptual divisions (see for example, Flood, 1990; Jackson, 1991; Lewis & Grimes, 1999).

Alvesson and Deetz (1996, p196) argue that in naming polarities Burrell and Morgan change a ‘continuous world’ into a ‘discontinuous’ one and place together theoretical positions that differ. Despite this, they developed an alternative typology. Their purpose was to highlight important theoretical differences that are collapsed within Burrell and Morgan’s typology, between critical management studies based in critical theory and critical management studies based in oppositional postmodern perspectives, see Figure 2.12.

**Figure 2.12 A reproduction of Alvesson & Deetz ‘Contrasting dimensions from the meta-theory of representational practices’ (Alvesson & Deetz, 1996, p196), incorporating and summarising some material from adjacent tables**

The choice of different pairings of polarities uncovers the origins of some differences within the critical perspective important in current theorisation, especially debate concerned with rationality, moral responsibility and autonomy, the place of ‘grand narrative’ and claims of universalism. Alvesson and Deetz (1996) believe that both critical theory and postmodernism have much to contribute to organisational studies and that the two perspectives can be used to mutually complement each other. They argue:
Without considering postmodern themes, critical theory easily becomes unreflective in regard to cultural elitism and modern conditions of power, and without incorporating some measure of critical theory thought – or something similar that provides direction and social relevance – postmodernism simply becomes esoteric. (Alvesson & Deetz, p211)

This suggests the usefulness of developing research methodologies that can combine insights from each perspective whilst being aware of the tensions created by differences in underlying assumptions.

From a critical management perspective a key objection to all ‘traditional’ management theories based in functionalism, and that includes scientific management, human relations theories, market-based theories and classical theories of public administration, is that functionalist approaches assume that organisations have a unitary social and moral order, whereas all critical perspectives reject this assumption. Whilst functionalist management theory is premised on the belief that individual interest and group interests and values arise from the needs of society where power is viewed naturalistically, critical management views societal power relationships, as contingent and contrived (M. Reed, 1996, p41). Some critical researchers (for example Boje, 1995; Rosile, 1998), have used a ‘storytelling’ frame of reference to analyse how organisational records reflect different competing organisational stories used to legitimate or subvert, managerial power and decision-making.

At its simplest, both neo-marxist critical theory and critical postmodernism are sceptical of the ideology that social relations and power relations are naturally grounded. Postmodern organisational theory is sceptical of claims to universality of human experience; emphasises the importance of taking account of difference in shaping human experience and sceptical about totalising rationality and scientific perspective, sceptical about necessity of progress and improvement deriving from technology, and asserts that ‘truth’ claims, interpreted as claims to power, are not legitimate claims to ‘value free’ knowledge. Neo-marxist critical theory is sceptical of postmodern organisational theory that unwittingly supports reactionary and conservative organisational forms by denying the possibility of positive social change and encouraging passivity and fatalism.

Boje (1999a) draws further distinctions within critical postmodern organisational theory between on the one hand sceptical or affirmative organisational theorists and on the other hand epistemological differences between episodic and not episodic epistemological positions. The affirmative postmodernists believe that postmodern
society offers benefits and opportunities for active positive change. Sceptics are less convinced that postmodern organisations offer improvements and also more pessimistic about the potential for activism to bring about positive change. Those who take an ‘episodic’ epistemological position believe society has already moved from a modern era to a postmodern era or epoch. They believe that knowledge arises in different epochs, is shaped by the epoch, and is unavoidably distorted by the beliefs of the time. Those who take an epistemological position believe that modern and postmodern are epistemologically related and question whether there has been any underlying epistemological change (see the discussion in Boje, 1996, especially Chapter 4).

Boje’s matrix differentiates nine theoretical positions within critical postmodern organisational theory within a matrix according to the underlying epistemological assumptions of the theorists, whether theorists take a sceptical or affirmative position on the possibility of change and whether societal transitions between ‘modernism’ and ‘postmodernism’ are assumed to be episodic or continuous. His matrix contrasts nine possible positions.

Table 2.13 Boje’s Postmodern Matrix on Perspectives in Organisational Theory from (Boje, 1999a, p 3)

<table>
<thead>
<tr>
<th>Epistemic Position</th>
<th>Mid ground</th>
<th>Epistemological (continuity)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Affirmative</strong></td>
<td>There are postmodern organisations. These offer benefits</td>
<td>Appreciate potentialities</td>
</tr>
<tr>
<td><strong>Mid ground</strong></td>
<td>Organisations hybrid of premodern, modern and postmodern</td>
<td>There are multiple postmodern perspectives that give different viewpoints</td>
</tr>
<tr>
<td><strong>Skeptical</strong></td>
<td>Transition from Fordism to post Fordism does not obviate framework of power</td>
<td>Important to remember violence of capitalism to peasantry</td>
</tr>
</tbody>
</table>

The value of this representation lies in separating out different theoretical perspectives that are confounded in other typologies, especially the tension between episodic postmodern theorists, who claim that modern, pre-modern and post-modern organisational forms co-exist, with more or less external legitimation depending on their congruence with normalised assumptions about society, and epistemological critical/postmodern theorists who claim that post-modern organisational forms are merely an adaptation of modern organisational forms in response to societal changes and only superficially different from modern organisational forms (see Clegg et al., 1996; Hassard, 1993, 1996).
From a critical perspective, practical approaches to traditional management (such as management by objectives, strategy planning, building the organisational culture to encourage employees to take responsibility for the excellence of their product) represent variations on the earlier techniques for improvement of job satisfaction, simplifying employee tasks or adapting employee surveillance methods to changed contexts (Boje & Winsor, 1993). Underlying all these approaches is the implicit acceptance of the basic assumptions of capitalism, the primacy of the profit motive and an instrumental view of workers and employees as 'means' of production. These approaches separate 'business' from the requirement to meet genuine human need. The primary purpose of business is to make profit, if necessary through manufacturing human desires among the wealthy and falsely promoting them as needs. This role is divorced from both consideration of the humanity of the workforce, beyond what can be used to 'sell' an approach to management to the workforce, and the real needs of the world's population, especially those who are poor and therefore have no purchasing power or value as customers.

Critical perspectives on management do not accept that management methods can be legitimated solely according to whether they represent effective technical means of achieving business outcomes (M. Reed, 1996, p49). Within critical management there is agreement that the criteria for judging management methods should be broader than the purely technical dimension but disagreement between different perspectives and about what this should include. Habermasian critical management theories affirm that judgements about the value and ethics of the business 'ends' and the effects of management methods on the well being of employees, customers and society are important, while postmodern sceptics within critical management are wary of making any judgement that universalise human needs in any form, as ethical judgements about value and human nature.

Some critical management perspectives have been 'anti-organisation' because of the role of organisations in maintaining 'psychic prisons' that dehumanise relationships between people (Burrell & Morgan, 1979; Morgan, 1986), others accept organisations as an essential part of human culture (Alvesson & Deetz, 1996) and focus research on how organisations can function in ways that avoid dehumanising people. Critical management theorists have also questioned some of the unreflective claims by management writers about supposedly 'postmodern organisations' and the liberating potential of 'postmodern' management methods. Critical management writers have been
sceptical both of claims that so-called postmodern organisational management practices are common (Harley, 1999), and of claims that they are liberating (Boje, 1995).

Critical management perspectives on quality management have generally perceived quality management methods, such as TQM, as 'managerial technologies' to change the internal dynamics of management relationships within organisations, in ways that contribute to the objectification and de-humanisation of the workforce (Boje & Winsor, 1993; Harley, 1999; Steingard & Fitzgibbons, 1993). Whilst the arguments about managerial technologies may be credible for many of the quality management methods in common use, the standard of scholarship of some of the critics of TQM, demonstrates their lack of knowledge of the subject of their critique. Steingard and Fitzgibbons (1993), for example, detail the arguments to support the case that TQM is a managerial technology, but by the authors' admission, their understanding of TQM was primarily derived from an NBC broadcast, and their examples are based upon theoretical generalisations rather than specific case data. Their critique is weakened because they fail to distinguish between TQM (of which Deming is critical), and Deming's system of profound knowledge. Steingard and Fitzgibbon (1993, p28) cite Deming as a supporter of TQM, and claim that the TQM/ the quality movement is unconcerned about workers' job security and is overly concerned with the benefits that accrue to management and shareholders. Deming (Deming, 1986; 1993; Walton, 1989), however, argues strongly for the necessity of worker job security, and against the distortions wrought by management that focuses on stock valuation at the expense of other considerations.

Summary: Within critical management, Reed (1996) suggests that different theoretical perspectives centralise different concerns. He suggests that critical/ structural organisational theory centralises power as its main concern, postmodern organisational theories centralise issues of control, while critical emancipative (critical theory based) organisational theory centralises issues of justice and participation (M. Reed, 1996, p34). Critical management perspectives are united in their scepticism of the assumption that capitalism is a form of economic organisation that is either natural, or ultimately beneficial to all (M. Reed, 1996, p34).

Theorists in critical management have alerted management researchers to the need to integrate management research into the broader epistemological debates in social science. Critical management theorists have alerted organisational researchers to the importance of their assumptions about issues such as the role of social structure and human agency in decision-making, and to the differences between constructivist and
positivist perspectives on knowledge. Critical management theorists have also debated previously ignored issues by mainstream functionalist organisational research, such as whether theorists are making local or global claims, and assumptions about the naturalness, desirability, and role of power in achieving appearances of societal or organisational consensus and dissensus, and acceptance of the naturalisation of prevailing socio-politico-economic structures (M. Reed, 1996, pp45-50). Critical management scholars alert management researchers to the observation that 'objectivist' social science methods that have dominated management research are themselves ideologically based and therefore subjective. These observations are relevant to this research project because the underlying assumptions behind the use of quality management have been insufficiently tested for consistency and for congruency with data gained in other disciplines.

Question arising from this sub-part:

- What ‘managerial stories’ are used to legitimate or subvert commercial management practices in higher education?

*Organisational theory: implications for the research problem:*

From the perspectives of the traditional mainstream management theorists, quality management has different emphases according to assumptions made about the proper purpose and methods of management. In scientific management, quality management emphasises consistency and conformity of product to standards. Lack of quality is addressed through deskilling work tasks by reduction of individual worker responsibility into smaller units and increasing employee surveillance. The human relationship approach to management measures quality similarly but emphasises solutions to loss of quality that improve employee motivation through adjustments to the work environment and improvements to employee welfare arrangements. Market-oriented approaches differ in that ‘quality’ within this perspective is understood as a variable concept related to what is acceptable to the customer. The over-riding criterion for decisions about whether the quality of a product or service needs improvement is referenced only to maximisation of profitable production of goods and services that customers will buy. The different conceptualisations of quality management found by Cameron and Sine (1999) reflects the range of assumptions about management found within traditional management perspectives.
A variety of advice on quality management is available, much of it based upon aspects of Japanese industrial quality management practice. The various sources of advice address different problems and have conflicting implications for practice. Critical management perspectives emphasise the importance of locating management theory and practices in their historico-socio-political context and therefore the importance of incorporation into research of judgements about the values and ethics of both the means of management and its ends. Critical theory based theories of management assert that evaluation of management should not be limited to discussion about the relative efficiency of alternative technical means to co-ordinate people and materials to achieve predetermined outcomes, but also consider the worthiness of the goals, the social environmental and human impact of unintended outcomes and the ethics of the means used to achieve outcomes. Management practices should be appraised according to how they enhance or distort essential humanity in relationships. From postmodern perspectives, there is more scepticism about both the independence of ethics from coercive ideological structures and scepticism about the universality of totalising concepts such as humanity. From both critical theory and postmodern critical perspectives, existing quality management methods are viewed with scepticism because quality management techniques are perceived as a limited technical device that tends to reinforces dehumanising, controlling and unjust power relations.

**Summary:** Different perspectives on management centralise different concerns, which reflect different underlying ideological commitments. This has implications for how management research is approached, for how questions are framed, and for how issues of validity are addressed in research. From critical management perspectives, the existing government position on quality management in Australian higher education has been too narrowly conceived, and has paid insufficient attention to relevant important questions about values, mandate, legitimacy and purpose.

Questions arising from this section:

- What is the most appropriate theoretical perspective for addressing this research problem?

- Which perspectives on management are assumed in documentary discussion of quality in higher education, and what evidence is there of awareness of differences in perspective or conflicts?
• How has advice on quality management from commercial settings been assimilated into quality advice for Australian higher education?

• To what extent have the parts of Deming’s advice that are not compatible with market-based management been retained?

• Is the quality management advice developed primarily for commerce applicable to Australian higher education, if so, which parts and with what adaptations or limitations?

• What ‘managerial stories’ are used to legitimate or subvert commercial management practices in higher education?

Refinement of the Research Problem

The purpose of this section is to identify how the literature examined in this section has clarified the research problem, to identify gaps in existing knowledge, and to develop research questions that enable gaps in existing knowledge to be filled. At the beginning of the project the initial research question was:

Research problem: There are conflicting claims about the appropriateness of commercially derived quality management methods to Australian higher education. Supporters of the use of commercially derived quality management methods assert that these methods have potential to improve university efficiency, accountability and quality (Gallagher, 2000; Harman & Meek, 2000a, 2000b; Kemp, 2000, p56; Kemp, 1999b; Nelson, 2002e). Critics assert that current quality management methods are detrimental to universities and undermine the capability of universities to deliver maximal potential benefits to individuals and to society (Marginson, 2002; Marginson & Considine, 2000; De Lacey & Moens, 1990; Senate Employment Workplace Relations Small Business and Education Committee, 2001; Vidovich, 1998). Evaluation of the basis of conflicting claims is necessary to enable decisions to be made about the usefulness of current practices, whether existing quality management arrangements should be retained and developed, modified, replaced or abolished.

The literature reviewed in this chapter has indicated that:

• Quality is conceptualised in many different ways in both everyday language and in its technical uses;
• Meaning of quality in everyday language is flexibly referenced to the values of the speaker and differs from the six distinct technical usages identified in commercial quality management;

• There are different theories of management derived from different bodies of organisational theory, based in competing epistemological and ideological assumptions, and each of these theories provides the basis for competing advice on how to manage quality in organisations;

• Evaluation of quality depends upon identification of salient issues, selection, interpretation and representation of data, each of which processes is influenced by the values and beliefs of those influencing the processes;

• In Australian higher education there are different value positions concerning the purposes of higher education, and these have implications for roles, relationships, control and power in higher education;

• Quality management in commercial settings has sometimes been ineffective or has failed to deliver the anticipated improvements in profitability, and researchers have offered explanations for the reasons for failure;

• Differences in beliefs about purpose and roles in higher education that have implications for questions of the legitimacy and usefulness of commercially derived quality management practices.

If the findings of this chapter can be summarised in one phrase, it would be that "understanding ‘contested values and perspectives’ is central to understanding the research problem”. In the literature reviewed, there was insufficient awareness of the extent of the implications of contested values and perspectives for the development of quality policy and quality management practices.

The review of literature also indicated that there are several possible modes of failure of quality management, including:

• Poor policy arising from mistakes in interpretation of data;

• Failure because the goals set are not well matched to the available resources;

• Managerial actions can undermine organisational capability and thwart quality improvement when managers, who lack accurate understanding of the systemic effects of decisions, adopt erroneous mental models.
All these modes of failure centralise the importance of accurate interpretation of meaning of data. This requires a satisfactory explanation of data choice and an adequate theory to guide the interpretation of meaning. No adequate theoretical explanation was provided to justify the choice of quality indicators, their interpretation or their link to a coherent concept of quality. No satisfactory basis was found in the literature to resolve the question of whether commercially derived quality management methods were plausibly likely to improve the efficiency, accountability and standards. The literature reviewed suggested that such claims for improvement should be treated with caution, unless supported by good evidence, and good evidence was not found in the review of literature.

**Development of research questions**

The gaps in existing research were identified in the series of questions that emerged from the review. These have been collected together in the order they appeared within the review:

- What is the relationship between ‘excellent standards’ and the technical meanings of quality derived from commercial management?
- If students are customers, what ‘product’ (including services) are students buying from universities?
- How does the customer relationship between universities and students affect the rights of other parties (such as industry and government)?
- Is the ‘customer’ relationship compatible with the overall purposes of universities or the intentions of government policy, as stated in other government policy documents?
- Are the criteria against which university quality is judged, realistic and achievable when judged in the overall context of higher education policy?
- What are the differences in context between Australian higher education and commerce, and what are the implications of this for the use of commercial quality management methods in Australian higher education?
- Can ‘quality’ in higher education be conceptualised in ways that reduce ambiguity, or is it preferable to distil what is useful from the multiple meanings of quality and use a different terminology?
• Do current approaches to quality measurement incorporate advice from evaluation literature to enhance the validity of the design of data selection and interpretation by, for example, taking a holistic approach to evaluation; looking for unintended outcomes; identifying appropriate models to guide the selection and interpretation of data?

• Can satisfactory models be developed to guide the selection of data for the assessment of higher education quality and for the interpretation of meaning of data about higher education?

• Is the current Australian government rationale for quality management coherent in its underlying assumptions? If not, what are the options for making it more coherent? Are there coherent alternatives?

• Is it useful to use the global term ‘quality assurance’ or ‘quality improvement’ for the limited goals of evaluation assumed in the different technical definitions (or models) of quality, especially as there is a lack of fit between technical concepts of quality and the everyday meaning of quality?

• What are the implications for quality management of Australian higher education of research about the effectiveness and modes of failure of quality management in commercial contexts?

• How has management advice on quality management from commercial settings been assimilated into quality advice for Australian higher education?

• To what extent have the parts of Deming’s advice that are not compatible with market-based management been retained?

• Is the quality management advice developed primarily for commerce, applicable to Australian higher education, if so, which parts and with what adaptations or limitations?

• What ‘managerial stories’ are used to legitimate or subvert commercial management practices in higher education?

• What is the most appropriate theoretical perspective from which to address this research problem?

• What perspectives on management are assumed in documentary discussion of quality in higher education, and what evidence is there of awareness of differences in perspective or conflicts?
The questions cluster around seven themes:

- Questions relating to different conceptualisations of quality;
- Questions related to the implications of the similarities and differences in purposes and relationships between educational and commercial contexts;
- Questions relating to the rationale for quality management in Australian higher education;
- Questions arising from the methods and meaning of data collected for quality assessment processes;
- Questions related to the use of commercial quality management methods in Australian higher education;
- Questions about the overall coherency and plausibility of current approaches to quality management;
- A question related to the choice of theoretical perspective for this research.

To clarify meaning or to generalise the question, in some cases minor changes have been made to the wording of questions in the process that follows.

Refinement of research questions and their relevance to the research problem

The purposes of this part of the thesis are to:

- Develop the final form of each research question;
- Use the questions emerging from the review of literature to identify what additional data is required;
- Identify how answers to each question contribute to solving the research problem.

The details of methods of data collection and analysis will be addressed in the next chapter.

Question 1: Concepts of quality

The preliminary analysis from the review of literature indicates that the term ‘quality’ is being used in ways that have multiple technical meanings that differ from the everyday meaning. When the term is used without explicit definition, slippage of meaning is likely to occur, especially when a restricted technical usage is used for one purpose, and is then discussed in another context where everyday speech is used, without its
restricted meaning being made explicit, as for example in a newspaper report or a political speech. The questions that arose from the literature were re-worded to provide the following research question and sub-questions:

Question 1. What conceptualisations of quality are found in Australian higher education in the period 1999-2003 and what are the implications of any differences for interpretation of data about higher education?

a) How are ‘quality’, ‘quality assurance’ and ‘quality improvement’ conceptualised in quality management documentation in policy, strategy and evaluation reports in Australian higher education?

b) Is usage consistent?

c) Does the documentation indicate awareness of difference between different technical usages and everyday usages and the implications of these differences for measurement?

d) What is the relationship between ‘quality’ and ‘standards’?

e) What are the implications of these findings for the research problem?

Table 2.7: Relationship between Questions 1, the research problem and the use of additional data

<table>
<thead>
<tr>
<th>Questions</th>
<th>Data</th>
<th>Insight</th>
<th>Relevance to research problem</th>
</tr>
</thead>
<tbody>
<tr>
<td>How are ‘quality’, ‘quality assurance’ and ‘quality improvement’ conceptualised in quality management documentation in policy, strategy and evaluation reports in Australian higher education? Is usage consistent? Does the documentation indicate awareness of difference between different technical usages and everyday usages and the implications of these differences for measurement?</td>
<td>Preliminary conceptual analysis in this chapter; Identify different concepts of quality used in sample documentation at policy, strategy and program evaluation levels</td>
<td>Find out how much variation there is in usage</td>
<td>If variation great, might be better to use different terminology to reduce potential for ambiguity and slippage. If consistency found, there is less case for changing terminology</td>
</tr>
<tr>
<td>What is the relationship between standards and the technical meanings of quality derived from commercial management?</td>
<td>Identify how the concept of standards is used in sample documentation at policy, strategy and program evaluation levels</td>
<td>Is usage consistent; Compare usage with Cameron and Sine’s (1999) categories</td>
<td>Consistency of meaning would give confidence about adequacy of the concept</td>
</tr>
<tr>
<td>What are the implications of these findings for the research problem?</td>
<td>As above, but noticing how the terms ‘quality assurance’ and ‘quality improvement’ are used</td>
<td>As above, ‘quality improvement’ and ‘quality assurance’</td>
<td>As above</td>
</tr>
</tbody>
</table>
**Additional data required:** Identify the conceptualisations of quality explicit in policy and management strategy or implied by data used for the measurement of quality. Identify whether restricted technical meanings are explicitly acknowledged.

*Question 2: Context of higher education: Purposes, roles and relationships*

The questions that arose from the literature were re-worded to provide the following research question and sub-questions:

**Question 2.** What is the relationship between the intended purposes of Australian higher education, the roles and relationships required to achieve these purposes, and concepts of quality?

* a) What purposes, roles and relationships are assumed in quality management documentation in policy, strategy and evaluation reports in Australian higher education?

* b) If a customer relationship is assumed, how does this influence other roles and relationships?

* c) Are the purposes roles and relationships found in the documentation consistent with the purposes, roles and relationships implied by the concepts of quality identified in Q1?

* d) What are the implications of these findings for the research problem?
Table 2.8: Questions related to similarities and differences between purposes, roles and relationships in Australian higher education the research problem and the use of additional data.

<table>
<thead>
<tr>
<th>Question</th>
<th>Data and analysis</th>
<th>Insight</th>
<th>Relevance to research problem</th>
</tr>
</thead>
<tbody>
<tr>
<td>What purposes, roles and relationships are assumed in quality management</td>
<td>Preliminary conceptual analysis in this chapter, identify different purposes and relationships used in sample documentation at policy, strategy and program evaluation levels. Analysis of similarities and differences between roles, relationships and purpose in education and commerce.</td>
<td>Similarities and differences in purposes, relationships and roles, from multiple sources.</td>
<td>The degree of similarity or difference will indicate the degree of adaptation of commercial methods required for use in Australian higher education.</td>
</tr>
<tr>
<td>If a customer relationship is assumed, how does this influence other roles and relationships?</td>
<td>Analysis of relevant documents to find out whether students are referred to as customers, or is a customer relationship implied by interpretation of higher education data.</td>
<td>Does the documentation at policy, strategy and program evaluation level reflect a consistent understanding of the nature of the relationship between students and universities and the implication for other relationships.</td>
<td>Is there a problem for other parties if students are customers? If so, is this important?</td>
</tr>
<tr>
<td>Are the purposes, roles and relationships found in the documentation consistent with the purposes, roles and relationships implied by the concepts of quality identified in Q1?</td>
<td>Conceptual analysis</td>
<td>Have commercial quality management methods been adapted and applied consistently?</td>
<td>What are the consequences for quality management if usage is inconsistent? Can usage be made consistent and coherent?</td>
</tr>
<tr>
<td>What are the implications of these findings for the research problem?</td>
<td>As above</td>
<td>As above</td>
<td>As above</td>
</tr>
</tbody>
</table>

Additional data required: identify how the purposes of higher education, the roles and relationships are conceptualised, either explicitly or by implication in policy, strategy and evaluation documentation. Are the conceptualisations consistent, coherent, and compatible with the assumed purposes roles and relationships found in commercial quality management?

**Question 3: Questions relating to the rationale for quality management in Australian higher education**

The questions that arose from the literature were re-worded to provide the following research question and sub-questions:
Question 3. Are the recommendations of the Australian government for processes of quality management in higher education consistent with government ideology and its intended purposes for higher education?

a) What is the Australian government rationale for higher education quality management?

b) Are the rationale(s) consistent with the definitions of quality in Q1 and the intended purposes of higher education in Q2?

c) How does quality management as implemented privilege particular assumptions about universities, students and the academic role?

d) What are the implications of these findings for the research problem?

Table 2.9: Questions related to the rationale for quality management the research problem and the use of additional data.

<table>
<thead>
<tr>
<th>Question</th>
<th>Data</th>
<th>Insight</th>
<th>Relevance to research problem</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is the Australian government rationale for higher education quality management? Are the rationale(s) consistent with the definitions of quality in Q1 and the intended purposes of higher education in Q2?</td>
<td>Conceptual analysis of rationale as stated in policy documents and research briefs</td>
<td>Find out whether a coherent set of ideological commitments underpin the policy for quality management in Australian higher education</td>
<td>If quality management rationale is not consistent with the definition of quality and purposes of HE then the basis is unsound</td>
</tr>
<tr>
<td>How does quality management as implemented privilege particular assumptions about universities, students and the academic role?</td>
<td>Documents that explain the rationale for quality management</td>
<td>Deconstruct stories used to legitimate and stories used to resist commercial quality management methods</td>
<td>Uncovers hidden untested assumptions</td>
</tr>
</tbody>
</table>

Additional data required: An analysis of the Australian government rationales for quality management, to identify managerial stories.

To be answered by: Documentary analysis to identify the rationale for quality management, its supporting ‘managerialist stories’.

*Question 4: Questions arising from the methods and meaning of data collected for quality assessment processes*

Some questions were combined and reworded to produce the following research questions and sub-questions.

Question 4. Are the quality management methods adopted by Australian higher education adequate when assessed against established standards of educational evaluation?
a) What data is identified in the documentation examined, as indicative of 'quality'?

b) Is the conceptualisation of quality consistent for different 'quality indicators', and consistent with the findings about the context of higher education, as found in Q2?

c) Is there agreement in the documentation about the interpretation of the meaning of data for quality?

d) Is there an adequate theoretical basis to justify the inferences about quality found in the documentation?

e) How are the difficulties of interpretation and representation of meaning identified in the evaluation literature reflected in the approaches to the interpretation of data reported in the documentation?

f) What evidence is there from the documentation of attempts to monitor unintended outcomes of quality management?

g) What evidence is there of holistic approaches to quality management?

h) What evidence is there of processes intended to ensure that intended outcomes are realistic within the resources available?

i) What are the implications of these findings for the research problem?
Table 2.10: Questions arising from the methods and meaning of data collected for quality assessment processes, the research problem and the use of additional data.

<table>
<thead>
<tr>
<th>Question</th>
<th>Data</th>
<th>Insight</th>
<th>Relevance to research problem</th>
</tr>
</thead>
<tbody>
<tr>
<td>What data is identified in the documentation examined, as indicative of 'quality'? Is there agreement in the documentation about the interpretation of the meaning of data for quality? Is there an adequate theoretical basis to justify the inferences about quality found in the documentation? How are the difficulties of interpretation and representation of meaning identified in the evaluation literature reflected in the approaches to the interpretation of data reported in the documentation?</td>
<td>Collect data on what quality indicators are used. Select one or two significant indicators and Look for an adequate explanatory model to guide interpretation in the literature on higher education.</td>
<td>If there are no models for key 'quality indicators', then there is no valid basis for claiming that this data can be used as a surrogate for quality. Are the methods used to measure quality in Australian higher education, as evidenced in the documentation examined, consistent with the principles of educational evaluation?</td>
<td>Would reduce the credibility of claims about any quality indicators for which a reliable theoretical model could not be found</td>
</tr>
<tr>
<td>What evidence is there from the documentation of attempts to monitor unintended outcomes of quality management? What evidence is there of holistic approaches to quality management? What evidence is there of processes intended to ensure that intended outcomes are realistic within the resources available?</td>
<td>Collect data from document analysis about comprehensiveness of the evaluation processes and what measures have been taken to ensure that the goals of evaluation are realistic Systemic analysis of quality policy and university strategy to connect macro with micro: How do higher education policies combine to influence quality at the micro-level?</td>
<td>Provides an indication of the comprehensiveness of the evaluation If the goals are not realistically achievable, policy will fail</td>
<td>Some of the purposes of quality assurance require comprehensive evaluation</td>
</tr>
<tr>
<td>Is the conceptualisation of quality consistent for different 'quality indicators', and consistent with the findings about the context of higher education, as found in Q2?</td>
<td>Examination within and across documents for consistency of interpretation. Comparison between the findings about interpretation of data used as quality indicators and the findings about intended purpose and required roles and relationships in question 2</td>
<td>Provides evidence of consistency</td>
<td>Consistent interpretation is important to credibility of the methods of measurement of quality</td>
</tr>
</tbody>
</table>

Satisfactory evaluation requires a model that will guide interpretation of data to produce meaning. In the case of Australian higher education, this requires that for each quality indicator, there should be a model capable of explaining how the data relates to an explicitly stated conceptualisation of quality. There was no evidence in the existing literature that this had been done. It appeared that certain data sets were assumed on a commonsense basis, to indicate quality. The section on educational evaluation also identified the importance of looking for unintended outcomes of management interventions.
**Additional data required:** Identify what data is being used as quality indicators, and whether there is a model capable of explaining the link between an explicit concept of 'quality' and the indicator. Is there any process by which unintended outcomes are identified? Identify whether the selection and use of 'quality indicators' conforms to the standards of good practice as found in the literature on educational evaluation. This set of questions will be answered by selected document analysis, and for one or two selected indicators, a review of additional literature to find out whether there is the basis for an adequate model. Holistic analysis of affects of the combined affects of quality management and other management interventions on the time allocation choices of academic staff. Devise methods for testing this means of analysing the affects of multiple management strategies on quality: test in one Australian university and see what happens. Use this to analyse the combined affects of multiple government policies on quality improvement processes at a new university and the implications for likely success of quality management methods.

**Question 5: Questions related to the use of commercial quality management methods in Australian higher education**

Some questions were combined and reworded to remove duplication and give the following research question and sub-questions.

Question 5. How has existing research about efficacy and failure of quality management practices in industry affected policy and practices for quality management in Australian higher education?

a) What commercial 'management advice' is reflected in quality management documentation in policy, strategy and program evaluation in Australian higher education, and how has it been adapted to the context of higher education?

b) What claims are made about the effectiveness of quality management measures?

c) Is there evidence in the documentation of awareness of the research on effectiveness and modes of failure of commercial quality management methods in industry?

d) What are the limitations of applicability of commercial quality management methods because of differences in context?

e) What are the implications of these findings for the research problem?
The review of literature also indicated that there had been research into both the efficacy of quality management in achieving commercial goals and the reasons for its failure. The applicability of research to higher education does not appear to have been assessed by those designing quality management policy or strategy in Australian higher education.

Table 2.11: Questions related to differences in assumptions about the purposes and role of management the research problem and the use of additional data

<table>
<thead>
<tr>
<th>Question</th>
<th>Data</th>
<th>Insight</th>
<th>Relevance to research problem</th>
</tr>
</thead>
<tbody>
<tr>
<td>What commercial ‘management advice’ is reflected in quality management</td>
<td>Examine, policy, strategy and program evaluation documents for</td>
<td>What adaptations are being made? Have some sources of advice been</td>
<td>Is management advice being adapted to the educational context? Is</td>
</tr>
<tr>
<td>documentation in policy, strategy and program evaluation in Australian</td>
<td>evidence of assimilation of management advice and how the advice</td>
<td>well suited to an educational context? Are they well suited to an</td>
<td>this being done taking account of the differences</td>
</tr>
<tr>
<td>higher education, and how has it been adapted to the context of higher</td>
<td>has been adapted to the educational context</td>
<td>educational context? Are they well suited to an educational context?</td>
<td></td>
</tr>
<tr>
<td>education?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>What claims are made about the effectiveness of quality management</td>
<td>Examine, policy, strategy and program evaluation documents for</td>
<td>If the methods can be suitably adapted, do they uncover any</td>
<td>Provide a pilot study of new method to determine whether</td>
</tr>
<tr>
<td>measures? Is there evidence in the documentation of awareness of the</td>
<td>evidence of research findings about into efficacy and failure</td>
<td>potential difficulties with the use of quality management methods</td>
<td>quality management methods are likely to support quality</td>
</tr>
<tr>
<td>research on effectiveness and modes of failure of commercial quality</td>
<td>influenced higher education. Test applicability of key findings to</td>
<td>in a single test case?</td>
<td>improvement or undermine capacity</td>
</tr>
<tr>
<td>management methods in industry? What are the limitations of applicability</td>
<td>higher education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>of commercial quality management methods because of differences in context?</td>
<td></td>
<td></td>
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</tbody>
</table>

Additional data required: Identify a method to determine whether the research on efficacy and failure is applicable to Australian higher education quality management.

To be answered by: Documentary analysis to identify what management advice was being used and whether and how it was being adapted for Australian higher education and analysis of the applicability to higher education of the conceptual categories of Cameron & Sine (1999) and Repenning & Sterman (1997).

**Question 6: Questions about the overall coherence and plausibility of current approaches to quality management**

From the existing literature, it is by no means clear that the goals of quality management as presented in the rationales for quality management are either realistic or achievable. If the rationales are not achievable, they cannot form a sound basis for strategy, but rather have the status of a wish list. There was no evidence in the existing literature the policy makers have assessed policy to see if the intended outcomes are realistic and achievable.
Question 6. According to the evidence presented in this research, is the current approach to quality management coherent, consistent and plausibly likely to achieve intended outcomes whilst avoiding unintended outcomes?

a) Are the criteria against which university quality is judged, justifiable, realistic and achievable when judged in the overall context of higher education policy?

b) Are current Australian quality management strategies and methods plausibly likely to achieve their intended objectives?

c) Collate the research findings and analyse the implications for:

i) Australian Higher education Policy

ii) Australian Higher education management

iii) Broader application of findings

iv) Theory development

v) Future research

Table 2.12: Questions about conclusions and implications of research findings

<table>
<thead>
<tr>
<th>Question</th>
<th>Data</th>
<th>Insight</th>
<th>Relevance to research problem</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are the criteria against which university quality is judged, justifiable,</td>
<td>Compare the answer to all the previous questions.</td>
<td>Indicates plausibility of the assumptions that</td>
<td>May provide indicative data on whether quality</td>
</tr>
<tr>
<td>realistic and achievable when judged in the overall context of higher</td>
<td>Examine policy, strategy and program evaluation documents for</td>
<td>underpin the quality management system</td>
<td>criteria are realistic</td>
</tr>
<tr>
<td>education policy? Are current Australian quality management strategies</td>
<td>evidence of tensions;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>and methods plausibly likely to achieve their intended objectives?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>What are the implications of this research for future research into</td>
<td>Overview of research finding, in context of literature</td>
<td>Indicate areas where more information is required or</td>
<td>Contribute to analysis of possible directions for</td>
</tr>
<tr>
<td>quality management in higher education; quality policy in Australian</td>
<td></td>
<td>where change is required</td>
<td>improvement of current policies and practices</td>
</tr>
<tr>
<td>higher education; strategy for managing quality in Australian higher</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>education; and, processes for evaluating higher education?</td>
<td></td>
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</tbody>
</table>

Additional data required: Use data collected in answer to questions 1-5.

To be answered by: this question will be answered by collation of the findings from all the research questions and elucidation of the implications of the findings for policy practice and research. This question will be addressed in Chapter 6, in the conclusion to the thesis.
Question 7: What is the most appropriate theoretical perspective for addressing this research problem?

The review identified several possible perspectives on management. This research will proceed from a critical management perspective because:

a) Critical management perspectives acknowledge the importance of differences in values and assumptions for the ways in which management studies are framed and the choice of method, and differences in values and assumptions emerged in the review of literature as an important feature of the research problem; and,

b) Because the approach of critical management to the study of organisations is informed by debates in the other social sciences about topics (such as the nature of knowledge, agency and conditions of societal power), these issues also emerged in the review of literature especially in the existing critiques of quality management.

Table 2.13 Questions about theoretical perspective for the research

<table>
<thead>
<tr>
<th>Question</th>
<th>Data</th>
<th>Insight</th>
<th>Relevance to research problem</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is the most appropriate theoretical perspective for addressing this research problem?</td>
<td>Discussed in this chapter</td>
<td>Critical management perspective because recognises the importance of values in the framing questions and integrates approach to organisational study with social science theory and will accommodate pluralistic approaches. Most appropriate for an interdisciplinary study</td>
<td>Choice of perspective influences what issues are problematised. If other approaches had been chosen, the effects of competing values and ideologies in education would have been difficult to accommodate. If a purely technical solution were sought to a well defined problem, a different approach might have been justified</td>
</tr>
</tbody>
</table>

This question can be answered briefly now, based upon the analyses presented in Chapter 2 and will be explained more fully in the next chapter.

A critical management perspective was chosen based upon the review of literature on different perspectives on management. The research will draw upon both critical theory and postmodernist perspectives on management.

Summary

Initial research problem: There are conflicting claims about the appropriateness of commercially derived quality management methods to Australian higher education. Supporters of the use of commercially derived quality management methods assert that
these methods improve university efficiency, accountability and quality while critics assert that current quality management methods are detrimental to universities and undermine the capability of universities to deliver maximal potential benefits to individuals and to society. Evaluation of the basis of conflicting claims is necessary to enable decisions to be made about the usefulness of current practices, whether existing quality management arrangements should be retained and developed, modified, replaced or abolished. It is important to find a way of assessing these competing claims.

The questions generated by the literature review in this chapter have developed the following questions and sub-questions that will be answered by analysis of data collected during this research. Data will be gathered to answer each of the sub-questions. The following research questions and sub-questions form the basis of the research reported in this thesis:

**Question 1: Concepts of quality**

What conceptualisations of quality are found in Australian higher education in the period 1999-2003 and what are the implications of any differences for interpretation of data about higher education?

a) How are ‘quality’, ‘quality assurance’ and ‘quality improvement’ conceptualised in quality management documentation in policy, strategy and evaluation reports in Australian higher education?

b) Is usage consistent?

c) Does the documentation indicate awareness of difference between different technical usages and everyday usages and the implications of these differences for measurement?

d) What is the relationship between ‘quality’ and ‘standards’?

d) What are the implications of these findings for the research problem?

**Question 2: Context of higher education: Purposes, roles and relationships**

What are the relationships between the conceptualisations of quality found in documentation about quality in Australian higher education and the intended roles, relationships and purposes of Australian higher education?
a) What purposes, roles and relationships are assumed in quality management documentation in policy, strategy and evaluation reports in Australian higher education?

b) What are the implications of the findings? If a customer relationship is assumed, how does this influence other roles and relationships?

c) Are the purposes roles and relationships found in the documentation consistent with the purposes, roles and relationships implied by the concepts of quality identified in Q1?

d) What are the implications of these findings for the research problem?

Question 3: Rationale for quality management

Are the recommendations of the Australian government for processes of quality management in higher education consistent with government ideology and its intended purposes for higher education?

a) What is the Australian government rationale for higher education quality management,

b) Are the rationale(s) consistent with the definitions of quality in Q1 and the intended purposes of higher education in Q2?

c) How does quality management as implemented privilege particular assumptions about universities, students and the academic role?

d) What are the implications of these findings for the research problem?

Question 4: Quality measurement

Are the quality management methods adopted by Australian higher education adequate when assessed against established standards of educational evaluation?

a) What data is identified in the documentation examined, as indicative of 'quality'?

b) Is the conceptualisation of quality consistent for different 'quality indicators', and consistent with the findings about the context of higher education, as found in Q2?

c) Is there agreement in the documentation about the interpretation of the meaning of data for quality?
d) Is there an adequate theoretical basis to justify the inferences about quality found in the documentation?

e) How are the difficulties of interpretation and representation of meaning identified in the evaluation literature reflected in the approaches to the interpretation of data reported in the documentation?

f) What evidence is there from the documentation of attempts to monitor unintended outcomes of quality management?

g) What evidence is there of holistic approaches to quality management?

h) What evidence is there of processes intended to ensure that intended outcomes are realistic within the resources available?

i) What are the implications of these findings for the research problem?

**Question 5: Commercial quality management methods**

How has existing research from commerce about efficacy and failure of quality management practices, affected policy and practices for quality management in Australian higher education?

a) What commercial ‘management advice’ is reflected in quality management documentation in policy, strategy and program evaluation in Australian higher education, and how has it been adapted to the context of higher education?

b) What claims have been made about the effectiveness of quality management measures?

c) Is there evidence in the documentation of awareness of the research on effectiveness and modes of failure of commercial quality management methods in industry?

d) What are the limitations of applicability of commercial quality management methods because of differences in context?

e) What are the implications of these findings for the research problem?

**Question 6: Conclusions and implications**

Refer back to the research problem and assess:

f) Are the criteria against which Australian university quality is judged, justifiable and realistic?
g) Are current Australian quality management strategies and methods plausibly likely to achieve their intended objectives?

h) What are the implications of these findings for:
   i) Australian higher education policy
   ii) Australian higher education management
   iii) Quality management in other contexts educational and public service contexts
   iv) Theory development
   v) Future research

**Conclusions**

Many interrelated issues have emerged from the review of literature and this indicates the issue is highly complex. From the perspective of the design of this research, the most salient finding is that contested values about purpose, meaning and interpretation of data in Australian higher education management, means that the research methods chosen have to be capable of encompassing both the complexity of the interrelated issues and the implications of contested value positions.

The questions that emerged within this chapter contribute primarily to the area of applied research (Patton, 1990, p162) and Boyer’s ‘scholarship of integration’ (Boyer, 1990; Coaldrake & Stedman, 1998). These questions were compared with the initial research problem and re-ordered to provide the framework for developing a research design for data collection and analysis. The questions have been further regrouped around the themes in the original research problem of: 1) conceptual integrity 2) adaptation to context; 3) rationale of quality management; 4) adequacy of quality measurement; 5) methods of quality management and evidence of cross over to education of research from commerce on efficacy and failure 6) evidence about likely efficacy and implications for the future directions. The research will use a critical management perspective.
CHAPTER 3
RESEARCH DESIGN

Introduction

Chapter 3 explains the research design for this research. There are different opinions about the conceptual relationship between ontology, epistemology, theory, methodology and methods because of differences in what constitutes 'scientific method' (Blaikie, 2000, p7; May, 1997, p17), and this chapter follows Crotty's (1998) outline for describing of the research process. Crotty, (1998, p4), conceptualised the social science research processes in terms of having four elements, epistemology, research perspective, methodology and methods. This demarcation separates methodological issues from issues of theoretical perspective, but considers relevant ontological issues alongside epistemological and theoretical concerns, rather than as separate issues. Crotty (1998, pp10-12) argues, for example, that realism does not entail objectivism, even though objectivism entails realism, and hence there is no gain in discussing ontological issues separately from the epistemological stance and the theoretical perspective. He argues that it is more useful to make implied ontological commitments explicit within the epistemology and the theoretical framework, as they arise than to consider them in separate discussion. This creates some arbitrary demarcations, as within the both structuralist/ post-structuralist traditions, and the traditions of critical theory the distinctions between social theory and epistemology have blurred, because it is not possible to insulate 'knowledge-claims' of social science from the social world that we inhabit (Giddens, 1987, p71). I have decided to use this structure despite this disadvantage, for ease of explanation and presentation.

The demarcation between the elements is defined as follows: 'Method' refers to techniques and procedures used to gather data in relation to the research questions, hypotheses or investigation (Blaikie, 2000, p8; Crotty, 1998, p3). 'Methodology' is used to refer to discussion of how the research has been undertaken, and discussions of the adequacy of the research methods (Crotty, 1998, p3), justification for choice of methods and the 'logics' of the methods chosen (Blaikie, 2000, p8). 'Theoretical perspective' for Crotty (1998, p3), refers to the philosophical stance that informs the methodology and grounds its logic and criteria, although Blaikie (2000, p8) includes this discussion in the methodology. I have chosen to outline the theoretical perspective separately from the
discussion of methodological issues, following Crotty (1998, p3), but to discuss the implications of choice of theoretical perspective within the section on methodology, which reflects elements of Blaikie’s position. ‘Epistemology’ is defined as ‘the theory of knowledge embedded in the theoretical perspective and thereby in the methodology (Crotty, 1998, p3).

This demarcation is used to structure discussion of the research issues in this thesis. The elements of the research design for this thesis are summarised in Table 3.1. The rest of the chapter will provide an explanation and rationale for the epistemological, theoretical and methodological approach of this research, and details of research methods and techniques.

Table 3.1 Summary of the research design

<table>
<thead>
<tr>
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<th>In this research</th>
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</thead>
<tbody>
<tr>
<td>Epistemology</td>
<td>Social Constructionist</td>
</tr>
<tr>
<td>Theoretical perspective</td>
<td>Critical inquiry: modern/postmodern</td>
</tr>
<tr>
<td>Methodology</td>
<td>multi-method</td>
</tr>
<tr>
<td>Methods</td>
<td>Document analysis; qualitative systems diagramming; narrative;</td>
</tr>
</tbody>
</table>

This chapter is divided into six sections. This section explains how different sections of the chapter fit together. The second section explains the epistemological position taken in the research and justifies the choice of theoretical perspective for the research. The third section discusses methodological issues. The fourth section explains the research procedures. The fifth section discusses ethical considerations arising from the research. The sixth section provides a summary of the chapter.

Justification for the Epistemology and Theoretical Perspective

The first part of this section explains and justifies the epistemological position taken in this research. The second part of this section explains and justifies the theoretical perspective taken in this research.

Epistemological considerations

The history of modern (post-enlightenment) epistemology in the English philosophical tradition can be traced directly from the eighteenth century philosophers to the present day (Giddens, 1987, p53). The concerns of Locke, and Hume laid the foundations for the work of the British empiricist tradition, which asserted that knowledge arises from experience and rationality (in Hume supplemented by intuition), and by these means, the world could be known (Honderich, 1995, p244). This tradition of analytical
philosophy has developed separately from the social sciences, concerned with epistemology in isolation from social theory (Giddens, 1987, p53). Berkeley, who argued against Locke, provided the modern foundations for subjective idealism (Honderich, 1995, p387), and influenced German idealist philosophy of Kant and Hegel (Honderich, 1995, p37). These traditions give rise to the opposition within Anglo-Saxon philosophy and social theory between objectivity and subjectivity (Giddens, 1987, p59).

Some theorists have rejected this traditional opposition. Alvesson and Deetz (1996) argue from a critical perspective that the objectivist/subjectivist divide implicitly privileges the objectivist position because it ignores the subjectivist nature of objectivist assumptions. Giddens argues that these apparent oppositions between 'social structuralist' and 'linguistic structuralist' traditions disguises a 'complementarity' of the two approaches (Giddens, 1987, p60) which he calls 'structuration theory'. Both 'structuration theory' and the critical approach to social theory taken by Alvesson and Deetz reject the epistemological adequacy of either subjectivist or objectivist approaches alone. Martin explains this point in the following way:

The social scientific perspective is an interpretivist framework that is subjectively imposed on the process of collecting and analysing cultural data. The social scientific perspective is not considered to be an objective description of empirical facts. This is not because researchers are careless, dishonest, or otherwise inadequate social scientists. It is because different researchers, studying the same cultural members and the same organisational events with equal care, skill, and honesty may evaluate, recall, and interpret what happens differently. This is so, in part, because who a researcher is, or is seen to be, may affect what cultural members say and do. In addition, different researchers have different preconceptions, sensitivities, and skills (J. Martin, 1992, p 12-13)

Both structuration theory positions and the approach taken by Alvesson and Deetz entail rejection of the objectivist position, but also imply that meaning is not purely subjective because the separate existence of the object provides some shared parameters as a starting point for the social interpretation of meaning within a shared cultural context. The social origin of meaning also implies that meaning is not individually constructed, and hence is not purely subjective (although the position described by Martin is also compatible with radical subjectivism). These positions and other similar positions have been referred to as social constructionist or social constructivist perspectives on knowledge (Berger & Luckmann, 1966; Crotty, 1998; Schwandt, 1994). Social constructionist/constructivist positions allow that physical objects exist independently of human consciousness, but assume that the construction of meaning of objects relies
on social processes. Social processes aid interpretations of meaning within particular cultural contexts, on the assumption that institutions already extant in society, and culture in which all humans are embedded provides a source of interpretative strategies used by individuals to construct meaning (Berger & Luckmann, 1966; Crotty, 1998, p58).

The meaning of the terms constructionism/constructivism is not consistent in the literature (Crotty, 1998). The term 'constructivism' in this thesis refers to the meaning that each individual makes of phenomena, and is used where a subjectivist position is assumed, while social constructionism includes the effects of culture and sub-culture (Crotty, 1998; Schwandt, 1994, p127). Crotty (1998, p48) characterises the social constructionist epistemology as one that entails 'bringing objectivity and subjectivity together and holding them together throughout the process'. This view of knowledge implies that meaning is made, and does not derive directly from properties of the object. Crotty (1998, p58) explains the relationship between culture, objects and meaning, in the following way:

Social constructionism emphasises the hold that culture has on us; it shapes the way in which we see things (even the way in which we feel things!) and gives us a quite definite view of the world. This shaping of minds by culture is to be welcomed as what makes us human and endows us with the freedom we enjoy. For all that, there are social constructionists aplenty who recognise that it is limiting as well as liberating and warn that, while welcome, it must also be called into question. On these terms, it can be said that constructivism tends to resist the critical spirit, while constructionist tends to foster it

Denzin and Lincoln (1994, p200) discuss the constructionist paradigm separately from the critical paradigm in their 'four paradigm' schema (positivist, post-positivist, constructionist and critical). Burrell and Morgan (1979, p29) divided the constructionist paradigm between the radical humanist paradigm, which was sociologically critical, and the interpretivist paradigm which was sociologically normative. Crotty (1998, p57-58) argues that research informed by an individual constructivist perspective accepts individual interpretation uncritically, whilst a social constructionist perspective is more 'critically aware' of the negative as well as the positive affects of cultural socialisation. He argues that, therefore, the critical tradition and especially critical theory, is more 'suspicious' than some other theoretical perspectives of how culture shapes constructed meanings, because culture develops hegemonically to align with the interests of powerful factions in societies (Crotty, 1998, p59). In this interpretation, he aligns with the position taken by Burrell and Morgan (1979).
Theoretical perspective

Social constructivism/constructionism encompasses diverse theoretical perspectives and includes structuration theory, critical theory, some critical postmodern and many interpretivist social theories. The theoretical perspective adopted for this research derives from critical inquiry. The reasons for choosing a critical perspective arise from features of the research problem. The review of literature identified that many of the disputes about definitions of quality, and about perceptions of quality in higher education, arise from differences in values of the speaker that affect issues of meaning, and differences about 'boundary issues' concerned with judgements about what it was relevant to consider when quality is evaluated (Midgley, Munlo, & Brown, 2003). An interpretivist framework was not chosen because there is already an accumulation of data that indicates variety in perceptions of quality, as illustrated in Chapter 2. It did not seem useful simply to add to this literature. The feature of the research problem that suggested a critical approach rather than an interpretivist approach was the intention to contribute to the debate about adequacy of current methods, and possible ways to proceed in future. A positivist framework is capable of assessing the success of existing approaches to quality, but cannot adequately accommodate diversity in values about 'boundaries' and meaning. For these reasons, critical inquiry was chosen as the theoretical perspective for this research. This decision leaves only the question of what kind of critical inquiry.
The literature on critical management reviewed in Chapter 2 indicated that critical inquiry has spawned a variety of approaches within critical management studies. The main current debates within critical management are between and within, approaches based in critical theory, especially based upon the social theory of Habermas or others connected with the Frankfurt School, and those based upon a variety of critical postmodern theories. Within critical systems theory, there is a similar debate (see Flood, 1990; Flood & Jackson, 1991; Gregory, 2003; Jackson, 2000; Midgley, 2003). It was argued in Chapter 2 that the central point of agreement between critical management and critical systems theories is in rejection of naturalistic explanations of societal power structures and an affirmation that individual and collective subjective
perceptions are sometimes based upon delusions. Alvesson and Deetz express the similarities in the following ways:

Both draw attention to the social/historical/political construction of knowledge, people, and social relations, including how each of these appears in contemporary organisations. And they share a view that domination is aided, and both people and organisations lose much, if we overlook these construction activities by treating the existing world as natural, rational and neutral. In critical theory's language, the concern is reification; in postmodernism the philosophy of presence. Based on this naturalisation and freezing of contemporary social reality, important conflicts – options for reconsiderations and questioning – are lost and different groups of people as well as vital values are marginalised and disadvantaged. Both see organisations and the social sciences that support them as relying increasingly on a form of instrumental reasoning privileging the means over ends and aiding dominant groups' ability to invisibly accomplish their ends. Habermas describes this in terms of "instrumental technical reasoning", Lyotard, in terms of "performativity". (Alvesson & Deetz, 1996, p211).

The main points of contention between several different postmodern theories and critical theory based theories, concern the degree to which it is possible to make generalised assumptions about human beings and human needs, and the degree of acceptance or rejection of the 'Enlightenment project' of progress and human development made possible through rational planning and technical control. Postmodern positions are critical of critical theory for cultural elitism, and for 'totalising' tendencies, especially the commitment to emancipatory ideals and commitment to social change. From postmodern perspectives, emancipatory ideals have the potential to lead to new oppressions. Critical theory based positions are critical of postmodernism for devaluing the potential of social action to produce change beyond the local scale, and inadvertent tendencies to encourage conservatism, fatalism, cynicism or nihilism in the face of global problems.

Alevesson and Deetz (1996) explain the differences between critical theory and postmodern perspectives on management and the complementary contribution of each to the other, as follows

The differences are also important. Critical theory sees the response in terms of an expanded form of morally guided communicative reasoning leading to individual autonomy and better social choices. Through reflections on the ways ideology – taken for granted cultural ideas as well as specific messages engineered by powerful agencies – enters into person/world/knowledge construction and by providing more open forums of expression and a type of discourse aimed at mutual understanding, there is hope for production of social consensus and social agreements that better fulfil human needs. The grand narrative of enlightenment, according to
critical theory, has not yet been advanced. But postmodernism rejects such reflection and consensus, suspecting the replacement of old illusions with new ones, and the creation of new elites and new forms of marginalisations. Critical theory replies: without reflections, consensus and rationality, there is no politics, no agenda for a constructive alternative. Postmodernism counters: politics are by necessity local and situational; responsiveness is more important than systematic planning. Critical theory responds: local politics is too weak to confront system-wide gender and class domination as well as global poverty and environmental problems. Postmodernism maintains: organising against domination both props up and solidifies dominant groups; it creates its own forms of domination. The difference is in a sense the same as between a push and pull theory. Critical theory wants us to act and provides direction and orchestration; postmodernism and believes that such a move will be limited by the force of our own subjective domination and encourages as to get out of the way and allow the world to pull us to feelings and thought heretofore unknown; critical theory does not have enough faith to let go. And so on (Alvesson & Deetz, 1996, p 211-212)

Alvesson and Deetz (1996) suggest that each theoretical position can provide useful ‘checks’ on the excesses and problems posed by its opposite. Weiscopf and Willmott (1999) also suggest combining critical theory and postmodern based insights into organisational analysis. Weiscopf and Willmott (1999) reject Chia’s (1995) suggestion that deconstructionism should replace other methods and become central to organisational studies. They argue that, as an epistemology, deconstructionism is as ‘groundless’ when considered in its own terms as either objectivism or social constructionism, which were the targets of Chia’s critique, and this failing leads to inevitable acceptance of extreme relativism. Weiscopf and Willmott consider, however, that deconstructionism is a useful complementary approach when used with other critical methods, in their own words they argue:

We commend a “both/and” rather than “either/or” approach; we applaud the disruptive capacity of deconstructionism to problematize and subvert claims made in the name of rationalism and/or emancipation. However, our preference is for a critical ontology (of ourselves, organization etc...) which appreciates processual and becoming style of thinking as an inspiration for addressing the question: ‘In what is given to us as universal, necessary, obligatory, what place is occupied by whatever is singular, contingent, and the product of arbitrary constraints? The point in brief is to transform the critique conducted in the form of a necessary limitation into a practical critique that takes the form of a possible transgression’ (Foucault in Dumm 1996). (Weiskopf & Willmott, 1999, p7).

The approach followed within this research is to draw upon both critical theory and critical postmodern theoretical approaches, with one clarification. Because a social constructionist approach to knowledge has been assumed, structuralist or poststructuralist postmodern approaches to theory, which assume radical subjectivism,
and which imply complete relativism or solipsism, are not compatible with the epistemological basis for this research.

Notes on definitions of postmodern/postmodernity: the terms postmodern, postmodernity, post-modern, post-modernism and postmodernism have been applied in the literature, without agreed conventions about differences in meaning (Alvesson, 2002, Chapter 2; Hassard, 1996; Vidovich, 1998). They have been used to imply: conditions of an historical period or epoch, beginning in the last half of the 20th century in post-industrial countries; a theoretical perspective inspired by, but separate from, the linguistic structuralist and poststructuralist movements; an aesthetic movement negating the modernist aesthetic (Hassard 1996). Hassard finds there is some consistency of usage. He suggests that hyphenated forms tend to denote an epoch and the unhyphenated version tends to denote a collection of theoretical and epistemological perspectives. Alvesson (2002, Chapter 2) finds that writers who are critical of postmodernism use the hyphenated form more frequently than those who work within a postmodern frame of reference. Other writers have observed no consistent conventions about the usage of terms (Vidovich, 1998).

In this thesis, postmodern/postmodernism/postmodernist is used to refer to epistemology unless otherwise stated. ‘Postmodern’ is used as a collective descriptor of related theoretical perspectives that call into question the assumptions that underpin the modernist ‘Enlightenment’ epistemology, rather than the epoch. Crotty (1998, p190-192) conceptualises the differences between modernity/postmodernity and modernism/postmodernism and structuralism/poststructuralism, schematically as shown in Figure 3.2, and (Crotty, 1998 pp195-205).
The post-modernist epoch has been variously categorised as post-industrial, post-capitalist, or post-Fordist, and there has been dissension about whether the current epoch is in this sense post-modern or merely late modern. These arguments are not central to the concerns of this thesis. The term ‘post-industrial’ has been chosen as the sociological descriptor of current socio-historical age or epoch, because this leaves open the question of whether ‘paradigmatic’ changes marking transition to a ‘postmodern world’ have already occurred, whether the current era is transitional between the epoch of modernity and the epoch of post-modernity or whether this is still the late modern era.

Methodological Issues

Both the lack of a holistic perspective on quality management, and the need for a better understanding of the conceptual foundations of quality management in Australian
higher education emerged from the literature as important neglected issues in Australian higher education quality management research. Conceptual analysis and deconstruction implies a reductionist methodology, whilst the need for a holistic approach implies a systemic perspective (Ison, 1999; Yorke, 1999a). The design of this research project will combine documentary analysis to clarify conceptual issues with a briefer analysis of some of the issues that arise when a systemic perspective on quality management is adopted. In this research plan, three document sets are used to examine the conceptual basis of different constructs relevant to quality management in Australian higher education, a qualitative systems diagramming method is used to examine two research questions from a holistic perspective. The choice requires some ‘trade-offs’ in the research design. The focus on breadth within the study has occurred at the expense of greater depth in each part of the study. This is justified by the exploratory intention of this research, and carries the implication that further validation of any findings is likely to be required.

Discussion of the research questions identified at the end of Chapter 2 indicated the benefit of use of more than one method of collection and organisation of data. This poses a methodological problem of determining how the data collected using different methods, should be combined and interpreted. The major question addressed in this section is:

- Whether and how, different theoretical perspectives can be legitimately combined, and
- The implication of the combination for choice of method and data interpretation;

This raises particular questions with regard to the proposed use of methods drawn from System Dynamics and its compatibility with critical inquiry. This research will make use of three different types of methodologies: documentary analysis; qualitative systems diagramming; and a comparison of the documented claims about the meaning of ‘quality indicators’ against further literature to examine the adequacy of the claims. This section is divided into four parts. The first part examines the issues that arise from combining theoretical perspectives and methods. The second part examines the methodological issues arising from using a qualitative systems diagramming method from a critical perspective. The third part examines methodological issues in document analysis. The fourth part examines methodological issues arising from the selection of quality indicators for further in-depth investigation of adequacy of interpretation. Each
part will begin with a table outlining the methods proposed and the methodological issues. The details of the methods and techniques will be discussed in the fourth section of this chapter.

**Paradigm commensurability and multi-method research**

Many writers have concluded that it is useful to use multiple methods and perspectives when addressing real life problems (Morgan, 1986; Mingers & Brocklesby, 2003). Combination of methods and paradigms must adequately respect differences in the basis of truth claims.

The view which argues for unconstrained theoretical pluralism is surely not defensible either. We must accept that there exist criteria relevant to evaluation of truth claims, or the whole enterprise of social science would be dissolved. (Giddens, 1987, p57).

This research uses a theoretical perspective based upon critical inquiry that has within it potentially conflicting ‘ideological’ commitments, as acknowledged in the previous section. Chapter 2 provided a brief outline of the ‘paradigm wars’ in organisational theory. There is disagreement about whether and how methodologies should be combined in social science research. There are six types of position taken on the issue of whether paradigms are commensurable, incommensurable, or a bogus concept.

The first position, ‘paradigm bracketing’, argues that the foundational assumptions of different paradigms are so different that paradigms are incommensurable, but that the insights achieved by different approaches can be useful in extending understanding of real world problems, and is similar to Morgan’s (1986) use of multiple metaphors. Paradigm bracketing was used in a study undertaken by Martin (1992), of organisational culture from three perspectives. The second position, discordant pluralism, does not try to reconcile the differences in perspective at a theoretical level, but seeks to make explicit the synergies and differences between theoretical perspectives and use these constructively in understanding the limitations to interpretation and validity of data. In ‘discordant pluralism’ the tensions between paradigms and the synergies between paradigms are neither forced into the apparent harmony of complementarism, nor the apparent opposition of paradigm bracketing, but recognised where they occur (see for example Gregory, 2003). The third position argues that paradigms are not necessarily incommensurable, if a bridging theory can be found (see, for example, Lewis and Grimes, 1999). The fourth position argues for complementarism, which allows methodological diversity within a unifying theoretically perspective (see, for example,
The fifth position argues that paradigms are commensurable and that a single paradigm, can subsume the methods and concerns of others. For example, Donaldson (1996) argues that for the sake of unity, of the field, a single research paradigm should be adopted, that paradigms are commensurable and that they can all be subsumed into a single perspective, in his case contingency theory. The sixth position says that Kuhn’s (1970) idea of paradigms is contradictory or misunderstood. This argument cites Masterman’s study identifying 21 different uses of the word ‘paradigm’ in Kuhn’s work (Ackroyd, 1992; Brown, 1992; Burrell, 1996). Proponents of this position claim that Kuhn retreated from his earlier extreme relativist position in his later work (Ackroyd, 1992), and that theoretical debates based upon paradigmic difference have diverted the attention of the field away from concern with the study of practical problems with organisations (Ackroyd, 1992).

**Table 3.2: Methodologies for ‘multi-method’**

<table>
<thead>
<tr>
<th>Requirements</th>
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<tbody>
<tr>
<td>Paradigm bracketing (1)</td>
<td>Acknowledges difference and does not attempt to combine the different approaches,</td>
</tr>
<tr>
<td>Discordant pluralism (2)</td>
<td>Acknowledges synergies and tensions but avoids a ‘reconciliation under duress’</td>
</tr>
<tr>
<td>Paradigm bridging (3)</td>
<td>May co-jion theoretically and methodologically incommensurate paradigms if a suitable bridging theory can be found that resolves the relevant issue of difference,</td>
</tr>
<tr>
<td>Complementarism (4)</td>
<td>Requires theoretical but not methodological commensurability</td>
</tr>
<tr>
<td>Methodological imperialism by subsumption (5)</td>
<td>Subsumes methods from one paradigm and uses them within the theoretical and methodological assumptions of another</td>
</tr>
<tr>
<td>Paradigms are illusory (6)</td>
<td>The idea of separate paradigms is based upon unsound arguments</td>
</tr>
</tbody>
</table>

After nearly thirty years of debate, there is no agreement in the field about these issues. There is merit in Ackroyd’s (1992; 1994) observations that an over-concentration on theoretical issues has divided concerns of academics from the concerns of practitioners and in his caution that Kuhn’s concept of paradigm may be ill-founded. Despite these observations, significant differences in approach to organisational inquiry remain, and the observations of Clegg, Burrell, Boje (Boje, 1996, 1999a; Burrell, 1996) and others, of continuing field dominance of academic journals and conferences by those whose work is based in positivism, remains a legitimate concern. For these reasons, even if the term ‘paradigm’ collapses, the issues of whether or how to work with theoretical and methodological difference do not altogether disappear. Alvesson and Deetz’s (1996, p196) response to the problems associated with the term ‘paradigm’ is to suggest it be replaced by the phrase ‘metatheory of representational practices’, and thus avoid the multiplicity of meanings in Kuhn’s original conceptualisation of paradigm. This suggestion has not been widely adopted in organisational research and the term ‘paradigm’ is still widely used. For this reason, in this research the term ‘paradigm’ will
be used to denote 'metatheory of representational practices'. This rest of this section will examine some alternative ways posited for the reconciliation of apparently incommensurate approaches within a theoretically coherent research methodology.

The approaches suggested by Flood (1990; Gregory, 2003) and those offered by Lewis and Grimes (1999), are compared to identify a way forward for this research. Flood (1990, p135) developed a general framework that characterised six different responses to combination or conjunction of disparate 'paradigmatic concerns' (this term includes the ideological, ontological, epistemological, methodological and method base of each approach). Through argument, he quickly disposed of all approaches except 'complementarism' and 'methodological imperialism by subsumption'. Complementarism, he defined as 'methodological incommensurability and theoretical commensurability (at a meta-level of reasoning)' (Flood, 1990, p138), whilst 'methodological imperialism by subsumption', he claimed, operated in the following manner:

A methodology is adopted that may call upon other methodologies at a specific point in order to act as sub-methodologies to deal with specific matters. For example, if the 'what' had been decided upon through the use of the mother methodology, a 'how' methodology may be drawn into the process (Flood, 1990, p140).

Flood's argument that 'methodological imperialism by subsumption' can be disposed of by appealing to epistemology based upon Habermas appears to be an unwitting example of theoretical (if not methodological) imperialism by subsumption and should therefore not be accepted. Gregory (2003, p132), came to the same conclusion following a different line of argument, and also develops a more detailed critique of Jackson and Keys' (2003) the 'System of Systems Methodologies' (SOSM), which informs Flood's position.

Lewis and Grimes (1999, pp 2-4) identify two different approaches to multi-paradigmatic research. 'Paradigm bracketing' where the researcher identifies and makes explicit, the implicit assumptions of the paradigm informing research or literature and dialogically compares the insights gained from differing multiple perspectives after the biases have been acknowledged. In research, this requires sequential analysis of the same data from two or more paradigmic perspectives and separate records of the observations arising from each set of assumptions. The second technique they identify is 'paradigm bridging' where the theorist aims to identify any theories that provide 'transition zones', between paradigms. These 'transitional zone theories' integrate between paradigms in
ways that resolve the tension between theories for the issue of concern. Like Weaver and Goia’s (1994) work, the example given is of the use of Gidden’s structuration theory to provide a ‘transition zone theory’ between social theory that explains human behaviour with reference to social structure, and social theory that explains human behaviour in terms of shared meanings (Lewis & Grimes, 1999, p3). According to this argument, Gidden’s structuration theory provides a ‘bridge’ between the assumed polarities identified by Burrell and Morgan. As Weaver and Gioia (1994) observe, however, ‘structuration will not promise that existing ‘paradigms’ will be incorporated ‘as is’...Structuration theory, in essence, strips the existing ‘paradigms’ of selected philosophical garb, while allowing the actual practice of different forms of social inquiry’ (Weaver & Gioia, 1994, p582). According to this interpretation, paradigm bridging replaces both initial paradigms by a third paradigm capable of subsuming the methods and methodologies of both. There is some similarity between paradigm bridging and complementarism, as both require theoretical compatibility but allow methodological diversity, but paradigm bridging requires compromise at a theoretical level, while in complementarism a single theoretical position predominates. There are also some similarities between these approaches and Mingers and Brocklesby (2003) ‘multimethod’ approach of partitioning methodologies and recombining parts to develop a new methodology, by implication, within a single or ‘bridged’ theoretical perspective.

Gregory’s (2003) position of discordant pluralism provides a third alternative, beginning from the presumption that paradigms cannot always be bridged. Gregory argues that attempts to bridge paradigms may exercise ‘illegitimate force’ tantamount to imperialism by subsumption because bridging often requires some of the discords between paradigms to be trivialised or marginalised in the interests of accommodation. Gregory argues that this disadvantage can be overcome if conciliation is not imposed and the similarities and differences between pairs of paradigms are used to enhance critical appreciation of the research issue. Gregory explains the difference between complementarism and discordant pluralism in the following way:

The complementarist legitimates his or her position through immanent critique and through the recognition of limitations, whilst the discordant pluralist’s position is legitimated by its critique of both similarities and differences, in which methodologies are viewed as challenging and supplementing one another. (Gregory, 2003, p138).
Discordant pluralism resembles paradigm bracketing, but the constellation metaphor allows the tensions within paradigms and the synergies between paradigms to be recognised without either being forced into the apparent harmony of complementarism or the apparent opposition of paradigm bracketing. The examples of the method of ‘discordant pluralism’ provided by Gregory (2003, p134-135) show the method being used by Jay and Bernstein to analyse the philosophic influences on Adorno when the whole body of his work was scrutinised (and reference work analysing the philosophical systems of Derrida and Habermas). This same method should be applicable to the more limited circumstances of a single piece of work, to clarify the tensions and synergies between theories and methodologies used, that appear to require incompatible assumptions.

Each of the five approaches requires different degrees of theoretical ‘fit’ between ‘paradigms’, as shown in Figure 3.3.

<table>
<thead>
<tr>
<th>Paradigm bracketing</th>
<th>Discordant pluralism</th>
<th>Paradigm bridging</th>
<th>Complementarism</th>
<th>Methodological Imperialism by subsumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>Least ‘fit’ required</td>
<td></td>
<td></td>
<td></td>
<td>Most ‘fit’ required</td>
</tr>
</tbody>
</table>

**Figure 3.3: Comparison of requirements for ideological, theoretical and methodological ‘fit’**

The approach to the ‘problem of paradigms’ taken in this research is to require compatibility at the epistemological level: any method or theoretical perspective is required to be compatible with a social constructionist theory of knowledge; knowledge is not assumed to be either entirely subjective or entirely objective. The justification for this choice rests with the contention raised by Brocklesby (1997) who argues that there are cognitive difficulties in working across paradigms because of the need to acquire the ‘propositional and commonsense knowledge’ (Brocklesby, 1997, p205) of the paradigm. According to this thesis, working across two or more ‘paradigms’ means simultaneously holding two or more mutually contradictory worldviews at a deep level of understanding and commitment. Martin (1992), who used paradigm bracketing in her research, in her reflections on her research process, commented on the difficulty of remaining fully within the precepts of paradigms that did not accord with her fundamental beliefs.

For Brocklesby (1997), the implications are that every researcher should assess the extent of their cognitive capacity to simultaneously accommodate contradictory worldviews, before embarking on multi-method research. At an intellectual level, I am
able to comprehend cognitively the opposing worldviews of objectivism, subjectivism and constructionism. At the level of commitment, I am able to suspend belief about differing theoretical perspectives, able to hold conflicting theoretical positions as contingent, able to accept the value of using different theoretical positions to mutually interrogate and test the adequacy of competing assumptions, accept that all theoretical perspectives have areas of insight and blindness. Epistemologically, however, my commitment is to constructionism, rather than exclusively subjectivist or exclusively objectivist epistemologies. I find the claims of both subjectivism and objectivism intellectually intelligible, but ultimately unconvincing. For this reason, the requirement of epistemological compatibility for this research is based upon my judgement about the extent to which I am able to hold a cognitive commitment to competing worldviews. This position is presented as a practical rather than a theoretical constraint. It is left to others to offer purely subjectivist or objectivist explanation of Australian higher education quality management, if they choose. With this proviso, the position in this research lies between discordant pluralism and paradigm bridging. Data is interpreted within a critical perspective, through the interplay between critical theory based and critical postmodern perspectives.

Interdisciplinarity and standards of validity

Interdisciplinary work poses special problems for validity. Disciplines have clearly articulated but different traditions used to judge validity, that arise from ‘fundamentally different modes of thought of different culture’ (Sperber, 2003, p2) within disciplines, and he contrasts the examples of psychology and anthropology. This poses problems for interdisciplinary work when decisions are made about standards of validity for a study. Boix Mansilla and Gardner studied interdisciplinary research and identified ‘three core epistemic “symptoms” of quality in interdisciplinary work emerging from our analysis: consistency, balance and effectiveness’ (Boix Mansilla & Gardner, 2003, p1). They conclude that epistemic evaluation of the validity of interdisciplinary work should assess:

(1) the degree to which new insights related to antecedent disciplinary knowledge, (2) the sensible balance reached in weaving perspectives together, (3) the effectiveness with which a particular piece of work advances understanding and inquiry (Boix Mansilla & Gardner, 2003, p6).

Considerations of ‘consistency’, ‘balance’ and ‘effectiveness’ form the basis for determination of validity in the research presented in this thesis. Consistency will be achieved by comparison between the findings and existing literature to identify where
the findings are consistent with existing predictions or analysis. Balance will be assessed by reference to how the research findings bridge understanding of the research problem by cross comparison of research insights derived from previously separated research and analysis. Effectiveness will be assessed by the degree to which the findings contribute to a more complete analysis and understanding of the research problem, and contribute to clarification of the processes of quality management in Australian higher education and resolution of (either acknowledged or unforeseen problems) within the quality management system that has been examined.

Methodological Issues in Documentary analysis: overview

At the end of Chapter 2, several of the research questions were concerned with the consistency and adequacy of concepts related to the use of commercial quality management methods in Australian higher education. Documentary analysis was proposed as a method that could address these research questions, see Table 3.6 This section presents discussion of:

- The rationale for use of document analysis to provide data;
- The rationale for choice of particular sets of documents;
- The sampling rationale within each data set;
- Triangulation, validity and generalisability;
- The comparative benefits and disadvantages of structured versus unstructured data analysis.
Table 3.3 Methodological issues and document analysis

<table>
<thead>
<tr>
<th>Questions</th>
<th>Methodological Issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>How are ‘quality’, ‘quality assurance’ and ‘quality improvement’ conceptualised in quality management documentation in policy, strategy and evaluation reports in Australian higher education? Is usage consistent? Does the documentation indicate awareness of difference between different technical usages and everyday usages and the implications of these differences for measurement?</td>
<td>Sampling rationale to inform choice of documents; Tension between structured and unstructured approaches to analysis;</td>
</tr>
<tr>
<td>What purposes, roles and relationships are assumed in quality management documentation in policy, strategy and evaluation reports in Australian higher education?</td>
<td>As above</td>
</tr>
<tr>
<td>What is the Australian government rationale for higher education quality management?</td>
<td>As above</td>
</tr>
<tr>
<td>What data is identified in the documentation examined, as indicative of ‘quality’? Is there agreement in the documentation about the interpretation of the meaning of data for quality? Is there an adequate theoretical basis to justify the inferences about quality found in the documentation? How are the difficulties of interpretation and representation of meaning identified in the evaluation literature reflected in the approaches to the interpretation of data reported in the documentation?</td>
<td>As above, plus basis for selection of quality indicator(s) for in-depth examination, see Table 3.x</td>
</tr>
<tr>
<td>What commercial ‘management advice’ is reflected in quality management documentation in policy, strategy and program evaluation in Australian higher education, and how has it been adapted to the context of higher education? What claims are made about the effectiveness of quality management measures? Is there evidence in the documentation of awareness of the research on effectiveness and modes of failure of commercial quality management methods in industry?</td>
<td>Sampling rationale to inform choice of documents;</td>
</tr>
</tbody>
</table>

The research questions are concerned with the conceptualisation, the rationale, the consistency and the legitimation of quality management in Australian higher education. These questions are concerned with the ‘public face’ of university quality management (David Kemp states specifically that the University quality improvement plans represent the public face of quality management (Kemp, 1999a, p46)). Quality management systems are presented as ‘fully legal-rational’ technical systems, in the Weberian sense (Pugh & Hickson, 1993, p5), capable of complete and consistent documentation. The initial analysis will initially test the claims of quality management in its own terms. The research will investigate the consistency of concepts essential to the usage of commercially derived quality management, within and across official documentation in different spheres of Australian higher education.

There are technical reasons and confidentiality and anonymity issues that mean that page number cannot be provided for some documents. For technical reasons, consistent page numbers cannot be provided for some documents because they are only available in HTML format, which means that page numbering varies according to which browser is used to open the document. For confidentiality reasons, the documents in DDS3 are not available in the public domain. For consistency, I made the decision to reference all statements to the document rather than the page. I believe this is justifiable theoretically as the documents analysed in this research are treated as ‘social artefacts’ (Blaike, 2000, p187) rather than repositories of ‘social facts’ to be taken at face value. For this reason, I made a decision to treat the material in the documents like ‘interview data’.

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This has implications for how statements in the data sets are referenced in the thesis. When statements extracted from documents are used as data, the quotations are referenced to the document (as interview data is referenced to the informant) rather than to the page within the document. The documents and their reference codes are listed in Appendix 3b.

The overall rationale for choice of document sets, the basis of document selection, triangulation and validity are discussed next. The detailed sampling and validity issues for each data set are discussed separately after this overview. The section on methods, describes how the research was undertaken, and analysis techniques, and lists documents included in each sample.

**Sampling:** A decision was made to analyse three sets of documents that represent the public face of quality management in different functional parts of the Australian higher education system. These are:

- Official Australian Federal government policy;
- University management strategic responses; and
- Reports produced by program quality audits panels;

**Document analysis:** A decision was made to use both structured and unstructured document analysis. Initially the decision was made to base document analysis upon significant themes that emerged from the literature, but to remain open to emergent themes not previously identified. There are tensions with this approach. From 'grounded theory' perspectives, there are risks that if predefined categories are used data will be forced to fit pre-existing categories and theories (Strauss & Corbin, 1990, Chapter 4). Critics of pre-structured data analysis argue that pre-identified analysis structure contaminates data. From a social constructionist perspective, it is argued that researchers never approach data without some pre-existing categories, explicit, tacit, or within the structure of language used to discuss concepts. The approach taken in this research is to use some pre-structured categories in data analysis, and to look for emergent themes in the data.

**Triangulation and validity:** The validity of document analysis will be assessed with reference to 'consistency', 'balance' and 'effectiveness'. Judgements about consistency will be referenced to the extant literature on quality management in Australian higher education (Chapter 5). Consistency would be counter-indicated if other significant
publicly available policy documents from the period inexplicably contradict the evidence presented in Chapter 4 on which the analyses are based. Balance will be achieved in document analysis by cross-comparison between interpretations of evidence from the perspective of insights gained within different disciplines (Chapter 5). Balance would be counter-indicated if all the documents were evaluated from within the assumptions of supremacy of a single disciplinary perspective. Effectiveness will be assessed based upon the degree to which the documentary analysis contributes to a more comprehensive understanding of the research problem and the direction of its resolution (Chapter 6). The generalisability of the findings depend upon the congruence of contexts.

**Methodological issues specific to Documentary Data Set 1**

The first document set is intended to represent the official Australian government policy on quality management in higher education. Sampling, data analysis and validity issues are summarised in Table 3.4

### Table 3.4 DDS1: sampling, data analysis, triangulation and validity

<table>
<thead>
<tr>
<th>Document set</th>
<th>Basis of sampling</th>
<th>Data analysis</th>
<th>Triangulation</th>
<th>Validity/ goodness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Document Data set 1: Official Australian government policy on quality management in higher education</td>
<td>PurposefulCriterion based: (Patton) Relevant Australian government reports on higher education in the period 1999-2003</td>
<td>Primarily structured analysis against themes emergent for the review of literature</td>
<td>Compare with existing commentaries on quality management in Australian higher education</td>
<td>Comprehensive prior analysis of different perspectives on quality to heighten awareness of roles of values in construction of ‘quality’; awareness of bias and implicit assumptions; choice of documents; Validity judged by whether the initial and emergent categories encompass major relevant themes; Validity counter-indicated if other significant publicly available policy documents from the period inexplicably contradict the analyses presented</td>
</tr>
</tbody>
</table>

**DDS1 Sampling:** The basis of selection of this set of documents is purposive criterion referenced. The purpose was to sample a particular type of Australian government document within a particular time-frame. The sample was intended to reflect Australian government policy 1999-2003. The sample consists of sections on higher education quality management found in the five Australian government triennial reports on higher education in the period 1999-2003, plus the policy paper, ‘Our Universities: Backing Australia’s Future’.
Methodological issues specific to Documentary Data Set 2

The second set of documents is intended to represent the diversity of strategic response of university management in different types of universities to Australian government higher education quality management policy. Sampling, data analysis and validity issues are summarised in Table 3.5.
DDS2 Sampling: The basis of selection of this set of documents is purposeful maximum variation sampling (Patton, 1990). The purpose was to represent each of the major types of university in Australia. The categories used to differentiate different types of Australian university Marginson and Considine (2000) were compared with the categories used by Andrews, et al. (2000), and Marginson and Considine’s system of categorisation was chosen for the reasons explained in the later in this section. The third set of documents included program reports that show how the quality audit process was applied at the programmatic level. Program audit reports were selected because these documents report on both the adequacy of quality management and the standards of teaching and learning and of research. Any contradictory expectations that arise from application are likely to emerge when quality audit panels apply the methods devised in policy to real situations. The types of Australian university were established by comparing the categorisation used by Marginson and Considine (2000) with the categorisation used by Andrews, et al.

Table 3.6: Categorisation of Western Australian universities by type

<table>
<thead>
<tr>
<th>University</th>
<th>Marginson and Considine</th>
<th>Andrews et al</th>
</tr>
</thead>
<tbody>
<tr>
<td>Curtin (University 1)</td>
<td>Unitech</td>
<td>Cluster III</td>
</tr>
<tr>
<td>ECU (University 2)</td>
<td>New</td>
<td>Cluster III</td>
</tr>
<tr>
<td>Murdoch (University 3)</td>
<td>Gumtree</td>
<td>Cluster III</td>
</tr>
<tr>
<td>Notre Dame (University 4)</td>
<td>No Category: 1990's Private university</td>
<td>No category</td>
</tr>
<tr>
<td>University of Western Australia (University 5)</td>
<td>Sandstone</td>
<td>Cluster V</td>
</tr>
</tbody>
</table>

Marginson and Considine (2000) categorised institutions primarily on the basis of their present orientation as shaped by their history and suggested five groupings: Sandstone, Redbrick; Gumtree; Unitech; and New University; Andrews, et al. (2000) had six categories achieved by aggregating several factors including: the institution size; international orientation; research orientation; orientation to distance learning. Cluster I are small specialist institutes; cluster II are focused on distance education; cluster III are
internationally and teaching focused large institutions; cluster IV are large research focused institutions; cluster V are smaller research focussed institutions; and cluster VI institutions have a multiple orientation, balancing teaching, research and international focus. Marginson and Considine's (2000) schema gives priority to market positioning, historical cultural considerations, whilst Andrews et al use structural features and modes of specialisation as the basis for categorisation. Thus for Andrews et al. the Sandstone and Redbrick universities all fall within Clusters IV & V, but are differentiated on the basis of size, with cluster IV containing the largest research focused institutions and cluster V containing the smaller research focused institutions. Marginson and Considine (2000), however, differentiate between the Sandstone and Redbrick universities primarily on the basis of age, history, and market position within each state. Thus the Sandstone universities vary in size but are united by being the first university in each state and were all founded before the end of the 1920's, whilst the Redbrick universities were founded in the immediate post WW2 period. Where history and culture conflict, for example the Australian National University that is culturally more similar to a Sandstone university than a Redbrick university, they note the anomalies. The small specialist institutes, Andrews et al’s cluster I, are not included in Marginson and Considine’s schema. For the purposes of this study, the historical and cultural focus of Marginson and Considine’s system of categorisation is more useful because it aligns more closely with the relative status and market position of different institutions.

Because there is little interstate movement of domestic students within Australia (Marginson & Considine, 2000), the institutions within each state form an almost closed higher education market for domestic students. The decision was made to examine the quality plans of all the institutions in a single state, because in a market economy, these institutions, except for their international activities, compete directly with each other to enrol from the pool of students within their state catchment. Competition between universities is likely to be most intense where institutions recruit from a similar geographical area. In Western Australia, unlike Queensland, New South Wales or Victoria, all universities are primarily based in Perth, the state capital, although several have regional campuses in other parts of the state and internationally. Thus, Western Australian universities compete directly with each other for the majority of their domestic students. This intensifies the competitive forces of the education pseudo-market. Western Australia has a single example of each of Marginson and Considine’s university types, except ‘Redbrick’, (which was the smallest category sharing many features with the Sandstone universities), and has a very recently established private
university. South Australia, has a similar mix of institutions to Western Australia, but does not have a private university or a CAE. The Northern Territory and Tasmania do not have diversity of institutions, and in the case of Tasmania, their institutions are atypical of their type (Marginson & Considine, 2000, p190).

The Western Australian universities were chosen because they form a simple, almost closed, ‘competitive’ education market, representing the major institutional types according to Marginson and Considine’s schema. Table 3.14 shows how universities are placed on each schema. Andrews et al. (2000) categorise most of the universities in Western Australia as large, overseas focused teaching institutions, while Marginson and Considine’s schema differentiates between them according to their culture and history.

Methodological Issues specific to Documentary Data set 3

The third set of documents is intended to represent reports of the application of the quality management system at the level of program evaluation in an Australian university. The intention is to see what tensions and contradictions are reported when the system is applied in a real situation. Sampling, data analysis and validity issues are summarised in Figure 3.7

Table 3.7: DDS3: sampling, data analysis, triangulation and validity

<table>
<thead>
<tr>
<th>Document set</th>
<th>Basis of sampling</th>
<th>Data analysis</th>
<th>Triangulation</th>
<th>Validity/ goodness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Document set 3: program reports showing how the quality audit process was applied at the programmatic level</td>
<td>Extreme case sampling: (Patton) Choose to examine what is happening in a 'new university'</td>
<td>Use pre-identified themes but expect to find emergent themes</td>
<td>Compare with any literature on Australian program audits</td>
<td>Comprehensive analysis of different perspectives on quality to heighten awareness of bias and implicit assumptions; findings may be indicative of 'worse case' effects of quality policy and not generalisable without careful justification</td>
</tr>
</tbody>
</table>

DDS3 Sampling: As only a limited quantity of data will be analysed, this requirement suggests the use of extreme case sampling. Marginson and Considine (2000) argued, as reported in Chapter 2, that pseudo-markets would have differential effects in different sectors of the education ‘market’, but would adversely affect quality at ‘New Universities’, disproportionately. On this basis, the decision was made to analyse audit reports on programs within the same Faculty within a single new university, to see to what data this would provide about how panels approached the practical task of quality audit and evaluation. The choice of Faculty was determined by the availability of the reports. Audits are usually conducted at school level. Schools in this university contain
several programs from more than one discipline area, although programs within each school are (usually) in related fields of study.

Methodological issues and evaluation of the theoretical basis of claims for the meaning of quality indicators

At the end of Chapter 2, it was suggested that after preliminary documentary analysis, interpretation of meaning of one or more of the most frequency cited quality indicators could be checked against additional research literature to enable judgements to be made about the adequacy of the interpretations found in the documents.

Table 3.8: Methodological issues in analysis of quality indicators

<table>
<thead>
<tr>
<th>Sub-Question</th>
<th>Methodological issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is there an adequate theoretical basis to justify the inferences about quality found in the documentation?</td>
<td>Rationale for selection of quality indicators for further investigation</td>
</tr>
</tbody>
</table>

The main methodological question relates to the rationale for selection of quality indicators for in-depth investigation.

Table 3.9 Quality indicators: Sampling, data analysis, triangulation and validity

<table>
<thead>
<tr>
<th>Document set</th>
<th>Basis of Sampling</th>
<th>Data analysis</th>
<th>Triangulation</th>
<th>Validity/ goodness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaluate the interpretation of selected quality indicator</td>
<td>Frequency and contentiousness</td>
<td>Compare claims in documentation with findings of educational research</td>
<td>Compare with claims and counterclai ms from secondary sources</td>
<td>Thoroughness of comparisons</td>
</tr>
</tbody>
</table>

QI Sampling: A preliminary choice was made to investigate the used of attrition statistics and the graduate skills assessment test as quality indicators. This choice was based upon the evidence that emerged from the review of literature in Chapter 2, because these two measures are mentioned frequently and they provide examples of different types of data collection and interpretation. A final choice will be made after preliminary document analysis and will be based upon consideration of: diversity of type of measure; frequency of use of different claims; evidence about contested meaning arising from the documentation; evidences of claims for unsubstantiated meaning arising from the documentation.

QI Data analysis: The data on quality indicators found within the documents will be compared with the literature on the interpretation and used of various data as indicators of quality. The primary source of literature will be educational evaluation and the
literature on quality higher education research. Reference will also be made to the literature on efficacy of quality management in industry where the findings are applicable to the context of higher education.

**QI Triangulation and validity:** As discussed in the previous section on document analysis.

*Qualitative systems diagramming: overview*

The review of literature indicated that a holistic perspective of quality management would be useful (Ison, 1999) and that a means should be found of identifying unintended outcomes of quality management in Australian higher education (Wholey, 2001). System Dynamics (SD) is a methodology originally developed by Forrester (1995) from Industrial Dynamics in the 1960's. The claimed benefits of the method(ology) are that it:

- Overcomes the disadvantages of social research methods that analyse social phenomena through reductionist approaches without regard to the complexity that derives from the interaction between the parts;
- Allows schematic representation that enables people to comprehend cognitively the complexities of interactions between multiple phenomena. It is claimed that this makes it easier to identify unintended results of policies that might otherwise be difficult to make explicit (Forrester, 1972).

The methodology has been used successfully to examine holistically the effects of policy, to provide a bridge between the macro and the micro (Lane, 1999), and to identify ‘counterintuitive’ unintended outcomes of a variety of policies in urban planning, in economics and in environmental issues (Forrester, 1972, 1995) (Meadows, Meadows, Randers, & Behrens III, 1972).

In this research the qualitative part of the SD methodology, often included as the first stage before a quantitative diagramming method (Wolstenholme, 1990), will be used to address questions of plausibility of claims in the research questions. Although some SD practitioners defend the use of the qualitative stage as a useful methodology in its own right (see for example, Wolstenholme, 1990), the mainstream view of SD sees qualitative processes as a preliminary stage within a quantitative method. This raises some questions of terminology, whether the use of the qualitative modelling part of the process should be referred to as ‘Qualitative SD’, as Wolstenholme would suggest, or
whether the term ‘causal loop diagrams’ should be used, as Repenning and Sterman (1997) chose to do. The term ‘causal loop diagramming’ can be misleading because it implies a degree of determinism that is inconsistent with a method not based in social system theory. Wolsternholme’s use of the term ‘qualitative SD’, however, has not yet become as established in the field, and questions are raised about whether qualitative diagrams adequately represent dynamic factors (Suzanne Tepe, personal communication) as understood in some parts of the field. In this research, the term ‘qualitative systems diagramming’ (QSD) is used.

Qualitative systems diagramming will be used as a methodology to address the research questions in Table 3.12.

<table>
<thead>
<tr>
<th>Question</th>
<th>Method</th>
<th>Methodological issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are the criteria against which university quality is judged, justifiable, realistic and achievable when judged in the overall context of higher education policy? Are current Australian quality management strategies and methods plausibly likely to achieve their intended objectives?</td>
<td>Construct a qualitative diagram showing the effects of higher education policy and strategies on academic decisionmaking</td>
<td>Theoretical compatibility and implications for interpretation of meaning; sampling rationale</td>
</tr>
<tr>
<td>Are the research findings on effectiveness and modes of failure of commercial quality management applicable to Australian higher education? What adaptation would be required?</td>
<td>Examine the assumptions behind this research and evaluate its applicability to quality management in Australian higher education. Can the method be adapted for future use in Australian higher education?</td>
<td>Necessary to understand whether the theoretical assumptions of the original research create epistemological inconsistencies, and to permit valid adaptation; sampling rationale</td>
</tr>
</tbody>
</table>

The most significant issue is whether a method that shares a heritage with SD is usable within the epistemological framework of the research presented in this thesis. Potential methodological issues arise because traditionally System Dynamics (SD) has been associated with Social Systems Theory of Parsons but also Integrative Theory, and Interactionism and social action theory (Lane, 1999, 2001a) and Lane concludes:

First, system dynamics is difficult to place in terms of traditional social theories. Second, system dynamics challenges the dichotomy of the determinism/voluntarism debate. (Lane 2001a, p113)

Part of Lane’s difficulty in placing SD arises from his reliance upon Burrell and Morgan’s typology, which is discussed in Chapter 2. The typology has been criticised for being incomplete and its polarisation and overemphasis some differences between voluntarism and determinism, and its elision of other differences within the critical perspective (Alvesson & Deetz, 1996) as discussed in Chapter 2. In his second paper, Lane (2001b) proposes that Giddens’ structuration theory could provide an appropriate theoretical basis for system dynamics with appropriate reworking of the application of
SD that would enable the method to achieve some of the radical objectives originally envisaged by Forrester and others. Lane’s work supports the possibility that SD need not be exclusively tied to either social system theory or functionalist sociology and this raises the possibility of its use in critical inquiry.

Sterman has a long association with SD. Repenning and Sterman’s (1997) research into the reasons for failure in commercial quality management uses qualitative aspects of SD in the ‘causal loop diagrams’, used to make explicit connections between phenomena, ‘mental models’ and decision-making, sometimes missed by participants and casual observers. One of the questions posed in Repenning and Sterman’s research is whether their findings about failure of commercial quality management are applicable to Australian higher education. This raises methodological questions about the theoretical basis of Repenning and Sterman’s research. It is useful here to examine what Sterman says elsewhere about modelling to infer his underlying theoretical assumptions. Sterman (1991) summarises some limitations of computer modelling including:

- Concern about adequately modelling human processes;
- Concern about the nature of the relationship between models and ‘reality’;
- That most of what is known about the world is non-numerical and severe problems are caused by the exclusion of non numerical data from computer models;
- The potential for distortion because of biased choice of model boundaries;
- The difficulties consumers of models have in understanding the assumptions and processes used by ‘expert’ modellers;
- The frequent failure of experts to make their assumptions explicit; problems arising from the exclusion from models of factors for which numerical data is not available, factors outside the expertise of the model builder and factors contrary to the interests of the sponsor.

Sterman (1991) claims that (computer) models are aids to thinking rather than faithful representations of an ‘objective reality’, they are “what if” tools (Sterman, 1991) that provide means of exploring possibilities rather than predicting outcomes (Meadows, Meadows, & Randers, 2003). Sterman emphasises that modelling has value because it enables people to understand situations that are too complex to grasp without representational techniques (Sterman, 2003), but that all models rest ultimately on
oversimplifications and are therefore less complete than the situation they represent (Sterman, 1991, 2002).

Sterman (1991) claims that specification of decisionmaking rules is problematic for computer modellers:

"The description of the decision-making rules is one potential trouble spot in a simulation model. The model must accurately represent how the actors in the system make their decisions, even if their decision-making rules are less than optimal...Unfortunately, discovering decision-making rules is often difficult. They can not be determined by aggregate statistical data, but must be investigated first hand.' (Sterman, 1991, pp11-12) (My emphasis).

Sterman raises concerns about the difficulties posed by social issues for those who assume that the only useful variables are those capable of quantification. His explanation of the problem would be familiar to anyone in soft systems, although his solution of making 'reasonable estimates', presumably quantitative, may be more contentious.

The majority of the data are soft variables. That is, most of what we know about the world is descriptive, qualitative, difficult to quantify, and has never been recorded...Leaving such variables out of models just because of a lack of hard numerical data is certainly less "scientific" than including them and making reasonable estimates of their values. Ignoring a relationship implies that it has a value of zero – probably the only value known to be wrong! (Forrester 1980) (Sterman, 1991, p12).

Sterman acknowledges that when modellers choose their boundaries, they make judgements about what factors to include and what to exclude from the model. These judgements are informed by the assumptions of the person building the model and are a potential source of error. He explains his argument in the following way.

"The definition of a reasonable model boundary is another challenge for the builders of simulation models. Which factors will be exogenous? What feedbacks will be incorporated into the model? In theory, one of the great strengths of simulation models is the capacity to reflect the important feedback relationships that shape the behavior of the system and its response to policies. In practice, many simulation models have very narrow boundaries. They ignore factors outside the expertise of the model builder or the interests of the sponsor, and in doing so they exclude important feedbacks. The consequences of omitting feedback can be serious. (Sterman, 1991, p13) (My emphasis).

It is interesting to observe that the concerns mentioned by Sterman are similar to the critiques of positivist systems theorists by critical systems theorists (for example (Flood, 1990; Midgley et al., 2003), and if taken seriously challenge many existing applications of quantitative SD methods in social science. Wolstenholme (1990) proposed the
development of a purely qualitative branch of SD modelling. Jackson (2000, p154) argues that Wolstenholme was working within a functionalist perspective because he described systems without adequate reference to human consciousness and meaning. Sterman’s and Meadows’ comments and comments made by Senge (1994), however, imply that they see exploration of meaning in mental models as a primary role of SD, a function of SD compatible with the aims of critical systems theories, even though other practitioners do not use the methods in this way. Jackson rejects this argument because he argues that this approach sees ‘system structure behind system behaviour’ (Jackson, 2000 p277), but implies in discussion of Vernix’s work, that the use of systems dynamics to examine ‘different appreciations’ of a situation rather a ‘pre-existing reality’ (Jackson, 2000, 277) might overcome this objection.

Thus the observations made by some SD practitioners recognise dissimilarities between the subjects (or objects) of social science research and natural science research and difficulties in application of natural science methods (Lane, 1999, 2001a). This indicates that within the SD community some practitioners consider that the connection between SD and social system theory is contingent (Lane, 1999). In principle, SD may be theoretically compatible with at least some forms of critical systems thinking and critical inquiry, but care must be taken in use of the methodology to avoid tacit importation of the assumptions of social system theory (Cooper, 2002a). The use of qualitative SD in critical inquiry would, however, change the types of problem for which it would be a suitable method, and would also change the nature of claims that SD could be used to support.

Thus, Lane (1999) concludes that SD is not theoretically inevitably tied to Social system theory, despite its origins and the common and easy use of the methodology by practitioners who adhere to the beliefs of functionalist sociology, and this seems to be correct. One of the goals of Critical Systems Thinking (CST) is to find methods that may assist the processes of self-reflection and comparison of likely outcomes of alternative sets of assumptions about social processes (Flood, 1990). Flood (1990) commented on the lack of choice within existing critical systems methodologies. SD used consistently with the assumptions of CST contributes an additional methodology, capable of achieving this end (Cooper, 2002a).
Methodological issues specific to Qualitative Systems Diagramming data (QSD) Set 1

The intention in part of the research design is to explore what insights can be gained into unintended outcomes for quality in Australian higher education when the system is examined holistically. Qualitative systems diagramming is used to indicate how Australian higher education policies and university management strategies combine to shape the pressures on decision-making for academic staff at the lower levels within universities.

Table 3.11: Qualitative systems diagramming: sampling, data analysis triangulation and validity

<table>
<thead>
<tr>
<th>Purpose</th>
<th>Choice of sampling</th>
<th>Data analysis</th>
<th>Triangulation</th>
<th>Validity/ goodness</th>
</tr>
</thead>
<tbody>
<tr>
<td>QSD set 1: what insights can be gained into unintended outcomes for quality in Australian higher education when the system is examined holistically</td>
<td>Extreme case sampling: New university</td>
<td>Insider research; using tacit knowledge of researcher; use qualitative systems diagramming to represent</td>
<td>Compare with secondary sources of evidence and findings of analysis of document sets</td>
<td>Be aware of potential for researcher bias to reduce usefulness of the analysis</td>
</tr>
</tbody>
</table>

Sterman argues against the use of aggregate data for the development of system models (Sterman, 1991) and argues that models should be developed based upon case data. The constraints of time meant that only a single case study could be completed. Extreme case sampling was chosen for the reasons outlined in the discussion of sampling considerations for DDS3.

QSD1 Sampling: In QSD set 1, the organisational context has been chosen to provide a ‘critical case’ study (Blaikie, 2000, p220). Critical cases are selected on the basis that they will challenge existing interpretations (Blaikie, 2000). The basis of the ‘critical case’ selection in this instance, was Marginson and Considine’s (2000) prediction that the higher education pseudo-market would adversely affect the capability of newer universities to provide quality education to a greater extent than more established universities. The case chosen in this instance was a New University. I am employed at a ‘New University’ created exclusively from amalgamations by former CAEs that occupies the ‘least privileged’ position in the Western Australian higher education pseudo-market. This university provides a suitable ‘critical case’ for testing the competing claims.

Data analysis: Qualitative SD methods of representation will be used within a social constructionist epistemology. If the claim that increased ‘efficiency’ and ‘rising standards’ can be sustained in this ‘critical’ case, then it is possible to be more confident
about such claims relative to universities situated more favourably in the education market. The diagram will be developed from my knowledge as an academic staff member.

**Triangulation**: Any patterns discovered will then be compared with secondary data about Australian higher education gathered from other sources.

**Validity and generalisability**: The choice of university as the 'critical case', enables use of ‘insider’ knowledge gained over a period of years, about the strategies of one organisation. The findings from this part of the research will be compared with findings of secondary research into the relationship between quality, standards and efficiency and effectiveness to test explanatory capacity. The most significant validity question relates to the use of insider research as the basis of the model. This issue is discussed next.

The merits and disadvantages of the ‘emic’ (insider) and the etic (outsider) perspectives have been discussed in the literature on qualitative research (Guba & Lincoln, 1994, p106). Some advantages of using ‘insider’ research are that:

- Avoids imposition of hypotheses that have little meaning to practitioner and centralises issues important to practitioners that might not be identified by outside perspectives (G. L. Anderson, Herr, & Nihlen, 1994, p111; Guba & Lincoln, 1994, p106)

- It makes available more detailed knowledge of an organisation’s unwritten history and practices (including myth, culture and informal systems) that it is difficult for external researcher to achieve (G. L. Anderson et al., 1994, p111; Cochran-Smith & Lytle, 1993, Chapter 3).

There are disadvantages of insider research, including that the researcher may take for granted phenomena that an outsider would recognise; the perspective of an insider is often limited by the researcher’s position in the organisation; and perceptions of insiders may be biased because of subjectivity (G. L. Anderson et al., 1994, p4).

The use of a critical perspective for the research militates against the first limitation, because the critical perspective requires continual questioning of normative assumptions. The intention of this part of the research is to represent the effects of combined strategies on the pressures influencing academic decision-making. There is no conflict between my employed role as an academic without significant managerial
responsibilities and the research focus in this part of the study. Negative effects of researcher subjectivity may be overcome by use of a 'critical friend' who is external to the organisation (G. L. Anderson et al., 1994, p4). In the research presented in this thesis, the research findings were written and presented as conference papers at three different conferences (see (Cooper, 2001, 2002a, 2002d), Appendix 2). The anonymous conference reviewers, and the audiences for the conference presentations, performed the role of 'critical friends'.

From a critical perspective, bias is inevitable in all research and in all models, because models are a selective representation of reality (Sterman, 2002), and the process of selection means that some features are emphasised and others are omitted (Sterman, 2002). A realistic response to bias is to make explicit the potential sources of bias, rather than to assume bias can be avoided. Two significant sources of bias within modelling relate to model assumptions and boundary issues (Sterman, 1991). The issues of bias within the model will be addressed by making explicit: the assumptions that inform the models; boundary decisions about what to include within the models and what to exclude.

No claims are made for the generalisability of the detail of the findings of this process. The purpose of this exercise is to test coherency of claims about the feasibility of improving standards and increasing efficiency in Australian higher education. If the method indicates that they are compatible, this casts doubt upon Marginson and Considine's (2000) analysis. If the method indicates incompatibilities, this casts doubt on the claim that the objectives of quality management are realistic. An earlier form of this model was presented at the HERDSA conference in 2002 and was short-listed for best paper award (Cooper, 2002d, and in Appendix 2).

**Methodological issues specific to Qualitative Systems diagramming data (QSD) set 1:**

The intention in this research is to explore whether any insights can be gained into unintended outcomes for quality in Australian higher education when the system is examined holistically. Qualitative systems diagramming is used to indicate how Australian higher education policies and university management strategies combine to shape the pressures on decision-making for academic staff at the lower levels within universities.

**Qualitative Systems Diagramming data (QSD) set 2:** The intention of this part of the research is to assess, in principle, the applicability of the methods and the findings to
quality management in Australian higher education of Repenning and Sterman as reported in Chapter 2.

Table 3.12: Qualitative systems diagramming: sampling, data analysis, triangulation and validity

<table>
<thead>
<tr>
<th>Purpose</th>
<th>Choice of sampling</th>
<th>Data analysis</th>
<th>Triangulation</th>
<th>Validity/ goodness</th>
</tr>
</thead>
<tbody>
<tr>
<td>QSD set 2: assess, in principle, the applicability of the methods and the findings of Repenning and Sterman to be adapted for future use in Australian higher education.</td>
<td>Plausibility probe: No sample</td>
<td>Compare assumptions about categories and relationships. Analyse both primary data from document analysis and secondary data to assess the applicability of this research.</td>
<td>Comparison between categories and relationships found in Repenning &amp; Sterman and those found in secondary research and analysis of document sets</td>
<td>As above and may provide a prima facie answer; Will require empirical validation</td>
</tr>
</tbody>
</table>

This investigation will act as a 'plausibility probe'. Blaikie (2000, p220), describes a 'plausibility probe' as a method where the purpose of the study is to determine whether the 'theoretical construct', in this case Repenning and Sterman’s research methodology, is worth considering as an evaluative method in quality management in Australian higher education, and to determine the limitations of applicability to Australian higher education of their findings about the reasons for failure of quality management in commercial contexts.

**QSD2 Sampling**: There is no sample for this analysis.

**QSD2 Data analysis**: The purpose of this work is to assess the limits of generalisability of Repenning and Sterman’s analysis in non-commercial setting. The analysis will be primarily concerned with whether the categories used by Sterman and Repenning in commerce have equivalence in higher education. If individual data is required, data from QSD1 will be used, with the safeguards outlined above.

**QSD2 Triangulation and Validity**: Triangulation and validity will be referenced to consistency, balance and effectiveness. Consistency will be assessed if the process of comparison ensures that adequate attention is given to identification of possible obstacles to applicability. Balance will be maintained if care is taken to ensure that the assessment of applicability does not import disciplinary assumptions without scrutiny of their applicability in context. Effectiveness will be assessed according to how well application of the insights of Repenning and Sterman’s (1997) research uncover useful, new perspectives on quality management in Australian higher education. The intention of this exploration is to test conceptual applicability of the model and to note any limitations of applicability that arise from contextual difference. This is exploratory.
work to find out whether there are *prima facie* reasons to believe that the findings are *not* generalisable because of fundamental differences in context.

**Research Procedures: Methods and Techniques of Analysis**

This section outlines the detailed decision about methods and analysis techniques for each data set, in sufficient detail so that other research could replicate the research, Perry (1998). The research procedures will be described for each data set independently. The final part of this section will describe how the data will be integrated. The data sets and analytical techniques described in this section are summarised in Table 3.13.

**Documentary Data Set 1 (DDS1)**

Government policy quality management documents: Purposive sample: Relevant sections of Australian government higher education triennial report between 1999-2003, plus the government policy report ‘Our universities: Backing Australia’s Future.’ The initial intention was to analyse government policy only in the period up to 2002. This decision was revised because a higher education review, ‘Higher Education at the Crossroads’, was initiated during 2002, and informed in a government policy paper produced in May 2003. Discussion documents on higher education, including quality management, were produced for the ‘Crossroads’ review. These were not included in DDS1 because the ‘Crossroads’ discussion papers contained statements and analyses that were not necessarily adopted as government policy. The documents selected in DDS1 reflect government policy.

**Method:**

1. A manual analysis was made to extract data according to predetermined categories, and to identify additional emergent themes for each document.

2. Early analysis showed significant differences between policy in the Kemp era (1999-2001) and policy in the Nelson era (2002 onwards), so this divide formed the basis for cross comparison of policy similarities and differences as represented in the documents.

3. The data was compared between documents from the ‘Kemp era’ and documents of the ‘Nelson era’.

4. A list of themes is included in Appendix 3.
5. A list of sections of each report analysed is included in Appendix 3.

**Documentary Data Set 2 (DDS2)**

Quality plans for selected universities: purposive sample: maximum variation sample. Western Australia constitutes a single fairly ‘closed market’, representing the major types of university as classified by Marginson and Considine (2000).

**Method:**

1. A manual analysis was made to extract data according the predetermined categories, and to identify additional emergent themes for each document.

2. The data was compared between documents.

3. Separate tables were developed from the data to compare the findings of similarities and differences found in the quality plans of each type of institution.

4. The predetermined categories, emergent themes showing emergent similarities and differences, and tables of supplementary data not analysed in the thesis, are presented in the Appendix 3.

**Documentary Data Set 3 (DDS3)**

**DDS3:** Program evaluation reports for one university: extreme case sampling.

Two reports were analysed. The data were analysed manually. The documents were analysed and coded in paragraph ‘chunks’ to preserve the intended sense of the writer.

**Method:**

1. The reports were obtained in Portable Document Format (PDF).

2. The files were converted to Rich Text Format (RTF).

3. The files were then ‘anonymised’ by removing proper names of people, schools, research centres and institutions.

4. A manual analysis was made to extract data according to the predetermined categories, and to look for emergent themes.

5. The predetermined and emergent categories are included in Appendix 3.
Analysis of the meaning of three sets of quality indicators, (QI1), (QI2) and (QI3)

Initially two quality indicators were examined for adequacy of interpretations of meaning: attrition data (QI1); and the use of the ACER test of graduate skills (GSA) (QI2). Preliminary analysis of documents in DDS2 indicated that student attrition and progress rates were commonly included in data purporting to demonstrate quality, but there was no intention by institutions to use the GSA test to support claims of quality. The decision was made to substitute an examination of the adequacy of interpretation of meaning for quality of student feedback on teaching, and to discontinue examination of the adequacy of interpretation of GSA data. The methods used to determine the adequacy of these assumptions were the same for each of the quality indicators examined.

The literature on attrition was examined to see whether there was a theoretical basis for this interpretation. In particular, whether any well-supported model could be found or developed, that would justify these interpretations, and forms QI 1. The literature on interpretation of student feedback was examined to see whether any well-supported models could be found or developed to justify this interpretation, and forms QI 3.

Method:

1. Identify the nature of the dispute about interpretation.

2. Identify whether there are any theoretical models that purport to explain: QI1 the meaning of attrition, why students leave university without completing their course; QI2, how student scores or changes in student scores relate to the quality of educational process; QI3, how student feedback relates to quality of teaching.

3. Examine the theoretical adequacy of this model.

4. Examine the applicability of the model to the Australian context.

5. Write up and present as refereed paper on: QI1 at 25th HERDSA conference (Cooper, 2002e); QI2 at the 11th Teaching and Learning Forum (Cooper, 2002c); QI3 is in preparation.

6. Amend as required.

7. Summarise the main points, see Table 4.4c-e.
The account of the investigation into attrition is found in (Cooper, 2002e), in the Appendix 2. A paper outlining the full investigation into the use of student feedback as evidence for quality is in preparation. An account of some of the difficulties with the use of graduate attributes as a quality indicator is found in (Cooper, 2002c), published in a collection of selected papers from the Teaching and Learning Forum, in Appendix 2. The data on the meaning of quality indicators, QI1, QI2 and QI3 are presented in Tables 4.4c-e.

**Qualitative Systems Diagram Set 1 (QSD1)**

**QSD1**: A model was developed to explore whether any insights can be gained into unintended outcomes for quality in Australian higher education when the system is examined holistically. Qualitative systems diagramming was used to represent the interrelationship between Australian higher education policies, university management strategies, and pressures on decision-making for academic staff and students at the lower levels within universities.

**Method:**

1. 'Mind-map' of initial ideas about policy, strategy and academic decision-making.

2. Write up and present as refereed paper at the 7th Australian and New Zealand Systems Society (ANZSYS) conference (Cooper, 2001, for discussion).

3. Amend model, on the basis of formal feedback, informal discussion, further literature review and further observation

4. Write up and present as refereed paper at 25th Higher Education Research and Development Society of Australasia (HERDSA) conference (Cooper, 2002d).

5. Write up theoretical issues arising from the research and present as refereed paper at 8th ANSYS conference (Cooper, 2002a)

6. Amend model as required, if required

7. Write a statement summarising the model assumptions and boundary decisions, see Appendix 3a.
8. Present the amended model in this thesis.

The final model and statement of model assumptions and boundary decisions is presented in Appendix 3. The relevant conference papers are found in Appendix 2.

**Qualitative Systems Diagramming set 2 (QSD2)**

**Qualitative systems set 2:** Test of whether Repenning and Sterman’s (Repenning & Sterman, 1997) research findings are applicable to Australian higher education.

**Method:**

1. Compare the categories and relationships used in his model with those found in higher education, derived from conceptual analysis and identifications of similarities and differences between categories used in the model (for example ‘product’), build on answers to other research questions and synthesise data from DDS1, DDS2, & DDS3.

2. Present findings as a refereed paper at the 9th ANSYS conference (Cooper, 2003b).

3. Amend, if necessary based upon formal and informal feedback and discussion

4. Write up summary of main findings for this thesis

5. *Prima facie* results are presented in Chapter 4.

The discussion of applicability is presented in Chapter 5, Theme 4.4. The relevant conference paper is found in Appendix 2.

**Compromises within the research design**

Most research designs deviate to some degree from the ideal, there are no perfect research designs (Patton, 1990, p162) and involve some degree of choice (Hakim, 1987, p12). An early proposal for this research included a variety of ‘stakeholder’ interview data and focus group data and a plan to cross-compare these sources with analysis of documentary sources. This initial research design would have limited the scope of the research to the examination of quality management in relation to a limited population either professional degrees in general or teacher or nursing education, because of restrictions of time. Fairly soon during the literature review, I became aware that the conceptual confusions about ‘quality’, and compartmentalisation of knowledge
concerned with interpretation of meaning of data purporting to indicate quality, were important issues that could not be resolved within the research design as initially conceived. The research plan was redesigned to use documentary sources without the interview data, as a strategy to address this issue. In Hakim’s terms, this could be described as ‘trading down’ (Hakim, 1987, p120) to a cheaper and more manageable research design.

Hakim argues that ‘trading down’ to a different and cheaper research design is often preferable to trying to maintain a more costly or time-consuming research design with insufficient resources. According to Hakim (1987, p121)

Trading down to a cheaper design — such as qualitative research, short case studies, research analysis of administrative records, or secondary analysis of existing data, all of which tend to be at the cheaper end of the range of all-in costs — needs to be done explicitly and with a clear statement of what is lost, and gained, in the process.

The losses that derived from the exclusion of interview data mean that this research predominantly examines the ‘public face’ of Australian higher education quality management, with only very limited opportunity to incorporate the ‘lived experience’ of quality management. The gain from ‘trading down’ on costs and in time spent gathering primary data meant that there was an opportunity to ‘trade up’ (Hakim, 1987, p123) on the complexity of the research design. This choice enabled a multi-method approach, where different types of data could be combined, and integrated with a wider variety of existing literature from several disciplinary areas.

On balance, I judged that it would be more beneficial to clarify the basis of conceptual confusions and the issues of poor interpretation of data, than to collect additional data about people’s experiences of quality management (where the concept of quality is confused). I judged that resolution of conceptual problems was most likely to require integration of existing data with existing knowledge from multiple disciplines. If successful, I judged that the ‘gains’ from the amended research design should outweigh the ‘loss’ of new data about the lived experiences of higher education quality management. The reasons for my position are:

- Conceptual clarity achieved through integration of existing knowledge enables meta-analysis of any existing data on perceptions of quality, for example, data collected by Vidovich (1998) about responses of academic staff to quality management;
• Conceptual clarification provides a sounder basis for future primary research on quality management in higher education both in Australia and elsewhere;

• There is no recent Australian literature that addresses the substantive issues that became the focus of this research;

• Without conceptual clarification and integration of relevant knowledge between disciplines, there is a risk that research contributes additional information without any useful contribution to understanding or knowledge.

It is always possible to see how additional data sources that have potential to add further new dimensions to understanding of the research problem, but the research design described in this chapter draws the boundary of this investigation (for now).

**Ethical Considerations**

**Human research issues:** There were no human subjects in this research.

**Documents:** All the documents included in DDS 1 and DDS 2 are fully public documents available from the Australian Commonwealth Department of Education Science and Training. The documents included in DDS3 had restricted circulation at the time of analysis.

**Issues of confidentiality:** Panel reports had a restricted circulation at the time of analysis. On the advice of my supervisor, it was agreed that the documents would be 'anonymised' by the removal of all proper names from the documents to protect the confidentiality of the participants, the school and the university. This does not compromise the purposes of the research.

**Summary**

The research questions and sub-questions established at the end of Chapter 2 are shown in Table 3.13.
<table>
<thead>
<tr>
<th>Sub-questions:</th>
<th>Data:</th>
<th>Analysis: key issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>How are ‘quality’, ‘quality assurance’ and ‘quality improvement’ conceptualised in quality management documentation in policy, strategy and program evaluation in Australian higher education? Is usage consistent and does the documentation indicate awareness of difference between different technical usages? How are ‘standards’ conceptualised?</td>
<td>DDS1; DDS2; DDS3; Q1; Q2; Q3</td>
<td>Use Cameron and Sine’s conceptual categories. How do the concepts of accountability and improvement apply to education?</td>
</tr>
<tr>
<td>What purposes, roles and relationships are assumed in quality management documentation in policy, strategy and program evaluation in Australian higher education, and what are the implications of the findings? If a customer relationship is assumed, how does this influence other roles and relationships?</td>
<td>DDS1; DDS2; DDS3; Q1; Q2; Q3</td>
<td>Examine the meaning of concepts such as ‘customer’ ‘product’ and ‘standard’ in the context of university. How have these concepts been adapted in university quality documents?</td>
</tr>
<tr>
<td>What is the Australian government rationale for higher education quality management,</td>
<td>DDS1</td>
<td>Identify the government rationale(s) for quality management. Look for the underlying ‘assumptions’ or ‘stories’ or ‘mental models’ Test the coherency and consistency of the various stories against explicit commitments and against other evidence</td>
</tr>
<tr>
<td>Are the rationale(s) consistent with the definitions of quality in Q1 and the intended purposes of higher education in Q2?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>How does quality management as implemented privilege particular assumptions about universities, students and the academic role?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>What insights can be gained into unintended outcomes for quality in Australian higher education when the system is examined holistically? Are the criteria against which university quality is judged, realistic and achievable when judged in the overall context of higher education policy?</td>
<td>QSD1; QSD2</td>
<td>Systemic analysis (rather than linear) of combined policy effects at the organisational level</td>
</tr>
<tr>
<td>‘Quality indicators’ are recommended in quality management documentation in policy, strategy and program evaluation in Australian higher education, what inferences are made about the meaning of data, and are there adequate explanatory models that justify the inferences being made about quality?</td>
<td>Q1; Q2; Q3 QSD2</td>
<td>Deconstruct assumptions about teaching and learning in higher education underpinning the use of different measures. Compare these assumptions with the accepted finding about teaching and learning in higher education as substantiated in higher education research, using additional secondary data as required.</td>
</tr>
<tr>
<td>What evidence is there from the documentation of attempts to monitor unintended that unintended outcomes of quality management?</td>
<td>DDS1; DDS2; DDS3; Q1; Q2</td>
<td>Is there evidence of use of open ended evaluation methods, or attempts to examine holistic affects of interventions</td>
</tr>
<tr>
<td>What commercial ‘management advice’ is reflected in quality management documentation in policy, strategy and program evaluation in Australian higher education, has it been adapted to the context of higher education?</td>
<td>DDS1; DDS2; DDS3; Q1; Q2</td>
<td>Identify the logical relationship between each of the different rationales for quality management identified in the review of literature. Are there tensions between accountability and improvement rationales? What is the prima facie relationship between each rationale and proposed quality measurement methods?</td>
</tr>
<tr>
<td>Is there evidence in the documentation of awareness of the research on effectiveness and modes of failure of commercial quality management</td>
<td>DDS1; DDS2; DDS3 Q1; Q2</td>
<td>Do those applying QM methods in higher education (as described in various documents), have a good understanding of current research into quality management in commercial environments</td>
</tr>
<tr>
<td>Are the research findings on effectiveness and modes of failure of commercial quality management applicable to Australian higher education? What adaptation would be required?</td>
<td>DDS1; DDS2; DDS3; QSD1; QSD2</td>
<td>Compare assumptions about categories, roles relationships and purposes between commercial and educational contexts;</td>
</tr>
<tr>
<td>What are the implications of this research for future research into quality management in higher education; quality policy in Australian higher education; strategy for managing quality in Australian higher education; and, processes for evaluating higher education?</td>
<td>DDS1; DDS2; DDS3; QSD1; QSD2; Q1; Q2</td>
<td>This will draw together data analysis (Chapter 4) and literature (Chapter 2) to identify residual questions and the potential direction of their resolution. New model?</td>
</tr>
</tbody>
</table>
What are the implications of this research for future research into quality management in higher education; quality policy in Australian higher education; strategy for managing quality in Australian higher education; and, processes for evaluating higher education?

<table>
<thead>
<tr>
<th>Qi3;</th>
<th>DDS1; DDS2; DDS3; QSD1; QSD2; Q1; Q2; Q3;</th>
</tr>
</thead>
<tbody>
<tr>
<td>This will draw together data analysis (Chapter 4) and literature (Chapter 2) to identify residual questions and the potential direction of their resolution. New model?</td>
<td></td>
</tr>
</tbody>
</table>
CHAPTER 4
ANALYSIS OF DATA

Introduction
In this chapter, the research findings are summarised. Following the Perry (1998) model, the findings are summarised in Chapter 4. The analysis of the findings and implications are discussed in later chapters. Details of data sources are provided in Appendix 3b (and also Chapter 3, p.189). Some more detailed data not included in this chapter are also presented in Appendix 3. This chapter is divided into eight sections, this introduction and then a section that presents data relevant to each question. The final section discusses changes made to the data analysis.

Research Question 1: Concepts of Quality
What conceptualisations of quality are found in Australian higher education in the period 1999-2003 and what are the implications of any differences for interpretation of data about higher education?

a) How are ‘quality’, ‘quality assurance’ and ‘quality improvement’ conceptualised in quality management documentation in policy, strategy and evaluation reports in Australian higher education?

b) Is usage consistent?

c) Does the documentation indicate awareness of difference between different technical usages and everyday usages and the implications of these differences for measurement?

d) What is the relationship between ‘quality’ and ‘standards’?

e) What are the implications of these findings for the research problem?
**Table 4.1a Question1: Data sources and key issues for analysis**

<table>
<thead>
<tr>
<th>Sub-questions:</th>
<th>Data:*</th>
<th>Analysis: key issues</th>
</tr>
</thead>
</table>
| How are 'quality', 'quality assurance' and 'quality improvement' conceptualised in quality management documentation in policy, strategy and evaluation reports in Australian higher education? | DDS1; DDS2; DDS3; Qi1; Qi2/Qi3 | Chapter 4: Summarise usage evidenced in documentation and awareness in the documentation of implications of different concepts of quality. Tables 4.1b-d.  
Chapter 5: Compare with Cameron and Sine's conceptual categories. How have these concepts been adapted in university quality documents? See Themes 1.1 and 1.2 and 1.3. |
| Is usage consistent? Does the documentation indicate awareness of difference between different technical usages? | DDS1; DDS2; DDS3; Qi1; Qi2/Qi3 | Discuss in Chapter 5, See Theme 1.1 |
| Does the documentation indicate awareness of difference between different technical usages? | DDS1; DDS2; DDS3; Qi1; Qi2/Qi3 | Chapter 4: Summarise usage evidenced in documentation, Tables 4.1b-d.  
Chapter 5: See Theme 1.1 |
| What is the relationship between 'quality' and 'standards'? | DDS1; DDS2; DDS3; Qi1; Qi2/Qi3 | Chapter 4: Standards as discussed in the documentation, Table 4.1e.  
Chapter 5: See Theme 1.4 |
| What are the implications of these findings for the research problem? | DDS1; DDS2; DDS3; Qi1; Qi2/Qi3 | Chapter 5: Implications of question 1  
Chapter 6 |

The conceptualisation of ‘quality’, quality assurance’ and ‘quality improvement’ found in the documentation is summarised in Tables 4.1b to 4.1e. On issues of conceptualisation, there were significant differences between documents within each data set, so the Tables relevant to this question present the findings from subgroups of documents or individual documents, to allow these differences to emerge. There were no additional emergent themes related to this question.
## Table 4.1b Concepts of Quality

<table>
<thead>
<tr>
<th>Question 1: Concept of Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>DDS1a Standards; Customer satisfaction: student as customer; Employer satisfaction: student products meet employer requirements; Quality as documentation of effective systems for quality management; efficiency and value for money</td>
</tr>
<tr>
<td>DDS1b Stakeholder satisfaction; adequacy of processes; student outcomes;</td>
</tr>
<tr>
<td>DDS2a Good educational and research outcomes; transcendent based upon recognition by others that educational research and processes are of high quality</td>
</tr>
<tr>
<td>DDS2b Student satisfaction; recognition; quality as ethical processes</td>
</tr>
<tr>
<td>DDS2b</td>
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<td>DDS2b</td>
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<tr>
<td>DDS2b</td>
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<tr>
<td>DDS2b</td>
</tr>
<tr>
<td>DDS2c Quality as culture and professionalism of staff who are skilled, ethical, informed and hardworking in an organizational structure where people have clarity and can make improvements</td>
</tr>
<tr>
<td>DDS2c</td>
</tr>
<tr>
<td>DDS2d Quality as reputation; quality as student employability, quality as student satisfaction:</td>
</tr>
<tr>
<td>DDS2d</td>
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<tr>
<td>DDS2d</td>
</tr>
<tr>
<td>DDS2e Quality as meeting individual and national need; according to international standards; maintaining a relationship between teaching and research;</td>
</tr>
<tr>
<td>DDS2e</td>
</tr>
<tr>
<td>DDS3a Transcendent (based on observation of teaching); Adding value to students; academic rigour; culture of teaching excellence; having processes in place for monitoring and improving practices;</td>
</tr>
<tr>
<td>DDS3b Satisfying stakeholders; panel not content to equate student satisfaction with quality;</td>
</tr>
<tr>
<td>Q1 Student attrition, either: interpreted as a measure of economic efficiency in processing materials (student as raw material), or interpreted as a measure of customer (student) (dis)satisfaction</td>
</tr>
<tr>
<td>Q2 Graduate Skills Assessment: Product to meet specification (student as product)</td>
</tr>
<tr>
<td>Q3 CEQ/ student evaluations: interpreted as measure of degree to which learning experiences (are reported to) meet or exceed (student) customer expectations.</td>
</tr>
</tbody>
</table>

The document sets indicate that multiple concepts of quality are implicit in the statements about quality measurement and the interpretation of the meaning of data. There is no evidence in the documentation of any concern about whether the assumptions are consistent and mutually compatible.
Table 4.1c Quality assurance

<table>
<thead>
<tr>
<th>Question 1: Quality assurance</th>
</tr>
</thead>
<tbody>
<tr>
<td>DDS1a</td>
</tr>
<tr>
<td>DDS1b</td>
</tr>
<tr>
<td>DDS2a</td>
</tr>
<tr>
<td>DDS2b</td>
</tr>
<tr>
<td>DDS2c</td>
</tr>
<tr>
<td>DDS2d</td>
</tr>
<tr>
<td>DDS2e</td>
</tr>
<tr>
<td>DDS3a</td>
</tr>
<tr>
<td>DDS3b</td>
</tr>
<tr>
<td>Q1</td>
</tr>
<tr>
<td>Q2</td>
</tr>
<tr>
<td>Q3</td>
</tr>
</tbody>
</table>

All documents except one (DDS3a) gave priority to accountability rather than improvement in discussion of quality assurance. In practical terms, accountability was to Federal government enforced by funding mechanisms. Accountability was stated to be to 'students' 'employer' 'public' 'taxpayers' and 'stakeholders'.
Table 4.1d Quality Improvement

<table>
<thead>
<tr>
<th>Question 1: Quality improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>DDS1a Improvements in these documents refer to the changes which the government would like universities to make such as: improved 'responsiveness to students' as customers; responsiveness to the requirements of industry; 'improvement' in management through a more 'flexible' workforce</td>
</tr>
</tbody>
</table>
| DDS1b Quality improvement as discussed in these documents is concerned with: either research sponsorship of projects to 'improve teaching' systematically through the AUTC grants; provision of awards which it is assumed will stimulate individual improvement; or offer of financial inducements to bring about sector wide changes nominated by government, and referred to as 'improvements', for example, *The Workplace Reform Programme offers higher education institutions additional funding to encourage improvements in management, administrative and industrial arrangements.* (2003).  
*The AUTC has nine projects currently in commission. Further details of current AUTC projects can be found at www.autc.gov.au. In addition to promoting teaching and learning improvement through its projects, the AUTC continues to support a visiting scholar programme, to sponsor the National Teaching Forum and to administer the Australian Awards for University Teaching.* (2000)  
There was no formal mechanism to support of quality improvement derived from need identified by individual institutions. |
| DDS2a The purpose of quality improvement, 'to delight clients', reflects the influence of commercial quality management literature, especially TQM:  
*Continuously improve the delivery of products and services by: Establishing and maintaining structures, systems and processes to maximise quality and delight our clients.*  
The most extensive discussion of what improvements will be made concerns the slowness of the desired 'cultural changes' and management re-organisation initiatives. The document does not explain why 'improvements' are needed or how they will 'delight clients'.  
*Integrated centralised/devolved administrative core. Moving in right direction through New Media Associates scheme centrally guided and supported but locally focused. Flexible learning systems not yet properly coordinated. Consolidated Teaching Policy will be a big step towards integrated course administration. Achieved in postgraduate; moving in right direction in research management;* |
| DDS2b Quality improvement is presented as measures that will increase performance on accountability measures.  
*To increase retention each Faculty has initiated its own special University learning skills workshops, peer mentoring, and other programs. [UNIVERSITY] also recognises that many factors, apart from curriculum, teaching and learning support factors, contribute to a student's decision to remain at University. To better meet the needs of students, a new Student Services Centre provides a 'one stop shop', co-locating student services such as the IT helpdesk, library and media support, careers and advisory services, administration, and medical facilities. The University is also working on enhancing the role of student advocacy in its committee structure.* |
| DDS2c Quality improvement is presented as review of performance on accountability measures, the example given is in response to student unit evaluation.  
*The results show that about 84 per cent of students are satisfied with the teaching in their units; the remaining 16 per cent suggest improvements that are communicated back to teachers for action.* |
| DDS2d This university's plan claims it will comprehensively measure and continuously improve teaching quality. The only measures of teaching quality mentioned are student evaluation/ satisfaction reports.  
'quality teaching to be comprehensively measured and continuous improved;' |
| DDS2e Under 'quality improvement', the university lists its programs for development and expansion, to improve its positioning relative to other universities internationally, a central goal of its 'mission'. |
| DDS3a Report emphasises the importance of processes to identify what should be improved, and the importance of a "culture of teaching excellence" |
| DDS3b Panel chair reports their (mistaken) belief that the purpose of the AUQA review is to assess and rank universities and courses; consequently the report judges the course and the university, but places little emphasis on assessment of whether the school has adequate processes for identifying how processes might be improved  
'Quality assurance processes must begin at School level, but these processes must be benchmarked against Faculty and [university] criteria that produce transparent and publishable performance outcomes; especially in light of the Australian Universities Quality Agency's role to determine and rank standards.' |
| Q1 Retention data does not provide information about why students leave that would enable universities to improve their educational processes and reasons for student departure may not be amenable to influence by the university, as noted in DDS2b above. |
| Q2 The GSA test provides data about educational outcomes and potentially about change in student skills, if administered as a pre-test. This data could be considered in curriculum design if the test were widely used, and could supplement information gained from existing student assessment. |
Quality 'improvement' was less prominent than 'accountability' in the quality management practices reported. Quality improvement often referred to improvement of performance on measures used in accountability data rather than process improvement or improvements related to the mission of the university. Government documents identified system-wide 'quality improvements' that the government wished universities to implement, related to governance and workplace relations and increased responsiveness to students, employers or industry. All university plans state that institutions are committed to the idea of improvement. All of the quality indicators examined in detail are primarily concerned with provision of data for 'accountability', and do not provide data useful to identification of process problems within individual courses.
### Table 4.1e: Universities and standards

<table>
<thead>
<tr>
<th>Question 1: Standards in higher education</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DDS1a</strong> Universities are responsible for maintenance of academic standards; must meet students' needs and satisfy employer requirements; and provide value for money. Standards referenced to 'international standards', as well as satisfying appropriate Australian professional institution or 'employer' where there is no suitable professional accreditation.</td>
</tr>
</tbody>
</table>
| **DDS1b** Reiterates that universities are responsible for ensuring standards; Some ambiguity: reference to, international standards and professions; but recognition that standards can be variable and related to fitness for purpose:  
*The assessment debate is complex and a number of key issues have been identified. The first is the recognition of the transition to a mass system of higher education and the diversity of both students and courses that are now offered in universities. These changes mean that the concept of fitness for purpose and related relative standards should be applied to assessment of courses.* (2002) |
| **DDS2a** Use benchmarking with national and international partners to assess standards  
‘focus on achieving world-class standards and recognition of excellence;’ |
| **DDS2b** Document references standards to international standards as identified by external peer review  
‘Encouraging the highest standards of learning by adopting a student-centred approach to teaching, learning and the administration of student services.’  
And use of external peer review to ‘ensure national and international standards of performance are being achieved and that improvement is systematic.’ |
| **DDS2c** The document mentions a curriculum approach to standards:  
‘By May 2001 Divisions will have developed a plan on how they will address the issues of multiple pathways and appropriate standards to be applied and this will be reported to Academic Council. It is expected the mapping exercise will be completed by the end of 2001.’ |
| **DDS2d** No specific discussion of how standards will be assured |
| **DDS2e** The mission statement commits the university to judging itself relative to international standards as assessed by peer review.  
‘To advance, transmit and sustain knowledge and understanding through the conduct of teaching, research and scholarship at the highest international standards, for the benefit of the international and national communities and the state of Western Australia.’  
‘The University's primary teaching and learning goal is to provide courses of study and a learning environment at the highest possible quality to meet individual, local (state), and national needs and internationally recognised standards;’ |
| **DDS3a** Commented on the difficulty in assessing standards and considers that benchmarking the activities and gaining comparable relevant indicative data is ‘problematic’. The panel preferred to rely on observation of teaching as a basis of assessments. The second quote implies that ‘adding value’ is an appropriate means of achieving ‘national standards’, and this implies rejection of idea of ‘absolute’ standards as the most appropriate basis for judgement.  
‘It is difficult to judge objectively whether or not the [School] has reached national and international standards in its teaching and research. Benchmarking such activities and obtaining relevant, comparable key performance indicator data is problematic.’  
‘In teaching the Panel saw relatively little class teaching and the KPIs provided were often at a Faculty level. However, based on discussions with staff, the unit evaluation data, and miscellaneous other data (see appendix 1), the Panel concludes that, not only is there evidence of a genuine desire for teaching excellence, but also that considerable value is being added to many students passing through the School’s courses. In this respect the performance meets national standards, and is in line with expectations overseas.’ |
| **DDS3b** Formally recommends using benchmarking to assess teaching standards; believes there must be a way to objectively measure standards; considers that it is the responsibility of university management and staff to find to develop ‘uniform benchmarking standards’.  
‘The University should work with the school to devise appropriate benchmarking measures including the identification of resources/incentives needed to benchmarked outcomes.’  
‘Other than the positive evaluations of students, there was no way of knowing whether teaching meets national or international standards. The Panel believes that there must be other ways of [Universities] objectively measuring (overall) teaching standards and suggests that all Schools work with [University]’s Executive to develop uniform benchmarking standards.’ |
Government documents predominantly discuss standards as if ‘international standards’ provide a meaningful and fixed measurement benchmark for academic excellence, although there is one claim in one document (2003) that references standards to ‘fitness for purpose’. The use made of Graduate Skills Assessment test data implies commitment to universal fixed minimum standards. The university documents discussed standards as if international standards provide a meaningful fixed reference point. The two panel reports have contrasting perspectives on standards. The second report recommends seeking objective ways to measure teaching standards, and discusses international standards as if they were unproblematic. In the first document, the writer states that the concept of international standards is problematic, and suggests that standards could reasonably be judged by reference to the ‘value added’ to students rather than judged against fixed outcomes.

Summary: Question 1

Multiple conceptualisations of quality are evidenced in Australian higher education quality management documentation (Table 1b). There is no evidence of awareness of conceptual difference, or discussion of the potential implications of such differences, and no evidence of analysis of the implications of different conceptualisations of quality for interpretation of data or assumptions about meaning. The documents illustrate that quality assurance is interpreted primarily in terms of the ability to demonstrate accountability (Table 1c). Accountability was claimed to be to various ‘stakeholders’, but the accountability mechanisms were primarily to Federal government or professional institutions. Quality improvement is discussed less frequently. In government documents, ‘quality improvement’ refers to changes that the Australian government would like universities to make. In university documents, accountability requirements take precedence over quality improvement requirements, even where the quality management framework explicitly prioritises quality improvement (Table 1c). Most of the documents discussed ‘standards’ as if international standards provided a meaningful unitary fixed reference point for judgement. The exception was one of the panel reports where the problem of comparison of standards was raised.
Research Question 2: Context of Higher Education: Purposes, Roles and Relationships

What is the relationship between the intended purposes of Australian higher education, the roles and relationships required to achieve these purposes, and concepts of quality?

a) What purposes, roles and relationships are assumed in quality management documentation in policy, strategy and evaluation reports in Australian higher education?

b) If a customer relationship is assumed, how does this influence other roles and relationships?

c) Are the purposes, roles and relationships found in the documentation consistent with the purposes, roles and relationships implied by the concepts of quality identified in Q1?

d) What are the implications of these findings for the research problem?

Table 4.2a: Question 2: Data sources and key issues for analysis

<table>
<thead>
<tr>
<th>Sub-questions:</th>
<th>Data:</th>
<th>Analysis: key issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>What purposes, roles and relationships are assumed in quality management documentation in policy, strategy and program evaluation in Australian higher education?</td>
<td>DDS1; DDS2; DDS3; Q1; Q2; Q3; QSD1</td>
<td>Chapter 4: Identify in the documentation the purpose of higher education; the statements about the roles of students, academics, universities; Tables 4.2b-e. Chapter 5: Themes 2.1 and 2.2</td>
</tr>
<tr>
<td>If a customer relationship is assumed, how does this influence other roles and relationships?</td>
<td></td>
<td>Discuss in Chapter 5; Examine the meaning of concepts such as ‘customer’ ‘product’ and ‘standard’ in the context of university, Theme 2.3. See also Theme 2.4 Stakeholders</td>
</tr>
<tr>
<td>Are the purposes, roles and relationships found in the documentation consistent with the purposes, roles and relationships implied by the concepts of quality identified in Q1?</td>
<td></td>
<td>Chapter 5: Theme 2.2</td>
</tr>
<tr>
<td>What are the implications of these findings for the research problem?</td>
<td></td>
<td>Chapter 5: Implications of question 2. Chapter 6: Discussion of implications for the research problem</td>
</tr>
<tr>
<td>Emergent theme: Stakeholders</td>
<td></td>
<td>Chapter 4: Who are the stakeholders? How represented? Table 4.2e. Chapter 5: Theme 2.4</td>
</tr>
</tbody>
</table>

On issues of purpose and conceptualisation of relationships there were significant differences between documents within each data set, so the Tables relevant to this question present the findings from subgroups of documents or individual documents, to allow these differences to emerge. Conceptualisations of roles and relationships between universities and other parties, such as students, academics, university and
industry are summarised in Tables 4.2b to 4.2e. Tables 4.2c and Table 4.2d summarise
different ways in which the students role and relationship to university education has
been presented in the documentation. The most significant emergent theme related to
this question concerned stakeholders. Table 4.2e examines who are identified as the
'stakeholders' in university education and how they are represented.

Table 4.2b: Purposes of higher education

<table>
<thead>
<tr>
<th>Question 2: Purpose of higher education in policy documents/ mission of university in university quality plans/ purpose of course derived from panel reports/ implied by quality indicator</th>
</tr>
</thead>
</table>
| DDS1a | Multiple purposes: for individuals, for society, for the economy; a normative value framework is made explicit. Multiple references to the economic importance and value of the international market for higher education, education should *inspire and enable individuals to develop their capabilities to the highest potential throughout their lives (for personal growth and fulfilment, for effective participation in the workforce and for constructive contributions to society); advance knowledge and understanding; aid the application of knowledge and understanding to the benefit of the economy and the society; enable individuals to adapt and learn, consistent with the needs of an adaptable knowledge-based economy at local, regional and national levels; and enable individuals to contribute to a democratic, civilised society and promote the tolerance and debate that underpins it*  
| DDS1b | As above, plus the suggestion that universities should help young people create 'the kind of future they want'; which would seem to imply that universities have a role in helping young people examine the options for different futures.  
"Our vision of education should be to see that every Australian is able to find and achieve his or her own potential. It should also be informed by the recognition that sweeping social and economic changes are being worked into Australian society, transforming entire communities. Education should not simply prepare young Australians for the future. It should equip them to create the kind of future they want."
(2003b) |
| DDS2a | Advancement knowledge and enrichment of culture  
*the advancement of knowledge and the enrichment of culture*
| DDS2b | Dynamic learning environment for professional education  
*provide a diverse and dynamic learning environment, university education of recognised quality, especially for those people employed in or seeking employment in the service professions*
| DDS2c | Stimulate learning, extend knowledge, promote understanding for community benefit  
*extend knowledge, stimulate learning and promote understanding for the benefit of the community*
| DDS2d | Advancement of learning, knowledge and professions within a framework of Catholic faith and values  
*The advancement of learning, knowledge and the professions and the provisions of university education within a context of Catholic faith and values*
| DDS2e | Advancement, transmission and sustainment of knowledge and understanding for the benefit of international, national and state 'communities'.  
*to advance and transmit and sustain knowledge and understanding through the conduct of teaching, research and scholarship at the highest international standards for the benefit of international and national communities and the state of Western Australia*
| DDS3a | Meeting needs of regional and business communities; maintain academic integrity; undertaking commercial research useful to local stakeholders;  

| DDS3b | Meet the expectations of stakeholders; maintaining disciplinary 'tidiness';  

| Q1 | Measures the efficiency with which students are retained and passed by universities. Values speed of educational progression as an important purpose.  

| Q2 | Measures student achievement in selected generic cognitive outcomes. Values uniformity of outcomes as an important university purpose.  

| Q3 | Measures retrospectively the extent to which students report that their university experience satisfied their expectations; Values congruency between student experience and expectation.

Both the Federal government and the universities commit themselves to hopes that
higher education can achieve a wide variety of purposes: development of students' intellectual capacities; meet the needs of society; deliver economic benefits and
generate new knowledge, for its own sake. The missions of the different universities show some degree of differentiation. This offers prima facie support to claim for diversity in higher education. Supplementary indicators have been chosen by some institutions to provide evidence particular strength, however, the core measures identified as key performance indicators by all institutions (CEQ, GDS, and with one exception student retention and progress data) are identical, and are the indicators that the government requires universities to provide in their annual profiles. This contradicts the impression of diversity implied by the differences in their stated missions.

Table 4.2c Students as customers

<table>
<thead>
<tr>
<th>Question 2: Student as Customer</th>
<th>DDS1a</th>
<th>DDS1b</th>
<th>DDS2a</th>
<th>DDS2b</th>
<th>DDS2c</th>
<th>DDS2d</th>
<th>DDS2e</th>
<th>DDS3a</th>
<th>DDS3b</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes, explicit in early (pre-1999) documents</td>
<td>No explicit references to students as customers. Implicit assumption of 'student customers' in interpretation of CEQ, if it is assumed that quality equates to meeting students' expectations</td>
<td>No, students are clients</td>
<td>No, students identified separately from customers. Not clear who the customers are;</td>
<td>No mention of customers</td>
<td>No mention of customers</td>
<td>No mention of customers</td>
<td>No mention of customers</td>
<td>No mention of customers</td>
</tr>
<tr>
<td></td>
<td>DDS2b</td>
<td>DDS2c</td>
<td>DDS2d</td>
<td>DDS2e</td>
<td>DDS3a</td>
<td>DDS3b</td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
</tr>
<tr>
<td></td>
<td>'The [University] Strategic Plan 1998-2002 (the Plan) reflects the University's commitment to delivery of quality services to its students, customers and the local, national and international community.'</td>
<td>No mention of customers</td>
<td>No mention of customers</td>
<td>No mention of customers</td>
<td>No mention of customers</td>
<td>Explicit rejection of equation of teaching quality with student satisfaction.</td>
<td>Unclear; if student attrition is interpreted as evidence of student (customer) dissatisfaction, then a customer relationship is presumed; if student attrition is interpreted as an indicator of wastage, then students are treated as materials rather than customers.</td>
<td>No, assumes the students is a product of universities</td>
<td>Yes, implicit in claims that student satisfaction is a primary measure of university teaching quality</td>
</tr>
</tbody>
</table>

Students were the only party mentioned in any documents as customers of universities. Apart from one government document in 1999, which states several times that students are the customers of universities, there is little explicit evidence from these documents to support the belief that either university management or government or evaluation panels accept that students have a customer relationship with universities. The interpretation of the student satisfaction data as indicative of quality implies that quality is equated with student (customer) satisfaction, consistent with commercially derived quality management methods.
Table 4.2d: Students as products

<table>
<thead>
<tr>
<th>Question 2: Student as Product</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>DDS1a</td>
<td>Implicit in assumptions about interpretation of Graduate Skills Assessment as indicative of university teaching quality, also in the interpretation of Graduate Destinations Survey</td>
</tr>
<tr>
<td>DDS1b</td>
<td>Implicit in the interpretations of meaning of the Graduate Skills Assessment and Graduate Destinations Survey</td>
</tr>
<tr>
<td>DDS2a</td>
<td>Implied in some performance indicators for example, in discussions of performance monitoring for teaching and learning: 'Quality of Graduates, Employment and Study Destinations of New First Degree Graduates, Employer Satisfaction - Core Skills Rating'</td>
</tr>
<tr>
<td>DDS2b</td>
<td>Implied in some performance indicators, for example, 'A number of processes and projects have developed to ensure [University] graduates meet the needs of prospective employers and society.'</td>
</tr>
<tr>
<td>DDS2c</td>
<td>Implied in some performance indicators 'QPI 4 Quality of graduates - employer perception A questionnaire was developed to survey employers' views on how well graduates had been prepared for work by their education.'</td>
</tr>
<tr>
<td>DDS2d</td>
<td>The report did not imply students were products. The 'standard indicators', as provided by the Australian government, were not used in this report, but there was a commitment to their future use.</td>
</tr>
<tr>
<td>DDS2e</td>
<td>Implied in some performance indicators: 'Performance indicator 9 shows [University] graduates enjoy success in &quot;positive graduate outcomes&quot; i.e. in proportion in full-time employment and proportion engaged in further study, and at a higher rate than the national and state averages.'</td>
</tr>
<tr>
<td>DDS3a</td>
<td>No explicit reference to students as products; the context implied that courses of study and research were products of universities</td>
</tr>
<tr>
<td>DDS3b</td>
<td>No explicit reference to students as products; the context implied that courses of study and research were products of universities</td>
</tr>
<tr>
<td>Qi1</td>
<td>No, interpretation of attrition data either assumes students are 'materials' to be processed, as in discussions of 'wastage' in the context of efficiency, or that students are customers, as in assumptions that equate attrition with student (customer) dissatisfaction</td>
</tr>
<tr>
<td>Qi2</td>
<td>Yes, assesses whether the graduate 'product' meets 'specifications'</td>
</tr>
<tr>
<td>Qi3</td>
<td>No, the CEQ implies that the student's 'educational experience' is the product</td>
</tr>
</tbody>
</table>

There are many examples in both government and university documentation where the interpretation of the meaning of measures requires the assumption that students are the product of universities. This is especially the case for the interpretation of the implication for quality of Graduate Skills Assessment data, but also for employer satisfaction surveys.
Table 4.2e Stakeholders

<table>
<thead>
<tr>
<th>Question 2: Stakeholders and universities</th>
</tr>
</thead>
<tbody>
<tr>
<td>DDS1a Students are referred to as customers, industry and employers are referred to as stakeholders</td>
</tr>
<tr>
<td>DDS1b Mixed references. In some examples 'stakeholders' refers primarily to 'experts', employers, and industry and excludes students, in other examples students are included</td>
</tr>
<tr>
<td>Quote</td>
</tr>
<tr>
<td>See also the quote in Table 4.1c implying that accountability was to the Federal government because of its financial contribution</td>
</tr>
<tr>
<td>DDS2a No mention of stakeholders, students, the professions, communities and employers are clients</td>
</tr>
<tr>
<td>DDS2b No explicit mention of stakeholders</td>
</tr>
<tr>
<td>DDS2c No explicit mention of stakeholders</td>
</tr>
<tr>
<td>DDS2d No explicit mention of stakeholders</td>
</tr>
<tr>
<td>DDS2e The university aims to enhance its service to all stakeholders. It is not clear from the context who is included, but seems to refer to 'academic, professional, business, graduate and cultural communities' and possibly students.</td>
</tr>
<tr>
<td>'To enhance the service provided to all of the University's stakeholders.'</td>
</tr>
<tr>
<td>DDS3a Few references to stakeholders. By implication of context, stakeholders referred to businesses and employers: the usage of the term by this panel was infrequent, despite the use of the term in the terms of reference provided by the university. In the university's terms of reference stakeholders are defined as:</td>
</tr>
<tr>
<td>'Students; Staff, Professional groups; The community; The University'</td>
</tr>
<tr>
<td>'That consideration is given to seeking commercial research/consultancy opportunities with local stakeholders'</td>
</tr>
<tr>
<td>DDS3b Multiple references to stakeholders in this panel report, most frequently referring to industry and the professions, but sometimes including students. A distinction is made between external and internal stakeholders. Academic staff and 'the university' (from context referring to the university management) are referred to as internal stakeholders. Students are viewed as a monolithic 'body'. The report suggested that stakeholders co-funded research to measure standards and assess relevance of content, in this context, stakeholders possibly does not refer to students. The report also suggested that different stakeholder groups should have influence different parts of the School plan.</td>
</tr>
<tr>
<td>'The Review has also been undertaken against the backdrop of the School’s two key external stakeholders – the student body and industry groups.'</td>
</tr>
<tr>
<td>'Given the School’s structural and resource difficulties, there is wisdom in engaging both sectors in formalised consultative processes whereby each of the stakeholders is mandated to share resources aimed at measuring overall standards and, in particular, issues of relevance.'</td>
</tr>
<tr>
<td>'The Panel suggests that the Plan be re-worked to address the expectations of each of the above stakeholders and to adapt some of the strategies to this end. For example, the expectations of students would relate to access, learning resources, lecturer/tutor teaching quality, course relevance, academic and career advice, flexibility of learning and postgraduate opportunities. The expectations of staff would relate to tenure, professional development, teaching and research opportunities, participation in wider academic life and engagement with industry, professional groups and the community. Partnering industry or professional groups would expect pools of employable graduates across any number of business and justice careers. This is their first (and often their only) expectation. However, in pursuing their own corporate or public sector expertise and reputation, they welcome alliances with tertiary partners in both teaching and research. [University]'s expectations relate to the School’s efficient management, its capacity to meet the expectations of other stakeholders, its capacity for innovation and its contribution to enhancement of the University’s overall reputation.'</td>
</tr>
<tr>
<td>Q1 Unclear what assumptions about stakeholders are presumed by the interpretations of student attrition data; where the motivation for reducing attrition is to reduce ‘wastage’, ‘taxpayers’ may be presumed as primary stakeholders, (for example, Kemp 1999).</td>
</tr>
<tr>
<td>Q2 Graduate Skills Assessment claims to provide evidence to students, employers, professions and other universities about the generic skills or competencies of graduates. Unclear how this relates to stakeholder theory, as the initial selection of Graduate Skills from which the test was devised, were derived from composite university mission statements.</td>
</tr>
<tr>
<td>Q3 CEQ produces data about whether courses met student expectations. Appears to be based upon a presumption that students are customers or perhaps clients.</td>
</tr>
</tbody>
</table>

Government policy documents, and some university documents referred to 'stakeholders'. Sometimes stakeholder groups are explicitly identified, in others reference to the membership of stakeholder groups must be inferred from the context of
the statement. The term is not used with consistent meaning. Business, experts, employers, the professions, students, graduates, university staff, university management, cultural communities, and taxpayers are potential stakeholders, but the term is often used less inclusively. In some government documents where stakeholders are explicitly named, students and academic staff are not mentioned. State and Federal governments are not explicitly referred to as stakeholders, although their funding role and the use made of universities by State and Federal governments to further economic and social goals, imply that governments have an interest in universities. Only one document (DDS3b), acknowledges the potential for conflict between stakeholders. This document recommends that different stakeholder groups should be consulted about different aspects of the university provision (see quote Table 4.2e). This recommendation does not indicate which stakeholders should have control over the curriculum or standards, which are both topics where stakeholder disagreement might be expected.

**Summary: Question 2**

Within the documentation examined, both policy makers and university managers expressed the expectation that universities would fulfil multiple purposes. Different documents implicitly or explicitly presumed students to have customers, clients, products or stakeholders relationships to the university. There were examples where, in the same document, students are assumed to be both: stakeholder and product; or, client and product; or, customer and product, or ‘student’ and product. There was no discussion of whether the multiple roles are compatible. Explicit or implicit assumptions were not consistent about who constituted the stakeholders of universities. There was only one instance of discussion about how to respond to potential conflict between stakeholders. There is no discussion of the implication of the multiple roles of students, for either the purposes of education; or, the rights of other ‘stakeholders’.

**Research Question 3: Rationale for Quality Management**

Are the recommendations of the Australian government for processes of quality management in higher education consistent with government ideology and its intended purposes for higher education?

a) What is the Australian government rationale for higher education quality management?

b) Are the rationale(s) consistent?
c) How does quality management as implemented privilege particular assumptions about universities, students and the academic role?

d) What are the implications of these findings for the research problem?

Table 4.3a Question 3: Data sources and key issues for analysis

<table>
<thead>
<tr>
<th>Sub-questions:</th>
<th>Data:</th>
<th>Analysis: key issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is the Australian government rationale for higher quality management?</td>
<td>DDS1; DDS2; DDS3;</td>
<td>Chapter 4: Identify rationale(s) provided in the documentation. Table 4.3b  Chapter 5: Theme 3.1</td>
</tr>
<tr>
<td>Are the rationale(s) consistent?</td>
<td>DDS1; DDS2; DDS3;</td>
<td>Chapter 5: Theme 3.2 and 3.3</td>
</tr>
<tr>
<td>How does quality management as implemented privilege particular assumptions about universities, students and the academic role?</td>
<td>DDS1; DDS2; DDS3;</td>
<td>Chapter 4: Examine how is the language of business used in educational documents, Table 4.3c  Chapter 5: Themes 3.2, 3.2 &amp; 3.3</td>
</tr>
<tr>
<td>What are the implications of these findings for the research problem?</td>
<td>DDS1; DDS2; DDS3;</td>
<td>Chapter 5: Implications of question 3  Chapter 6: Discussion of implications for the research problem</td>
</tr>
<tr>
<td>Emergent theme: Higher education markets</td>
<td>DDS1; DDS2; DDS3;</td>
<td>Chapter 4: Identify how the higher education market is conceived, Table 4.3c  Chapter 5: Theme 3.3</td>
</tr>
</tbody>
</table>

Sample government documents were examined to determine the rationale for quality management as it appears in government documents. There is some change of emphasis between government documents of the Kemp era and those of the Nelson era so the data is presented separately. A number of themes emerge from the rationales offered. The quality management and improvement plans and panel reports are reactive documents, where the primary rationale is the requirement for government funding. The most significant emergent theme concerned the nature of the higher education ‘market’, as conflicting statements were found in Government documents about the relationship between government, ‘markets’ and higher education. To clarify how the higher education ‘market’ was conceived by government, university management and audit panels, all three document sets were examined. The findings are presented in Tables 4.3c.
Table 4.3b: Quality stories and the rationales for quality management

<table>
<thead>
<tr>
<th>Question 3: Quality stories: Australian government rationales for quality management</th>
</tr>
</thead>
<tbody>
<tr>
<td>DDS1a</td>
</tr>
<tr>
<td></td>
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<tr>
<td></td>
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<td></td>
</tr>
<tr>
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<tr>
<td></td>
</tr>
<tr>
<td>DDS1b</td>
</tr>
<tr>
<td></td>
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</tbody>
</table>

Many different rationales or stories were provided in government documentation to support the government story that universities were in need of the form of quality management required by government legislation. One dominant rationale suggested that quality management was required to reassure domestic and overseas students and the public generally about 'standards' in Australian higher education. Another rationale suggested that the quality management process was part of government reforms that aimed to free universities from unnecessary bureaucratic constraint. A third rationale suggested that universities were unable to maintain their relevance to society because of inefficient governance, management and industrial relations practices.
Table 4.3c: Markets and universities as business

<table>
<thead>
<tr>
<th>DDS1a</th>
<th>Use of language of business transactions to imply there are no significant differences between educational and commercial contexts</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><em>Some institutions are repositioning themselves in the higher education market to achieve a clear competitive advantage in the area of professional development and, as a consequence, are placing less emphasis on research training and on providing access for 'first time' undergraduates.</em> (1999)</td>
</tr>
<tr>
<td></td>
<td><em>A university education is now a significant investment for students.</em> (1999)</td>
</tr>
<tr>
<td></td>
<td><em>Universities are in various ways increasing their focus on student as customer.</em> (1999)</td>
</tr>
<tr>
<td></td>
<td><em>Universities are generally increasing their activities off-shore. They are also seeking new markets in response to the economic downturn in Asia while consolidating their existing ones and they are re-focussing their on-shore operations, placing greater emphasis on developing international linkages through study abroad and exchange programmes.</em> (1999)</td>
</tr>
<tr>
<td>DDS1b</td>
<td>Documents of the Nelson era, however, claim Higher education should never entirely market driven</td>
</tr>
<tr>
<td></td>
<td><em>Higher education is not now, nor should it become an unfettered free market. Similarly, there will not be a return to fully funded, government regulation of the sector.</em> (2003b)</td>
</tr>
<tr>
<td>DDS2a</td>
<td>The university in the language of business, claims it is market-focussed and that market success is important to its evaluation</td>
</tr>
<tr>
<td></td>
<td><em>Positioning itself to take advantage of a more competitive and market-focussed environment.</em></td>
</tr>
<tr>
<td></td>
<td><em>Market penetration – percent of students (international, postgraduate) and first preferences.</em></td>
</tr>
<tr>
<td>DDS2b</td>
<td>Marketing considered important to the university's well being.</td>
</tr>
<tr>
<td></td>
<td><em>Promoting the University's strengths through community service, marketing and publicity.</em></td>
</tr>
<tr>
<td>DDS2c</td>
<td>No discussion of education markets or universities as businesses</td>
</tr>
<tr>
<td>DDS2d</td>
<td>This private university explicitly describes itself as a business, but also makes a case for receiving grants and subsidies from both the State and Federal governments. Market focus is determining courses offered; lifestyle, partnerships, competitive pricing and creative marketing is seen an important growth strategy:</td>
</tr>
<tr>
<td></td>
<td><em>The University has overcome formidable financial barriers to reach its present stage. We are budgeting for our first operating surplus in 2000. Our strategic financial goals are as follows: to grow as a major business in [city] and [city]; to achieve an annual operating surplus (after provision for depreciation and financing costs) of 5 per cent of turnover; to systematically reduce and eliminate bank debt, to build up an endowment fund of $20.0m by 2009, the income of which would be available for the support of needy students, and for the funding of priority programs encompassed by our mission and goals; to build a strong and secure balance sheet</em></td>
</tr>
<tr>
<td></td>
<td><em>The University anticipates financing these capital works and acquisitions from four main sources: Fund raising; Capital grants from the Commonwealth; State Government Low Interest Loans; Bridging loans from financial institutions. We are concerned about the pressure that will be placed on the University from increasing debt if these capital projects are financed solely from borrowings.</em></td>
</tr>
<tr>
<td></td>
<td><em>Increasing focus on courses and disciplines highly valued by the market;</em></td>
</tr>
<tr>
<td></td>
<td><em>Strong and creative marketing, will underpin the University's growth plans.</em></td>
</tr>
<tr>
<td>DDS2e</td>
<td>This university, the longest established public university in this sample, notes its 'market dominance' but views increased market-focus of government policy as providing the opportunity for autonomy from government</td>
</tr>
<tr>
<td></td>
<td><em>[University']s market dominance of the top performing TE students surpasses that of any Australian university:</em></td>
</tr>
<tr>
<td></td>
<td><em>This theme of greater self-reliance is the predominant resourcing priority enunciated in the University's Operational Priorities Plan for 1999-2000, for two major reasons. First, it is fundamental to our strategy of bridging the funding gap between universities in Australia and the highest quality universities internationally; and second, it is crucial for the protection of the quality and autonomy of the University in the pursuit of its chosen mission.</em></td>
</tr>
<tr>
<td></td>
<td><em>Allocations of over $1 M in total in the 1999 and 2000 Budgets have been made to community service initiatives (in the form of University development grants) to continue work directed towards developing a resource base capable of sustaining an internationally focused high quality university in an environment of declining Government funding and an increasingly competitive global higher education market.</em></td>
</tr>
<tr>
<td>DDS3a</td>
<td>Describes 'markets' as a naturalised part of the higher education context</td>
</tr>
<tr>
<td></td>
<td><em>Since 1996 the [School] has had to develop a research base, offer new courses and seek new fee-paying markets, while changing its staff profile, facing downturns in its traditional [Discipline] provision, and operating within a developing Faculty.</em></td>
</tr>
<tr>
<td></td>
<td><em>Perhaps it is also incumbent on the Faculty and [School] to re-examine the products suitable for the overseas markets.</em></td>
</tr>
<tr>
<td></td>
<td><em>[Panel member] argues that no other local University has exploited this market opportunity.</em></td>
</tr>
<tr>
<td>DDS3b</td>
<td>Also describes markets naturalistically, but warns that excessive responsiveness to markets gives rise to the expectation of doing too much with too little</td>
</tr>
<tr>
<td></td>
<td><em>There is also an apparent deficiency in marketing the School.</em></td>
</tr>
</tbody>
</table>
The influence of the language of business and markets can be seen in all document sets. The idea of education ‘markets’ has become naturalised within discussions of higher education. It is interesting to note that the only private university describes itself as a business, but wants extra support from State and Federal government. The ‘Sandstone’ university in the sample, a public university, hopes to use market focussed government policy to gain greater autonomy from government, as a means of maintaining its ability to maintain quality and fulfil its mission.

**Summary: Question 3**

The government rationales for quality management primarily focus on provision of reassurance to the potential student public, especially overseas students, through the requirement that universities to demonstrate that they are managing to maintain or improve standards even though government funding per capita has decreased. To support this position, government documents simultaneously claim they are increasing university accountability to stakeholders (through government reporting requirements) and decreasing ‘unnecessary government constraint’. The established public institution (where demand exceeds supply) seeks to gain autonomy from government in order to fulfil its mission and maintain quality, while a new private institution without an established reputation, seeks public support and hopes to woo students through ‘competitive pricing’ and ‘life style’ options. This raises issues of the tension between ‘market forces’ and equity of access to institutions.

**Research Question 4: Quality Measurement**

Are the quality management methods adopted by Australian higher education adequate when assessed against established standards of educational evaluation?

a) What data is identified in the documentation examined, as indicative of ‘quality’?

b) Is the conceptualisation of quality consistent for different ‘quality indicators’, and consistent with the findings about the context of higher education, as found in Q2?

c) Is there agreement in the documentation about the interpretation of the meaning of data for quality?
d) Is there an adequate theoretical basis to justify the inferences about quality found in the documentation?

e) How are the difficulties of interpretation and representation of meaning identified in the evaluation literature reflected in the approaches to the interpretation of data reported in the documentation?

f) What evidence is there from the documentation of attempts to monitor unintended outcomes of quality management?

g) What evidence is there of holistic approaches to quality management?

h) What evidence is there of processes intended to ensure that intended outcomes are realistic within the resources available?

i) What are the implications of these findings for the research problem?
Table 4.4a Question 4: Data sources and key issues for analysis

<table>
<thead>
<tr>
<th>Sub-questions:</th>
<th>Data:</th>
<th>Analysis: key issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>What data is identified in the documentation examined, as</td>
<td>DDS1, DDS2, DDS3,</td>
<td>Chapter 4: Identify what measured are referred to as indicative of quality. Table 4b</td>
</tr>
<tr>
<td>indicative of 'quality'?</td>
<td>Q1,Q2,Q3;</td>
<td>Chapter 5: Theme 4.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chapter 4: Tables 4.4c-e</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chapter 5: Theme 4.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chapter 4: Claims about meaning of measures Table 4b</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chapter 5: Themes 4.2 &amp; 4.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chapter 4: Identify references to complexity of data interpretation, Table 4.4c-e</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chapter 5: Themes 4.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chapter 4: Identify whether there evidence of use of open ended evaluation methods, or attempts to examine unintended affects of interventions Table 4f</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chapter 5: Theme 4.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chapter 4: Identify whether there is evidence of attempts to develop a holistic approach to quality management. Table 4.4g</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chapter 5: Theme 4.4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chapter 4: Identify evidence of processes to ensure that intended outcomes are realistic with the resources available. Table 4.4h</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chapter 5: Theme 4.4 &amp; 4.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chapter 5: Implications of question 4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chapter 6: Discussion of implications for the research problem</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chapter 5: Theme 4.6 Meta-evaluation of evaluation process</td>
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</tbody>
</table>

I examined all the documents to see what quality indicators were recommended or used. There was significant variation in choice of quality indicators, so the findings are presented separately for each data sub-set in Table 4.4b. Data is aggregated for Tables 4.4c-e, because there were no significant differences across data sets. Data is presented in data set in Tables 4.4f-h because there was no significant variation within each set.

The most significant emergent theme concerned the nature of the quality measurement
process within the quality management system. This is discussed in Theme 4.6 in Chapter 5.

Abbreviations used in Table 4.4b, see also Appendix 1, abbreviations and glossary.

CEQ; Course experience questionnaire
EFTSU; Equivalent full time student unit
GDS; Graduate destinations Survey
GSA; Graduate skills assessment
ISO9000; International standards organisation, standard 9000
PREQ; Postgraduate research experience questionnaire
SPU; Student progress unit

Table 4.4b Quality indicators: recommendations and used

<table>
<thead>
<tr>
<th>Source</th>
<th>Question 4: Quality indicators, used or recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>DDS1a</td>
<td>Staff academic qualifications; CEQ; GSA; success in gaining competitive research funds; student retention; ISO9000; GDS; SPU; diversification of funding</td>
</tr>
<tr>
<td>DDS1b</td>
<td>Processes for assuring quality and standards; student retention; CEQ; GSA; GDS; SPU; ratio of government funds to non-government funds;</td>
</tr>
<tr>
<td>DDS2a</td>
<td>Quality of graduates: Employment and study destinations of new first degree graduates; Employer satisfaction: core skills rating (GDS); Quality of teaching: Perceived teaching quality (CEQ); GOS; SPU; diversification of funding</td>
</tr>
<tr>
<td>DDS2b</td>
<td>Student load pass rate (SPU); course satisfaction (CEQ); retention rate; graduate employment (GDS); load in external mode; expense within primary program in $,000 per successful EFTSU (cost per graduate)</td>
</tr>
<tr>
<td>DDS2c</td>
<td>Perceived quality of teaching (CEQ), unit evaluation, employment and study destination survey (GDS), uni employer perception survey, Equity and access monitor access and success of student from different equity groups; Interdisciplinarity: percentage of students undertaking 2 programs from different disciplines</td>
</tr>
<tr>
<td>DDS2d</td>
<td>Student satisfaction (university), graduate satisfaction (CEQ/ PREQ), completion rates, small classes, operational teaching Quality committee, Graduate Destinations survey (GDS)</td>
</tr>
<tr>
<td>DDS2e</td>
<td>Proportion of top 5% of school leavers applying to uni 5; Proportion of top 10% of school leavers applying to uni 5; enrolment at uni 5 as a proportion of all enrolments for the top 5% of school leavers; enrolment at uni 5 as a proportion of all enrolments for the top 10% of school leavers; proportion of student load passed (SPU); proportion of student load retained; unit evaluation; CEQ (mean graded scale), GDS (including graduate entrants)</td>
</tr>
<tr>
<td>DDS3a</td>
<td>Staff professionalism; management and leadership ability of senior staff; culture of teaching excellence; adequacy of processes; public recognition and awards; observation of staff teaching; academic rigour; availability of staff to students; student evaluation; processes for quality improvement; staff processes for evaluation; team work; communication; research publication; staff qualifications; observation of teaching; staff professional development; adequacy of the resource availability; teaching awards;</td>
</tr>
<tr>
<td>DDS3b</td>
<td>Reputation of the unit; quality as documentation of strategic planning and transparent processes; processes for monitoring outcomes (student employment); success in achieving research funds; the panel was sceptical of the interpretation that positive student evaluations signified quality;</td>
</tr>
</tbody>
</table>

An extensive variety of data has been proposed or claimed to signify quality. Panels that audited the quality management systems of individual programs commented on some problems in interpretation of significance of data for judgements about quality. One
panel in particular identified twenty sources of data potentially relevant to evaluation of quality and standards. Both panels rejected equation of student satisfaction with quality.

Table 4.4c: Quality indicators: Student attrition data and student progress units, meanings and justification

<table>
<thead>
<tr>
<th>Question 4: Student progress and completion data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assumed meaning</td>
</tr>
<tr>
<td>Implied concept of quality</td>
</tr>
<tr>
<td>Implied assumptions about purpose/roles and relationships</td>
</tr>
<tr>
<td>Theoretical basis</td>
</tr>
<tr>
<td>Evidence of dissention</td>
</tr>
</tbody>
</table>

No theoretical justification was offered in the documentation to support inference of program or institutional quality from data about student attrition or student progress. The claim was presented as self-evident.

Table 4.4d: Quality indicators: Graduate Skills Assessment, meaning and justification

<table>
<thead>
<tr>
<th>Question 4: Graduate Skills Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assumed meaning</td>
</tr>
<tr>
<td>Implied concept of quality</td>
</tr>
<tr>
<td>Implied assumptions about purpose/roles and relationships</td>
</tr>
<tr>
<td>Theoretical basis</td>
</tr>
<tr>
<td>Evidence of dissention</td>
</tr>
</tbody>
</table>

The Graduate Skills Assessment instrument has developed from claims by universities about the intended skills of graduates. Its internal validity has been tested, to determine the extent to which the test provides an accurate measure of student achievement in
generic skills (Nelson 2003, p32). No theoretical justification was offered in the documentation to support the claimed inference about quality, that high student scores where indicative of quality.

**Table 4.4e: Quality indicators: Course Experience Questionnaire**

<table>
<thead>
<tr>
<th>Question 4: Course Experience Questionnaire/ student evaluations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assumed meaning: The quality of a university course can be inferred from how well it satisfies students as indicated by the Course Experience Questionnaire. The assumption that the quality of an institution can be judged by the degree to which students are satisfied is compatible with the idea of quality as customer satisfaction. This has implications for both how roles and relationships in higher education are conceived and for the rights of other stakeholders.</td>
</tr>
<tr>
<td>Implied concept of quality: Quality as meeting or exceeding customer expectations</td>
</tr>
<tr>
<td>Implied assumptions about purpose/roles and relationships: Students are the customers of universities; gives priority to satisfying students over educational judgements about learning;</td>
</tr>
<tr>
<td>Theoretical basis: Originally justified by the claim that students are the customers of universities (Kemp, 1999a), who argued that student were customers because they were paying more towards the cost of their studies; the instrument is still used even though documents since 2000 do not refer to students as customers. No discussion was offered about whether the roles and relationships of education are compatible with the assumption that students have a customer relationship with universities.</td>
</tr>
<tr>
<td>Evidence of dissention: &quot;the Panel was impressed by the generally good unit evaluation scores, although as an aside, an interesting discussion was held with two staff, one of whom argued that evaluations are linked to how &quot;pampered&quot; students are. The argument was that students have come to expect substantive handouts/notes, copies of powerpoint slides, workbooks, etc., and are no longer thinking for themselves, doing the necessary reading, or even attending lectures, compared to the past when note-taking was the norm.&quot; (120) The implication is that if such material is not provided, the evaluation scores may suffer (121). While this may be extreme, it does raise issues of student expectations, staff workloads and academic freedom.&quot; (122) (DDS3A)</td>
</tr>
</tbody>
</table>

No theoretical justification was offered in the documentation to support inference of program or institutional quality from data about student satisfaction. The interpretation was taken as self-evident. If quality is defined as meeting customer expectations, and if students are customers of universities, then the Course Experience Questionnaire offers a valid basis of determining the quality of universities. These assumptions conflict with the concept that universities have multiple stakeholders and with the government’s statements about the social, economic and cultural purposes of higher education (which are broader than meeting students’ expectations), and with the universities’ stated missions, which are all broader than simply meeting the expectations of students.
The university quality plans for 2001 provided no evidence of how universities intended to monitor whether their quality plans have unintended outcomes. Data was collected by individual institutions about whether courses meet student expectations, but no plans mentioned the intention to collect data about the level of student engagement or about whether student expectations changed over time. There was no evidence of plans to assess staff turnover or staff stress as potential indicator of unintended consequences. The government policy released in 2003 indicates government plans to collect data on sustainability, equity and diversity.

Table 4.4g: Evidence of Holistic evaluation

| DDS1   | Whole of institution, but not holistic; Audit process focuses specifically on examining universities to determine whether quality assurances are in place and whether ‘standards’ are being met. |
| DDS2   | No: all institutions used indicators required by government or related to mission and did not state that they planned to monitor unintended outcomes |
| DDS3   | The reports from both panels identified specifically excluded areas they considered relevant to a more holistic review, relating especially to resource levels and to future planning. 'The Panel has not been asked to address the issues of resources nor the future viability of the School as a unit in its current format. With now 17 full-time academic staff, and in the context of changes taking place in the Faculty, the question of the future organic development of the School or its merger with another School (e.g. [Discipline]) may be debated internally. This would clearly have repercussions for the quality assurance processes and recommendations cited in this review.' |

Holistic evaluation requires an examination of the combined affects of policies on the ability of universities to provide educational programs or undertake research, and the ability of students to engage effectively in higher education, see also diagram 4.4i. There was no evidence of holistic evaluation, and evidence from panels that the evaluation process was overly constrained, because it excluded consideration of resource issues.
There was no evidence in the documentation about government or university management made ‘reality check’ to ensure that the policies and plans were feasible within the resources available. The audit panels both commented that resources were not in their judgement adequate for what was being attempted. They both made this judgement **despite explicit exclusion of resource issues from their brief**.

The case data that explores the interrelationship between university quality management strategies, quality measurement methods, and student and institutional responses to a variety of Australian higher education policies and teaching and learning in a ‘New University’, is presented diagrammatically using qualitative SD conventions.
Figure 4.4(i): Conceptual diagram of the dynamic relationships between: quality management; quality measurement; responses to Australian Higher Education policies; and teaching and learning.

Explanation of the diagram: The diagram uses the standard convention used in SD modelling. The '+' symbol is used when covariance is in the same direction; the '-' symbol is used when covariance is in opposite directions. The diagram presents, in a simplified form, a model of how the combined effects of several government policies, enacted over a period of time, result in conflicting goals for students and academics, especially with respect to academic standards.

The changes to reward and sanctions by university management, since 1999, which form the basis of the dynamic relationships (summarised from case data):
• Introduction of mandatory formal performance management for academic staff;

• Introduction of numerical metrics to 'measure' research activity, teaching quality and teaching activity;

• Quality management metrics used for the assessment of individual staff internal in promotion and tenure applications;

Changes to the difficulty of teaching for academic staff including:

• Increase diversity of students (domestic and international, additional entry pathways, this trend began before 1999);

• Changes in student expectations as students assume they have a 'customer’ role;

• Increased class size (tutorials size increased steadily from maximum of 15 per tutorial in 1991, to a norm of a minimum of 25 students in 2003).

• Replacement of smaller specialised course units with larger generic course units. This results in more frequent use of large lectures as primary teaching mode. These displace seminars and more interactive forms of teaching, and also mean that one course has to satisfy more diverse student expectations.

• Staffing instabilities caused by lack of permanent staff and union restrictions on the use of temporary contracts has increased reliance on a transient pool of casual staff and decreased the number of core staff to share the administrative load. The induction, information and support needs of a changing pool of casual employers, is also carried by a diminished number of core staff.

• Monitoring of student progress and retention as a measure of quality places pressure on academic staff to refrain from failing academically weak students. Pressure to students creates a pressure on staff to avoid advising students of their professional unsuitability.

• Monitoring of student satisfaction as measure of educational quality places pressure on staff to prioritise student satisfaction above academic learning goals.

• Employers expect graduates to achieve requisite professional skills prior to employment, but the time available for teaching and learning of professional skills has decreased because of trends to reduce the semester length and reduce the contact hours and number of units a degree (for example in one cluster of programs the semester length reduced from 15 to 12 weeks, and the number of
units reduced from 28 to 22 units in 1994, and then increased to 24 units in 2003, the combined effect reduced staff student class contact hours per semester by about 30% in the period 1994 to 2004).

- Increase variety of modes of delivery (on-campus, off-campus, distance education, on-line, overseas intensive delivery).

- Increased student paid employment increases the difficulty for students to complete practicum hours and complete work outside class, difficult for some students to attend regularly, pressure from some students on academic staff to decrease requirements for practicum hours and to decrease academic requirements.

Competing demands on the time available to academics:

- Teaching (becoming more complex and pressured: meet more diverse needs in larger classes in less contact time and maintain alternative delivery modes).

- Administration (more formal systems and more monitoring of compliance).

- Research (increased expectations to publish and undertake externally funded research that will bring in money to the university, without access to seeding money).

- Academic and teaching qualifications (pressure on staff to upgrade academic qualifications and to acquire teaching qualifications, whilst increasing research output and increasing teaching quality with reduced resources).

- Quality reporting (expectation that staff will find time to attend training sessions, briefings and 'rehearsals' for the quality audit, will meet with quality auditors when required, and provide whatever reports on quality that required by university management, in addition to existing workloads).

- Community service (expectation that staff will commit themselves to community service, although so far this area has been subject to less formal monitoring and measurement).

- Professional updating (expectation of formal and informal professional updating for staff teaching professional courses).

- Professional development (pressure to attend professional development to cope with changes to job demands, use of technology, use of university management
information systems, development teaching skills to engage large classes, skills to put resource materials online, in addition to normal work requirements).

Students contribute more towards fees and have less financial support:

- More financial pressure on students to increase hours in paid work, and this potentially reduces the time they are willing to devote to study.

- Some students accept customer role, and believe that responsibility rests with the university to satisfy their expectations, even if their expectations are not realistic or do not align with academic and professional expectations for the course.

- Pressure on students to pass and get good grades, has led to some staff being overtly threatened by individual students, that the staff member will receive poor student evaluation if they do not revise the student’s grades upwards.

- Increased expectations that academic staff will be available to students by email, as required by the student outside normal teaching hours, including at weekends.

Goal conflicts: Many of the aspirations for higher education quality are laudable, but are not resourced, and the responsibility to achieve these goals has been passed down to academic staff. This has created goal conflicts for academic staff in relation to standards. There are conflicting demands for maintenance of academic standards, maintenance of professional standards, and requirements for increased ‘efficiency’ through reduced resource availability. There are tensions between the competing pressures to meet students’ expectations, to satisfy employers, to retain students, and to progress students rapidly through their courses, (once again aggravated by reduced per capita funding available to support teaching). There are goals conflicts concerned with whether staff members prioritise their career progression and focus on apparent success as measured by the rubrics (or metrics), or whether they prioritise professionalism in teaching, research and administration, even when this risks damage to their career prospects. There were role conflict for academic staff between the requirement of the professional role of an academic, where the primary duty of the academic is to academic integrity and the employee role where the duty of the academic is to further the interests of the university as an organisation. For students there were conflicts between the customer role and the learner role.

The ‘model’ is not ‘deterministic’, because human agency means that it is not possible to devise reliable ‘decision-making rules’. Different students and staff will attempt to
balance the goals conflicts according to their individual values, and in response to the overarching and localised culture within the university. The model is based upon single case data but is also consistent with aggregate data, which indicates increases in both in academic staff stress, and student disengagement.

**Summary: Question 4**

In the documents examined, many different data sources were either proposed or used as ‘indicators of quality’. University management chose to base university quality plans upon indicators required by the government in the annual performance report portfolios/profiles. Different universities chose to supplement these with other data. The university quality plans and the government policy documents examined did not discuss how meaning should be interpreted from the data, or provide theoretical justification for their interpretation of the meaning of the data. The quality review panels raised more questions about the interpretation of meaning of data and its implications for quality.

The documents examined showed that although some of the quality frameworks identified by universities in their quality plans take a systemic perspective of organisational functioning (ABEF), the government reporting requirements did not, and the requirements of government dominated the quality plans presented by universities. There were only limited attempts to monitor for unintended outcomes and data on key indicators of potentially adverse outcomes has not been included in the monitoring plans of individual universities. The numerical targets set militate against a holistic approach to quality management. There was no evidence from these reports that policy makers had made exhaustive ‘reality checks’ to assure themselves that their intended goals and methods were feasible and adequately funded. Analysis of the combined affects of policies and strategies on factors affecting academic decision-making in a new university indicates a multiplicity of conflicting goals for academic staff in relation to their role. There are tensions between demands to: maintain academic standards; to meet students’ expectations; to produce research output as measured by metrics; to satisfy employers; to retain students; to progress students rapidly through their courses; to improve their qualifications; to diversify modes of delivery; to document quality processes. There were also role conflicts for students; the main one identified was between the customer role and the learner role.

No explanation was provided in government documentation to explain how policy makers ascertained that the expectations for universities, created by combined
government policies, were realistically possible. There was no obvious means to
determine how anyone would know whether the level of university resources was
sufficient for the universities to achieve the governments intended cultural, social,
economic and personal goals for Australian higher education.

Research Question 5: Commercial Quality Management Methods

How has existing research about efficacy and failure of quality management practices in
industry, affected policy and practices for quality management in Australian higher
education?

a) What commercial ‘management advice’ is reflected in quality management
documentation in policy, strategy and program evaluation in Australian higher
education, and how has it been adapted to the context of higher education?

b) What claims are made about the effectiveness of quality management measures?

c) Is there evidence in the documentation of awareness of the research on
effectiveness and modes of failure of commercial quality management methods
in industry?

d) What are the limitations of applicability of commercial quality management
methods because of differences in context?

e) What are the implications of these findings for the research problem?
Table 4.5a Question 5: Data sources and key issues for analysis

<table>
<thead>
<tr>
<th>Sub-questions:</th>
<th>Data:</th>
<th>Analysis: key issues</th>
</tr>
</thead>
</table>
| What commercial 'management advice' is reflected in quality management documentation in policy, strategy and program evaluation in Australian higher education, has it been adapted to the context of higher education? | DDS1; DDS2; DDS3; Q11;Q12; Q13 | Chapter 4: Table 4.4b  
Chapter 5: Theme 5.1 |
| What claims are made about the effectiveness of quality management measures? | DDS1; DDS2; DDS3; | Chapter 4: Table 4.5c  
Chapter 5: Theme 5.2 |
| Is there evidence in the documentation of awareness of the research on effectiveness and modes of failure of commercial quality management? | DDS1; DDS2; DDS3; | Chapter 4: Table 4.5d  
Chapter 5: Theme 5.2 |
| What are the limitations of applicability of commercial quality management methods because of differences in context? | QSD2 | Chapter 4: Table 4.5e  
Chapter 5: Theme 5.3 |
| What are the implications of these findings for the research problem? | DDS1; DDS2; DDS3; QSD1; QSD2; Q11;Q2Q13; | Chapter 5: Implications of question 5  
Chapter 6: Discussion of implications for the research problem |
| Emergent issue: Stakeholder and commercial management practices | DDS1; DDS2; DDS3; QSD1; QSD2; Q11;Q2Q13; | Chapter 5: Theme 5.4 |

There was no significant change in the government recommendations about sources of quality management advice during the period of this research so the government responses are presented in aggregate form. Where there is significant difference in institutional response, the data are presented in data sub-sets. Table 4.5e provides a *prima facie* comparison between the findings of Reppenning and Sterman and the evidence about Australian Higher education as found in this documentation. A significant emergent issue concerned the nature of the relationship between commercially derived quality management practices and stakeholder (rather than customer) relationships.
The documents examined indicated that three commercial quality management methods were explicitly recommended or used: benchmarking, Australian Business Excellence Framework, and 'systematic planning'. Benchmarking can be used either as a means of facilitating organisational development, by providing a structure to enable managers to learn from others, or to help universities assess their competitive position; use strategic planning and cyclical reviews; quality assurance as documentation of quality policies and processes; Diversification of funding sources;
standards was 'problematic'. One university explicitly committed itself to use the ‘Australian Business Excellence Framework’ (ABEF), which has a quality improvement focus and recommends a systemic perspective on organisational processes. The indicators of quality for this institution and their interpretation, however, indicated that government measures of accountability had taken precedence over the organisational development/quality improvement methods required in the ABEF. In some documents, there was evidence of collegial management practices existing alongside corporate management practices, but there was no evidence of non-market based commercial management practices.

Table 4.5c Question 5: Claims about effectiveness of quality management

<table>
<thead>
<tr>
<th>Question 5: Claims about effectiveness of QM</th>
</tr>
</thead>
<tbody>
<tr>
<td>DDS1 The government expects quality management to improve: university management; accountability; transparency; efficiency; university responsiveness to industry/professions; responsiveness to students</td>
</tr>
<tr>
<td>DDS2 University quality plans are a requirement for access to government funding; plans appeared to be written as if the university's quality plans would be effective in improving quality, and do not significantly challenging the veracity claims in government documents about the effectiveness of quality management techniques as a means to increase quality</td>
</tr>
<tr>
<td>DDS3 The task of the panels was to work within the pre-established quality framework. There are examples of panels questioning: the effectiveness of quality management methods concerned with assuring process, as means of achieving excellence; the orthodox interpretations of data, especially the assumption that meeting student expectations indicated teaching quality. One panel directly questioned the links between formalisation and claims of improvement. When commenting on reports of greater formalisation of processes they said: <em>The Panel sees this formalisation as a move to ensure &quot;process&quot; rather than necessarily promoting &quot;excellence&quot; per se.</em> DDS3A (109). Both panels questioned the comprehensiveness of the framework within which their evaluation was bounded. Specifically they expressed concern that discussion of adequacy of resourcing was outside their brief, and also expressed concern about underresourcing of teaching relative to goals, see Table 4h.</td>
</tr>
</tbody>
</table>

The assumption in government policy documents that quality management will be effective in 'improving' a range of outcomes is presented as self-evident. No supporting evidence is offered. University quality plans are written as if these claims are supportable. The panel reports, trying to evaluate the effectiveness of quality management strategies, question some of the assumptions.
Table 4.5d Awareness of research literature on effectiveness or failure of QM in commerce

<table>
<thead>
<tr>
<th>Question 5: Awareness of research on effectiveness or failure of QM in industry</th>
<th>Australian universities</th>
</tr>
</thead>
<tbody>
<tr>
<td>DDS1 No evidence of awareness of research literature on differential effectiveness of different types of organisational quality culture in commercial settings, or reasons for failure;</td>
<td>Yes, evidenced by increasing student: staff ratios and simultaneous pressure to achieve quality improvement</td>
</tr>
<tr>
<td>DDS2 No evidence of awareness of research literature on differential effectiveness of different types of organisational quality culture in commercial settings, or reasons for failure;</td>
<td>Yes, funding may be withdrawn if unsatisfactory quality report, apparent increases in efficiency achieved</td>
</tr>
<tr>
<td>DDS3 No evidence of awareness of research literature on differential effectiveness of different types of organisational quality culture in commercial settings, or reasons for failure;</td>
<td>Yes, multiple references in government documents to the need for 'workplace restructuring'; implying that the workforce is not sufficiently hardworking/ flexible</td>
</tr>
<tr>
<td>Q11 /Q12 /Q13 No evidence of awareness of the literature in commercial quality management on organisational capability, competition and culture</td>
<td>Yes; pressure to achieve 'good' results on metrics: CEQ; GDS; SPU;</td>
</tr>
</tbody>
</table>

There is no evidence in the documents examined of any awareness of research literature investigating the reasons for conflicting evidence on the efficacy of quality management or the reasons for its failure.

Table 4.5e Repenning and Sterman’s indicators of failure of quality management in industry

<table>
<thead>
<tr>
<th>Repenning and Sterman Categories</th>
<th>Australian universities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simultaneous pressure to increase throughput and improve quality</td>
<td>Yes, evidenced by increasing student: staff ratios and simultaneous pressure to achieve quality improvement</td>
</tr>
<tr>
<td>Increased pressure and surveillance leads to increased throughput</td>
<td>Yes, funding may be withdrawn if unsatisfactory quality report, apparent increases in efficiency achieved</td>
</tr>
<tr>
<td>Interpreted as workforce 'slacking'</td>
<td>Yes, multiple references in government documents to the need for 'workplace restructuring'; implying that the workforce is not sufficiently hardworking/ flexible</td>
</tr>
<tr>
<td>Conflicting goals?</td>
<td>Yes, maintain standards; reduce costs (principally through staff reduction); expand access; satisfy students' expectation; satisfy employers; meet government metrics; multiple conceptualisations of quality;</td>
</tr>
<tr>
<td>Pressure to meet numerical metrics?</td>
<td>Yes; pressure to achieve 'good' results on metrics: CEQ; GDS; SPU;</td>
</tr>
</tbody>
</table>

There is prima facie evidence from the documents examined to suggest that: government policy simultaneously required universities to increase throughput (of students) and improve their processes to gain efficiencies, see for example changes in the staff student ratios (Australian Vice-Chancellors' Committee, 2001c). Targets have been set by the Australian government, which has passed to universities the responsibility for meeting the targets; the universities have passed on this responsibility to staff. Quality management has increased government surveillance of university and pressure to meet numerical targets for example for attrition rates, student progress units, CEQ, GSA; universities have increase surveillance and pressure on staff through the use of student evaluation to measure teaching quality in performance management.
Summary: Question 5

The evidence presented in these documents suggests there has been an uncritical acceptance of the premise that quality management methods are effective, without consideration of contextual factors or mode of application. Benchmarking was the most frequently mentioned commercially derived method used primarily to demonstrate parity or superiority as compared with other institutions. There was disagreement about whether benchmarking was a suitable for this purpose. There is no evidence in these documents of awareness of research into the reasons for failure and variations in efficacy of commercial quality management methods in industry. The documents examined provide *prima facie* evidence that the quality management system in Australian universities, as reflected in this documentation, has characteristics that make it self-defeating according to the findings of Repenning and Sterman’s research in industry. Chapter 5 will examine whether there are differences between the context of education and the context of industry that make Repenning and Sterman’s findings inapplicable to Australian higher education.

Research Question 6: Conclusions about Coherency, Consistency and likely Efficacy of Current Australian Quality Management Policy and Methods

Are current Australian quality management strategies and methods plausibly likely to achieve their intended objectives?

a) Are the criteria, against which Australian university quality is judged justifiable and realistic?

b) Are current Australian quality management strategies and methods plausibly likely to achieve their intended objectives?

c) What are the implications of these findings for:

   i) Australian Higher education Policy

   ii) Australian Higher education management

   iii) Broader application of findings

   iv) Theory development

   v) Future research
<table>
<thead>
<tr>
<th>Sub-questions:</th>
<th>Data:*</th>
<th>Analysis: key issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are the criteria, against which Australian university quality is judged justified and realistic?</td>
<td>DDS1; DDS2; DDS3 QSD1; QSD2; Q1,Q2; Q13;</td>
<td>Chapter 6: Discussion of the conclusion about the research problem</td>
</tr>
<tr>
<td>Are current Australian quality management strategies and methods plausibly likely to achieve their intended objectives?</td>
<td>DDS1; DDS2; DDS3 QSD1; QSD2; Q1,Q2; Q13;</td>
<td>Chapter 6: Discussion of the conclusion about the research problem</td>
</tr>
<tr>
<td>What are the implications of these findings for: Australian Higher education Policy Australian Higher education management Broader application of findings Theory development Future research</td>
<td>DDS1; DDS2; DDS3 QSD1; QSD2; Q1,Q2; Q13</td>
<td>Chapter 6: Implications of the research</td>
</tr>
</tbody>
</table>

**Summary Question 6**

These questions are answered in Chapter 6.
CHAPTER 5
DISCUSSION OF THEMES

Introduction

In this chapter, the research findings are discussed in relation to the literature. In Chapter 6, conclusions are drawn about the research problem and the implications of the findings are elucidated. This structure follows the general recommendations of the Perry model. The Perry model suggests that the findings should be summarised in Chapter 4, the implications of the findings should be discussed in Chapter 5, and detailed data are presented in Appendices, except that in this thesis the discussion of the research findings are presented in Chapter 5 and the conclusion and implications are presented in Chapter 6. Chapter 5 is divided into eight sections. Section 1 comprises this introduction. Sections two to seven discusses the answers to each of the research questions in relation to existing literature and summarises the implications of each answer for conclusions for each research question. Where the answers to one question have implications for the answers to other questions this is noted in the text. Each part begins with a re-statement of the research question being addressed.

Research Question 1: Concepts of Quality

What conceptualisations of quality are found in Australian higher education in the period 1999-2003 and what are the implications of any differences for interpretation of data about higher education?

How are ‘quality’, ‘quality assurance’ and ‘quality improvement’ conceptualised in quality management documentation in policy, strategy and evaluation reports in Australian higher education?

a) Is usage consistent?

b) Does the documentation indicate awareness of difference between different technical usages and everyday usages and the implications of these differences for measurement?

c) What is the relationship between ‘quality’ and ‘standards’?

d) What are the implications of these findings for the research problem?
e) Four themes relevant to conceptualisation of quality are discussed in this section.

**Overview of themes**

Four themes emerged from the data collected for Question 1 about various aspects of the conceptualisation of quality in Australian higher education. The first theme discusses the diversity of meaning of ‘quality’ in the documents examined. The second theme discusses the diversity of meaning of ‘quality assurance’. The third theme discusses the meanings of ‘quality improvement’. The fourth theme discusses the relationship between ‘standards’ and ‘quality’ found in the documentation. This section concludes with discussion of the implications of the four themes for the research problem.

**Theme 1.1 Concepts of Quality**

In the documentation examined, multiple conceptualisations of ‘quality’ were found either explicit in the statements in the documents, or implicit in the interpretations of meaning of quality indicators, see Table 4.1b. If the categories developed by Cameron and Sine (1999) are applied, there were examples where the meaning of quality assumed a transcendent (or everyday) definition of quality, as when quality was equated with perceived excellence, or with reputation. It was argued in Chapter 2 that the everyday or transcendent concept of quality was invisibly and flexibly referenced to the values of the speaker, and is susceptible to hegemonic use when aligned with dominant societal values. In the documentation, there were other examples when quality was tacitly referenced in a variety of ways to customer-like perception of ‘products’ (Cameron and Sine’s (1999) definitions 2, 3, or 5) for example when quality was equated with student satisfaction. Quality was also referenced to graduate outcomes, and here students were conceived as the products of universities required to conform to output specifications (Cameron and Sine’s (1999) definition 4). There were examples were quality was defined in terms of the organisational culture: for example, the culture of professionalism of staff (Cameron and Sine’s (1999), definition 7) and quality as compliant organisational systems for quality management (Cameron and Sine’s (1999), definition 6). In addition, quality was sometimes referenced to stakeholder satisfaction. The implications of substitution of ‘stakeholders’ for ‘customers’ in definitions of quality will be discussed in Theme 2.4, ‘Stakeholders and universities’.

Technical definitions of quality are not directly compatible with the everyday meaning of quality. For example, the technical definitions of quality that are product referenced
such as 'value for money' or 'fitness for use' or even 'conformity to specification' do not equate with the everyday meaning of quality. In everyday life, failure to be 'fit for use' or to 'conform to specification' would preclude the possibility of a product being judged as of high quality, but merely satisfying these requirements is not sufficient in everyday life, to support a claim that a product is of high quality. In everyday life, these technical specifications provide the necessary conditions, but not the sufficient conditions, for affirmation of quality. Further differences between everyday judgements about quality and technically based judgements about quality are illustrated, by comparison of the basis of everyday judgements with other technical definitions identified by (Cameron & Sine, 1999). The fifth 'value-based' definition, defines quality as 'best for price'. In everyday life, judgement about whether a product provides 'value for money' or is the best-for-the-price is independent of judgement about quality. It is not contradictory, for example, to judge that an expensive item does not provide value for money, but to assert nevertheless that it is of excellent quality. Likewise, in everyday life it is not contradictory to assert that a product is of lower quality, but is nonetheless the best for the price. From this, we can conclude that everyday concepts of quality are not primarily concerned with judgements about value for money. The sixth and seventh 'system-based' definitions of quality also produce results that contradict everyday judgements of quality. It has been recognised, for example, Yorke (1999a), that organisational process-referenced definitions cannot guarantee the quality of the product. Organisations may have quality compliant systems, or be customer oriented, but still not have a quality product, as judged by the criteria of everyday standards.

The technical definitions have a more specific restricted meaning than the transcendent or 'everyday' concept of quality and do not necessarily imply excellence. In the documentation, there was no evidence of awareness of differences in meaning between the different conceptualisations of quality, no apparent awareness of the need for conceptual consistency, and no awareness of the significance of conceptual differences, for roles, for interpretation of the meaning of data, or the practice of management. For example, when quality is simultaneously defined *as if* students had a customer relationship with the university, and *as if* students were the product of universities required to meet externally defined specifications, there is role conflict for both students and for teaching staff.
**Theme 1.2 Quality Assurance**

Table 4.1c shows that both Government, and university management documents used the concept of 'quality assurance' primarily to mean accountability to the Australian Federal government, and that accountability was required to be demonstrated through the collection of various prescribed sets of data. One of the review panel documents (DDS3b) also discussed quality assurance in terms of accountability, while the other (DDS3a) discussed quality assurance in terms of both improvement and accountability. The finding that quality assurance was predominantly equated with accountability shows there has been no fundamental change since Vidovich’s study of 1993-1995, where quality assurance was understood primarily as accountability in Australian higher education. The documentation sampled in the study reported in this thesis indicated that since 1993-1995, government had become more prescriptive about what data universities were required to present and how implications for quality should be interpreted from the data. If Cameron and Sine’s (1999) framework is applied, a focus on ‘accountability’ indicates primacy of an ‘error detection’ approach to quality management rather than an ‘error avoidance’ approach, which they found was the least effective approach to quality management in industry. The focus of quality assurance upon accountability raises further question of accountability to whom, and this will be discussed in the answer to question 2, in discussion of the Themes 2.3 ‘Customers and universities’ and Theme 2.4 ‘Stakeholders and universities’.

**Theme 1.3 Quality Improvement**

The documentary analysis identified that discussion of quality improvement was less prominent than discussion of accountability. The only document that had significant discussion of quality improvement was one of the evaluation (audit) reports (DDS3a). University management reports primarily discussed improvement in terms of adoption of measures intended to improve the institutions apparent performance on accountability measures, see Table 4.1d, rather than measures to address issues of improvement of underlying processes. Focus on apparent performance, rather than improvement of underlying processes, was associated with failure of quality management in industry (Repenning & Sterman, 1997); see also Theme 5.1 in Q5. The understanding of quality improvement found in the sample university management documents, contrasts with the usual usage of ‘quality improvement’ in commercial quality management literature, where quality improvement is understood as a process whereby staff teams within organisations identify how they can improve internal
organisational systems, to reduce wastage, avoid mistakes, reduce rework or improve features of the product. In university quality management plans there was evidence that some universities explicitly committed themselves to a quality improvement philosophy of accountability through internal organisational process improvement by staff teams (see for example, DDS2b and the Australian Business Excellence Framework). Analysis of the institution’s quality management and improvement plan indicates that accountability to government (imposed as a condition for Federal government funding) took precedence over quality improvement processes when the institution reported their plans for measurement and monitoring quality. This occurred even though the institution had made an explicit commitment to a quality management framework that proposed accountability through process improvement within the organisation.

In Australian government documents, ‘quality improvement’ was a term used to refer to specific practices and system wide changes identified by the Australian Federal government that the Australian Federal government would like universities management to make. These related to university management, workplace relations, and governance, and derived from the broader political agenda of government rather than from process problems specific to particular institutions.

**Theme 1.4 Standards and Quality**

When ‘academic standards’ were discussed in the sample documentation, the term was used predominantly as if academic standards, especially ‘international academic standards’ provided a ‘fixed’, immanent or absolute reference point of excellence of academic attainment. The documents claim that universities are responsible for the maintenance of academic standards referenced to ‘international standards’ and professional and employer requirements. The statement implies that it is meaningful to speak of maintenance of academic standards across an institution, and across the higher education system as a whole.

The meaning of ‘academic standards’ as academic excellence derives from a ‘traditionalist’ position on university quality management outlined in Chapter 2 and an objectivist view of knowledge. In this context, ‘academic excellence’ is discipline specific, and shaped by those who are considered by their peers to be expert. The assumption is that these experts (or ‘connoisseurs’) recognise excellence without the need to identify its specific features. Their judgement of these prominent experts is accepted by those who acknowledge their expertise, and determines how excellence is
understood in the particular discipline for as long as their hegemony holds. The traditional method by which academic standards are assured is through external peer review.

Like the everyday or transcendent meaning of quality, to which this concept of academic standards is related, this meaning of academic standards is invisibly and flexibly referenced to the values of those considered as experts. The opinion of acknowledged experts within disciplines influences assumptions about content, discipline boundaries and appropriate methods for advancement of knowledge within the discipline. This meaning of academic standards is always internally referenced within academia, because that is where the peer acknowledged experts are located. Standards may appear as fixed within a discipline over time, as long as the hegemony of a particular group of discipline experts is widely upheld, but the concept of standards with a discipline can change. Where different schools co-exist within a discipline, or where different schools are dominant in different geographic regions, multiple concepts of ‘excellence standards’ may vie for acceptance within a discipline. The ‘paradigm wars’ in organisational studies, discussed in Chapter 2, provide an example of such a struggle. Functionalist schools within organisational studies recognise different experts, identify different subject boundaries, and have different concepts of what constitutes ‘excellent academic standards’ within organisational studies, compared with schools of organisational studies that adopt a critical perspective.

The traditional concept of ‘academic standards’ differs from the technical meanings of ‘standards’, where standards are referenced to specific measurable or product features or referenced to facets of customer satisfaction provided by ‘operational definitions’ (Deming, 1986). Failure to understand the implications of the difference between academic standards as traditionally understood, which are determined by the acknowledged experts within disciplines (or within schools within the discipline), and technical meaning of standards, has provided a source of confusion in discussion about standards in higher education. One example is provided by the contentious attempts in the early 1990’s to compare ‘academic standards’ between awards in different disciplines and between institutions, where the basic assumption about who is recognised as expert, and what constitutes excellence, differ.

Discussion of the ‘neo-liberal enterprise’ position on university management in Chapter 2 observed that neo-liberals exhibited an ambivalent attitude towards the traditional idea of ‘standards’. Ambivalence about standards was also apparent in the documents
reviewed in this study; see for example, Table 4.1e The dominant government discourse found in sample documentation affirmed that the requirement of universities to demonstrate ‘maintenance of standards’ provided an important rationale for quality management in universities, and implied that there was a meaningful singular concept of ‘international academic standards’ that could provide a reference point for Australian higher education. By contrast, in one government document within the sample, standards were defined as ‘fitness for purpose’ and this definition assumes a ‘relativist’ position on standards, because the required standard is defined in terms of the intended use of the educational process, which is variable according to time, place, discipline, purpose of study and university purpose.

The technical definitions of quality found in commercially derived quality management systems reference standards relativistically. The meaning of standards in commercial quality management is referenced to the particular restricted technical definition of quality used in the context. ‘Standards’ are referenced to customer expectations, and vary according to customer expectations, when ‘quality’ is referenced to customer expectations. The expected standard is variable and need not imply excellence, if customer expectations are low. If quality is referenced to conformity to a particular specification, then any product that conforms to that specification has achieved the required standard, even if the specification is set at a low level of excellence. In this instance the standard is fixed, but may be low. Table 5.1 summarises the implication of different definitions of quality for the way in which standards are determined.
Table 5.1 Concepts of quality and its relationship to standards in higher education

<table>
<thead>
<tr>
<th>Concept of quality (C&amp;S)</th>
<th>Definition: “Quality is...”</th>
<th>How measured?</th>
<th>Standards: fixed or floating?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transcendent (1)</td>
<td>Quality can not be defined but can be recognised</td>
<td>Perceived by those who are sensitive, cannot be measured</td>
<td>Transcendent concept of excellence, but relative to the values of the speaker and referenced to standards within disciplines, or schools within discipline</td>
</tr>
<tr>
<td>Product-based (2)</td>
<td>'unpriced attributes contained in each unit of priced attribute'</td>
<td>Measure 'features' that exceed customer expectations</td>
<td>Standards vary with customer expectations</td>
</tr>
<tr>
<td>User-based (3)</td>
<td>Fitness for use, Satisfies customers</td>
<td>Measure level of customer satisfaction</td>
<td>Standards vary with customer expectations</td>
</tr>
<tr>
<td>Production based (4)</td>
<td>Conforms to specifications</td>
<td>Measure against what is promised</td>
<td>Standards specified for each product. Specifications may be low. A product may meet specifications and not be excellent</td>
</tr>
<tr>
<td>Value base (5)</td>
<td>Best for price; Best for actual use</td>
<td>Efficiency based upon cost per unit</td>
<td>Standards variable, low quality may be best for price</td>
</tr>
<tr>
<td>System-based (6)</td>
<td>System to produce services that satisfy customers</td>
<td>Check whether systems are in place and adhered to</td>
<td>Assessment of production systems independent of product quality</td>
</tr>
<tr>
<td>Cultural (7)</td>
<td>Organisation's culture supports the constant attainment of customer satisfaction through integrated use of training, techniques and tools</td>
<td>Examine whether the organisation supports customer satisfaction in an integrated way</td>
<td>Reference point is customer satisfaction. Assessment of organisational culture of independent of product excellence. Product standards indirectly referenced to customers' satisfaction</td>
</tr>
</tbody>
</table>

The implications of this analysis are that the traditional concept of academic standards is based upon everyday usage of quality (Cameron and Sine’s ‘transcendental’ usage, definition 1 in Table 5.3). Reliance on the transcendent definition of standards in education is premised upon a combination of a consensus view of values within a discipline or school, and objectivist position on academic knowledge. The transcendent definition of quality is not used in quality management because this definition of quality is not amenable to standardised measurement, necessary for an operational definition. In technical definitions of quality, standards may be referenced to:

- Specific facets of customer expectation (definitions 2, 3, 5);
- Conformity of a product to specifications, which need not be concerned with excellence (definition 4); or
- Conformity to organisational procedures or configuration of organisational culture, that are not directly related to the excellence of the product (definitions 6 &7) (Cameron & Sine, 1999).

Thus, standards based upon technical definitions of quality do not imply product excellence, and when standards are referenced directly or indirectly to customer satisfaction, they may vary over time. Harman and Meek (2000b) asserted that ‘quality
as standards’ belonged to the ‘old’ quality debate, although they did not explain why. They maintained philosophical consistency when they recommended that, within the Modern Australian Model of quality management, measures of quality in higher education should no longer be concerned with ‘standards’, a recommendation the government policy makers did not embrace. The implications of this analysis are that technical measures of standards found in commercial quality measurement are not compatible with the traditional concept of (excellent) academic standards in higher education.

**Implications for research problem**

The implications for the research problem of the answers to this question are that documentary analysis found neither consistency nor constancy in the definition of quality. Further, there is insufficient awareness of differences in meaning and potential problems caused by lack of consistency even though the literature review indicated that consistent definition of ‘quality’ is required, both as a guide to managers’ formulation of strategy, and as a basis for measurement. Thus, the use of the ‘language of quality’ contributes to misunderstandings of meaning for, and between, policy makers, managers and evaluators. This raises the question of whether it is useful to continue to use the terms ‘quality’ and ‘quality management’ in discussion of higher education evaluation.

The conclusions of this study for this question are that multiple definitions of quality may provide benefits to politicians. A superficial veneer of objectivity and consistency is provided when politicians and others move between different technical definitions (variously referenced to specific technical features of products or customers) that have restricted technical meanings, and everyday usage that has a more generalised appreciative meaning invisibly referenced to the values of the speaker. The price of this political advantage is confusion for policy-makers, quality managers and quality evaluators who require a fixed meaning of ‘quality’, for the concept of quality to be useful as a technical term. The focus on accountability, and the lack of focus on process improvement as understood in the commercial quality management literature, implies an ‘error detection’ culture. According to the research reported by Cameron and Sine (1999) this was one of the least successful organisational quality culture, commercially less successful than either ‘error avoidance’ cultures.
Research Question 2: Context of Higher Education: Purposes, Roles and Relationships

What is the relationship between the intended purposes of Australian higher education, the roles and relationships required to achieve these purposes, and concepts of quality?

a) What purposes, roles and relationships are assumed in quality management documentation in policy, strategy and evaluation reports in Australian higher education?

b) If a customer relationship is assumed, how does this influence other roles and relationships?

c) Are the purposes roles and relationships found in the documentation consistent with the purposes, roles and relationships implied by the concepts of quality identified in Q1?

d) What are the implications of these findings for the research problem?

Overview of themes

The central issue raised in this question is whether the relationships implied by the use of commercial quality management methods are compatible with the relationships required by the educational purposes identified by government policy and university mission statements. Different roles carry different expectations about rights and duties of the student, and different relationships between the student and other parties. In the documents examined, there is an implicit assumption that it is unproblematic for students to be simultaneously products and customer/clients. Theme 2.1, discusses the issue of multiple purpose in higher education. Theme 2.2 examines the relationship between different purposes of higher education and the roles required to achieve the various purposes. Theme 2.3 examines the issue of whether customer roles are compatible with the purposes of universities and whether students can be both customers and products of universities. Theme 2.4 examines the implications of stakeholder relationships for universities.

Theme 2.1 Purposes of Higher Education

The sample documentation confirms that Australian higher education has multiple purposes. This finding accords with contemporary and historical literature on universities in other countries, discussed in Chapter 2. Histories of individual universities and of university systems in many countries show that there has been no
single concept of university, but rather the purposes of higher education have been
variable between institutions at any one time, and variable within single institutions
over time (Levine, 2000; Preston, 2002). Preston (2002) in his overview of the history
of the British university discussed in Chapter 2, illustrates that in England at least since
mediaeval times, opposing purposes of higher education have coexisted. He claims that
the established universities have historically provided both practical and vocational
education, and an environment for personal development and discovery separated from
concerns for utility and respect for orthodoxies of the day.

Preston (2001; 2002) argues that many changes have taken place in universities
throughout the English-speaking world since 1945, and that ideas that have been
influential in previous historical periods co-exist with current trends, but interpreted
through the dominant societal values of managerialism, consumerism, commercial, and
economic utility and the primacy of scientific and technological knowledge. Further, he
suggests that universities do not necessarily reflect these values as much as might be
expected (Preston, 2002).

When the implications of multiple purposes of higher education are examined more
closely, a number of tensions emerge. One tension is concerned with whether the prime
beneficiary of higher education is intended to be the individual student, which Marceau
(1996) refers to as an expressive goal of education, or society, which Marceau (1996)
refers to as an instrumental goal of education. A second tension arises between whether
the purpose of education is to fit the individual to the norms and values of contemporary
society, or whether the purpose is to transform the individual and possibly society,
through education. One way to represent these differences is to categorise different
purposes of higher education according to whether the intention is to provide individual
benefit to students or broader societal benefit and according to whether ‘benefit’ is
conceived normatively or transformatively. This provides the following typology
outlined in Figure 5.1.
Transformative - individual
Seek new knowledge for its own sake irrespective of considerations of immediate utility and profit; to question what others accept irrespective of social disapproval; personal wisdom; individual freedom from the restrictions imposed by conventional beliefs and expectations.
“Expressive”

Transformative - societal
Emancipative and transformative social and personal change; social movements and political change through personal change; to increase individual tolerance of difference; radical movements within professions

Normative - individual
Student development within normative bounds of culture ‘the cultured man’; student development to meet the utilitarian aspirations of students for their future employment and personal life goals within the existing social order.

Normative - societal
Normative professional and vocational preparation, to both serve industry (or empire) and the professions, including business, welfare and personal services in the existing social order.
“Instrumental”

Figure 5.1: Normative/transformative versus individual/societal orientations towards conceptualisations of university purpose

There are dangers if these methods of categorisation are taken as definitive, as schema like this accentuate some oppositions and hide others (Alvesson & Deetz, 1996), and this model should be considered as an imperfect approximation intended to highlight some difficulties that seem to have been ignored in the documents examined. The significance of this distinction is that different purposes of education give rise to different roles and relationships both within and between academe and society. To illustrate the significance of this, Table 5.2 shows the implications of the conceptual archetypes identified in the schema for roles and relationships within university and between universities and society. Each of these different roles carries with it different expectations about rights and duties of the student, different assumptions about where control of curriculum content ought to reside, and different prioritisation of expectations of students relative to other parties.

Theme 2.2 Purposes and roles in Australia Higher Education

Differences in conception of higher education purpose give rise to very different assumptions about the nature of the student role, the nature of the academic role and the nature of the relationship between students and academic staff. Different conceptions of
the purpose of higher education also give rise to different opinions about legitimate lines of accountability, and different opinion about what ought to be assessed, and how assessment should proceed, see Table 5.2.

Table 5.2: Four different orientations towards purposes in education and implications for roles and relationships

<table>
<thead>
<tr>
<th>Pedagogic orientation</th>
<th>Normative Individual</th>
<th>Normative Societal</th>
<th>Transformative Individual</th>
<th>Transformative Societal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic staff role</td>
<td>Teachers and mentors in academic and personal development</td>
<td>Assessor of professional competence and work skills</td>
<td>Transmitters of existing knowledge; producers of new knowledge;</td>
<td>Partners in learning</td>
</tr>
<tr>
<td>Student staff relationship</td>
<td>Student as pupil</td>
<td>Student as novice or trainee</td>
<td>Student as scholar; student as disciple</td>
<td>Student as learning partner, colleague</td>
</tr>
<tr>
<td>University Relationship with industry</td>
<td>University 'civilises' industry through cultural education of its future leaders</td>
<td>University responsive to needs of professions and industry</td>
<td>Higher education ignores industry</td>
<td>University transforms people who transform society including the professions industry and commerce,</td>
</tr>
<tr>
<td>Primary Accountability</td>
<td>To the student</td>
<td>To 'society'</td>
<td>To the discipline</td>
<td></td>
</tr>
</tbody>
</table>

The purpose of Table 5.2 is to illustrate how different purposes change the emphasis within the roles and relationships in higher education. Visits to any university would probably uncover a diversity of opinion on the relative primacy of each purpose, and likely dissatisfaction with all positions from some postmodern perspectives. No assumption is made that individual institutions or courses aspire to only one type of purpose, as the documentation examined in this study indicated that individual institutions and courses incorporate both normative and transformative purposes, both individually focussed and socially focussed aspirations. The most relevant point for the purposes of this thesis is that none of the purposes of education explored in Figure 5.3 presume that students have a customer, stakeholder, client or product role, as described in the sample documentation, or a customer role as assumed in the literature on commercial quality management.

Theme 2.3 Customers, products and universities

The recommendations of the West report (1998), argued that students ought to be treated as customers of universities, as discussed in Chapter 2. This was politically expedient because when the West report was published, the Australian government had
instituted policy to transfer by stages, the burden of cost of higher education from
government onto students. The idea of students as customers of universities fitted easily
with the neo-liberal market philosophy that underpinned government policy. The idea of
students as customers also fitted well with commercial quality management methods,
because 'quality' could be easily gauged by measurement of student satisfaction. It was
therefore surprising to find that there were few examples where students were referred
to explicitly as 'customers', but multiple examples of students referred to implicitly as if
they were customers or products of universities.

Students were explicitly referred to as customers in only one of the documents from the
sample, a government policy document produced in 1999. The documentary data
indicates that by 2000, the Australian government policy documents had abruptly
ceased to refer to students as customers of universities, without explanation and without
any explicit rejection of the concept of students as customers. In sample documents
from throughout the period (1999-2003), however, quality measurement methods (see
Tables 4.4b-e in Chapter 4 and discussion of Theme 4.2 in this chapter), based upon
technical definitions of quality continued to interpret data as if students had a customer
relationship to universities and sometimes as if students were both customers and
products of universities. This represents an ambiguity within with the formal
government position, and a source of tension within Australian higher education quality
management policy. Because data has been interpreted as if students have a customer
relationship with universities, and because the government has not formally rejected this
policy position, it is still relevant to examine the consistency of this assumption.

Market-based concepts of quality are exemplified by the technical definitions of quality
used by Cameron and Sine (1999) and discussed in theme 1.1. These assume that
organisations operate in an environment where (a) customers exist, and (b) where there
is no doubt about which 'entity' is the customer, and in a capitalist system (c) the
purpose of business is to make profit through the sale of products (including services) to
customers. The wants and expectations of customers are used, directly or indirectly, as
the reference point for business decisions about what products to offer, and about
required standards for product specification. Ideally, from a market perspective on
business, customer wants and expectations influence the type and quality of products
offered for sale, although Deming (1986, Chapter 6) gave examples of service industries
where it is not the customer but the technician who makes purchasing decisions on
behalf of the customer. In Chapter 2, the main argument against the premise that
students are customers concerns the legitimacy of influence of students over the standards of the product they purchase. There are four additional reasons to reject the assertion that students have a customer relationship with universities, the first concerned with the identity of the product and purposes of higher education, the second concerned with the nature of the learner role, the third concerned with difficulties of the dual customer – product role, and the fourth with rights of other parties.

The sample documentation was ambiguous about the identity of the product of universities, some documents implicitly referred to students’ achievements as the product of universities; in other instances, the product seemed to be the course of study undertaken by the student. In commercial transactions, it is legitimate for a customer to determine the kind of product they want to buy, because the primary purpose of the business is to make a profit by selling products to customers. The purposes of higher education found in the documentation, discussed in Theme 2.1 are referenced not simply to the desires of students, but to requirements of professional bodies, to traditions within disciplines, through the concept of academic standards, and to the fulfilment of economic and social goals as determined by the government. The diversity of purpose of higher education presented in the documentation implies that universities are not in a position to offer a customer relationship to students, if they intend to fulfil their missions and the Australian government’s goals for higher education. In a rare discussion of quality in higher education, Deming (1986, p173) argued that quality in higher education depended upon whether the teacher had anything worthwhile to teach, and that student opinion was not a good measure of this. He cites the example where he watched a lecturer hold one hundred and fifty students enthralled, but the lecturer was mistaken in what he was teaching.

A second reason to reject a customer relationship emerges from the differences between the customer and the learner roles. The learner role in all forms described in Table 5.2 requires a degree of engagement and effort on the part of the learner as an essential component of ‘learning’ before it can be judged that the ‘education process’ has occurred at all. Outcomes of the educational process for individual students depend upon the combination of suitable teaching, suitable application by the student and, for university education, a sufficient level of ability and knowledge to enable the student to benefit from the teaching. (The lack of correlation between student outcomes and quality of teaching was noted by Yorke (1999a, p21), who argued that it was fair to assume that excellent teaching produced better results than poor teaching. His
assumption, however, assumes student willingness to engage with the learning process.)

Student ability and application may compensate for poor teaching. A high level of application may compensate for lack of initial knowledge or skills. A low level of student application can render good teaching ineffective. Whilst in compulsory education, it may be argued that a major part of the teacher's role is to encourage, cajole or coerce the learner to participate in activities, in post-compulsory education, educators make the different assumptions about responsibility for motivation of learners. It is usual to assume that as adults, learners have responsibility for managing their own commitment and for making the requisite effort to enable them to benefit from the teaching.

Customers, by contrast, are essentially passive in their role as purchasers. Once they have chosen their product, they pay and in return are supplied with specified goods or services, which they may use or not as they choose. The implication of this analysis is that there are some fundamental conflicts between the requirement for active engagement implicit in the learner role and the relative passivity of the customer role, which means that learners can never be customers as understood in the world of commercial transactions. This analysis implies that the learner relationship required to enable the education process is fundamentally different from the customer relationship found in a business context, and that if universities attempt to cultivate a customer relationship with students this will not provide an appropriate relationship to enable the educational process to take place.

A third reason to reject the concept of students as customers of universities stems from problems with the ‘dual role’ where students are treated as both customers and products of universities. Examples were found in the quality measures where students were treated both as if they were a product of the university and as if they had a customer relationship. McCollough and Gremler (1999) have previously observed the occurrence of this dual role but did not attempt to resolve this issue. A student may pay for access to a course of teaching with the purpose of improving their practical or intellectual skills. The ‘product’ they purchase is access to the course of study. Unless a university operates purely as a diploma mill (where payment buys a qualification irrespective of student engagement), the student cannot ‘buy’ the outcomes, because the outcomes depend upon what use students make of their right of access to the teaching and resources provided by the university, how and whether the student engages with the learning experiences available. For these reasons, the student is neither a ‘customer’ nor
a 'product' of universities, as these relationships are understood in the commercial context.

A fourth reason to reject the idea of 'students as customers' arises from the exclusive nature of the customer relationship. If students were customers, what legitimate interest would other parties have in higher education? If higher education were a private transaction between universities and their student customers, no other parties would have any legitimate interest in what universities taught to students, how universities chose to assess students, or how universities chose to organise their internal affairs. In these circumstances, the public role of universities in society would be minimal, as universities would function as wholly private rather than public institutions. According to market philosophy, both government and business would forgo the right to intervene in university affairs. The provision of higher education would become a private service, paid for by the customer, with no requirements to consider other interests. If students wanted to study subjects that had no obvious societal benefits, this would be their prerogative. The only justifiable government involvement in this would be in consumer protection issues, if, for example, the 'product' offered was not 'as described' to the customer. There would be no obligation for education to further social or economic purposes, no need to consider equity issues and no obvious right of government to intervene, except possibly by making private arrangements with potential students to enable them to become customers. This outcome is inconsistent with the intended purposes of Australian higher education.

Theme 2.4 Stakeholders and universities

The government documents and some universities claimed that universities had stakeholder relationships with various parties. This potentially avoids difficulties that arise when students are conceived as customers, as it would allow that students have a legitimate interest in higher education, but accept that theirs are not the only interests that should be considered. Stakeholder theory is potentially compatible with the multiple purposes of higher education. In Figure 5.1 and Table 5.2, different purposes of education are distinguished from each other by the different priority they place upon the interests of different stakeholder groups. In the sample documentation there appeared to be an implicit presumption that it was always possible to find ways to accommodate the needs of all stakeholders. Examination of stakeholder theory by Weiss (1995) in Chapter 2 raised a number of difficulties with stakeholder theory, including the problems of boundaries, legitimacy issues and practical problems with the application of
stakeholder theory in organisations. Each of these is now considered as it applies to the findings of this research.

The problem of ‘boundaries’ concerns how to decide where to draw boundaries between those who have legitimate interests and those who do not. In connection with Australian higher education, the issue of boundaries is relevant, as the documents examined in this study showed variation in judgement about who is included and who excluded as ‘stakeholders’ in Australian higher education. Claims are made in the sample documents for ‘well-defined’ stakeholder groups whose exact membership can be identified and who potentially could be consulted, such as students, academic staff, university (management), and professional associations, but also for more nebulous groups such as ‘employers’, ‘industry’, ‘communities’, ‘taxpayers’. Legitimate claims could also be lodged for ‘future clients’ of graduates of professional courses (Atherton, 2002), some of whom may be unborn as yet, and perhaps potential employers, whose businesses have not yet come into being. The most inclusive definitions would assume that the whole population of Australia, or even globally might be considered as stakeholders in Australian higher education. If one accepts arguments about the interconnectedness of all life forms, a case might even be made for the representation of non-human interests (Singer, 1993), especially in relation to the research priorities of universities. The problem of determination of who has legitimate interests raises a number of separate issues.

As the number of stakeholder groups increases, the potential increases for conflicts of interests between stakeholder groups. As stakeholder groups grow in size or become more diverse, the potential increases for conflict of interests within stakeholder groups. Chapter 2 concluded that diversity of value positions about the central issues in higher education is a significant feature of Australian higher education. In simple terms, stakeholder representation generates a very large number of separate interests, some of which will inevitably conflict in ways not amenable to compromise, when stakeholder theory is applied in a domain of contested values with many stakeholders from multiple large and diverse groups.

The following example illustrates one of the simpler areas of conflict. If ‘industry’ wants more engineers, ‘society’ needs more nurses and teachers, and students prefer to study law, whose interests should take precedence when universities decide how many student places to offer in different disciplines and when government decides how many places to fund? Within limited resources, it is impossible to satisfy all stakeholders. If
universities are responsive to stakeholders, then managers, in government departments and in universities must decide the balance of claims and hence decide the numbers of student places to offer in each discipline. Ultimately, choices must be made about how to balance the wants and needs of different stakeholders and whose wants or needs to sacrifice in order to satisfy competing wants from other stakeholder groups.

The second problem for the application of stakeholder theory relates to the practical issues of representation and conflict resolution between and within stakeholder groups. The issue of conflict resolution raises ethical and legitimacy issues in a democratic society about who ought to determine how conflicting claims should be equitably balanced, and on what basis this duty is legitimated. Wants and needs of multiple stakeholders may be expected to conflict because:

- There is variation both within and between each stakeholder group; and
- All groups have both wants and needs, which may conflict;
- Stakeholders do not necessarily have an accurate understanding of the means-ends linkages between their wants and their needs (Cooper, 2003a): this is discussed more fully in answer to Q4.

There was only limited discussion, in the sample documents, of the potential for conflict between different interests of stakeholder groups. The most extensive discussion of the issue of difference between stakeholder interests was found in one of the panel reports (DDS3B). This report suggested that different stakeholder groups have interests relating to different aspects of the education process (for example, students are concerned with learning opportunities, academic staff can legitimately expect appropriate conditions to enable them to perform their role, and employers expect a pool of suitably trained graduates). This method of apparent demarcation between legitimate interests ultimately fails for three reasons. It fails because it considers only the more easily identified stakeholder group. It treats the interests of each group as if they were monolithic, and because it does not address the issue of control of contentious areas important to all groups where their interests overlap, such as the curriculum, assessment procedures, and standards, where potential conflict in higher education is most likely. In no document was there any suggestion that stakeholders might not understand their needs or the best ways of satisfying their needs.

A third problem arises from 'legitimacy issues' concerned with what, in a market economy, legitimates the idea that persons not directly involved in a commercial
relationship have the right to have their interests considered. Weiss claims that market ideology and stakeholder theory make conflicting claims for legitimacy. The implications of this claim and the relationship between ‘quasi-market’ ideology, discussed in Theme 3.3, and stakeholder theory as implemented, are not compatible because stakeholders have been treated tokenistically. A fourth problem, concerned with incompatibility between stakeholder theory and commercial quality management methods, is discussed more fully in question 5.

It is concluded that no adequate method was proposed for determining how the needs and interests of different stakeholder groups should be effectively pressed within the higher education system. There was also no resolution of the problem of who has a mandate to resolve conflict and on what ethical basis. Weiss (1995, p6) claims that stakeholder theories strengthen managerial power because managers are entrusted with the task of resolving and balancing stakeholder conflict. The findings presented in this thesis are consistent with Weiss’s claim that stakeholder theories strengthen managerial power.

**Implications for research problem**

The implications of the findings for the research problem are that analysis of the sample documents showed that the intended purposes of higher education as stated in the documents were incompatible with the assumption that students are customers of universities (explicit in one document and implied in several other documents by their interpretation of data chosen for ‘quality indicators’). The assumption that universities have stakeholders appears at first to resolve some of the difficulties of lack of fit between the private relationship of student as customer and the government’s desire for universities to deliver identifiable short-term societal benefits. There are, however, practical problems in determination of who should be considered as a stakeholder (and the sample documentation indicated there was no agreement or consistency on this). There were difficulties in determination of how stakeholder rights could be effectively canvassed and pressed and the sample documentation did not provide any adequate model or suggest even awareness of the need to consider how stakeholder representation could be achieved. The documentation also did not show any awareness of the need to discuss the issue of who should resolve and balance stakeholder wants when they conflict, or on what basis. The evidence in the documentation was that managers in government departments and universities took it upon themselves to adjudicate conflicting stakeholder wants, seemingly in accordance with their own interests. This is
consistent with the claim by Weis that stakeholder theory strengthens managerial power and if this is so, then the appeal to stakeholders is merely a device to legitimate managerial power. The issue of stakeholders will be examined further in the analysis of the data for questions 3, 4 & 5.

**Research Question 3: Rationale for Quality Management**

Are the recommendations of the Australian government for processes of quality management in higher education consistent with government ideology and its intended purposes for higher education?

   e) What is the Australian government rationale for higher education quality management,

   f) Are the rationale(s) consistent with the definitions of quality in Q1 and the intended purposes of higher education in Q2?

   g) How does quality management as implemented privilege particular assumptions about universities, students and the academic role?

   h) What are the implications of these findings for the research problem?

**Overview of themes**

In the sample documentation examined, the government provided a rationale for its approach to quality management in Australian higher education. A story telling perspective on management assumes that implicit within any rationale for management systems are ideological assumptions about both values and how meaning *ought to be* interpreted, that privilege some values and assumptions, which are presented as self evident and beyond question. From a story-telling perspective, all accounts of management systems are treated as stories, and the purpose of story deconstruction is to identify the privileged assumptions on which the story depends for its plausibility, so these can be examined.

This question has two main purposes. The first purpose is to identify the assumptions behind the rationale for quality management provided in the documentation. The second purpose is to examine the internal consistency of the rationales provided for quality management.

- **Theme 3.1**: Rationale for quality management and assumptions behind the Australian government’s ‘quality management story’;
• **Theme 3.2**: Tension between public accountability and the neo-liberal concept of small government and the implications for quality management

• **Theme 3.3**: Ambiguity in the relationship between universities and markets and the implications of this relationship for quality management;

**Theme 3.1 Rationale for quality management and the Managerial story**

The rationales offered for the Australian government higher education quality management system, according to the sample documentation, were:

- Quality management would make Australian universities more efficient, more publicly accountable and more responsive to external parties;
- Quality management would provide information useful to prospective students, university managers and policy makers;
- Externally-validated quality management systems were expected by overseas purchasers of higher education because ‘competitor’ suppliers of international education had quality management systems; and
- The previous system of higher education quality management needed reform because it was too cumbersome, not transparent and did not adequately assess outcomes.

Chapter 2 observed that Australian higher education quality appeared to progress 'reactively', as amendments were made to perceived deficiencies in prior policy, and the sample documentation partially supports this observation. For example, according to the AUQA terms of reference, universities will be assessed according to their identified goals. This overcomes the criticism of previous quality management arrangements, that universities were measured by standards favouring the ‘Sandstone’ universities. The apparently more transparent mode of operation of the AQUA compared with the CQAHE, overcame the criticism that the methods of CQAHE were not transparent. The intention to assess ‘standards’ is a response to the observation that compliant processes do not ensure outcomes; the presentation of ‘new’ university quality management processes as less cumbersome and interventionist than the previous policies, is a response to the criticism that previous quality management methods were overly interventionist. Some statements, however, are indicative of the broader government political agenda independent of criticisms of previous quality management arrangements in Australian higher education, for example, statements about government
required changes to workplace relations in universities and to the internal management arrangements adopted by universities.

Assumptions on which the government rationale depends:

- That Australian universities are not already sufficiently efficient, accountable and responsive to external parties, and that the values of efficiency, accountability and responsiveness to external parties are of overriding importance to Australian higher education (see Theme 3.2).

- That a quasi-market management system for Australian higher education, in which the quality management system described in the documentation is based, provides an effective means to make universities more accountable, responsive and more efficient and is better than other possible arrangements (see Themes 4.6 and Theme 5.2).

- There are no significant adverse consequences from the application of a quasi-market management system to higher education (see Themes 4.4 and 5.3).

- Quasi-market management frameworks will not adversely affect the relationships required to achieve educational goals (see Themes 2.2)

- It is realistically possible for all Australian universities to maintain or improve standards in higher education, even though government per capita funding has reduced and student contributions do not cover the gap (see Theme 4.4).

- That international students would reject Australian universities if their courses were not externally validated and the quality management system described in the documentation will satisfy international students (see Theme 4.5 and 4.6).

- The quality management system described in the documentation is not cumbersome, will adequately and appropriately provide accountability, and will assess outcomes (see themes 4.1, 4.2, 4.3 and 4.5).

- The quality management system described in the documentation will operate positively with other government policy to achieve the government's intended purposes for higher education (see Theme 4.4 and 5.3).

An important rationale for quality management for 'internal consumption' within universities, suggested that quality management was necessary to ensure universities improved the services they offer to students and to society. This rationale appeals to
potentially ‘oppositional’ elements in universities. The radical appearance of quality management claims has been politically useful in diffusing (and de-fusing) potential resistance to other policies that reduce funding to universities and increase the cost burden that is passed to students. The adoption of the ideology of quality management, as a ‘managerialist story’ has allowed a covert transformation in the nature and purposes of university education to take place. Quality management methods have been presented as neutral or even progressive means to solve problems of concern to more radical ‘post-traditional’ elements within universities, who were critical of perceived academic arrogance and conservatism of ‘traditional’ university practices. Overt attempts to commodify education and unilaterally transform universities into ‘marketised’ institutions would normally be resisted vigorously by university management, academic staff and students, but co-option of radical rhetoric by government has reduced and co-opted political resistance.

This ‘story’ of quality management and the multiple meanings of ‘quality’, has been exploited within official government policy documents and quasi-independent research to present as ‘rational’, ‘obvious’ and ‘unquestionable’, assertions that are politically highly contentious and contrary to well established research findings, see Q4 and Q5. Slippage between different technical and everyday meanings of quality has obscured the partisan nature of quality management. It has made it difficult for academics to ‘just say no’ to ‘quality’ without appearing to be unreasonable and self-serving. (‘Re-storying’, see Cooper, 2003d) has presented the quality ‘tale’ in another light, included in Appendix 2.)

Theme 3.2 Quality management, public accountability and neo-liberal commitment to ‘small government’

One rationale for quality management in Australian higher education is that quality management provides a means of public accountability that would otherwise be absent from higher education, and that greater public accountability is important in higher education. Another stated aim of Australian higher education policy reported in the sample documentation was ‘to free universities of unnecessary constraints’. Commitment to removal of government constraint is consistent with neo-liberal, ‘small government’ ideology of minimal government intervention, and represents an appeal to the critics who considered previous quality policy too bureaucratic. There is a prima facie tension between government development of a mandatory quality management system with extensive documentation and reporting requirements, backed by funding
sanctions for non-compliance or 'poor performance', and claims by government that its policies are designed to reduce constraints on universities. Government legitimates its support for a mandatory higher education quality management system, despite its commitment to reduce constraints, by an appeal to the rationale of 'public accountability', where public accountability implies financial accountability for the prudent use of public funds, evidence of effectiveness, and provision of information about university management that is useful to the public and to policy makers.

Can a case be made that requirements of public accountability are sufficient to override the stated neo-liberal value of removal of unnecessary constraint on universities? In the section of Chapter 2 that reviewed the literature on university management, three different sets of values were identified, traditionalist, neo-liberal and post-traditionalist. Traditionalists argued that universities should be publicly funded, but should self-manage without government interference in academic affairs, and traditionalists would dismiss all external quality management as unjustifiable interference in university autonomy, which traditionalists would identify as a more important value than public accountability. For post-traditionalists and supporters of the neo-liberal university management questions of university accountability cannot be so easily dismissed.

Neo-liberals who argue that public accountability is necessary to ensure that universities are not being profligate in their use of public money, are required to weigh the apparent efficiency benefits achieved by accountability against the total cost of the accountability measures. From a neo-liberal perspective theoretically committed to 'small government' and to reduction of public spending and to minimisation of government intervention, measures intended to ensure fiscal public accountability are only economically justifiable if the total resources allocated to centralised quality monitoring measures enables universities to satisfy their purposes better than if the same resources were allocated directly to individual universities. For a government concerned about effectiveness, the issue is whether the money government contributes to higher education quality management enables universities to produce better results than if the funds and effort by university personnel were put directly into the university system.

In Chapter 2, Yorke (1999a), in his discussion of the English higher education quality management systems, questioned whether continued spending by government on university quality management bureaucracy could be financially justified at a time of reduced resources, and when the majority of universities were found to be effective. A consistent neo-liberal efficiency justification would require evidence that the financial
cost of university quality management, including internal compliance cost within each university, produced better results than simple redistribution of costs of higher education quality management system back to the universities to enable universities to improve directly services to the students and the community. Evidence that government has managed to reduce its contribution to higher education does not provide adequate justification to support the assertion that quality management has improved university efficiency and effectiveness.

As no comprehensive data has been collected about the internal compliance costs within Australian universities, or what activities are displaced when staff time is spend on data gathering to ensure compliance with government required quality management processes, the Australian government does not have a comprehensive picture of the total costs to higher education of quality management processes it has instituted. This is a potential area where research is required if current policies are pursued in the future as there is no evidence that the total compliance cost have ever been assessed. The current Australian approach, therefore, appears to be vulnerable to the arguments put by Yorke, especially as some statements in the documentation indicate that government believes that Australian universities are ‘good,’ (DETYA, 2000c). This implies that the primary purpose of the evidence is either at best confirmatory, or at worst the government is engaged in public relations quasi-evaluation intended to mislead in order to convince others of the worth of Australian universities, see discussion in Q4. Finally, the claim that the quality management system is justifiable because it provides useful information to the public and policy makers is discussed in Theme 4.5. The claim was found to be unsupportable with current methods.

It is concluded, therefore, that from a neo-liberal perspective, it is difficult to argue that the importance of public accountability overrides the commitment to non-interference because:

- There is no clear evidence that diversion of resources away from service provision in universities towards the centralised quality management system provides better result than if the same resources were used directly to improve education.

- The evaluation system is not satisfactory to provide adequate accountability. See theme 4.4.

- The assumptions that inform the choice and interpretation of ‘accountability measures’ are not theoretically sound (see theme 4.2).
• The quality management system described in the documentation cannot provide comprehensive and accurate information useful to potential students, employers and parents (see Theme 4.3).

**Theme 3.3: Higher Education, markets and quality management**

Another area of ambiguity that became apparent in the sample documents concerned the nature of the commitment by government to a market economy in higher education. Although one government document in the sample explicitly claims that higher education should not be completely market driven, the majority of documents examined were written as if 'markets' were a naturalised, unquestioned part of the Australian higher education system, see Table 4.3c. This ambiguity about the nature of the relationship of Australian higher education to 'markets' begs the question of how the relationship between Australian higher education, government and market systems should be properly understood, and how it is legitimated. In Chapter 2, Marginson and Considine (2000) referred to this kind of arrangement as the ‘public sector variant’ on the market economy. The first part of the discussion will try to derive a consistent understanding of what, in practice, ‘the public sector variant’ entails when applied to quality management in Australian higher education. The second part will examine whether the differences between the public sector variant and standard ‘market’ economic approaches cause conceptual problems for the application of commercial quality management methods.

In a perfect 'unfettered' market economy, universities would be able to offer whatever subject mix they chose, to set their own fees and standards, and to manage their internal organisation and employee relations as they saw fit, subject to labour- relations agreements and legislation, and could choose whether to be responsive to students, to employers or to neither group. Universities would have no social responsibility to ensure that graduates contributed to the economic or social development of the nation. Equity issues would not be a concern for universities provided they did not violate state or Federal anti-discrimination legislation. The aim of unfettered market based higher education policy would be to allow competition and market forces to determine course mix, standards, fees and internal management configuration of universities, and to 'drive to the wall' any universities unable to compete, for whatever reason. In an unfettered market economy, universities would have complete autonomy from government. In the sample documentation, the university best positioned in market terms, the 'Sandstone' university, mentioned the opportunities offered by market
policies for the university to become more autonomous from government. In an unfettered market model, students (or industry if for industry-funded student places) might potentially have a quasi-customer relationship with universities, provided it did not interfere with the educational relationship required to realise the intended purposes of higher education.

A market model of education legitimates only a limited role for government intervention in universities, and in an unfettered market model, there would be no place for mandatory government quality management systems. The government role would be limited to consumer protection issues and enforcement of anti-discrimination legislation and perhaps as a provider of student loans or grants. The main thrust of Australian government policy uses universities as drivers of economic growth and social development, and these purposes are not compatible with the idea that universities should primarily satisfy the desires of their student customers, nor is it compatible with the minimalist concept of universities as private institutions. Thus, ultimately a market model of education denies the legitimacy of government intervention in higher education policy, even though it serves government policy to appear to support full marketisation of higher education when governments want to provide justification for policy that requires students to pay more towards the cost of their education. Perhaps this realisation prompted the government’s assertion that the government did not envisage universities operating in an unfettered ‘market’ model.

By contrast, in a managed or ‘command’ economy, government policy for higher education specifies what mix of awards it will fund according to its policy priorities, and accepts responsibility for allocation of sufficient funds to universities to provide specified programs to specified standards. Universities admit suitably qualified students, and the government sets the level of permissible fees. The aim of the command economy is to avoid wasteful competition between universities and to ensure the desired mix of graduates. Government can choose to prioritise access by equity groups, or local provision of university education in regional areas, where the ‘market’ would not normally support a university. In a command economy model, government influence is legitimised through the government’s role in provision of the necessary resources to universities and by appeal to the public social and economic benefits of universities that accrue to the nation. In a command economy neither students nor industry are able to be customers, for the reasons argued in answer to Q2. The managed economy model is
compatible with the government’s social and economic purposes for higher education, but not with the government’s broader political ideology and objectives.

In the public sector variant, reflected in the documentation sampled, the government manipulated the education pseudo-market ‘at a distance’ and used the quality management system as a means to enforce compliance by universities, as previously described by Vidovich (2001). In the sample documentation examined, government documents gave mixed messages to universities about the relationship between universities and markets. For example, government commitment to full marketisation of higher education was implied by quotes where students were referred to as customers (or implied to be customers because of the meaning attributed to data). This contrasted sharply with the explicit claim that government did not support a policy of unfettered markets for higher education. Both university management and evaluators had fully naturalised the language of business and markets into their reports about higher education.

From the evidence found in the sample documentation, it appeared that the public sector variant in higher education meant that university management operated as if universities were fully exposed to market forces, while government used regulation to manipulate the higher education pseudo-market. This provided government almost as much control over universities as in a managed economy, but distanced government from responsibility for provision of adequate resources to universities. The Australian government has distanced itself from the claim that universities have legitimate expectation that government provide funds necessary for the provision of teaching that will maintain standards, by the removal of certain impediments to universities raising additional funds from non-government sources, through, for example, commercially funded research, student fees and commercial sponsorships for students. This tactic has divided potential opposition to government policy as, according to Marginson and Considine (2000) universities are differentially placed in their ability to raise funds from non-government sources. This has enabled the Australian government to retain control over decisions about what courses universities should provide, what universities charge students and how universities should relate to students and employers. It appears that Government policy has left all universities with responsibilities to prove that they ‘have maintained or improved standards’, but for universities with limited access to alternative sources of funding, university management has insufficient control to ensure the
necessary resources. For university managers, this generates conflicting goals that cannot be satisfied.

Marginson and Considine’s (2000) analysis of the affects of vertical differentiation in the Australian higher education ‘market’, predicted that the introduction of a ‘pseudo-market’ in higher education would not make the prestigious universities any more responsive to students or employers. They predicted it would drive down quality at the less prestigious end of the market as institutions competed on price. A comparison of the statements about markets found in the sample documentation, see Table 4.3c, lends some support to Marginson and Considine’s prediction. For example, the established public ‘Sandstone’ institution (where demand exceeds supply) stated that it sought to gain autonomy from government in order to fulfil its mission and maintain ‘quality’, while a newly established private institution without an established reputation, is seeking public support and hoping to woo potential students through ‘competitive pricing’ and the offer of attractive life-style options. Where demand exceeds supply, institutions will be able to choose to raise fees and/or make more fee-paying places available, as they are increasingly freed to set their own charges or take higher proportions of local fee-paying students. Less prestigious universities do not have that option and will only be able to compete on price or ‘lifestyle’. Less prestigious universities will have fewer resources and will be forced to teach students in larger classes with lower paid staff. A ‘university market’ where access is stratified by price will be created. This illustrates the tension between government policies that extend ‘market forces’ and government policies to promote equity of access to institutions. The findings of this research are consistent with Marginson and Considine’s prediction that in a vertically differentiated market quality policy would not make elite universities more responsive and would tend to drive down standards in non-elite institutions.

The sample documentation does not make clear how the government legitimates its right to manipulate the higher education market. One potential source of legitimation, the claim that government acts on behalf of stakeholders, should be rejected because analysis provided in Theme 2.3 concluded that government used stakeholders tokenistically, and government policy did not facilitate genuine representation of diverse external interests. The claim that government intervention is legitimated solely from the government contribution to university funding, as in a managed economy, may provide partial legitimation, although as the government contribution to university funding diminishes the legitimacy of this claim weakens.
(Note: since writing this, the two universities who have most ‘competitive advantage’ in
the Western Australian education market have made different responses to government
moves to give universities more control over fees and the admission of local fee paying
students. UWA, the ‘Sandstone’ university in this sample has committed to increasing
fees, but its academic board has recommended against an increase in numbers of fee­
paying students, thus maintaining its ‘exclusive’ position in the market that ensures
demand continues to exceed supply, whilst it expands income per place. The senate of
the UWA, however, overruled this recommendation and decided to offer some full fee­
paying places to domestic students. Murdoch University, the ‘Gumtree’ university, has
committed to making more fee-paying places available to domestic students, increasing
its overall income, but not increasing its per capita funding. Curtin, the ‘Unitech’ has
decided not to raise fees. Edith Cowan University, the ‘New University’, contrary to
expectation has announced it will raise fees to provide extra funds for teaching.)

Implications for research problem

The use of quality management has been pragmatically useful to governments because it
has permitted them ‘to steer at a distance’ without the commitment to funding implied
in a managed economy. From a neo-liberal perspective, however, the major problem
posed is how such intervention in higher education can be legitimated. The implications
of these themes for the research problem are that from a neo-liberal perspective it is
very difficult to justify commitment to centralised quasi-government controlled higher
education quality management systems, because of tensions between accountability and
small government, and because the higher education quasi-market undermines
government policy goals that value equity. The documentation is consistent with
Marginson and Considine’s assertion that quasi-markets are unlikely to make elite
institutions more responsive to external parties, and undermines one of the key claims of
supporters of neo-liberal quasi-market education policy. Implicit assumptions about
rights that give stakeholder theory credibility, are incompatible with the assumptions
about rights embedded in pseudo-market based capitalism, as discussed in Theme 3.3
and incompatible with the definitions of quality that are referenced to customer
preferences, see Theme 5.4. This implies that government cannot use representation of
stakeholders as a plausible legitimation of government intervention in university
management or as legitimation for the quality management system examined in the
documentation.
Research Question 4: Quality Measurement

Are the quality management methods adopted by Australian higher education adequate when assessed against established standards of educational evaluation?

a) What data is identified in the documentation examined, as indicative of ‘quality’?

b) Is the conceptualisation of quality consistent for different ‘quality indicators’, and consistent with the findings about the context of higher education, as found in Q2?

c) Is there agreement in the documentation about the interpretation of the meaning of data for quality?

d) Is there an adequate theoretical basis to justify the inferences about quality found in the documentation?

e) How are the difficulties of interpretation and representation of meaning identified in the evaluation literature reflected in the approaches to the interpretation of data reported in the documentation?

f) What evidence is there from the documentation of attempts to monitor unintended outcomes of quality management?

g) What evidence is there of holistic approaches to quality management?

h) What evidence is there of processes intended to ensure that intended outcomes are realistic within the resources available?

h) What are the implications of these findings for the research problem?

Overview of themes

Six themes emerged from the data collected for Question 4 about the measurement of quality in Australian higher education. The first theme examines the adequacy of the basis for data selection. The second theme examines the adequacy of the basis for data interpretation. The third theme examines evidence about comprehensiveness of the evaluation system. The fourth theme is concerned with holism. The fifth theme is concerned with representation of quality in Australian higher education and its potential usefulness to policy makers and politicians. The sixth theme provides a meta-evaluation of the adequacy of the evaluation processes adopted in the Australian quality management system.
Theme 4.1: Data selection

The worth of an evaluation depends upon the validity of the basis of decisions about the selection and interpretation of data for use as surrogates for quality, according to the literature on evaluation reviewed in Chapter 2. The choice of data selected by university management as surrogates for quality, was dominated by the performance data required by Federal government in the annual reporting portfolios/profiles, see Table 4.4b. The government intended the higher education performance measures to be measures of corporate efficiency and effectiveness in higher education. These included data on student retention and progress rates, data on student satisfaction and graduate destinations. Table 4.4b shows that institutions supplemented this core data with a small amount of additional data ostensibly selected because of its relevance to the institution’s unique mission.

The university ‘quality management’ plans of all universities in the sample, expressed their overarching mission and goals in terms of diverse educational purposes, and used the language of education see Table 4.1c. When university managers reported their performance measures, they selected ‘performance indicators’ and ‘quality indicators’ couched in the language of corporate quality management, see Table 4.4b. The language of corporate quality management tacitly imports assumptions about the primacy of business purposes and business relationships. The performance indicators in university quality plans read as if universities were fully part of the market economy. This shift from the language of education, which is concerned with human development, to the language of commerce, which is concerned with the profitable sale of products to customers and consumers, ‘commodifies’ higher education and has significant implications for validity in evaluation of education.

From a developmental perspective, education is a non-standardised developmental process, which is individually variable in speed of progress, where individual outcomes from the education processes differ in response to the interests, capacity and effort of the student, and which require commitment and effort on the part of both teacher and student. A good teacher is able to adapt sensitively both curriculum and methods to suit needs, interests, aspirations and abilities of individual students and different groups. The non-commodified visions of education persisted in many of the purposes of higher education valued by both government policy makers and university managers, in the documentation examined, see Table 4.2b. The performance indicators selected by universities, however, evaluated universities’ performance as if their central role was a
commercial one either of processing students or of satisfying student customers, rather than an educational one of provision of experiences and support to facilitate individual intellectual development.

One effect of increased 'commodification' of higher education is to centralise within the evaluation process, the importance of a small number of purposes of universities that fit with a commodified role for education, such as efficiency, cost per unit, speed of (student) processing, student satisfaction, and employer satisfaction. At the same time, commodification marginalises developmental educational concerns within the evaluation process. Many of the purposes of higher education depend upon variable developmental processes, which are elicited through a teaching relationship but not through a consumer relationship. The additional performance measures chosen by institutions to supplement the government performance measures did not remedy this deficiency. The additional data selected by university management appeared to be chosen to enable each institution to demonstrate superiority compared with competitor universities. For example, management at the 'Sandstone' university chose to collect data on the ability of the university to attract the best-qualified school-leavers. This university has traditionally been highly successful at attracting the best-qualified school leavers. The 'New University' chose to monitor the 'cost per graduate' of its programs, as this university has traditionally been highly successful in running efficient low cost programs.

The conclusions from this analysis are that the processes used for data selection have excluded data relevant to judgement about the 'goodness' of educational processes and have over emphasised data that evaluates universities according to commercial priorities rather than according to the developmental purposes of higher education. This deficiency introduces bias into the data selection process, seriously narrows the scope of the evaluation, adversely affects validity, and limits usefulness of conclusions of the evaluative process.

Theme 4.2: Data interpretation and meaning

Neither the university quality plans nor the government policy documents examined, offered theoretical justification for their interpretation of the meaning of the data. Only the quality review panels raised questions about the interpretation of meaning of data and the implications of data for quality, see Table 4.4c-h. Three of the data sources most commonly mentioned as 'quality indicators' have been examined more closely in this
research to determine what assumptions were made about the meaning of the data, and how meanings were justified in the documentation, see Tables 4.4c-e. The discussion that follows in this section will probe further the question of whether the meaning assumed in the interpretation of the data can be theoretically justified, even though such justifications were not offered in the sample documentation.

Data on student attrition and student progress was interpreted as if a high rate of student progress and low attrition, indicated quality. Quality was implicitly defined as either, efficiency of student processing, or success in satisfying students, which for validity would require the further assumption that only satisfied students progress and are retained, and that only dissatisfied students fail or leave prematurely. There is no adequate theoretical basis to support these assumptions and interpretations. Tinto’s (1993) theory of student departure is the most widely accepted theoretical explanation of student attrition (Braxton et al., 1998; Braxton, Milem, & Sullivan, 2000). Tinto’s theory claims that student departure has multiple causes, many of which are beyond the control of universities (Tinto, 1993). There have been many suggested adaptations, additions and modifications to Tinto’s theory over the years (see for example Baird, 2000; Braxton et al., 1998; Braxton & Lien, 2000; Braxton et al., 20000; Johnson, 2000; Kuh & Love, 2000; Laden et al., 2000; Rendon et al., 2000; St John et al., 2000; Stage & Hossler, 2000; Tierney, 2000; Tinto, 1993, 1998, 2000, 2001; Tinto & Riemer, 1998; Yorke, 1999b), but none of these would support the interpretation that student retention can be reliably used as an indicator of institutional quality (see further discussion and critique of Tinto’s theory in Appendix 2, Cooper, 2002e). There is no theoretical justification that supports the simple equation of student retention or student progress rates with educational quality. Research rejects the proposition that non-completion means that there has been no academic gain for the student (McInnis, Hartley et al., 2000), and rejects the assumption that non-completion indicates poor teaching (McInnis, Hartley et al., 2000). There is no adequate theory that can link student non-completion with any coherent concept of institutional quality, even efficiency of student processing, because the factors that contribute to student attrition are agreed to be complex and many are not within the sphere of influence of the institution.

Interpretation of the meaning of the Graduate Skills Assessment test required the assumption that the quality of a course or institution can be measured by the quality of its student outputs. No justification is offered to support this assumption, which is taken to be self-evident. The test was proposed for use either as an ‘exit test’ to determine
individual graduate outcomes, or a ‘pre-test/post-test’ to assess the ‘value’ the university has added to the student through changes in their evidenced skill level. In both circumstances, students are treated as objects processed by universities to become ‘products’. Arguments against this position have already been discussed in Theme 2.3. Stufflebeam’s (2001) assessment of comparative merit of ‘exit tests’ and ‘value added’ tests concluded that ‘value added’ tests had greater merit than exit tests, because they ‘controlled’ some of the extraneous factors by measurement of change for each individual. The GSA test has not become widely used (Nelson, 2004, p25), because universities have been unwilling to fund the costs of a test that students do not want, and employers do not require the test. The government response to this is to allocate $270,000 to promote the test with employers (Nelson, 2004, p26), so that employers will then put pressure on universities to fund the testing and students to sit the test. Even if the test were widely used, it would not be easy to determine the quality of the educational experience offered by a university based on the test scores, for a number of reasons.

The test relies on singular test data to assess pre-test/post-test status of the student, and all tests using this method are open to the criticism that individual test scores are unreliable as a summative indicator of achievement of complex learning because of day to day variability in individual performance and the necessarily limited scope of a single test (Stufflebeam, 2001). Interpretation of meaning of the data is hampered because there is no way of separating what the student gained from their educational experiences at university from what they gained from concurrent other sources such as external life experiences, maturation, or from their own efforts despite the poor quality of the teaching and learning offered by the university. When the test is used as just an exit test, there is no way of knowing what the student already knew before initial enrolment. Equally, there is no way of knowing the degree to which the student engaged with the learning experiences offered by the university, whether the student studied hard, attended lectures, read material made available by tutors or used the university library. The pre-test/post-test arrangement does not overcome these latter difficulties, although it might indicate if a student has achieved generic skills prior to enrolment at university. See also Cooper (2002c) in Appendix 2.

In a quasi-market situation where more prestigious institutions recruit students with better initial academic foundation and more academic aptitude, and less prestigious institutions recruit students with less academic foundation, student outcomes cannot
provide a valid measure of the quality of the educational experience. It may be that academically able students with good study skills will achieve good academic outcomes with minimal teaching or even poor teaching. Less able students or those who lack an academic foundation will need more intensive and better teaching and support to achieve lesser outcomes or even to achieve any small gains (Coaldrake & Stedman, 1998). There may be significant differences in students' intrinsic motivations to study. Some students are highly motivated to study and complete the readings and study hard even with indifferent teaching. Other students attempt only the minimum required work with minimum effort, fail to attend lectures and tutorials and fail to make use of library and other reference facilities.

If students enter university with good academic generic skill, there is less scope for them to demonstrate great improvement on a pre-test/post-test (Stufflebeam, 2001). (Does this mean some students do not need university education, if the purpose of the test is to assure minimum academic competence?) If the purpose of university education is to ensure only that all graduates achieve a certain minimum level of competency in generic skills, as tested (quality defined as student product meeting minimum specification), then the test can assure this. It would have to be recognised that students would reach this level at different speeds depending upon their previous experience, aptitude and application. This presumes a much narrower concept of the purposes of higher education than the ones to which either the government or the universities explicitly committed themselves, and a concept of quality that does not imply excellence. This position has an interesting implication for policy. Those institutions who recruited the students with the lowest entry scores probably require the greatest funding support for teaching to achieve minimum graduate outcome requirement because their students are likely to require more intensive learning support and have further to go academically than students who enter with higher scores.

For the Course Experience Questionnaire/student unit evaluations, see Table 4.4e, the standard interpretations of meaning equated high student satisfaction scores with quality. This interpretation taken uncritically requires the presumptions that the primary purpose of higher education is to meet students' expectations, and this requires the presumption that students have a customer relationship with universities, where quality is defined as meeting or exceeding customers' expectations. These assumptions are not consistent with explicit statements found elsewhere in the majority of documents.
examined. Only one of the documents in the sets examined referred to students as customers, see Table 4.2d.

Even McInnis (1998) who argues that student feedback is a good measure of teaching quality has some reservations about the ability of students to judge the content and relevance of what is taught:

There are some consistent conclusions from the research suggesting that students are fair and reasonable judges about the quality of teaching they experience. Students are able to comment fairly on such matters as the extent to which academics appear prepared for classes, communicate clearly, or give timely and useful feedback on assignments. Undergraduate students are not in a very strong position to pass judgement on the content or relevance of the course (McInnis, 1998, p1).

There are some reasons for caution in acceptance of even this restricted interpretation of the meaning for quality of data about student satisfaction and not all writers agree with this position, (see Emery, Kramer, & Tian, 2003). Emery, Kramer and Tian (2003, p41) cite an example where student evaluation rated a lecturer as ‘below average’ for punctuality even though the lecturer had arrived five minutes early for every class. They provide another example where a lecturer is on campus 90 hours a week and available for consultation, but received a below average rating for availability to students (Emery et al., 2003, p41). (Note: this number of hours seems unusually high, and the authors do not explain the circumstances)

In Question 2, it was argued that education differs from commerce in significant ways that affect the interpretation of the meaning of data for quality. One argument against the use of student satisfaction as a measure of educational quality rests upon the assertion that even when students know what their goals are, they do not always have accurate knowledge about what they need to do to achieve their goals. The significance of this difference turns upon the difference between education, which requires active engagement of the learner, and commerce, which assumes that customers have an essential passive role as consumers. The significance of the active role of the learner becomes apparent in the following example.

A survey of students in the UK, Marton et al., (1997) found that some students had purely instrumentalist motives for enrolling in higher education. They wanted credentials that would provide access to good jobs. It cannot be presumed, however, that these students necessarily had an accurate understanding of what they needed to know to gain the credentials they required, or adequate knowledge of the time and effort
required from them to enable them to succeed. Nor can it be assumed that they necessarily wanted to expend the requisite time and effort in study. In other words, students do not always have an accurate understanding of the ‘means-ends’ linkages between what they want and what they need to do to get what they want, even when they have a clear idea of their goals. In this example, a university may offer a well-taught, interesting and appropriate course leading to the desired qualification, but students may be dissatisfied if they are unwilling or unable to put in the effort necessary to meet the requirements. Marton et al. (1997) also found student ‘wants’ frequently change over time in response to education. The implication of this is that what students want may not be what they need to achieve their self-identified goals, if their knowledge of means ends linkages is inaccurate. In a ‘passive’ customer relationship, this problem does not apply. Stufflebeam (2001) cautions against over-estimating the credibility of stakeholders as informants, and where students lack accurate understanding of means ends linkages, this caution is apposite.

There has been a debate in the literature on student evaluation of lecturers, about whether students ‘penalise’ lecturers who give them lower grades or fail them, by attribution of blame to the lecturer, and the submission of a negative rating of the lecturer’s teaching ability, and this concern is aired in the evidence received by review panel, DDS3a, see Table 4.4e. Others argue that students do not ‘punish’ lecturers provided lecturers are ‘realistic and fair’ (McInnis, 1998, p2). Even if this is correct, lecturer assessment behaviour is affected by lecturers’ belief about whether students will punish them (see for example the quote in Table 4.4e DDS3a), and may be independent of whether or not students actually punish lecturers in their evaluations. There would be a perceived incentive for lecturing staff to give (some?) students higher grades or pass students who otherwise might have failed, if lecturers believed that they had to give students better grades for their work in order to receive favourable evaluation from students. This would be especially true if favourable student evaluations became important to evaluation of staff teaching performance and future employment. If this occurred, it would undermine ‘standards’ whether conceptualised as ‘absolute’ or as ‘fitness for purpose’. Data from the USA indicates that over a 20-year period ‘grade creep’ has occurred (Edwards, 2000), that cannot be explained by the changed characteristics of the students or their work. The authors suggest this has occurred to protect students’ self-esteem. Evidence of ‘grade creep’ suggests rejection of the belief that there are absolute international standards maintained over time, but may be a
consequence of more widespread use of student satisfaction instruments as a measure of teaching quality.

CEQ scores are aggregate scores of student satisfaction. It is unclear how the findings about unit evaluation apply to this measure. It might be assumed that the potential for inappropriate influence of student assessment is weaker where CEQ evaluation is used than where unit evaluations are used, because it is more difficult to relate this data to individual lecturer performance. Any rewards or punishments either individual or institutional, or gain or loss of individual or institutional reputation based on student satisfaction data, however, carries potential risks that assessment processes will be undermined. See Theme 5.3. No investigations have been found that evaluate the potential of CEQ data collection to influence institutional assessment processes.

To summarise, two of the three quality measures were interpreted as if, firstly, they were indicative of customer satisfaction and secondly as if, students were customers. The second of these assumptions is not consistent with the explicit claims of most of the sample documents, and especially the recent documents. In recent documents, students were assumed to have a stakeholder relationship with universities. If students were considered as stakeholders, rather than customers, then the interpretation of the significance of the data would change. For example, if universities were assumed to have a stakeholder relationship with multiple ‘partners’, student satisfaction could not be assumed to be a primary purpose of universities, because in some instances the interests of other stakeholders might be more important than the perceived satisfaction of students. For example, Atherton (2002) argues that for professional courses the protection of future clients must take priority over satisfying the wants of students. If this were the case, it would sometimes be the professional duty of those teaching a course to disregard the wants of some students. Interpretation of the significance for quality of CEQ and student evaluation would have to change. High levels of student satisfaction might even be interpreted to suggest over-responsiveness to students and failure on the part of staff, to respond adequately to their duty towards other stakeholders. Similarly, because some student attrition, or delay in student progress, may be required at times to protect the interests of other stakeholders, see Atherton (2002), evaluators might seek to ensure that the interests of parties other than students were adequately protected, in courses with unusually high rates of retention or very low rates of failure. Thus, it is argued that attrition rates and rates of student progress cannot
be used as indicators of quality in isolation from information about contextual factors and the processes by which retention or progress was achieved.

The literature reviewed in Chapter 2 noted that issues of internal validity of the data collection instruments had been well scrutinised, but issues related to development of an adequate theory base to guide the interpretation of meaning of the data, had received inadequate attention. In the sample documentation, no discussion was found of the adequacy of theory to guide interpretation of meaning of data for quality, so this research is consistent with the earlier observation. Data was apparently interpreted as if universities were businesses that had commercial relationships with students and industry. No evidence was found of consistent use of models other than customer-business models to guide the selection of data, or interpretation of the meaning of data. When business models were applied, however, they were not applied coherently. The discussion in Q2 about students show that they are referred to as both customers and products, and there was no indication in the documentation of awareness of the difference between different restricted technical meanings of quality, which each have different significance for meaning of data, see discussion in Q1. There was no evidence in the sample documentation of influence of advice found in the literature on educational evaluation.

The conclusions from analysis of the documents reviewed were that inadequate attention had been paid to issues of validity in the interpretation of the meaning and significance of data when making judgement about quality. For all the standard measures examined in detail, there was either theoretically inadequate interpretation of meaning or the interpretation assumed purposes of higher education or student roles that were inconsistent with explicit statements about the purpose of higher education and the relationship between universities and students. This is a serious shortcoming, as Reed (1995) identified that poor data interpretation was a leading cause of poor policy and Repenning and Sterman (1997), discussed in Q5, provides examples of how poor data interpretation adversely affected quality management programs in industry.

**Theme 4.3: Comprehensiveness**

In the literature in Chapter 2, several writers mentioned the importance of monitoring unintended outcomes (for example Ison, 1999; Stufflebeam, 2001; Wholey, 2001) and the importance of a holistic approach to evaluation (Ison, 1999). The documentation provided evidence of limited intention to monitor unintended outcomes of policy
interventions, see Table 4.4f. Government policy indicated intent to monitor equity, diversity and sustainability outcomes as part of the reporting process, in addition to the goals purposes of individual institutions. This policy post-dated the university quality plans in the sample. Several other areas of concern have been raised by recent research into Australian higher education but have not been monitored. These include concern about a decline in student engagement (McInnis, 2001), concern about decline in staff job satisfaction and increased stress (McInnis, 2000; Winefield et al., 2001), and concern about the effects of increased student poverty (Turale, 2001), and adverse effects of increased need for students to combine study and paid employment (McInnis & Hartley, 2002). A minimum requirement for a comprehensive approach to evaluation is that it should gather data about all issues already identified by credible research as potential unintended adverse outcomes. The conclusion is that the Australian higher education quality management system, from analysis of the sample documentation, does not promote comprehensive evaluation. It is narrowly focussed on a few sources of data about outcomes, the selection and interpretation of which are strongly influenced by the political requirements of the Australian government, in its role of (partial) funding provider and does not provide an adequate picture of quality independent of contextual factors.

A comprehensive evaluation examines not only the adequacy of outcomes, but also adequacy of the process by which the outcomes have been achieved. This avoids the situation identified by Stufflebeam (2001) where some evaluation methods encourage service providers to use unsound processes to apparently achieve the measured outcomes. Repenning and Sterman's (1997) research into failure of quality management in industry, discussed in Q5 concurs with this finding, and Tierney (1999) recommended that in higher education it was important to evaluate not only the outcomes achieved but the adequacy of the means of their achievement. The performance measures found in the university quality plans reflected the government's preference for easily collectable numerical data, which was not comprehensive.

**Theme 4.4: Holistic evaluation**

Wholey (2001) asserts that program evaluations are 'systemic studies', that because of their greater scope, can provide a more complete, accurate and credible picture of program performance than the 'rough sketch' provided by annual performance measurement. He suggests that program evaluation unlike performance measurement, can examine program operations, can assess 'hard-to-measure' outcomes and can
identify external factors that contribute to, or inhibit program success. Ison (1999) argued that a holistic approach to higher education policy would provide useful insights into higher education policy, and would offer an alternative view to the dominant discourse in the UK based upon the Dearing report, and in Australia as described in the West Report, which he described as:

Driven by narrow theoretical perspectives which focus principally on economic efficiency (i.e. competition) and instrumentalism. This is exacerbated by inappropriate conceptions of learning, information and the role technology might play in enhancing learning, as opposed to delivering content. (Ison, 1999, p108)

In the sample documentation, the selection of data used as quality indicators was narrowly drawn, see Theme 4.1, and not comprehensive, see Theme 4.3, and was interpreted based upon ‘inappropriate conceptions of learning’, see Themes 2.2 and 4.2. The quality review panels both complained that the terms of reference for their report were too narrow because they did not permit the panels to report on matters concerned with the adequacy of resources, see Table 4.4g. in Chapter 4.

The sample documentation did not provide any indication of how the Australian government had assessed whether the intended policy objectives were achievable by all institutions within the financial constraints set. An important part of the evaluation process is to ascertain that goals are realistic. In the Australian higher education quality management system for the period examined, university managers had responsibility for setting the institutional goals, but Federal government set the level of funding support for teaching and stipulated that courses offered should be to national and international ‘standards’. Thus although university managers had some scope to modify their intended goals in the light of the resources available to them, they did not have control over the parameters within which the goals were set, which were determined by Federal government. There was no evidence from the sample documentation that Federal government policy makers had made exhaustive ‘reality checks’ to assure themselves that funding levels were adequate for all institutions to be able to set realistic goals within the required parameters, despite differential access of institutions to additional sources of income.

Marginson and Considine (2000) indicated from their policy analysis that the ‘New University’ sector of Australian higher education was most vulnerable to loss of quality as a result of Australian government higher education fiscal and other higher education policies. The reasons for this are that the ‘New Universities’ have not had opportunities
to build and consolidate resource and funding bases in the period when universities were more generously supported from public funds. University management has responded to changes in higher education policy and has implemented organisational change in responses to the higher education quality management system. Higher education policy designed at a macro level has both intended and unintended outcomes when university management responds to policy at a micro level.

The qualitative systems diagram illustrates the potential use of a more holistic approach to the evaluation of ‘quality’ in Australian higher education. The exploratory diagram presents a ‘mental model’ of the combined affects of higher education policies on goals and roles for academic staff and students in a part of a ‘New University’, and the implications of this for managerial ‘mental models’ of organisation. The response of university management to reduced university budgets for teaching has been to seek ways to reduce teaching costs, as the university, because of its quasi-market position, has very limited access to non-government sources of government funding. The cost-saving measures taken included: increased use of casual staff for teaching, reduced teaching time per course, and increased class sizes. University management has also incorporated government ‘quality surrogates’ into its internal performance management, promotion and awards systems, presumable to encourage staff to align their teaching practices to achieve high scores in the data gathered by standard government performance management instruments. Figure 4.4i uses qualitative systems diagramming to present a more holistic mental model of the dynamic relationships between changes to higher education policy, university management strategies, and changes to staff/student roles in a ‘New University’. No claim is made that this is the only way that these relationships could be represented. All models are simplified representations of reality and depend upon the assumptions of the model maker and the criteria used for boundary decisions, that determine what to include and what to exclude (Sterman, 1991, 2002).

The diagram illustrates that in this part of a New University, several unconnected changes have contributed to increase teaching difficulty, including: increased class size; increase student diversity; the use of student satisfaction as a primary measure of teaching quality; and an increased likelihood that students believe they have a customer relationship with university staff. At the same time, the quality management system has increased the number of competing goals that academic staff must satisfy. Changes to the organisational management and reward systems mean that non-teaching duties have
expanded, and compete for the time of academic staff. Repenning and Sterman identified goal conflict in the work force as a significant cause of failure in quality improvement systems, see Q5. For students, the changes also have the potential to establish conflicting goals. Students are under greater pressure to undertake paid work, because of less financial support, and they have been encouraged to believe that they are customers, because they are contributing more towards the cost of their course and because relationships in higher education are implicitly presented as if they are based upon business relationships. This produces role conflicts for students and both role and goal conflicts for academic staff.

Time was identified as the key resource over which academic staff and students could exercise some power, through their power to decide how to allocate their own time between the different tasks that comprised their role, and through their capacity to decide how to prioritise those demands. For academic staff the nature of the pressures culminate to encourage them to:

- **Seek ways to reduce time spent on teaching related duties** (and time spent by students, if possible), **whilst maintaining student satisfaction**. If students did not object, this could be achieved through lower expectations of students, and demands for less written work or written work that is easier to mark. This option has implications for ‘academic standards’, for the integrity of the teaching and learning processes, and for the nature of the teaching and learning relationship between staff and students, and reverses the relative priority in teaching between student development and student satisfaction;

And/or

- Maintain their previous academic practices and expectations, and accommodate new demands by increasing the total numbers of hours worked. This has implications for long term well being and burn out;

And/or

- **Focus on teaching at the expense of research and career advancement**. This strategy has implications for personal career development because retention and promotion depend upon good performance in both teaching and research.

The reward system for individual lecturers was constructed so that their ‘teaching quality’ was measured primarily in terms of student satisfaction with their teaching.
'Research quality' was measured primarily in terms of output of refereed publications and the quantity of research funds attracted by the individual. Promotion decisions depended upon the ability of the lecturer to demonstrate high levels of performance in both teaching and research, as measured by these criteria. In addition, staff had to demonstrate that they had undertaken administrative roles and performed 'community service'. Students are also differentially affected by changes to higher education policy, according to their circumstances. Some students are relatively unaffected because their parents have absorbed the additional costs, including fee rises. Others work at several jobs to survive financially.

The model assumed that both academic staff and students would make individual choices about how they respond to the pressures, so the diagram is not deterministic about how the pressures identified conceptually would translate into outcomes. The issue of agency and individual choice in response to pressures is one of the more problematic aspects of quantitative modelling (Sterman, 1991, p12). The decision-making situations in this diagram typify this problem. Outcomes depended upon the exact combination of decisions made by individual members of both staff and student groups. Decisions made by some individuals may compensate for, or aggravate the consequences for other individuals and influence their choices, like a complex version of the 'Prisoner's Dilemma' (see Honderich, 1995, p719). For example, if all staff teaching a program decide to prioritise teaching at the expense of their self-interest (which requires them to demonstrate prolific research output), quality of teaching may be maintained or even improved. This will only achieve good outcomes for students, however, if students prioritise their studies and engage with the teaching and learning experiences offered. If the students taught are too tired to engage in their studies because they have given priority to paid work, the altruistic attitude of the staff will not produce benefit to the students, and student outcomes may even decline. Similarly, if some staff prioritise their self-interest and put more of their time into research at the expense of their teaching, this may increase pressure on other staff teaching in the program who may feel obliged to compensate for the lack of attention to teaching of their colleague(s).

The manner in which individual staff choose to respond to the changed pressures is not straightforward and would depend on the differing values-judgement made by individuals as they weighed their beliefs about the integrity of their work against their beliefs about their self-interest (any of which beliefs might themselves be erroneous).
Students' choices about how they responded to changed pressures would also depend on their values and their circumstances, including the degree to which they were exposed to or protected from, financial pressure, whether their priority was learning or certification, and what judgement they made about whether they, or their teachers, were responsible for their learning or their failure to learn.

The tensions identified in this particular diagram will not be the same in all institutions for the reasons to do with differential market placement identified by Marginson and Considine (2000), or even in other parts of the same institution, as different parts of organisations are differently exposed to, or sheltered from, the impacts of policy. Similarly, the affects of government policy on individual students will be mediated by their circumstances and by student values and choices. The tensions mapped in this diagram are significant, however, for two reasons. Firstly, they are consistent with aggregate data about increasing staff stress (McInnis, 2000; Winefield et al., 2001) and about decreased student engagement (McInnis, 2001). Secondly, the diagram illustrates the importance of consideration of how disparate government policies can act to undermine intended policy goals in ways not envisaged by the developers of individual policies. Similarly, reactive university management strategy can produce cultural pressures within an organisation other than those intended by university management. According to some writers in management, for example Repenning and Sterman (1997), one reason that managers are not always aware of adverse interactions of policies or unintended outcomes, is that their mental models lead them to misinterpret what is happening within the organisation. This is especially likely when events in one place have effects that are not contiguous in space or time and when managers fail to question adequately their prior assumptions or models about how organisations function. One reason why several management writers (Repenning & Sterman, 1997; Senge, 1992) suggest a systemic perspective on organisations is that it makes it easier to identify interrelationships and tacit assumptions in mental models of complex organisations.

This analysis concludes that there has been no attempt to monitor the impact of quality management processes on the functioning of internal universities’ systems, even though the research of Repenning and Sterman (1997) indicates that in commerce it is important to monitor how quality management systems affect organisational practices. Whilst the documents indicated that individual universities had plans to monitor different unintended outcomes, such as the type of applicant attracted to the university, in addition to the required government data, there was no evidence that any individual
universities comprehensively monitored unintended outcomes or approached evaluation holistically. The best evidence that the approach taken was not holistic is provided by the extensive reliance on poorly justified but easily collectable quantitative data for use as indicators of quality (Chun, 2002), an approach that militates against a holistic approach to quality management.

Theme 4.5 Representation of quality

Commentators, (for example W. S. Reed, 1995; Yorke, 1999b) on quality in higher education have noted that it is very difficult to find methods to assess higher education and allow meaningful comparison of institutions and programs independently of contextual factors. One rationale for quality management in Australian universities is that the audit reports will provide information that will be useful to policy makers, university management, students, parents, employers and other interested parties involved in students’ decision-making about higher education and employment of graduates. To achieve successfully the purpose of provision of useful and meaningful information, the meaning of data must be theoretically sound and precisely interpreted, issues of representation must be addressed scrupulously, and the evaluation must be sufficiently comprehensive in its scope to represent fairly the differences in processes and the contextual reasons for differences in outcomes. Without this level of precision evaluations are more likely to mislead than accurately inform external parties, especially if data is selectively chosen for public relations purposes to provide an unbalanced report that tries to omit data that might be perceived unfavourably (Stufflebeam, 2001). The analysis here suggests the current evaluation process that claims to assess ‘standards’ and outcomes is too narrow, see Theme 4.1, not well founded theoretically, see Theme 4.2, not sufficiently comprehensive, see Theme 4.3 and 4.4. The conclusion is drawn that the quality management system as described in the sample documentation does not have the features necessary to provide policy makers and the public with information that will enable them to make reliable comparisons between courses offered at different universities. The quality management system described risks becoming a ‘public relations’ pseudo-evaluation exercise, where the intention of all parties is to mislead the public.
Theme 4.6 Meta-evaluation of the Australian higher education quality measurement system

Stufflebeam (2001) assessed the validity of twenty-two different approaches to evaluation, as discussed in Chapter 2. In the sample documentation, see Table 4.1c, the evaluation methods described prioritise accountability over process improvement. As discussed in Q3, the system of quality management adopted in Australia has two separate purposes of evaluation. The first purpose is concern with auditing the adequacy of, and compliance with, quality management systems that universities have put in place. The second purpose is concerned with evaluation of the outcomes and assessment of standards achieved by universities in teaching and research. The sample documentation clarifies that the government intends to assess university teaching by the quality of ‘outputs’ rather than the quality of teaching inputs or processes or an integrated evaluation of inputs, processes and outcomes. In the context of Australian higher education, participation in the quality management system is required as a condition of access to government funds, and an adverse evaluation has adverse consequences for the reputation of the institution and may have adverse consequences for future government support.

Stufflebeam (2001) describes and evaluates two approaches to evaluation that focus primarily on accountability. The ‘Improvement/decision-making accountability’ approach gathers comprehensive data, focuses on issues of greatest importance to stakeholders, and uses this to improve organisational decision-making. The ‘Accountability/payment by results methods’ of evaluation where accountability is defined in terms of performance on narrowly conceived measures determined by the funding body and enforced as a condition of payment. The evaluation system described in the documentation, see Tables 4.1c&d, 4.4b, has the structural features of the approach Stufflebeam (2001, p18-20) describes as ‘accountability/payment by results’ approach.

Stufflebeam (2001) judges that the accountability/payment by results approach to evaluation is one of the less satisfactory evaluation methods (he calls it a method of quasi-evaluation) but that in circumstances where goals are clear, the accountability/payment by results approach may be acceptable as an evaluation method. The disadvantages of the accountability/payment by results approach as identified by Stufflebeam (2001, p20) are that it:
• Encourages unhealthy competition between service providers;
• Focus on unjustifiably limited outcome measures;
• Often makes use of inadequately developed and tested rubrics;
• Encourages ‘cheating’ by service providers; and
• Supports ‘bad teaching’ to achieve good results as measured by the rubrics.

Repenning and Sterman (1997), in their studies of failure in quality management, also cautioned against the use of numerical metrics, because workers faced with conflicting goals, focused upon appearing to achieve whatever was measured rather than upon improving the underlying process or product. This is discussed more fully in answer to Q5. Chapter 2 of this thesis concluded that in Australian higher education, both purposes and methods were contested because of fundamental ideological disagreement about values, and these circumstances do not match well with the requirement of this evaluation method for clear uncontested goals.

An alternative, more cynical, possibility is suggested by the some of the discussion in answer to Q3 and Q4. One of the rationales for quality management was that it was required because it was necessary to reassure domestic and international students about the quality of Australian higher education in the face of publicly expressed concerns about reduced resources. This might support the view that there is significant reason for the Australian higher education quality management system to become an exercise in ‘ideological marketing’ or a form of ‘public relations evaluation’. According to this interpretation, under the quality management system described, the Australian government invites, or coerces, university management to collude in the presentation of selective data to reassure overseas and domestic students that standards have been maintained or improved despite cost-cutting. Stufflebeam (2001, p15) judged the ‘public relations’ approach to evaluation as a ‘pseudo-evaluation’, as unsound and not justifiable in any circumstances, and always invalid because of its primary intent to deceive.

The conclusion of this section is that, at best, the overall approach to evaluation, as reflected in the sample documentation, is one that has limited merit and significant disadvantages, and is unsuited to the circumstances of Australian higher education, because of contested values about goals. At worst, the approach to evaluation, as implemented, is invalid because its intent to deceive.
Implications for the research problem

Because of the number of themes that relate to question four, a summary is provided before the implications are discussed. A comparison between the descriptions of quality measurement methods used in Australian higher education and good practice as described in the literature on educational evaluation indicates that the practices, as described, do not conform to the standards of good practice, for the following reasons:

- The approach to evaluation used appears to be at best, what Stufflebeam describes as accountability/payment by results, or at worst a public relations approach;
- The accountability/payment by results model of evaluation although popular with politicians is judged by Stufflebeam to be one of the less reliable methods of judging the merit of a program because the questions it asks are too narrow, and the selected data does not provide a comprehensive picture of the program;
- The public relations approach is judged by Stufflebeam to be completely invalid because of its intent to mislead;
- The interpretation of the meaning of data is not guided by adequate theory;
- The interpretation of the meaning of data is too narrow to be consistent with the intended goals of higher education and inconsistent with existing research about higher education;
- Evaluation of unintended outcomes is insufficient to have confidence that there are no unintended adverse consequences of quality management practices;
- Evaluation is neither holistic nor sufficiently comprehensive to provide balanced information useful to external parties or to policy makers;
- There is no evidence of process within the evaluation methodology to ensure that the intended government policy (or university management) goals are feasible within the resources available;
- Although students cannot be conceptualised as the customers of universities, two of the most commonly found performance metrics are interpreted based upon the tacit assumption that students have a customer relationship with universities and that the quality of the university program can be gauged from how well universities satisfy and retain their student customers;
• There is a lack of congruence between the business relationships model assumed in commercial quality management methods and the educational relationship required to achieve the intended purposes of higher education.

The implications of these deficiencies for the research problem are that the ‘proxies’ by which ‘quality’ is being judged are not adequate and are likely to mislead both the public and policy makers. The use of faulty measures undermines one of the main rationales used to justify the Australian university quality management system, that it provides useful information to external parties including ‘stakeholders’ and policy makers. The differences between the types of relationships appropriate to effective achievement of educational goals and the types of relationship appropriate to the achievement of commercial goals means that the use of methods developed for the commercial context mislead when applied in an educational context.

Three of the common ‘quality indicators’ were examined to identify implicit conceptualisation of quality and the availability and adequacy of theory that would guide interpretation of meaning of data for quality. All were found to be either theoretically inadequate as indicators or to require assumptions about the purpose of higher education or the nature of the student role that are inconsistent with explicit statements about the purpose of higher education and the required relationship between universities and students. The conclusions for the research problem are that the findings of the research presented in this thesis indicate that the methods described for quality measurement in Australian higher education are dangerously inadequate.

**Research Question 5: Commercial Quality Management methods**

How has existing research about efficacy and failure of quality management practices found in industry, affected policy and practices for quality management in Australian higher education?

a) What commercial ‘management advice’ is reflected in quality management documentation in policy, strategy and program evaluation in Australian higher education, and how has it been adapted to the context of higher education?

b) What claims are made about the effectiveness of quality management measures?

c) Is there evidence in the documentation of awareness of the research on effectiveness and modes of failure of commercial quality management methods in industry?
d) What are the limitations of applicability of commercial quality management methods because of differences in context?

e) What are the implications of these findings for the research problem?

Overview of themes

Four themes emerged from the questions about quality management practices reported in the sample documentation.

Theme 5.1: Quality management advice and universities

The literature on quality management reviewed in Chapter 2 indicated that management theory was sharply divided according to its ‘paradigmatic’ assumptions and that, since the 1970's, management advice has been prone to ‘fads’. In the sample documentation, several sources of commercial quality management advice evidenced, see Table 4.5b. ‘Benchmarking’ was the most commonly cited commercially derived single management method, although opinion was divided upon the usefulness of the technique in the context of quality management in Australian higher education, as indicated in Table 4.5b. In the literature on quality management in industry, benchmarking is most frequently referred to as a technique that enables firms to learn from other firms how to improve their organisational processes through careful examination of the methods used in other organisations undertaking similar tasks. Within Australian higher education, the ‘Benchmarking Manual’ provided to universities by the government identifies three different purposes for benchmarking:

- It provides senior staff with tools to ascertain performance trends in the university and to initiate continuous self-improvement activities. Second, it is sufficiently well developed for use by groups of universities wishing to compare performance on all or some of the areas covered. Third, some of the benchmarks can be used by universities now to ascertain their competitive position relative to others. (McKinnon et al., 2000, p1)

While the first purpose identified by McKinnon is similar to the dominant use of benchmarking in commercial settings, the second two, which are concerned with the use of benchmarking as a means of demonstrating ‘goodness’ or superiority compared with others, is not the dominant use found in the commercial literature. In the sample documentation, see Table 4.5b, benchmarking was presented primarily as if its most significant purpose was as a means of comparing outcomes between institutions. In this context, one of the panels recommended the use of benchmarking to demonstrate standards; the other panel rejected the validity of benchmarking as a means of demonstrating standards because the panel judged that benchmarking such activities
was problematic. This type of technical usage of benchmarking, as a means to support claims to superiority rather than as a means of facilitating learning from the practices of others, is not consistent with the underlying philosophy of quality management espoused by either Senge (1992) or Deming (Walton, 1989; Deming, 1993). These writers caution against the dangers of using numerical data to judge performance, as discussed in Chapter 2.

Other methods explicitly mentioned included use of the Australian Business Excellence Framework, and the use of techniques from Drucker’s (Pugh & Hickson, 1993) ‘Management by Objectives’. The Australian Business Excellence Framework, is explicitly based upon the concept of ‘stakeholders’ and customers and shares the problems with the application of both terms to Australian higher education, as discussed in the answers to question 2. Theoretically, the framework appears to draw most heavily on the work of Peters and Waterman, whose approach is aggressively atheoretical and not obviously directly transferable beyond the context in which it was developed, which was large American corporations. Deming (Walton, 1989) considers that techniques derived from Drucker’s work, such as management by objectives, are unhelpful to quality improvement because individual or departmental objectives set up internal competition within the organisation that undermines the culture of collaboration necessary for fundamental process improvement.

**Theme 5.2: Quality management and awareness of research into efficacy and reasons for failure in commerce**

There is no evidence in the sample documents of awareness of research into the reasons for failure and variations in efficacy of commercial quality management methods in industry; see Table 4.5c&d. According to the review of literature, Cameron and Sine (1999) identify four possible quality cultures in commerce: ‘absence of quality focus’; ‘error detection’; ‘error avoidance’; and ‘creative quality’. Of these, the least successful by normal commercial measures of profitability and share price, was the ‘error detection’ culture. The organisational cultures described in the documentation prioritised ‘error detention’ because of their focus on accountability rather than process improvement, see Tables 4.1c&d. The analyses of Repenning and Sterman (1997) suggests that there are behavioural biases against fundamental process improvement, and that unless management actively take steps to avoid these biases, attempts to manage quality become counterproductive, self-defeating, and fail. From their research, they identify a number of ‘indicators’ of likely failure. Analysis of the sample
documentation, summarised in Table 4.5e, provides *prima facie* reasons for believing that quality management, as implemented by the Australian government and universities, has features that were associated with self-defeating practices of quality management, in Repenning and Sterman’s (1997) research in industry. The evidence presented in documents examined suggests there has been an uncritical assumption that quality management methods based upon error detection are effective, even though this optimistic and uncritical assumption is not supported by research into quality management in industry.

**Theme 5.3 Applicability of commercial findings on efficacy and failure to higher education**

The documents examined provide *prima facie* evidence that the quality management process in Australian universities, as reflected in this documentation, has characteristics that make it self-defeating according to the findings of Repenning and Sterman’s (1997) research in industry. This section now examines in more detail whether there are grounds for believing that Repenning and Sterman’s (1997) findings are applicable to Australian universities, by examination of the evidence in the documentation in the context of what is known about the Australian higher education system from the review of literature. Key indicators of the managerial approach taken to quality management (Repenning & Sterman, 1997), included whether:

- There was simultaneous pressure to increase throughput and a desire to create a ‘virtuous cycle’ of improvement;
- Managerial behaviour was characteristic of fundamental bias against improvement;
- There was evidence of managerial misattribution of causes of low throughput;
- There was evidence of increased managerial surveillance and control;
- Processes established conflicting goals and encouraged erosion of standards.

This section examines whether these key processes are applicable to Australian higher education.

The first question turns upon whether ‘pressure to increase throughput’ is a meaningful concept in the context of higher education. It is possible to draw some parallels between the demands for industry to increase throughout and the pressures for universities to increase the numbers of students graduated from courses. The Australian government
has expanded the capacity of higher education (as measured by the number of student places at Australian universities) steadily since 1987 (Kemp, 1999a, fig 1.1). This has been achieved partially by expansion of numbers of university academic staff and buildings, but the rate of capacity expansion has been far less than the rate at which the throughput of students has increased. A significant amount of the increase in throughput of students has been achieved by increases in the number of students taught per full time equivalent academic member of staff. The ratios have increased from around 12:1 to 18:1 (Australian Vice-Chancellors' Committee, 2001c).

One argument in favour of fundamental process improvement is that if organisational processes can be changed to avoid the need for future rework, a virtuous cycle can be achieved whereby time that was previously expended on rework could be used to identify further improvements or to increase throughput. The assumption that improvement of processes reduces the rate at which problems are introduced ought in principle, to apply without problem to higher education. The concept of 'improvement' must, however, be interpreted in the context of the purposes of university education, which, it is been argued are more complex than simply ensuring a throughput of graduates. Research on student retention, as discussed in the previous section, and discussed in Theme 4.4, requires reconsideration of the assumption that more students will successfully graduate if a university improves its quality in teaching and learning, its administration and its student support, even though this might, initially, seem to be a plausible assumption. For example, in a low status institution, improved student teaching and support may mean that more students are able to transfer to more prestigious universities, and may even lower retention rates.

Rummel, Acton, Costello, & Pielow (1999) distinguished between desirable and undesirable student departure. Universities have made many changes over the past twenty years to try to reduce unnecessary student departure. Some universities have expanded their student support services and become more responsive to the needs and expectations of students (see for example, Poole et al., 2002). Course structures are more flexible (modularisation, facilitating part time and off campus study, opportunities for re-assessment, deferral and repeating failed units). More student support services (mainstream academic support and remedial help, academic advice enrolment and course transfer, counselling, disability support, specialised indigenous academic and cultural support, international student support, careers advice) are provided. These interventions are primarily intended to help students who might not otherwise graduate
to complete their courses and to improve their rates of subsequent employment. The university provides these services (at least partially) in order to increase the net throughput of (employable) students (the rate of student graduate employment is used as one of the proxies for measuring the 'quality' of graduating students). Within this analogy, these forms of student support might be classified as 'rework' to improve the throughput of 'quality' students. The overall outcome is that the numbers of graduating students have increased, the net throughput of students nearly doubled in the period 1988-1997 (Candy & Maconachie, 1997) and has grown faster than the rate of increase in employment of academic staff, as indicated by the changing staff: student ratios, discussed above.

What are the limitations of the analogy between manufacturing and higher education? The first and most obvious limitation is that students are not passive objects to be 'worked upon' and 'reworked' by the organisation, in the same way as product parts on an assembly line. They are actors who by their own choices can affect the rate of 'net throughput' independently of the efficacy of the education processes or the support (rework) they receive. They can 'hang in' and pass despite ineffective teaching and poor support, or fail or leave despite good teaching and high levels of support. McInnis et al. (2000) suggest that the quality of teaching is a relatively insignificant factor in student retention at university. Several studies on student retention confirm that student decision-making about whether to complete university courses or leave before completion, is both highly complex and individually variable. Many major determinants of university student retention and attrition lie in factors outside the direct control of universities, and even those variables within the control of university staff have disputed significance in their mechanisms and relative importance (Braxton & Lien, 2000; McInnis, Hartley et al., 2000; Tinto, 1993; Yorke, 1999b). Finally, sustaining 'graduate throughput' is only one of the intended purposes of universities. If universities are to retain academic credibility, the throughput of graduates should also reflect appropriate academic achievement by students. Expansion of student throughput must be balanced against the other purposes of universities, about which there is still some debate (see for example, Barnett, 1990; Claes, 2002; Levine, 2000; Preston, 2001, 2002; Sutherland, n.d.; Tierney, 2002). This suggests that it is important to determine not just outcomes for student retention, but to evaluate whether the processes used to achieve student retention are educationally justifiable.
The observations about the behavioural biases against improvement seem to apply in education. Repenning and Sterman argued that when the workforce is under pressure to increase throughput, it is easier and more certain to allocate more time to rework than to make fundamental improvements to processes to avoid future re-work. This is because there is less certainty that the ‘beneficial outcomes’ of improved processes will materialise, there is usually a greater time delay, and it does nothing to address the existing problem of repairing faulty products. Some features of Australian higher education may even tend to accentuate the biases against fundamental improvement. It is easier for universities to employ relatively low paid part time staff to offer extra student support to students who are struggling to succeed within current courses, than to make fundamental change to the teaching and learning methods in whole programs, which may mean changes to content, to infrastructure, to management structures, to organisational practices and to training. Fundamental change in university teaching and learning could typically take many years to implement and even longer to affect graduation rates, and there would be much contention about what constituted a significant improvement.

Secondly, the issue of staff time allocation and quality improvement is a salient one for higher education in two respects. Firstly, time expended on the design and development of quality improvement processes has been additional to normal working tasks for most Australian academics. In industrial, commercial and public service contexts, people are frequently relieved of their normal duties to take part in quality improvement activities. There has been no widespread suggestion of employment of other staff to relieve academics of their normal duties whilst they identify changes required to improve their work. Mandatory quality improvement activities are additional to normal work tasks for academic staff. This potentially acts as a powerful psychological disincentive to participation in quality improvement processes, especially where the potential improvements do not offer immediate or even medium term benefits of easing work tasks or saving time for academic staff. Since, in a university environment, changes to the education processes for students typically take a long time to implement and even longer before graduation rates are affected (if they are at all), changes leading ultimately to either improvement or deterioration in ‘quality’ bring no immediate change to daily work pressure facing an individual academic. Finally, the finding that concern for improvement was secondary to concern for accountability (as summarised in Table 4.1d and discussed in Themes 1.2 and 1.3) implies an ordering of priorities that encourages
both managers and the workforce to give greater priority to *apparent* compliance with targets than to fundamental improvement to processes.

Academia has long time scales for implementation of change compared with many industrial contexts and this lengthens the time delays by extending the period to elapse before the benefits of improvement processes can be seen or before the lack of quality becomes apparent. High uncertainty and subjectivity in judgement about what constitutes improvement, unclear linkages between actions and outcomes and only limited ability to affect the 'throughput of graduates' without obviously jeopardising academic standards, all increase uncertainty about the outcomes of 'process improvements'. The political pressures to demonstrate immediate high throughput exacerbates the bias against solutions that do not produce immediate tangible increase in throughput. Any one of these attributes would tend to increase the bias against fundamental quality improvement in university processes.

University management are in a bind. Government policy makers have simultaneously reduced the cost per student place and required universities to demonstrate maintenance or increase in quality as a prerequisite to maintenance of their reputation, which is necessary for continued student application, and hence funding. What evidence is there that university managers attribute low throughput of graduates to low effort on the part of academic staff? The formal position of university management is ambivalent on this issue. Few university managers openly criticise the effort and skills of academic staff (any public admission of inadequacy of staff would reflect poorly on their reputation). Most universities, however, have increased the control they exercise over academics and have made attempts to formally measure and compare both the research output of academic staff and more recently, the 'quality' of their teaching, often measured solely by student assessment. These actions are indicative of managerial beliefs that there will be gains if academic staff are subject to greater coercion and control, and that such control will have beneficial outcomes for 'productivity'. This characteristic response by management, to increase control and surveillance in an attempt to increase output, was identified by Repenning and Sterman (1997) as likely to lead to the establishment of competing goals for the workforce that ultimately, undermines both 'product quality' and the culture required to make improvement possible.

As university management has increased the monitoring of academic staff, goal conflicts have increased. For academics, there has always been some tension between competing time demands from teaching, research and administration. The advent of
formal monitoring has proliferated demands by adding the demand of satisfying the quality 'metrics' that purport to measure each of these activities. If the activities being measured were amenable to easy, accurate quantitative measurement, the effects of such proliferations would perhaps be minor, especially if the measures were agreed to be reliable and fair. The answers to Q4, especially Themes 4.1 and 4.2, show that the data claimed to be indicative of teaching quality is not theoretically well founded and therefore not likely to be reliable or fair.

Teaching, research and administration are all complex tasks. 'Good teaching', for example, is multifaceted and neither simple nor easy to measure as subjective judgements about the 'goodness' of teaching place weight on differing values. Proxy measures of teaching effectiveness, such as student satisfaction, are not reliable indicators (Chun, 2002, p25; Emery et al., 2003, p43-44). If unreliable indicators are used as metrics purporting to measure performance, and if there are adverse consequences for alleged 'poor performance', this establishes additional conflicting goals for academic staff to satisfy. Does the staff member prioritise the achievement of student satisfaction ratings or do they focus on provision of a well-grounded educational experience for students? In some circumstances, there may be little conflict. In other circumstances, choice is required. Similar arguments could be made for research and for administration. Thus, in the context of higher education, increased control can be expected to lead to a proliferation of conflicting goals.

Is there any evidence that this has led to 'work-arounds' or eroding standards? Work-arounds are by definition practices that workers keep secret from management and include the adoption of practices, contrary to good practice, probably not sanctioned by the institution and perhaps not openly acknowledged, because of pressure to improve apparent performance as measured by metrics. 'Work-arounds' occur if staff are too stretched to do things properly, and reduce feelings of job satisfaction in conscientious staff (Repenning & Sterman, 1997) especially if they believe that metrics are unfair. It is likely to be difficult to gather reliable documentary evidence of work-arounds, because they are by definition kept secret. It is therefore unlikely that formal documentation such as the sample examined would uncover any evidence on this. Past studies of quality management in Australian higher education where staff were interviewed about their compliance (for example, Vidovich, 1998, p 263), and the level of error in earlier data gathered from academics about research quantum (Vidovich, 1998, p283),
indicated that academic staff who were reluctantly compliant, did not prioritise the submission of accurate data for quality management purposes.

The pressures of context suggest that there is a high risk that ‘workarounds’ will develop, or have already developed. In the Australian university context, examples might include:

- Reduced attention to important aspects of work that are not measured by performance metrics;
- A neglect of formal systems of documentation;
- Lack of priority given to staff meetings or staff development;
- Lack of availability to offer support to colleagues;
- Adoption of assessment processes that are least time consuming for staff irrespective of educational considerations;
- Reluctance to fail students who are likely to formally appeal even when their work is unsatisfactory.

Evidence is sparse, but there have been media concerns that staff may be lenient towards fee-paying students who produce unsatisfactory work (Senate Employment Workplace Relations Small Business and Education Committee, 2001, p 75). In the current political environment, there is systemic pressure for university management to collude with processes that inflate performance as measured by metrics irrespective of the underlying reality (or at least to turn a blind eye). This has occurred because university management needs the appearance of success on the metrics, to protect the reputation of the university, to ensure future student enrolments and hence maintain the future funding base of the university. The importance of the international education market to the national economy means that the Australian government is also under pressure to ignore claims of inflated performance by the Australian university system as a whole. The sum of these pressures mean that although the evaluation processes are formally concerned with accountability/payment by results evaluation, it is in the interests of government university management and academics to allow the process to slide towards a public relations evaluation processes, which in evaluation terms is unsound, as discussed in theme 4.5.
Theme 5.4: Stakeholder theory and commercial quality management

Stakeholder theory does not fit well with the metrics (rubrics) in commercial quality management that are referenced to customer wants because according to stakeholder theory, sometimes the wants or needs of one group have to be disregarded in order to satisfy the wants or needs of another group. The concept of customer simplifies the interpretation of data because it prioritises the wants of one group, over the wants and needs of all other interested parties, and over the 'needs' of the customer group, if customer identified 'wants' differ from ‘needs’ of customers. Metrics generated to measure customer satisfaction and interpreted based on those assumptions, cannot accommodate the subjectivity consequent upon competing stakeholder relationships. Stakeholder theory and measures of quality based upon customer perceptions are not compatible.

Implications for the research problem

The implications of the answers to this question for the research problem are that research in industry about the conditions for efficacy of commercial quality management and the reasons for fits failure have not been adequately considered, despite the apparent belief of neo-liberals that universities should learn from industry. The Australian system for higher education quality management has been established without apparent reference to this body of literature. This has meant managers and policy makers have not avoided mistakes made in industry, and processes adopted are not likely to effectively engender and support genuine process improvement in universities and risk the establishment of a cultural climate in which quality improvement is no longer possible. A second conclusion is that stakeholder theory is not compatible with methods of commercial quality management that give special priority to the wants of one group (customer). This means that stakeholder theory cannot be used to legitimate government intervention in higher education, if the metrics for quality measurement treat any single group (usually students) as customers in the way that the importance of their ‘wants’ is interpreted. This objection is additional to the practical problems identified with application of stakeholder theory in Australian higher education.
Research Question 6: Conclusions about Coherency, Consistency and Potential for Efficacy

Are current Australian quality management strategies and methods plausibly likely to achieve their intended objectives?

a) What are the implications of these findings for the research problem?

b) Collate the research findings and analyse the implications for:

c) Australian Higher education Policy

d) Australian Higher education management

e) Broader application of findings

f) Theory development

g) Future research

This question is answered after discussion of the implication of the findings for the research problem in Chapter 6.
CHAPTER 6
CONCLUSIONS AND IMPLICATIONS

Introduction

In this chapter, the conclusions about the research problem are summarised, and the implications of the findings are elucidated. This chapter is divided into nine sections. The first section comprises this introduction. The second section summarises the conclusions about the research problem. The third section draws out the implications of the research for Australian Higher Education quality management policy. The fourth section draws out the implications for Australian university management. The fifth section draws out the implications for other higher education and public service quality management systems. The sixth section elucidates the implications for theory development. The seventh section identifies the limitations of the research. The eighth section elucidates the implications for future research. The ninth section concludes the thesis.

Conclusions about the Research Problem

Research problem: There are conflicting claims about the appropriateness of commercially derived quality management methods to Australian higher education. Supporters of the use of commercially derived quality management methods assert that these methods have potential to improve university efficiency, accountability and quality (Gallagher, 2000; Harman & Meek, 2000a, 2000b; Kemp, 2000, p56; Kemp, 1999b; Nelson, 2002e). Critics assert that current quality management methods are detrimental to universities and undermine the capability of universities to deliver maximal potential benefits to individuals and to society (Marginson, 2002; Marginson & Considine, 2000; De Lacey & Moens, 1990; Senate Employment Workplace Relations Small Business and Education Committee, 2001; Vidovich, 1998). Evaluation of the basis of conflicting claims is necessary to enable decisions to be made about the usefulness of current practices, whether existing quality management arrangements should be retained and developed, modified, replaced or abolished.

Analysis of the research conducted for this thesis supports the conclusion that the Australian higher education quality management system, as described in the sample documentation, uses commercially derived quality management methods in ways that
are unsuited to the context of Australian higher education. Several fundamental problems arise. The personal and societal developmental goals of higher education, achievable through ‘teaching and learning’ relationships, are not achievable through customer relationships implicit in technical definitions of quality upon which commercial quality management systems depend. This flaw is not immediately obvious because, in everyday language (and in its traditional usage in educational evaluation), ‘quality’ has a meaning dissimilar to its ‘operational’ meanings in commercial quality management systems and where it is not dependant upon customer relationships. Key documents discuss ‘quality’ as if ‘quality’ is understood in its everyday meaning, but also as if quality were measurable by the technical operational means assumed in quality management.

The system of evaluation prioritises apparent accountability to government, above process improvement within the quality management system as described in the documentation. Compliance with accountability requirements is enforced as a condition of receipt of government funding. This is problematic from a number of perspectives. Firstly, evaluation research indicates that this type of accountability evaluation is often based upon inadequately tested rubrics, as found in this research, where it was found that there was no adequate theoretical basis to support either the choice of data or the assumed interpretations of meaning of the data used for assessment of quality. Secondly evaluation research identified that the accountability system of evaluation tied to performance indicators nominated by the funding body, encouraged ‘cheating’ by service providers, and encouraged service providers to use poor processes to enable them to apparently achieve the results, as measured by the indicators. This prioritised apparent achievement of measured results as more important than maintenance of the integrity of processes by which results are achieved. It was not possible in this research to assess directly whether this had happened in Australian higher education, but indirect evidence in the university management quality plans showed that quality improvement effort focused upon initiatives to improve apparent performance as measured by performance indicators rather than improvement of fundamental educational processes.

The findings of research by Repenning and Sterman (1997) about the reasons for failure of quality management in industry, anticipate this response. They found that when a workforce is under pressure to meet numerical metrics (or rubrics in the language of educational evaluation) workers do what ever is necessary to appear to achieve this, even if it causes problems elsewhere in the process or undermines overall product
quality. When accountability is paramount, the risk of sanctions or loss of public reputation creates a culture where people will try to hide problems and failure or try to shift the blame to avoid penalties or public loss of face. When process improvement is paramount, there is less incentive to hide problems, and this allows the possibility of development of an organisational problem-solving (Senge, 1992) or error avoidance (Cameron & Sine, 1999) culture. This possibility is realised only when individuals are not penalised when they identify things that have not gone well.

The research also raises some important questions about the legitimacy of government intervention in the higher education quasi-market. There are two possible sources of legitimation identified in this research. One source of intervention appeals to the right of government as the funding providers to control the ‘market’, as happens in a managed economy. This source of legitimation becomes weaker as government contributes a decreased share of university resources. The second source of legitimation appeals to the suggestion that the government acts on behalf of stakeholders. Analysis of the findings of this research suggests that there are a number of theoretical and practical problems with the application of Stakeholder theory to higher education. Analysis of the sample documentation suggested that government used the concept of stakeholders selectively and ‘tokenistically’ only when it lent support to its own position.

Another major concern raised by this research was whether it was justifiable to divert higher education funds away from service provision and process improvement and into monitoring for (pseudo) accountability purposes especially when resources are scarce and some government statements already claim to know that Australian universities are good (DETYA, 2000c, paragraph 1.1.4). A strong argument can be made, as Yorke (1999a, 18-19) did in the UK, that the money would be better used either directly by universities to improve what they do or to enable university staff to identify individually meaningful ways to improve teaching and learning processes, or to reduce costs to students. The analysis presented in this thesis concludes that the quality management system described in the documents is likely to promote apparent accountability as measured by indicators, but because the selection and interpretation of indicators is not theoretically defensible, the accountability is illusory or pseudo-accountability. Therefore, this argument suggests that, although genuine public accountability is an important value, when resource allocation choices must be made between schemes that foster pseudo-accountability, and those that direct allocation of resources to promote service improvement, it is better to choose to finance service improvement.
It is possible to make a convincing case that the quality management system described in the documentation is merely an exercise in public relations evaluation that is politically expedient for government. This argument suggests that the quality management system has been devised as a 'public relations' evaluation to forestall criticism from academics and university management, and to reassure the public. Academics and university management complain that they do not have sufficient resources to maintain the excellence of higher education in Australian universities. There has been public concern about substantial government funding cuts and an overall loss of *per capita* revenue to support university teaching. Analysis of the documentation shows that the quality management system has encouraged universities to incorporate unsound quality measurement metrics into organisational performance management systems, to pressure academic staff to put effort into achievement of 'good' results as measured by (unsound) government performance metrics. Once the performance metrics are incorporated into institutional performance management systems, there is incentive for academic staff to find ways to inflate *apparent* success as measured by metrics, and to hide failure, because admission of failure would be detrimental to their own career prospects. It appears to be in the interests of university management to collude with this inflation of apparent success, because measurement of institutional success depends upon *apparent* success, as measured by the metrics, even though the metrics are unsatisfactory. The international education market is economically important to the Australian economy, and it is therefore in the interests of the Australian government to collude with inflation of statistics that purport to demonstrate the success of Australian universities, and to present Australian universities in a favourable light to international students. The Australian government has a second incentive to accept inflated claims by university management about the success of Australian universities because these claims can be used politically to provide justification for the argument that universities do not need additional government resources to maintain the quality of their teaching or their research. If these arguments are accepted the current Australian quality management system is an example of pseudo-evaluation, where the intent of all parties is to mislead the public, and where the government pressures university management to collude with unsound quality measurement practices and where university management, in turn applies pressure to academic staff to encourage their collusion.

On the question of whether the current approach ought to be developed, modified replaced or abolished, the conclusions of the research presented in this thesis are that the
quality management system described in this documentation is beyond reform. The evidence from this research suggests that the nature of the problems with the current approach to quality management in Australian higher education mean that development and modification of the quality management system are unlikely to offer significant benefit. The recommendation that arises from this research is that the best way to support higher education quality in Australia would be to suspend the current quality management system immediately.

Implications for Australian Higher Education Policy

Policy has a central role within Australian higher education because it provides the framework within which university management operate. Current Australian higher education policy has reduced government per capita expenditure on higher education and maintained significant levels of governmental control over universities. If efficiency were concerned simply as reduction of unit cost, the policy might be judged successful. Australian Higher education policy, however, was intended to achieve other outcomes, according to statements in government policy documents (DETYA, 2000a). The policy was intended to achieve instrumental outcomes, such as an increase in the level of education and skill in the workforce, and contribution to Australian economy through higher education exports, international fee-paying students, and the development of commercially successful products from research. The policy was also intended to achieve expressive outcomes such as satisfaction of demand by students to have higher education that will offer them opportunities for personal intellectual development, and the development of new knowledge. Whilst ‘simple’ efficiency can be achieved by varying the standards of the outputs, official government policy rejected this approach.

Policy is based upon ‘stories’ (Boje, 1999b) or ‘mental models’ (Senge, 1992). Australian Government policy intended to force universities to maintain standards and reduce cost through reduction in wastage and increased efficiency, and instituted systems of control and scrutiny to ensure compliance. The assumption behind this ‘story’ or ‘mental model’ was that all universities had ‘wastage’ that could be reduced without loss if they were put under enough pressure, and that the government’s financial goals were realistic. The research of Repenning and Sterman (1997) shows that in business when management applies this kind of pressure to the workforce, the end result is apparent compliance at first, at the expense of the underlying integrity of the process, with longer-term negative effects on both efficiency and quality, because fundamental processes are compromised. The limited research undertaken in this thesis suggests that
the efficiency goals were not necessarily realistic across the sector, and therefore the basic government 'story' or 'mental model' was flawed. If, in some universities, there was no 'wastage' to reduce, perhaps the appropriate 'story' or 'mental model' is the one about the man who tried to train his donkey to live without food. The experiment was going very well but unfortunately, the beast died before the experiment was complete (Shah 1971).

This research found an inconstant attitude of government towards markets, and it is argued in this thesis that this creates irresolvable tensions. Current policy explicitly rejects unfettered market control of universities, which would also limit the rights of government intervention, but the government measurement methods of 'effectiveness' have been developed as if universities operated in an unfettered market economy. 'Steering at a distance' has enabled the government to retain control whilst reducing expenditure, as argued by Vidovich (2001), but structural arrangements described in the documentation encourage both government and university management into a situation of collusion where evaluation becomes a 'public relations' pseudo-evaluation intended to mislead the buying public. In the long-term, this implies that policy based upon neo-liberal principles tends to strengthen structural pressures that encourage universities towards acceptance of a role of profitable diploma mills rather than educational establishments capable of meeting the instrumental and expressive aspirations for education that the government, universities and the public espouse.

This research has different policy implications dependant upon the political and ideological assumptions made in relation to the future of higher education policy. In this section, the implications for neo-liberal and traditionalist thinkers will be briefly outlined, and more attention will be given to the implications for post-traditional university management. The key tensions are summarised in Table 6.1.
### Table 6.1 Implications of research for different positions on university management

<table>
<thead>
<tr>
<th></th>
<th>Neo-liberal enterprise</th>
<th>Traditionalist</th>
<th>Post-traditionalist</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality Story/Rationale</td>
<td>Accountability/ Efficiency</td>
<td>Academics are best placed to judge and manage standards in disciplines collegially</td>
<td>Fundamental improvement of organisational processes offers universities the best means to provide higher education within a limited budget</td>
</tr>
<tr>
<td>Grand narrative</td>
<td>Economic Hegemony: Education as instrumental for economic productivity and social attachment; knowledge serving 'society' (hegemonic interests)</td>
<td>Cultural Hegemony: Education as expressive; knowledge unfolds;</td>
<td>Freedom from hegemony End to grand narratives Language is never neutral; knowledge constructed;</td>
</tr>
<tr>
<td>Ideological Legitimation</td>
<td>Late modern</td>
<td>Pre-modern/ early modern</td>
<td>Late modern/ Post-modern</td>
</tr>
<tr>
<td>Problems</td>
<td>Quasi-market approach offers pseudo-accountability and undermines the means required to achieve educational goals valued by neo-liberals; Quasi-market approaches to management premised on total rationality of management, but there are contradictions between key element in the quasi-market rational, for example equity and quasi-market forces; Problems with accountability enforced by government through 'payment by results' Unsound data interpretation; Problem of standards;</td>
<td>Pre-modern source of legitimation out of step with dominant societal values; Why should public fund universities that do not claim to offer tangible benefit to the majority of the population who do not attend university?</td>
<td>Problem of language; Problems that language and mindsets polarise positions between neo-liberals and traditionalists; Credibility: no examples of alternative methods to manage universities can be demonstrated. Difficult to envisage alternatives not based in either traditionalist or neo-liberal assumptions.</td>
</tr>
<tr>
<td>Paradox</td>
<td>In a context of rapid social change, 'instrumental goals' increasingly depend upon achievement of 'expressive goals' because rapid societal change produces uncertainty about future skill needs</td>
<td>Traditionalists expect the public and politicians to take it on trust that they should trust academics</td>
<td>Skills in detachment from conventional thinking may enable better 'instrumental adjustment' to rapidly changing social conditions if it enables people to let go of rigid thought patterns more easily;</td>
</tr>
<tr>
<td>Tensions</td>
<td>Spending on quality management not justifiable in neo-liberal terms if it does not demonstrably produce better results than spending the money directly on higher education; not justifiable if it raises costs; not justifiable if losses from competition outweigh the benefits</td>
<td>Difficult to mobilise external support for institutions that are not responsive to external concerns</td>
<td>Difficult to develop alternatives that do not either seem to be modified traditional positions or modified neo-liberal positions</td>
</tr>
</tbody>
</table>

### Implications for neo-liberal policy-makers

The analysis presented in this thesis poses many problems for neo-liberal policy makers. The nature of the problems depends upon whether 'educational quality' or 'legitimation of control' are assumed to be the primary purpose of higher education quality management system from a neo-liberal perspective. If the real concerns of neo-liberal policy makers are with the maintenance of educational quality, the literature on efficacy
and failure of quality management in industry provides a comprehensive explanation of why the current Australian higher education quality management system is likely to be self-defeating. This literature suggests that policy needs to support organisational cultures that prioritise quality improvement rather than accountability defined as conformity narrowly defined government specified numerical targets. Likewise, the literature on educational evaluation provides advice on how to design evaluation processes to support quality improvement and how to overcome deficiencies in the current approaches to quality measurement. As quality improvement received far less serious attention than ‘accountability’ in the documentation, there are strong indications that the neo-liberal Australian higher education quality management policy is not primarily concerned with education quality.

If the primary purpose of the Australian higher education quality management system is to legitimate and facilitate extensive government control over universities even though the government contribution to university funding has diminished, as the emphasis on accountability implied, then neo-liberals are faced with a different problem. For neo-liberals, the higher education quality management systems has played a key role in higher education policy because it has provided an apparently neutral and reasonable means for policy makers to ‘steer at a distance’ and enforce university compliance with policies that reduce Federal government financial support of universities, but extend Federal government control over issues of internal university governance. This thesis has argued that the higher education system described in the documentation is not neutral, and that it is not reasonable, even in terms of neo-liberal values. Without the appearance of neutrality of the values that support quality management systems, and rationality of its methods according to its own beliefs, it is difficult for government to legitimate their insistence that universities should seek to prioritise non-educational goals (or limited educational goals), over concern for more comprehensive educational goals. It would also be more difficult to argue the legitimacy of government’s implicit claim that primary accountability of universities should be to government.

The system has been implemented in a manner that means that it is in the interests of all key partners to find ways to inflate their apparent performance as measured by the rubrics or metrics, and to pretend that the systems is credible. As long as everyone ‘turns a blind eye’ to the deficiencies of the quality management system, this policy remains unchallenged. The danger of adoption of this course of action is that if the contradictions become widely acknowledged, those who support the system will appear
either to lack integrity or to lack analytical skills. The situation is similar to the fairytale of ‘The Emperor’s New Clothes’ (Andersen, 1994), where the ‘clothes’ were admired until their absence was suddenly accepted (see Cooper, 2003d). In this thesis, I have argued that the quality management system as described in the documentation promotes ‘accountability’ but offers pseudo-accountability. The quality management methods used in the quality management system have imported commercial roles into education that undermine the processes required to achieve the desired educational goals, are inconsistent and contradictory even when judged by the values of neo-liberal ideology. The system has several serious flaws that destroy its credibility as a either a fair or a neutral means of higher education evaluation. The arguments in this thesis refute both the claim that the quality management system is neutral and the claim that it provides accountability.

Education exports are important to the Australian economy. A second policy story suggested that quality management was essential because overseas students needed external validation of claims of excellence made by Australian universities. The research presented in this thesis found that the quality measurement methods were unsuited to the purpose of provision of useful information to potential students and that there appeared to be under-investment in Australian higher education (Chubb, 2001; Considine et al., 2001). Indicators were poorly selected and research did not support the common interpretations of significance of data for judgements about quality. The danger for policy is that the flaws in the quality measurement system will become obvious to ‘international purchasers of education’. The quality management system will no longer be accepted as credible. Government, with the collusion of university management and academic staff will have killed by starvation ‘the goose that laid the golden eggs’ (traditional story from Aesop’s Fables).

A final problem for neo-liberals concerns the dominant position they have adopted on ‘standards’ Documents showed that most neo-liberals valued the claim that the quality management system could assess ‘standards’, referenced to ‘international standards’, but this meaning of standards depends on acceptance of everyday concept of ‘standards as excellence as shaped by acknowledged experts.’ The problem this poses for neo-liberals is that if they maintain their commitment to this meaning of ‘standards as excellence’, they cannot use operational definitions of ‘standards’ based upon the criteria used in commercial quality management. This is because these technical definitions are referenced directly or indirectly to customer expectations, which are not
required to be either well-informed or 'demanding' in terms of excellence. For consistency, neo-liberals would be required to accept the methods of assessment of standards that their position implies, and this requires acceptance of some of the central assumptions of the traditionalist position on university management that are not compatible with either the methods of commercial quality management or commitment to educational pseudo-markets.

For long-term policy success, the policy makers will have to resolve the conceptual inconsistencies underpinning their assumptions. If policy makers fully embrace the neo-liberal vision for education, then education becomes fully commodified, and government has very limited rights to intervene in how universities manage themselves or what they offer to students or in the standards of their courses. If the government rejects a market-based approach to higher education, then it must address its responsibilities for funding and it cannot when convenient, appeal to a commodified model of education where students are treated as if they are either customers or products (or both). If a stakeholder model is pursued, the difficulties of identification and appropriate genuine representation of stakeholders must be resolved, as too must be the issue of who has the mandate to adjudicate stakeholder conflicts. This requires clarification and re-conceptualisation of the relationship between universities, government and society, and sufficient security of funding to enable universities to perform their role in ways that enable universities to achieve the full range of their instrumental and expressive purposes.

**Implications for traditionalist policy-makers and managers**

Traditionalists will see this research as supporting their belief that the corporatist approach to quality management is harmful to universities, and for traditionalists this research could be used to bolster their arguments that universities and academics should be freed to manage their own affairs without government or managerial interference. Their model for the future is drawn from the past, and is therefore known. This has the benefit that traditional forms of collegial management are ‘tried and tested’ but the disadvantage that the flaws with collegial management are also known. The unresolved problem for traditionalists is that reinstatement of the traditional collegial management solution from the past does not overcome the problems with that form of management, identified by both neo-liberals and post-traditionalists. These criticisms claim that traditional collegial management encouraged universities to become inward-looking, slow changing and conservative, to replicate societal privileges through non-transparent
job allocation and appointment processes and to act as a powerful source of social reproduction, as discussed in Chapter 2. For traditionalists, this research suggests that a significant problem is that the legitimation of their claims rests in pre-modern assumptions about the relationship between the professions, university and the outside world and that these are out of step with community presumptions and late-modern values concerned with equity and social justice. The most pressing tasks for traditionalists are to identify how collegial systems of management might be adapted to overcome valid objections put forward by neo-liberals and especially post-traditionalist critics.

**Implications for post-traditionalist university policy, management and evaluation**

For post-traditionalists the implications are complex, because although they criticise ‘corporatised’ approaches to the management of higher education, they do not see a solution in a return to the past. Post-traditionalists do not have a ready-made alternative model for university management, although some possible directions have been suggested. Table 5.2 compares the suggestions of Tierney with those of Marginson and Considine and there are several points of agreement about the possible way forward from the present position.
Table 6.2 Comparison of the suggestions of Marginson & Considine and Tierney about the future of post-traditional universities

<table>
<thead>
<tr>
<th>Tierney</th>
<th>Marginson &amp; Considine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Importance of core institutional ideology to provide long-term consistency in direction and basis of culture. Less attention to structure more attention to culture.</td>
<td>University identity: importance of institutions developing their own identity and building on potential strengths of Australia in the global setting. The possibility of re-inventing 'public interest' to define public in global rather than national terms based upon sustainable networks rather than markets</td>
</tr>
<tr>
<td>Transformation of faculty culture. Need for genuine participation of faculty in design and implementation of transformation of universities, including any changes to faculty roles</td>
<td>Stimulated academic heartland: more respect given to academic cultures, substantive rather than procedural autonomy. Respect for knowledge and skills of 'producers' rather than focus only on wishes of proxy consumers.</td>
</tr>
<tr>
<td>&quot;When decision-makers omit staff from discussions about improvement, they miss out on the staff wisdom and input&quot; (Tierney, 1999, p166). Efficiency is importance in times of resource shortage but should not become an end in itself.</td>
<td>'Efficiency gains have been achieved at the price of shutting out most people from decision making'; this weakens sense of shared institutional purpose' (Marginson &amp; Considine, 2000, p.)</td>
</tr>
<tr>
<td>Importance of all staff seeing their interconnectedness, vision should be co-developed and shared, so it will be nurtured by all; Staff involvement in setting goals;</td>
<td>New informal systems of participation based upon performance culture and institutional loyalty to replace previous collegial and managerial forms of governance</td>
</tr>
<tr>
<td>Less administration more faculty flexibility.</td>
<td>Networked structures based upon genuine collaboration between academic units and management</td>
</tr>
<tr>
<td>Decision-making teams driven: teams identify problems and their solutions Decentralised decision-making Action that solves long term systemic problems in the organisation rather than short term unitary responses to problem solving</td>
<td>'Reflexive management' that seeks to find better ways of supporting academic work rather than managers focussing on better ways to control and channel academic work</td>
</tr>
<tr>
<td>Collaboration across the sector and with communities and business related organisations; different roles but move way from the hierarchy of research universities at the top and community colleges at the bottom, with each institution trying to move up the ladder</td>
<td>Enhanced inter-institutional diversity and collaboration by modifying the competitive pressures because fear does not promote innovation; system wide incentives valuing diversity; development of institutional identity</td>
</tr>
<tr>
<td>Definitions of academic productivity should be locally agreed. Organisational rewards and priorities should align with cultural definitions of productivity. 'Wide leeway based upon individual strengths and community needs' (Tierney, 1999, p165)</td>
<td></td>
</tr>
</tbody>
</table>

There are differences in emphasis and terminology, attributable in part to differences in context between Australia and the USA. Post-traditionalists writers broadly agree on the following points:

- Rejection of ‘the market’ (or quasi-market) as an adequate basis of higher education policy, in this belief they reject the fundamental values of the neoliberal position;
• Belief that academic culture and university identity are important to provide long-term direction to institutional policy that transcends the instrumental and economic justification for what universities do;

• Belief that universities need to transform themselves and that academic staff have an important role in that transformation and in this belief they reject the tacit appeal to tradition and pre-modern sources of legitimation;

• Belief that universities must find ways to enhance and maintain their responsiveness to external communities locally and globally;

• Assert that management must change its focus from the control of academic staff to a focus on provision of management systems that support academic work;

• Suggest that universities should focus less on administrative structure and that roles need greater flexibility and collaboration, which implies a move away from bureaucratisation towards less standardisation in organisational forms and processes, possibly towards ‘adhocracy’ (Cameron & Quinn, 1999);

What is now required is a clear alternative way forward. Post-traditionalists challenge the hegemony of instrumental goals of ‘efficiency and effectiveness’ that marginalise goals central to educational processes. For post-traditionalists, the most pressing task is to re-open the debate on the purposes of higher education in a post-industrial world, to articulate clearly the values that provide alternative reference points, different from either neo-liberal or traditionalist values, and which could provide a more appropriate basis for development (and evaluation) of universities and academic work.

There is some basis for this in the work of Marginson and Considine (2000), who discuss the need to ‘restimulate the academic heartland’, and suggest this may be achieved through a re-interpretation of the concept of ‘public interest’. Tierney (1999) also suggests that departments and universities need to rediscover their own sense of identity and purpose in ways that are relevant to the communities they serve. This alternative articulation of values, distinct from either the traditionalist position or the neo-liberal position, could provide a basis from which university managers and academics could identify ways in which what they do might be improved. Such a position could provide a basis from which to develop alternative forms of management and governance that differed from both the neo-liberal and traditionalist positions. It could also provide an alternative basis from which to determine the relationship
between government, universities and society; and provide a basis for universities and others to evaluate how well universities have achieved what they set out to do.

Accountability is important to post-traditionalists, but it need not be interpreted as accountability to government alone, as is the _de facto_ position in the neo-liberal model. The documents examined in this study showed that the predominant focus of 'quality' was on accountability to government, and process improvement was a secondary aim. This prioritisation is unlikely to develop a problem solving culture within universities or a 'problem avoidance' culture and is more likely to develop a culture where people attempt to hide or deny problems. In the long-term, in organisational cultures that provide incentives for people to hide problems rather than change systems to avoid problems, the same fundamental problems will remain unresolved. This is one reason to support a change of emphasis away from evaluation by an accountability/payment by results model and towards the use of evaluation to support improvement of organisational processes to avoid problems. A post-traditionalist approach to evaluation must prioritise process improvement, and achieve accountability by some means that does not have adverse consequences for organisational culture supportive of process improvement.

Accountability could be achieved through transparency of processes and 'public interest', where 'public interest' could be established locally through dialogue between university programs and the communities served by each program. This would also strengthen links between universities and parties external to the university. It is impossible to maintain real dialogue if groups become too large or diverse, and this implies that consultation (and accountability) must occur at the level of programs rather than across an institution as a whole or across the whole university system. If consultations with communities are not conducted dialogically, there is a risk that the consultation process will become moribund and like 'stakeholders' become a device used purely for legitimation purposes.

Both Tierney (1999) and Marginson & Considine (2000) suggest the focus of management should be changed away from surveillance of academic work and towards a focus on identification of support that would facilitate academic work. This implies that the primary focus of quality management is process improvement (finding out how to do things better) rather than accountability (error detection). This accords with the research findings of Cameron and Sine, which found that 'error prevention' cultures of quality management were more efficacious than 'error detection' cultures, and is
consistent with the research of Repenning and Sterman and Keating et al on avoidance of failure of quality management in industry.

Some writers on quality management in commercial settings, including Deming (1986; 1993), do not subscribe to neo-liberal values or an unfettered market model of management, as was observed in Chapter 2. This literature provides a potentially useful resource, with suitable adaptation, for the development of management systems in universities that support quality improvement practices (Tierney (1999), for example, has discussed how concepts from re-engineering might be adapted in the context of universities in the United States within a framework of post-traditionalist values.) The research into efficacy and failure of quality management in industry suggests that the culture of the organisation is very important, but also that management must have a systemic understanding of how policies can positively or negatively interact to support or thwart quality within organisational culture. Deming (1986; Walton, 1989), argued strongly that many of the practices now common in corporate style Australian university management, such as the setting of numerical goals for performance measurement, insecure tenure and the use of short-term contracts and individualised performance management and performance related pay, are inimical to the establishment of a culture of quality and process improvement. Deming (1993; Walton, 1989) also strongly criticised the practice of management of ‘blaming’ the workforce for production problems. Translated to the context of universities, this requires that when problems emerge the first response of policy makers and management should be to determine how organisational systems (including funding systems) should be changed to improve the support for academic work. Sometimes the solution will entail better use of resources, at other times it will require more resources.

There is already a substantial literature on evaluation, some of which is discussed in Chapter 2, which could be used as a basis from which academics and universities could develop processes for development of evaluation methods that would be useful to those in a position to change things within universities. Patton (2001), for example, has argued that evaluations should be user-focused and provide information useful to those who are in a position to make changes. If this principle were applied in higher education, the focus of course evaluation would be upon provision of information useful to those who can make changes to the course. The staff who teach a course often need quite specific information to enable them to make decisions about what changes to make to content or teaching and learning methods of a course, for example exactly
which material students found most difficult. A comprehensive evaluation would need to determine not just what proportion of students failed to complete the course satisfactorily, but why students failed, so informed judgement could be made about whether changes ought to be made to instruction, information or selection processes. Feedback on student satisfaction would need to be viewed in the conjunction with feedback from lecturers about student engagement, and evidence of student development, any difficulties with content that emerged through student assessments, and any feedback that was received from professional associations or from networks of graduates, or from employers of graduates. Where specific difficulties are identified, a comprehensive evaluation that sought to improve processes would identify how dialogue could be maintained to explore the nature of the problem and the range of potential solutions.

One purpose of evaluation is to provide information to others, including potential students, or employers of students. As discussed in Chapter 2, problems of contested values in higher education, variability of contextual factors, and problems of representation of evaluation, combine to mean that in higher education it is not possible to find any even-handed means to present ‘the truth’ about a program, or to neutrally judge relative merit of programs offered by different institutions. Some commentators, for example Yorke (1999b), have already commented on the dangers of misrepresentation when university prospectuses seek only to present positive impressions of each university course. This response, inevitable in a competitive higher education market, becomes ‘ideological marketing’ rather than information provision. From a post-traditional perspective, there is no simple way to prevent this, but a reduction of competition between institutions may eventually shift the focus of universities towards a position where they are willing to offer prospective students more complete and balanced information about programs.

To conclude this section, a major weakness of the post-traditionalist position is that post-traditionalists have no ‘ready made’ alternative to the traditionalist and neo-liberal methods of university management. The findings presented in this thesis suggest that use could be made of existing research from critical management studies, research into quality management and research in evaluation of education, within a post-traditional framework. Critical management suggests it is necessary to resist formulations of quality management that dehumanise the work force, warns about uncritical acceptance of arguments about necessity of bureaucratic structure, and reminds about the need for
scepticism about arguments that claim goodness or inevitability of organisational goals premised on purely technical, instrumental or economic calculations. More heed could be paid to the warnings from quality management research about the ineffectiveness of quality management systems that rely on slogans to change organisational culture. Organisational cultural change requires provision of circumstances that enable the workforce to complete their work better and requires change to the current model used by policy makers and management to interpret data.

According to advice found in the ‘marginalised’ parts of the literature on quality management that do not fit well with market based management theories, the priority of management ought to be to identify how workers can be better supported to improve their work well rather than exhortation, surveillance. These circumstances are not restricted to the technical features of job organisation, but include the need for job security and the requirement for management that supports people to produce good results, rather than blames ‘the workforce’ for poor results. An empirical research program could be developed to test the application to higher education of research into efficacy and failure of quality management in industry, and to learn about what can go wrong with quality management and why, so that mistakes can be avoided. Post-traditionalist university management and academic staff will still need methods to evaluate what they do. These methods could be developed based upon the insights and methods of evaluation found in the existing literature on evaluation. Stufflebeam’s (2001) meta-analysis of approaches to evaluation provides a useful starting point.

**Implications for Australian Higher Education Management**

University managers in Australian universities are in a difficult position. The Federal government specifies the policy frame in which universities operate, and uses quality policy to legitimate adherence to government specifications by university managers. Australian government reporting requirements, the satisfaction of which are a condition of the maintenance of government funding, require universities to appear to satisfy various numerical measures that are not sound indicators of ‘quality’ and that are unrepresentative of the breadth of either the government’s goals for higher education or the universities’ goals. In non-elite universities that have few alternative sources of funding, this leaves university management little room for autonomy. Bing (1995) offered advice to managers in commercial organisations about how to survive ‘management fads’ where compliance is required with systems that are inadequately adapted to the circumstances of the business. His advice is perhaps relevant to managers
of universities, especially those who have less access to non-government income. He suggests that managers who are unable to avoid the application of detrimental systems, *should act to protect their organisation as much as possible from the worst effects of the practices required by the current fad*, and if possible not sacrifice ‘core business’ to comply with the latest fad. In the context of Australian universities, this would suggest that the task of university managers in relation to the quality management system is to protect their universities from the worst effects of government requirements. In the context of Australian universities, this would mean that whilst university management must provide the government with a range of data, which within the current system are unsoundly interpreted as indicative of quality, management should not incorporate these pseudo-measures into the internal systems of their universities.

The implication of this advice is that university management should avoid replication of the invalid measures of quality into their own processes for performance management and the assessment of tenure and promotion. If university management followed this course of action they would avoid passing down through the organisation unsound ‘measures’ for assessing ‘quality’, such as assessment of individual teaching quality based simply on numerical data about upon retention rates or student satisfaction. More radically, Deming’s work on quality suggests that attempts to quantitatively measure individual performance, or even the performance of teams, are inimical to quality improvement because they set up competition and fear that encourage the work force to *appear* to meet targets at all cost (Deming, 1986, 1993; Walton, 1989). Targets are *apparently* achieved even when this causes problems elsewhere in the organisation or undermines the fundamental integrity of the work, as demonstrated in the research of Repenning and Sterman (1997).

The work of Cameron and Sine (1999) suggests that organisational culture is important to achievement of benefits from quality management and that a culture of ‘error avoidance’ is more efficacious than one of ‘error detection’. A culture of error avoidance has implications for management, and prioritises process improvement over pseudo-accountability as the focus of management. In hierarchical, ‘top down organisations’, the function of management is to ensure compliance of the staff they manage with policy handed down from above. In an organisation where management envisaged its role as provision of support to all staff involved in ‘service delivery’ functions, the primary focus of management would be finding ways to help staff perform their roles better or more easily: an idea proposed by post-traditionalists such as
Marginson and Considine (2000) and Tierney (1999, 2001). From this perspective, the role of the manager is to work with staff to identify problems that create difficulties in their work, to protect staff they manage from unhelpful outside influences and to liaise with other parts of their own organisation to prevent decisions made in one part of the organisation causing problems in another.

The research of Repenning and Sterman (1997) suggests that in commercial settings, once a culture antagonistic to genuine quality improvement has become entrenched, the only successful way forward is to dismantle existing management methods and embark on a program of management re-education to enable management to build a culture in which improvement is possible. If the findings of Repenning and Sterman were applicable to Australian universities, as it appears, then in the context of Australian universities this would require:

- Radical change to the mindset of university managers to enable them to resist the unhelpful cultural influences when policy makers prescribe management parameters detrimental to the development of a culture of error avoidance;
- The abolition of management practices that support managerial decision-making based upon ‘management by numbers’;
- Encouragement of initiatives that seek means to improve the processes through which educational outcomes are achieved;
- A reduction of surveillance and pseudo-accountability reporting to free up time and opportunity for academic staff to improve teaching and research processes;
- Changes to the existing mental models that university managers use to ‘explain’ perceived deficiencies. This would enable managers to identify process improvements rather than to blame the workforce when things go wrong.

Sterman and Repenning (1997) report that the last of these changes is the most difficult to achieve in practice. Changes to the mental models of university managers require them to encompass an understanding of, firstly how easily quality improvement policies can be undermined by other policies and practices in the organisation and, secondly how easily misattribution of blame can occur, can become apparently self-affirming and can lead to self-defeating policies and practices.

Seen from this perspective, in the current environment, university management have a very difficult task. University management are required, in the interests of university
quality to protect their staff from adverse environmental influence of government quality policy, to support staff to find ways to improve educational and research processes, and to create systems that build and maintain a culture of error avoidance rather than error detection. These requirements conflict sharply with the requirements of external policy to maintain apparent compliance with the Australian Higher Education quality management system based upon (faulty criteria for) ‘error detection’, in order to sustain funding. In this task, they are required to negotiate many goals that conflict.

In the Australian higher education policy documents examined, ‘lip-service’ was paid to the idea that universities are free to set their own missions. Effective resistance by university management would require universities to make the freedom to set their own mission a reality, and would be most effective if management of Australian universities united in support of the development of a new post-traditionalist role for Australian universities, perhaps through the AV-CC. The best strategy for effective change to quality management in Australian higher education would foster changes to the entrenched mental models of both university managers and Federal government policymakers who provide the policy framework for the Australian higher education system. This would entail a rejection of neo-liberal ideology as a basis for higher education policy. The analysis presented in this thesis concludes that the best alternative basis for policy and practice is offered by a development the post-traditional perspective on university management.

**Application of Research Findings Beyond Australian Universities**

This research has identified many flaws in the quality management system, and some of the implications of the analysis presented in this thesis have repercussions beyond Australian universities. There are three main different areas of application, firstly higher education in countries other than Australia, secondly the public sector organisations and non-profit organisations in Australia, and thirdly the public sector organisations and non-profit organisations outside Australia. The discussion that follows will focus on the application of the research findings to the first two instances.

**Application of the Research Finding to Higher Education beyond Australia**

Some of the criticisms of the Australian quality management system presented in this thesis relate to details that are not applicable to higher education quality management systems found in other countries. Many of the conceptual distinctions that emerged from the analysis presented in this thesis, however, have application to higher education.
quality management systems in other parts of the world. Three are discussed specifically. First, the distinction between the concept of quality found in educational evaluation (and everyday life), which is referenced to excellence as shaped by agreed experts is very different from the concept of quality assumed in the operational definitions of commercial quality management. Where this distinction is not acknowledged, there is always a risk that ‘quality’ will be measured by one of the technical standards and discussed as if it had been measured according to the standards of educational evaluation and everyday life. This is a risk in any circumstances where commercial measurement methods are used in an educational context.

Second, it was argued that many important educational purposes of higher education are not achievable through customer relationships because a teaching and learning relationship requires active engagement and the customer/consumer role is essentially passive. Even when there is no explicit commitment to the idea that students are customers, many of the quality measurement methods derived from commercial quality management methods are either indirectly or directly referenced to ‘customer preference’ and interpret data as if students had a customer (or product) relationship to universities. This introduces role conflicts for both students and staff and undermines the teaching and learning relationship. This is a potential problem in all higher education systems where commercial measurement methods are used in an educational context.

The third question raised by this research relates to the basis of legitimation of government intervention in higher education policy within a quasi-market ideology of higher education, and has potential application to higher education systems beyond Australia where quasi-market solutions are used. When governments fully fund higher education it is possible to argue consistently from a neo-liberal perspective that government intervention in higher education is legitimated by provision of resources consistent with a purchaser/provider model (although this justification is challenged by those who reject neo-liberalism). Where government contributions are supplemented by funds from other sources and governments profess to support a quasi-market model for higher education, governments require alternative sources of legitimation if they claim extensive rights to dominate higher education policy. This research rejected the claim that the Australian government acted on behalf of stakeholders. There were no effective means of stakeholder representation. There were no means of conflict resolution between stakeholders. The documentation showed that the concept of stakeholders was
used selectively and tokenistically by the Australian government to provide the appearance of independent credibility to its own position. A conclusion of this thesis is that claims by policy makers or university managers that they act on behalf of stakeholders should be carefully scrutinised to ascertain whether the claims have any basis in fact or whether they are being used as a legitimation device. The test case is to ascertain whether stakeholders' interests that conflict with government policy are treated as legitimate claims.

Other issues raised by this research may have relevance in some circumstances. If claims are made that the purpose of higher education quality monitoring is provision of useful information to students, employers or policy makers, then the evaluation must be sufficiently comprehensive and holistic to fulfil this information need independently of other considerations.

**Application of the Research Findings to Other Australian Public and Non-Profit Organisations**

One of the surprising findings of this research was that the development of the Australian higher education quality management system was apparently premised upon two untested assumptions: that the methods of quality management systems found in commerce were applicable to higher education; and that quality management systems found in commerce were effective and beneficial to organisations. The thesis has argued that neither of these assumptions can be accepted without question. In relation to the first assumption, it has been argued in the previous sections that the context of higher education is very different from the context of commerce and requires different roles and relationships to achieve its purposes. In relation to the second assumption, it has been argued that crucial research evidence was available but not sought, about the efficacy and failure of quality management systems and about circumstances required for the success of commercial quality management systems.

The implications of this research for Australian public sector and not-for profit organisations, where commercial quality management methods have been applied, are that these two questions need to be addressed in the context of each organisation. To answer the first question it is necessary to assess whether the purposes of the organisations are, in principle, achievable through a customer relationship. The research presented in this thesis indicates that 'customer relationships' implicit in most quality management systems derived from industry, do not provide the roles and relationships
required where the goals relate to human development, as in education, or where active engagement of service recipients is required. It may be, for example, that a primary healthcare system that aims at prevention, because of its educative focus, requires roles other than customer/service provider roles to effectively achieve its program goals. In the case of a public transport system, it may be that the goals of public transport provision are compatible with customer/service provider roles and relationships. In the first example, it would be unwise to use methods that assessed program quality, as if there was a customer relationship between the health worker and the population, whilst in the second example, there is in principle no objection to a customer relationship between the service users and the service providers. For services where the relationship requires active participation or partnership between service recipients and service providers, or where the purposes of the service purposes are developmental, the ‘customer relationship’ model on which commercial quality management systems are premised, does not provide an appropriate model for data interpretation in quality measurement.

The inappropriateness of the ‘customer relationship’ has been recognised by some public service providers, who have substituted ‘stakeholder’ relationships for customer relationships. The analysis presented in this thesis suggests that claims that quality management systems are responsive to stakeholders should be treated with caution, and this applies in public services and non-profit agencies. Unless the practical issues of stakeholder dialogue, representation and conflict resolution are clearly addressed, and the interests of stakeholders whose wishes conflict with government or agency or managerial policy are appropriately acknowledged, it must be suspected that the concept of ‘stakeholders’ has been used tokenistically. The analysis presented in this thesis showed that concept of stakeholders cannot be simply substituted for ‘customers’ in commercial quality measurement systems because of the problem of adjudication of differences of interest.

The second question is concerned with how the research into efficacy and failure of quality management in industry applies to the non-profit environment. This research found that in Australian higher education, ‘accountability’ was interpreted as accountability to government, and that the structure of the quality management system, based upon narrowly defined and unsound surrogates for quality, prioritised pseudo-accountability, and supported the development of an organisational culture inimical to the possibility of process improvement. The implication of this research for public
service organisation generally is that, if similar processes are found in public service organisations, it will be necessary to find a better way to protect 'public interest' than pseudo-accountability. In Australian higher education, it is suggested in this thesis that local dialogue between programs and stakeholders within a framework of post-traditionalist values might provide a possible way to achieve this goal. It is suggested that public service and non-profit agencies might need to find alternative ways to address issues of public accountability suited to their purposes and contexts.

**Theory Development**

This research has developed a framework for coherent interpretation of research from critical management, systems and higher educational research and educational evaluation to examine the adequacy of the assumptions and practices that informed the Australian quality management system, 1999-2003. This approach has revealed the complexity of the issues; the shortcomings of policy initiatives that import oversimplified solutions from other contexts; and the ability to mislead of evaluation processes that are narrowly focussed. Theoretical contributions include:

- Clarification of the source of conflict between technical and everyday uses of 'quality' and misunderstandings that occur when the restricted technical meanings of quality used in various commercial quality management methodologies are used in everyday speech, for example by politicians or in newspaper reports, without explanation of the specialised technical meaning of quality. This difficulty could be avoided if the ambiguous language of 'quality' were replaced with the more specific language of evaluation.
- Discussion of quality management from the perspectives of three different ideological positions on university management, their presumptions about knowledge and teaching, and their different implications for quality, standards and relationships between government, universities and society
- Identification of consistency problems and inadequate theorisation of the relationship between purposes, roles and relationships in education, and their implications for quality management and evaluation
- Interpretation problems that arise from the substitution of 'stakeholders' for 'customers' in commercial quality measurement systems
- Problems of how government control of universities is legitimated within the public sector variant, if government does not represent stakeholder
• Contribution to the practice of multi-method critical research in management studies

• A suggestion that for critical management rejection of market based quality management practices does not dispose of the question about management of quality of public services, and that some marginalised parts of conventional literature on quality management raise critical concerns that require more serious consideration than they have been given in the past.

This thesis has been concerned primarily with an applied research problem. The theoretical contributions have been incidental to the resolution of the central research problem. They have been primarily concerned with identification of relevant links between bodies of research originating within different disciplines, clarification of the nature of definitional difficulties that arise from ambiguous definitions of quality and implications of different definitions of quality for issues central to discussion of quality in Australian higher education.

Limitations of the Research

It is possible to have most confidence about the conceptual difficulties resolved in this research. This includes identification of definitional problems, and the conflicts between the roles required for education and those required for commerce, the difficulty with the concept of stakeholders in Australian higher education, and problems caused by attempts to reference commercial quality measurement methods to stakeholders rather than customers. The sample of documents was targeted and small, which means that additional tensions and contradictions might have become apparent if a larger sample of documents had been analysed.

Some issues raised by the research could not be resolved conclusively based on the data available. The research was small-scale and exploratory. Documents do not necessarily reflect practices within universities. One unresolved issue was raised when the research suggested that government had made the untested assumption that all universities has sufficient 'wastage' or 'inefficiencies' from which extra efficiencies could be gained, and so compensate for cuts to per capita budgets and avoid harm to educational processes. This research argued that this was an unsafe assumption, but it was beyond the scope of the research to ascertain how the level of necessary funding for each institution could be fairly assessed. This is, however, an important question to answer in an environment where resources are scarce. Another issue, which could not be tested
empirically within the scope of this research, was whether the findings of Repenning and Sterman about the failure of quality management in industry would be replicated in higher education. Indirect evidence suggested that the findings were likely to be applicable, but no direct empirical test could be made within this study.

**Future Research**

The future research agenda for quality management in Australian higher education depends in part upon the ideological policy direction assumed. An empirical study to examine the relationship between organisational systems for quality improvement and human factors including managerial mental models, in higher education would provide empirical evidence about how Repenning and Sterman’s findings apply to higher education. Other possible future research is outlined with reference to the different value systems used throughout this thesis.

**Future research for Neo-liberals:**

For neo-liberals the future research issues are:

- Research into total compliance costs for Australian university quality management;
- Holistic research into the actual effects of quality management on universities as organisations;
- Research to assess the reality and plausibility of the intended purposes for all institutions within the financial constraints applied by policy.

**Future research for Traditionalists**

For traditionalists the future research issues are:

- Research into whether or how traditionalist collegial management systems could or should be changed to better reflect modern (or post-modern) community expectations about equity and responsiveness of universities to constituencies external to academia. If this were addressed, it might lead to some convergence of traditionalist and post-traditionalist concerns.

**Future research for Post-traditionalists**

For post-traditionalists the future research issues are:
• Development and clarification of a post-traditionalist vision of higher education, built upon what is known about the diversity of student desires for higher education, the implications for roles and relationships, the role of the university as a source of academic and professional training, the role of the university as a place where 'heretical' ideas can be explored, and the contribution of universities to well-being of others outside the university; this could perhaps, as Marginson and Considine (2000) suggest, be based upon a re-development of the concept of 'public interest', perhaps, as suggested in the conclusions of this thesis, developed locally through a process of dialogue between programs and relevant stakeholders;

• Action research to develop university management systems and mechanisms for governance suited to the purposes of universities and their multiple educational roles in society, that take into consideration the findings about efficacy and failure of quality management systems in industry;

• Action research to develop management systems for universities that prioritise process improvement over pseudo-accountability to government, achieve accountability to government incidentally to process improvement, improve processes to ensure accountability to local stakeholders to whom the outcomes of courses have direct significance, and reform managerial processes to prioritise support of academic work more highly than control and surveillance, within a framework that minimises bureaucratisation;

• Action research on ways to manage universities that nurture cultures of collaboration and teamwork necessary to support academic work and process improvement.

Conclusions

The conclusions of this thesis suggest that action is required to suspend immediately the operation of the current Australian quality management system. The research conducted for this thesis suggests that the Australian approach to quality management in higher education, as described in the documentation is unsuited to the aims of higher education in Australia. At considerable expense, the quality management system studied is more likely to undermine the capacity of universities to achieve their intended educational goals, and to produce information that misleads both the public and policy makers.
Based on the analyses undertaken in this thesis, the best way forward from this position seems to be to build on existing work of post-traditionalist theorists in educational research. This would start with a re-examination of the educational role of Australian universities in the 21st century and the implications of this for the relationship between universities, society, and government. It is important that any new plans made for evaluation of higher education be based on an adequate understanding of the necessary conditions to support teaching and learning. This includes recognition that learners are not passive, and do not all have either the same goals or the same pathway towards learning. Accountability could be achieved locally between programs and the communities they serve. This would avoid the problem, identified in the quality management system studied, of 'accountability' to government that resulted in bureaucratically mediated systems of pseudo-accountability. The findings of quality management research in industry support the suggestions of post-traditionalist writers on higher education who recommend that the focus of university management be reordered to give greater priority to support of academic work rather than surveillance and control, and to give greater priority to process improvement rather than nominal and unsound quasi-accountability.

The first requirement for new policy and management practices would be to reverse the priority between accountability and process improvement. When accountability is tied to rewards or punishments this encourages a culture of apparent compliance with requirements, rather than a culture that supports the development of sound processes, in reality. To avoid this, fundamental process improvement must be given greater priority than apparent accountability, perhaps as accountability through process improvement or perhaps through local accountability of courses to communities of interest. This represents the first reversal of the priorities found in the documentation examined in this thesis.

The second change would be to reverse processes by which commercial management methods are incorporated into university organisation. The existing practices aim to make universities' management practices align with those in business. This is unsound because purposes of higher education are different from those of business. The processes, roles and relationship required to achieve educational purposes differ from those required to achieve commercial purposes. A reversal of current priorities would begin with research into how governance and management systems in universities can be developed to suit the purposes of universities and their multiple educational roles in
Australian society in the 21st century. The design of these systems would learn from research into commercial management practices about practices that improved efficacy and the causes of failure, but would ensure that any commercially derived management practices were appropriately adapted to the purposes and context of Australian higher education and implemented in a manner consistent with the circumstances required for efficacy in the educational context. This represents the second reversal of the priorities found in the documentation examined in this thesis.

The third reversal of priorities concerns the direction of the gaze of management systems within universities. The management systems found in this research facilitate top down surveillance of academic staff to ensure (apparent) compliance. Marginson and Considine (2000) have suggested that post-traditional university management should focus upon how management systems can be developed that will best support the core work of universities undertaken by academics. A university management system designed on this basis would first identify what was required to enable academic staff to do their job better and design management processes from this perspective. This change of focus is consistent with the recommendation to prioritise process improvement. Quality management systems for higher education designed on these principles would be suited to the context of Australian higher education and would learn from the mistakes in quality management in the commercial sector. This represents the third reversal of the priorities found in the documentation examined in this thesis.
REFERENCES


DETYA. (1997). *Quality Management of University Teaching and Learning*

DETYA. (1998b). *OECD Thematic Review of the First Years of Tertiary Education*


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*Attachment by main policy developments of the last 30 years*. Canberra, Australia: Department of Education, Science and Training, Commonwealth of Australia.


Senate Employment Workplace Relations Small Business and Education Committee. (2001). *Universities in Crisis,* from


Reworking the Student Departure Puzzle (pp. 170-195). Nashville: Vanderbilt University Press.


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Appendix 1 lists acronyms used in the thesis.
Appendix 1b provides a short glossary of terms.
### Appendix 1a: Acronyms and Abbreviations

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Full Form</th>
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<tbody>
<tr>
<td>ABEF</td>
<td>Australian Business Excellence Framework</td>
</tr>
<tr>
<td>ACER</td>
<td>Australian Council for Educational Research</td>
</tr>
<tr>
<td>ANSYS</td>
<td>Australian and New Zealand Systems Society</td>
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<tr>
<td>AQC</td>
<td>Australian Quality Council</td>
</tr>
<tr>
<td>AUTC</td>
<td>Australian Universities Teaching Committee, a committee funded by the Commonwealth government to support and encourage improvement in university teaching and learning and staff development, replacing the Committee for University Teaching and Staff Development (CUTSD), post 2000</td>
</tr>
<tr>
<td>AVCC</td>
<td>Australian Vice-Chancellor’s Committee (Presidents)</td>
</tr>
<tr>
<td>CAE</td>
<td>College of Advanced Education</td>
</tr>
<tr>
<td>CEQ</td>
<td>Course Experience Questionnaire</td>
</tr>
<tr>
<td>CQAHE</td>
<td>Committee for Quality Assurance in Higher Education</td>
</tr>
<tr>
<td>CSHE</td>
<td>Centre for the Study of Higher Education</td>
</tr>
<tr>
<td>CEQ</td>
<td>Course Experience Questionnaire, survey of recent graduate perceptions of their undergraduate university experiences;</td>
</tr>
<tr>
<td>CQAHE</td>
<td>Committee for Quality Assurance in Higher Education, the quasi-independent committee overseeing the voluntary quality management arrangements for Australian universities in the period 1993-1995.</td>
</tr>
<tr>
<td>CST</td>
<td>Critical Systems Thinking, generic term given to an approach to systems thinking that begins from a critical epistemology</td>
</tr>
<tr>
<td>CUTSD</td>
<td>Committee for University Teaching and Staff Development (1999), see DEST</td>
</tr>
<tr>
<td>DDS1</td>
<td>Document Data Set 1, sample of policy documents</td>
</tr>
<tr>
<td>DDS2</td>
<td>Document Data Set 2, sample of university management quality improvement plans</td>
</tr>
<tr>
<td>DDS3</td>
<td>Document Data Set 3, sample of ‘panel’ reports</td>
</tr>
<tr>
<td>DEST</td>
<td>Department of Education Science and Technology, the Federal Government department responsible for Australian higher education, since 2002. Prior to 2002 the Australian federal government department responsibility for higher education has been variously known as DETYA, DEETYA and DEET, during different periods 1990-2002.</td>
</tr>
<tr>
<td>DETYA</td>
<td>Department of Education Training and Youth Affairs, see DEST</td>
</tr>
<tr>
<td>DEETYA</td>
<td>Department of Education Employment Training and Youth Affairs, see DEST</td>
</tr>
<tr>
<td>DEET</td>
<td>Department of Education Employment and Training, see DEST</td>
</tr>
<tr>
<td>GDS</td>
<td>Graduate Destinations Survey, a survey administered by the Graduate Careers Council of Australia, which provides information about the employment outcomes and status of recent graduates;</td>
</tr>
<tr>
<td>Go8</td>
<td>Group of Eight, a pressure group of established ‘elite’ Australian universities</td>
</tr>
<tr>
<td>GSA</td>
<td>Graduate Skills Assessment test, a test development by the Australian Council for Educational Research and designed to be used to test the ‘generic skills’ of both entering and graduating students.</td>
</tr>
<tr>
<td>HECS</td>
<td>Higher Education Contributions Scheme, a co-payment arrangement whereby the Australian government pays fees for undergraduate courses, and students repay a contribution to the fees from their wages when they graduate.</td>
</tr>
<tr>
<td>HECS</td>
<td>Higher Education Contributions Scheme</td>
</tr>
<tr>
<td>HEQAF</td>
<td>Higher Education Quality Assurance Framework</td>
</tr>
<tr>
<td>HERDSA</td>
<td>Higher education research and development society of Australasia</td>
</tr>
</tbody>
</table>
MAM – Modern Australian Model (of quality management). The framework for current Australian higher education quality management
MbO – Management by Objectives, a business management method popularised by Drucker
MCEETYA - The Ministerial Council for Education, Employment, Training and Youth Affairs, the Council was originally established to manage aspects of higher education policy where the Federal and the State/ Territory governments have overlapping responsibilities. NBEET National Board of Employment Education and Training
NUS – National Union of Students
NTEU– National Tertiary Education Union
PREQ – the Postgraduate Research Experience Questionnaire, surveys students who have completed postgraduate courses about their experiences
QI1 – Quality indicator 1, first investigation
QI2 – Quality indicator 2, second investigation
QI3 – Quality indicator 3, third investigation
QSD1 – Qualitative Systems Diagram 1, first investigation
QSD2 – Qualitative Systems Diagram 2, second investigation
SD – Systems Dynamics, a systems method originally devised by Forrester
SOSM – System of Systems Methodologies, a methodology originally devised by Flood and Jackson
SPU – Student progress units, devised by (Shah & Burke, 1996), to provide a single numerical measure that will allow comparison of the rate of progress of students enrolled in courses at different institutions
TQM Total Quality Management

Appendix 1b Glossary

Gumtree university: An Australian university founded between 1965 and 1987, see, {Marginson, 2000 #488, p189}
New University: A post-1987 Australian university, see {Marginson, 2000 #488, p189}
Quality assessment: "a review or systematic examination, usually conducted externally, to determine whether quality activities comply with planned arrangements and whether the "product" (the educational processes) is implemented effectively and is suitable for achieving the stated objects.", {Harman, 2000 #98paragraph 2.20, page 13}
Quality assurance "the policies, attitudes, actions, and procedures necessary to ensure that quality is being maintained and enhanced" {Australian Vice-Chancellors' Committee, 2000 #169, p. 46}
Quality audit: "the processes of external scrutiny used to provide guarantees about the quality control mechanisms in place", paragraph 2.19, page 13. {Harman, 2000 #98}
Quality improvement: Improvement of processes by which the goods or services are provided
Quality management: "the management of quality control and quality improvement, and of those aspects of the overall management functions that determines and components the quality policy" (from van Vught and Westerhiejden, at 1992), the design and maintenance of quality assurance mechanisms, {Harman, 2000 #98paragraph 2.21, page 13}
Redbrick university: An Australian university founded in the immediate post-war period, 1945-1965, see {Marginson, 2000 #488, p189}
Sandstone university: An Australian university founded in the period before 1920 see {Marginson, 2000 #488, p189}
Unitech university: An Australian university originally founded as a technical institute see {Marginson, 2000 #488, p189}
APPENDIX 2: PUBLISHED PEER-REVIEWED PAPERS FROM THIS RESEARCH

Appendix 2 contains eleven conference papers written in the course of the thesis. Eight of the papers have been written for Australasian conferences and have been accepted after they have been double blind referred. Two papers were written for the 3rd Critical Management Conference in the UK and were refereed on long abstract (1500 word). One paper was written for the Idea of Education conference in the UK, and was selected for publication after the conference. The papers have been included, in the format in which they were submitted to the conference and have not been edited subsequently.

The purpose is three fold.

Firstly, the conference papers formed part of the process to test the validity of different aspects of the methodology and analysis. For example, the use of systems dynamics diagramming methods within a study informed by critical inquiry is controversial and different aspects of the method and analysis were tested at four separate systems conferences.

Second the papers were written over a period between July 2001 and November 2003 and provide a formative record of the research development process.

Thirdly Australasian and international conferences were selected to cover each of the different major disciplines areas that contribute to this thesis:

- Two management conferences, one Australasian and one international, (Australasian conference: 17th ANZAM 2003, paper 11, International conference: CMS3, (non systems stream), 2003, paper 9);
- Three education conferences, two Australasian and one international (Australasian conference: 25th HERDSA 2002 papers 2, 3 & 4 and, Teaching and Learning Forum 2002, paper 5, International conference: 2nd Idea of Education 2003, paper 7); and

This has provided a means to obtain comments and criticism from experts within different disciplines.

Paper 4 was short-listed for a best paper award.


ANZAM — Australian and New Zealand Academy of Management
ANZSYS — Australian and New Zealand Systems Society
CMS3 — Third conference of Critical Management Studies
HERDSA Higher Education Research and Development Society of Australasia
Paper 1 (November 2001)

Higher Education Policy, Quality Assurance and Academic Standards: A Systemic Mapping of Change

Trudi Cooper
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Email: t.cooper@ecu.edu.au

ABSTRACT

The paper selects key policies that have implications for university teaching and applies a Qualitative Systems Dynamics approach to demonstrate that the combination of policies produces some unintended counter-intuitive outcomes. The author argues that the quality assurance procedures, intended to maintain academic quality, have become unintended contributory factors in a systemic pressure towards lower academic standards. This pressure, in turn, becomes a contributor to increased stress levels amongst academic staff.

Key words: University management, quality assurance, Qualitative Systems Dynamics

INTRODUCTION

Academic standards need to be maintained by universities to maintain the credibility of university education in developing high levels of skill in critical analysis, and in providing students with mastery of specific bodies of knowledge. This is especially so if the Australian government is serious about promoting Australia as a 'knowledge economy' (Chubb, 2001), (Kemp, 1999).

In the last 10 years there have been changes in higher education. The Government's objectives for Higher Education (DETYA, 1999a) are to:

- Expand opportunity
- Assure quality
- Improve universities' responsiveness to varying student needs and industry requirements
- Advance the knowledge base and contribute to national and global innovation
- Ensure public accountability

The Government has responded to concern from many quarters, (for example, AV-CC, 2000a; DETYA, 1999b) about the quality of university education by requiring universities to implement quality assurance process and tying DETYA funding to this requirement (Australian Vice-Chancellors' Committee, 1999; DETYA, 1999b). DETYA and other stakeholders recognise the scepticism of academic staff towards this quality assurance process (DETYA, 1998).

This paper explores the relationships between quality assurance processes and educational quality by using a Systems Dynamics approach to analyse how the systemic forces of quality assurance and efficiency strategies impinge upon academic standards. The intention is to analyse whether in systemic terms, the scepticism of academic staff has plausible justification. Qualitative Systems Dynamics was chosen because its diagrammatic basis illustrates clearly how disparate management strategies affect teaching and learning processes. According to Wolstenholme (1990, p2), Qualitative Systems Dynamics methodology is well suited to this task as it, 'facilitate(s)
understanding of the relationship between the behaviour of the system over time and its underlying structure and strategies/policies/decision rules'. He defines it as "A rigorous method for qualitative description, exploration and analysis of complex systems in term of their processes, information, organisational boundaries and strategies; which facilitates quantitative simulation modelling and analysis for the design of system structure and control."

Two other important characteristics are 'its ability to generate structures which can be transferred to create insights into other systems... its ability to help in identifying the counter-intuitive behaviour of systems.' These attributes are used here to build a model of system behaviour consistent with available data to analyse whether quality assurance processes are contributing to counter-intuitive outcomes.

The three stages in the System Dynamics process are:
- Qualitative diagrammatic representation of the system
- Quantitative Simulation
- Designing of Changes

This paper focuses on the first stage, the qualitative diagrammatic representation.

**BACKGROUND: FORCES AND FACTORS**

DETYA, (1999b, p 15), has chosen to define the quality for Australia Higher Education in terms of measures that assume that education is similar to commercial activities, as demonstrated by the following choice of indicators:
- Percentage of staff with a PhD
- Percentage of students from overseas
- Percentage of students satisfied with their course overall
- Percentage of students satisfied with their acquisition of generic skills
- Percentage of students satisfied with the quality of their teaching

This view of quality expounded by DETYA has been influential in informing policies and strategies of university management. The AVCC and DETYA have documented and monitored changes in the sources and types of government funding for universities. According to the figures (AV-CC, 2000b), p5, public funding per student place has been declining since 1984 and declined most sharply between 1996 and 1999. During the same period student contributions to fees have risen, rising most sharply between 1996 and 1999. The total proportion of revenue from public funds and student payments has declined slowly between 1984 and 1996 and more steeply since 1996, despite a steep increase in the rate of student payments. The consequences for the teaching and learning processes have been an increase in the staff student ratio. In 2001 there was one member of academic staff for every 18 student whereas in 1987, there was one member of academic staff for every 12.7 students, (Megalogenis, 2001). These figures show that the cost cutting processes forced upon university management by changes in government funding have had a direct impact on staff student ratios, and therefore need to be factored into any consideration of university policy and educational quality.

It has sometimes been suggested that a reduction in public funding may not be harmful provided universities can access replacing funds from other sources. The AVCC (2000b) note the overall rise in university income from diversification of activities does not indicate that universities are in a financially strong position, because income from these sources cannot be diverted to cross subsidise Australian students or support infrastructure requirements. There is a slight decline in the ratio between universities operating grant and research monies granted through commonwealth research programs (Andrews, Aungles, Baker, & Sarris, 2000), but the biggest change is the diversification
of sources of funding, especially research funds from industry and fees from overseas students. Andrews (2000, p 19) reports DETYA figures that show access to alternative sources of funding varies substantially between Universities, (e.g. eight 'Cluster 1’ research Universities share 70% of total research income, while the 25 universities in the third and fourth clusters share 10%).

Organisational Boundaries

Four different organisational boundaries are relevant to this problem:
University management,
University teaching staff,
Professional institutions,
Students.

The rationale for dividing universities into two discrete units is that the locus of control and responsibility for teaching is divided. Universities as organisations are anisotropic because there are different organisational cultures within university management at different levels. (Cooper, 1998).

Students are a separate stakeholder group, because they have been identified within the quality assurance framework as 'customers' of the universities whose feedback on satisfaction is part of the quality assurance process. Student behaviour is influenced by separate policies and considerations, and therefore, they form a separate constituent group in organisational terms.

The professional institutions are included because they have been identified in the Quality Assurance Framework as having a role in auditing standards for professional courses.

Resources

Several key resources are directly relevant to this problem, the key resources being students, teaching staff, aptitude of students, aptitude of staff, time available to staff for teaching related activities, and time available to students for study.

Processes

The main process of interest to this problem is how academic and professional standards are maintained within universities’ teaching and learning processes. Relevant to this are formal university quality assurance processes, university processes for adjusting to reduced per capita student income, university perception management processes, other processes that significantly influence the balance of time available for teaching or teaching related activities, and processes that change the nature of the teaching and learning relationship.

Policy objectives and associated strategies

On the basis of the information presented earlier, five policy interventions have been selected that have direct bearing on teaching processes within universities, when viewed systemically. The rationale for choosing these policies is they are related to common university quality assurance / performance measures (derived from the DETYA quality indicators outlined above) or are based upon the forced need to diversify funding sources and reduce costs due to a progressive reduction in the real value of the
combined public subsidy and fees per student place, or have been included because they change the nature of the teaching and learning relationship.

- Improve staff qualifications
- Improve staff research output
- Improve efficiency
- Increase student numbers
- Monitor staff teaching performance

Each of the five policy objectives is pursued through strategies. The table below outlines some of the typical strategies employed to achieve the desired policy outcome.

Table 1 Policy objectives and strategies

<table>
<thead>
<tr>
<th>Policy objective</th>
<th>Strategy</th>
</tr>
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<tbody>
<tr>
<td>Improve staff qualifications</td>
<td>Reward through tenure and promotions</td>
</tr>
<tr>
<td></td>
<td>Support with study leave</td>
</tr>
<tr>
<td>Improve staff research output</td>
<td>Reward through tenure and promotions</td>
</tr>
<tr>
<td></td>
<td>Reward staff by giving them and a share of the RAI point value they generate</td>
</tr>
<tr>
<td>Improve efficiency</td>
<td>Increase student: staff ratio</td>
</tr>
<tr>
<td></td>
<td>Increase student numbers</td>
</tr>
<tr>
<td>Increase student numbers</td>
<td>Recruit local and overseas full fee paying students</td>
</tr>
<tr>
<td>Monitor staff teaching performance</td>
<td>Monitor student satisfaction with study</td>
</tr>
<tr>
<td></td>
<td>Monitor student attrition</td>
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</table>

Information systems

From these policy objectives and strategies, the relevant information systems can be identified as formal monitoring systems: e.g., student satisfaction surveys, attrition data, and the informal information channels that influence decision making about academic and professional standards.
A dynamic system model of intended and actual effects

Figure 1: A Systems Dynamics Model of Intended and Actual Control Systems

Description

Qualifications policy strand: The use of the measurement of ‘the proportion of staff with PhD’s’ as a measure of university quality leads to pressure on academic staff to upgrade qualifications. Staff study time reduces the time available for teaching related activities and has no demonstrable relationship to teaching quality.

Research policy strand: Research output has become more important to universities. Staff are encouraged to spend more time in research related activities. Once again, there is no demonstrable relationship between research output and teaching quality and research activities reduce the time available for teaching related activities.

Efficiency policy strand: This strand has two distinct strategies. The first is average class sizes have become larger: an effect is found most strongly in first year courses. Whilst larger class sizes do not necessarily imply the quality of teaching and learning processes is reduced, class size contributes to the difficulty of teaching. In other words, it is a more difficult task to effectively teach larger groups of students in ways that engage all members of the class in teaching and learning activities. This has been recognised to some extent, and universities offer professional development courses to help staff refine and develop their teaching skills to improve learning outcomes for large classes. Whilst this is laudable from some perspectives, these courses represent another call on the time of the staff member detracting from time they have available for teaching related activities, for research, or for improvement of qualifications.

Efficiency policy strand (student numbers): The second strategy within this strand represents attempts by universities to increase their student numbers. Two principle
strategies are used to address this policy objective. Firstly universities have devised alternative entry pathways and secondly they have sought ways of increasing their numbers of fee-paying students. In the USA where trends towards open enrolment are more advanced, the diversity is such that in some universities almost 40% of students have not achieved Year 6 standards in literacy and numeracy when they enter college, (Tinto & Riemer, 1998). Both these strategies have increased the diversity of the student group. (Meek & Wood, 1998). A more diverse group requires greater teaching skills to keep all members effectively engaged in learning and increases the difficulty of the overall teaching task.

Monitoring staff teaching performance policy strand: The policy objectives of this strand are concerned with the strategies universities use to monitor staff teaching performance within the institution. This strand represents what university management chooses to measure for internal management purposes. Measurements include surveys of student satisfaction with individual units, with their courses and a collection of data on student completions. Staff are aware that their future employment may depend upon being able to demonstrate a good performance on these measures and are therefore under pressure to teach in ways that prioritise satisfying and retaining students, even where this may be at odds with sound educational principles and practices.

Students as ‘customers’: Increases in HECS and the acceptance of full fee paying students means that students have now become ‘customers’ of the university and this almost certainly changes their expectations of university education. The change in status is supported in the recent overview of quality in higher education, (DETYA, 1999b), p.14. The customer buys a ‘product’, but whether students believe they are buying an educational process or a final qualification is a moot point and has implications for perceptions of responsibility for failure and of what constitutes an appropriate level of study effort. (For a discussion of why student should not be considered as customers see, (Scrabec, 2000).)

The world has changed for students since the 1980’s and this is reflected in their changing relationship with university education. Although university education still appears to offer advantages to graduates in higher median wages and lower unemployment than other sectors of the community, these differences are smaller than previously. (DETYA, 1999a), p.20

Students and paid work: Student poverty has been recognised as a growing concern (Turale, 2001). There is evidence that students are under increasing pressure to work substantial hours whilst studying fulltime (McInnis, James, & Hartley, 2000). If these perceptions are accurate, then other things being equal, the consequences are that students without independent financial support have less time available for study because of work commitments.

Professional institutions and professional standards: The professional institutions are a formal part of the proposed quality assurance process that links universities with industry and commerce, (DETYA, 1999b). The professional institutions accredit university courses by granting recognition of their qualifications and admitting graduates of specific courses to the professional institution. Some institutions stipulate specific professional learning outcomes and learning processes (for example, Australian Association of Social Workers and the Institute of Engineers Australia) others make more general judgements about standards, (for example, the Australian Computer Society).

Academic standards: Academic teaching staff have responsibility for delivering courses that are approved by the university. In practice, this means that they are required to make autonomous judgements about the standards of student work. Unlike the UK,
there is no system of external moderation of student work in Australia, (Harman & Meek, 2000).

In practice, academic staff, rather than university academic boards, have the responsibility for ensuring that teaching standards satisfy the requirements of the professional institution. In many instances teaching staff are also members of the professional institutions that accredit professional courses and by virtue of their professional membership, they have a responsibility to maintain the standards required by the institution.

DISCUSSION

Figure 1, above illustrates that, from a systemic perspective, the various strategic responses to government policies combine to produce a prima facie systemic pressure that tends to erode academic standards. The diagram shows three distinct aspects to this problem, a structural component, a strategic control component, and an expectation component. The structural component of the problem occurs because there is a dislocation of control and responsibility. The strategic control component occurs because there is a counter-intuitive effect, whereby measures intended to increase educational quality, contribute to pressures that tend to decrease academic standards. The expectation component occurs because there is an unrealistic expectation, that per capita costs can be dramatically cut at the same time as student intake is broadened, without any effect on quality.

The structural problem: forces potentially resisting the pressure to reduce academic standards are located with academic staff but institutionally academic staff are poorly supported to undertake this role. Academic teaching staff have no direct influence over the flow of key resources within universities, but they have responsibility for maintaining standards. There is a dislocation of responsibility and control. In an institution context, there are two possible consequences of this dislocation between control and responsibility. The first possible consequence is that academic standards will indeed fall. The second alternative consequence is that academic teaching staff will suffer unreasonable work related stress as they attempt to maintain academic standards without either the necessary institutional support or the necessary control of the resources. Although there is no clear data about whether academic standards have fallen, a recent study undertaken for the NTEU found that stress experienced by academic staff had increased, (Winefield, Stough, Jagdish, & Gillespie, 2001).

They strategic control problem appears in the diagram in the monitoring processes chosen for teaching performance management purposes. The quality assurance procedures intended to improve academic quality in practice act counter intuitively as demonstrated in the diagram. This has occurred firstly because the measures chosen do not have any direct relationship academic standards and secondly because some of the measures chosen directly contribute to reducing the proportion of time academic staff spend on teaching. Most universities are choosing to include measures of student attrition and measures of student satisfaction in their quality assurance statistics rather than direct measures of academic quality. (See individual university quality management plans in (DETYA, 1999b).) Data on student attrition or even student satisfaction does not have any simple relationship to course quality. Recent research (McInnis, Hartley, Polesel, & Teese, 2000) indicates that while teaching quality is significantly related to attrition in the TAFE sector, there is no evidence of a relationship between teaching quality and attrition in higher education. The focus on student satisfaction instead of academic standards is also misplaced (Scrabec, 2000).
learning outcomes but the current ACER testing procedure is expensive, time consuming for students and according to some staff involved in the trial, deeply unpopular with students. If there is difficulty in achieving a high level of student compliance, then quality management based upon testing based upon graduate attributes may prove impractical even though, in principle, graduate attributes testing offers a means of finding out whether student skills are enhanced by university. More importantly, testing graduate attributes does not address the fundamental problems of the dislocation of control and responsibility, the falling per capita spending on university teaching and the increasing student diversity.

Where university management collects student attrition data on a course-by-course basis for quality assurance purposes it may have counter-intuitive effects on the system as a whole. The use of student attrition data as a measure of course quality is intended to demonstrate a commitment to educational quality, but it may in fact, act to reduce course quality. This is most likely to occur if academic staff choose to teach in ways that retain and satisfy students by reducing the minimum acceptable standard. In such an instance low attrition data may actual indicate low academic standards. This is especially likely if the initial entry requirements for a course are relatively academically uncompetitive.

The diagram highlights that government policy is providing universities with less public money per capita whilst expecting universities to increase their research output, make themselves more relevant to industry, and maintain the standard of education offered to students. In the long-term, it is not realistic to expect that universities can achieve all this whilst per capita teaching budgets are shrinking. It is argued elsewhere, (Cooper, 1998), that it is in the interests of university management to better support collegially management arrangements for academic teaching. As this is not occurring, the author now argues, that bureaucratic management principles should be applied throughout the university so that control and management are clearly co-located. This would permit workloads to be honestly assessed and realistic decisions could be made about how each university wished to use its more limited resources.

**SUMMARY**

A major structural weakness in the management processes within universities allows the separation of responsibility for academic standards from the control of resources necessary to maintain those standards. This dislocation has masked the unrealistic expectation that it is possible to maintain quality whilst cutting costs. This myth is further bolstered by the choice of 'quality indicators' that do not have any demonstrated relevance to academic standards. The diagram presented in this paper demonstrates the interactions between different policy strategies and their possible effects on academic standards. It illustrates that the combination of policies intended to maintain educational quality and to promote university efficiency tends to act systemically to erode academic standards. The main countervailing force depends upon academic staff collegially acting to maintain standards. Such actions, however, have little institutional support, are contrary to the career interests of staff members, can only succeed in the short-term, and may contribute to the stress that academic staff experience in their work.

**CONCLUSIONS**

It is concluded therefore, that improvement in this situation can only occur if: quality assurance measures directly relate to educational outcomes; if the fundamental structural problems are addressed; if universities receive sufficient resources to maintain high quality teaching; and if priority is given to the strategies that enhance educational
outcomes for students rather than supporting strategies that address students' expressions of satisfaction.

REFERENCES


DETYA. (1999b). The Quality of Higher Education. Canberra: DETYA.


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Why Student Retention Fails to Assure Quality

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Abstract

Can data on student retention be used to validly infer anything about the quality of the educational experiences offered to students? The question is important because universities are using data about retention rates to inform quality management initiatives without any theoretically grounded understanding of the relationship between student retention and educational quality. The lack of scrutiny of the use of attrition data to demonstrate educational quality is symptomatic of a broader problem, namely that ‘quality indicators’ are proposed without adequate regard for educational research that is readily available and might caution against their use. Although it has been recognised that the issue of student attrition is complex and that multiple factors influence student attrition, this has not been adequately considered when student attrition data has been claimed as a quality indicator for higher education. Before student retention can be accepted as a valid indicator of educational quality it must satisfy certain requirements. Crucially, it must be possible to describe a continuous theoretical path that explains the relationship between student attrition and an acceptable definition of quality. This paper will examine whether the models that claim to explain student attrition are theoretically coherent and whether they can be used as the basis of a model that will link retention rates to educational quality. The results of this analysis illustrate a process that may be applied to test the theoretical sufficiency of other proposed quality indicators.

Keywords: Student Attrition, Higher Education, Quality

Introduction

Several government sponsored research reports, for example, Kemp in (Elson-Green, 2001) (McKinnon, Walker, & Davis, 2000) recommend that data on student retention (and student progress rates) are used in universities in Australia as ‘quality indicators’, for quality assurance purposes. Educational research, however, indicates that student attrition is a very complex phenomenon (McInnis, Hartley, Polesel, & Teese, 2000; Tinto, 1993; Yorke, 1999). The general problem that this paper tackles is how to integrate the findings within educational research into discussions about quality measurement in higher education. The specific problem discussed in detail is how to integrate the literature on student retention and attrition with the literature on quality assurance in higher education.

Quality indicators and validity

‘Quality indicators’ depend for their validity on the existence of a continuous theoretical path that explains the relationship between the data and an acceptable definition of quality, they depend on the validity of underlying ‘justificatory propositions’ upon which they are founded. Frequently these justificatory propositions are neither explicitly stated nor tested. This paper will propose a method for checking the validity of quality
indicators by identifying their underlying justificatory propositions, and by testing the justificatory propositions against existing educational research. This method will be applied to attrition claims and conclusions will be drawn about whether attrition data can be validly used to support quality claims, as typically made, in higher education.

**Justificatory propositions and student attrition**

In the case of student retention, there are two conflicting ‘common sense’ justificatory propositions about the relationship between student retention and quality.

- **Proposition One:** good quality courses retain students better than poor quality courses, because the quality of their teaching is superior.
- **Proposition Two:** high retention rates are indicative of low standards because high quality courses exclude or encourage the departure of a greater proportion of poorly performing students than low quality courses that make more limited academic demands upon students.

This paper will illustrate the importance of making explicit and testing the validity of implicit justificatory propositions against existing research findings in higher education.

**A method for relating educational research to quality indicators**

The method that has been developed has four stages. The validity of proposed ‘quality indicators’ as technical measures of educational quality depends upon the existence of an unbroken logical path between each ‘indicator’, what the ‘indicator’ purports to measure, and the theoretical basis that explains the process by which ‘what is measured’ can be linked to a specified concept of quality. This process can be expressed in question form as outlined in Table 1.

<table>
<thead>
<tr>
<th>Stage</th>
<th>Question</th>
<th>How</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage 1</td>
<td>How is quality defined?</td>
<td>Identify a relevant concept of quality</td>
</tr>
<tr>
<td>Stage 2</td>
<td>Does this indicator actually measure, with sufficient accuracy, what it purports to measure?</td>
<td>Review literature to find evidence for the reliability of the measure</td>
</tr>
<tr>
<td>Stage 3</td>
<td>Is there a widely accepted model that informs the choice of justificatory propositions?</td>
<td>Review literature to identify models and how well they have been tested</td>
</tr>
<tr>
<td>Stage 4</td>
<td>Can the model be used to relate the phenomenon to an acceptable concept of quality?</td>
<td>Identify whether the model can provide a way of linking the concept of quality with the indicator</td>
</tr>
</tbody>
</table>

If this process is applied to attrition and retention data collected by institutions, the questions become:

- How is quality defined?
- Does the data collected about student attrition sufficiently accurately reflect the rate at which students depart from the university of their choice?
- Is there an adequate model that explains why students leave their initially chosen university?
- Can this model be used to relate student retention to an acceptable concept of educational quality?

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These questions will now be examined in the light of existing research on student retention and attrition and quality.

**Stage 1: The concept of quality**

What concept of quality is retention data being used to support? Quality can be defined in many ways. For the purposes of this paper, quality will be viewed from the perspective of government policy, because this has strongly influenced the mainstream ways in which quality has been viewed within universities. The definition of quality assurance offered here is taken from Harman & Meek (2000) whose paper on quality in Higher Education aligns closely with government positions on quality assurance. They define quality assurance as:

"(The) systematic management and assessment procedures adopted to monitor performance and achievement and to ensure achievement of specified quality or improve quality" (Harman & Meek, 2000, p11).

They elaborate that the intended role of quality assurance in Australian higher education to allay

"Community and government concerns about academic standards and the levels of achievement of graduates in a time of major expansion in student numbers associated with the decreasing government funding support per student unit."

(Harman & Meek, 2000,11)

They explain that these outcomes should reflect the requirements of employers and the professions, the perceived needs for mobility of professional labour and of international competitiveness. It can be inferred from this that ‘quality education’, is defined as education that maintains academic standards and produces graduates who demonstrate high levels of achievement. This is the definition of educational quality against which the use of retention data will be assessed.

**Stage 2: the measure: accuracy and relevance?**

How is retention data collected and how accurately does the data reflect student retention? Retention data is currently used as an indicator of quality in one of two ways, either in its simple form or referenced to benchmarks. In its simple form, the number of students retained by the institution is compared with the number originally enrolled. When retention is referenced to benchmarks, the profile of enrolled students and the subject matter of each course is used to calculate the expected retention profile for any subject with any given student enrolment. Hence the expected overall retention rate for any Australian institution, with its unique mix of subject and enrolled student profile, can be calculated.

Doubt has been cast on the overall accuracy of institutions in collecting retention data because of the differences between institutions in the ways they record and calculate retention rates (McInnis et al., 2000, p15). The data on student retention are inconsistent, because of difficulties in determining how some students should be counted and whether the focus for data collection should be the unit, course, or institution in which the student is enrolled or the higher education ‘system’ as a whole (McInnis et al., 2000; Tinto, 1993; Yorke, 1999). There is some agreement. Students who formally withdraw are classified as ‘not retained’. A ‘retained student’ is one who remains connected to an institution or course or ‘the system’. Students who are enrolled
at the relevant census date are ‘retained’. Institutions differ in how they categorise deferred and ‘lapsed’ students. Institutions sometimes treat students who have formally deferred as retained, because their non-enrolment is temporary, even though some deferred students will never return. What assumptions should an institution make about students ‘lapsed’ students who have not formally withdrawn, deferred or enrolled? If institutions assume that they have deferred (and are therefore retained), rather than withdrawn (and are therefore ‘not retained’), they improve their apparent retention rate at a stroke, without changing the underlying circumstances. Moreover, these students remain ‘retained’, for the duration of their potential enrolment, which could be as long as ten years. McInnis also found that some institutions overestimate institutional attrition because their retention statistics were program related and counted students who changed courses as ‘not retained’. Since institutions may choose what assumptions they make, the figures for any individual institution may either overestimate or underestimate student retention and data is neither cross-comparable, nor reliably accurate (McInnis et al., 2000).

It is further argued that the use of simple attrition data as a measure of institutional quality is flawed because different institutions have different student intakes and some types of students are more ‘attrition prone’ than others (Shah & Burke, 1996). In response to this objection and the similar observation that student attrition is typically markedly different for different subjects (Shah & Burke, 1996), a method was developed whereby the expected attrition rate for any student group and subject profile could be predicted (DETYA, 1998). The student profile considered factors such as: age at commencement, gender, cultural background, socio-economic status and geographical origin, as these factors had been shown as statistically significant in predicting non-completion (McInnis, 2001; Shah & Burke, 1996). From this, expected institutional attrition rates are calculated. The method is open to criticism because students’ individual socio-economic status was estimated from aggregate data for their postcode area.

To summarise, the research available indicates that institutional statistics on student attrition are unreliable because of differences in underlying accounting assumptions. Simple measures of attrition are inequitable because they do not take account of difference in student populations. Benchmarking overcomes this to some extent but the use of the postcode basis for assessing socio-economic status is unreliable as an indicator of individual socio-economic status.

**Stage 3: Models to inform choice of justificatory propositions**

What models explain the reasons for student attrition and are they satisfactory? From the perspective of using attrition data as an indicator of higher education, what is required is a model that will explain why students do not complete degree courses in which they enroll. In the past thirty years, several researchers have proposed models of student attrition. At least three separate lines of inquiry developed. In the USA, the dominant models were developed by Bean, who developed an organisational/psychological model (Bean & Eaton, 2000), and by Tinto, who developed an interactional model (Tinto, 1993). Bean’s model and Tinto’s model spawned other variant models and syntheses. In the UK, Ozga & Sukhnandan, (Yorke, 1999) developed a separate model. A search of the English language higher education literature indicated Tinto’s model of ‘student departure’ (Tinto, 1993) has become the most widely accepted model used to explain student attrition. Braxton et al. cited a previous study (Braxton, Sullivan and Johnson, 1997) where the researchers had found 400 citations and 170 dissertations discussing aspects of Tinto’s model (Braxton,
Milem, & Sullivan, 2000, p. 1). Tinto’s model will form the basis of analysis in this paper because of its field dominance.

Theoretically, Tinto (1993) claims that his model is based upon concepts developed by Durkheim and by van Gennep. From Durkheim, Tinto borrowed the concepts of social integration and academic integration. Durkheim developed the constructs of social and intellectual integration within his theory to explain difference in aggregate rates of suicide in different cultures. From van Gennep, Tinto borrowed the concept of ‘rites of passage’ as the process for inter-generational transfer of knowledge and culture.

Based on these concepts, Tinto developed an interactional model to explain individual student departure. He used the concepts of student ‘commitment’ and ‘goals and intentions’ to explain individual decision-making and justified his use of these concepts empirically rather than theoretically. Tinto claims that colleges are made up of academic and social systems. The academic system concerns itself with the formal education of students and the social system centres on the ‘daily lives and personal needs’ of students and is made up of “those recurring sets of interactions among student, faculty and staff… outside the formal academic domain,” (Tinto, 1993, 106). The central claim of Tinto’s theory is that students are more likely to leave higher education when they are not well enough integrated into one or other of these systems or both. Tinto claims that the systems act separately and integration in one system does not imply integration in the other and he acknowledges that there is an asymmetry between the systems because of the possibility of involuntary departure arising from academic failure.

Critics of Tinto’s model have suggested variously that the model overemphasises the role of the student in the departure process, leaving institutions the possibility of blaming students for their own failure (Yorke, 1999), or alternatively that it underestimates the choices made by students in making decisions about leaving college (Stage & Hossler, 2000). Braxton has suggested that the posited role of academic integration is not well supported empirically (Braxton & Lien, 2000). Others have criticised the theory for being too ethnocentric (Rendon, Jalomo, & Nora, 2000) or culturally normative (Tierney, 2000) in its assumptions.

At a theoretical level, Tinto’s model is irretrievably confused. Durkheim’s social theory of suicide was concerned with providing societal explanations of aggregate behaviour in populations and made no claims to explain individual behaviour. Durkheim explicitly rejected the validity of psychological explanation for social phenomena (Barrett, 1984). By contrast, Tinto uses Durkheim’s concepts to underpin an explanation of individual behaviour. Van Gennep’s theory was concerned with explaining how people were inducted into lifelong cultural roles in traditional tribal societies, while Tinto is concerned with how students are inducted into academic life, which for most students will be both limited in scope and short-term in duration. It is argued here that Tinto, in his most recent book (Tinto, 1993), unwittingly severs the links both with Durkheim and van Gennep, through his discussion of the ways in which college life is unlike the societies of Durkheim and van Gennep, in his responses to the criticisms of other writers, and in his discussion of the exceptions to the claims that arise from his model. If this is so, Tinto’s model provides a social-psychological rather than a sociological explanation, and is vulnerable to the criticism of Bean and others (Bean & Eaton, 2000; Stage & Hossler, 2000) that it lacks adequate grounding in psychological theory, because of Tinto’s unsupported empirical use of the concepts of commitment and goals and intentions within his theory.

To summarise, the most widely accepted model of student departure appears to have both theoretical and empirical weaknesses. These weaknesses limit the usefulness of
this model in explaining how data about student attrition can be validly linked to any concept of educational quality and choosing between justificatory propositions.

Stage 4: Explanatory links to educational quality

How does the best model provide an explanation that can be used to link attrition data to the chosen concept of quality? Suppose, for the purposes of argument, that Tinto’s model had been found to be adequate. Could the model justify claims that attrition data demonstrates educational quality? The purpose of quality assurance as defined earlier, was to demonstrate to the community and to government that universities are maintaining academic standards and producing graduates who meet the needs of employers and the professions.

Tinto’s model claims that students leave university if they are inadequately integrated into the social and or academic systems. Although Tinto acknowledges that some students are able to continue their studies even if they are social isolated, he assumes that these will be the exceptions to the normal process. Tinto’s model suggests that some students leave university prematurely because they do not integrate socially, because they feel socially uncomfortable in the university environment, they are unable to make friends, or because they do not want to lose their friends from school or their local neighbourhood who do not attend university. His model also suggests that some students leave university because they do not integrate academically, they find difficult, or do not enjoy the ways the teaching and learning processes are structured, they find something else they would rather do with their lives, they discover that the subject in which they have enrolled does not interest them as much as they expected or because they fail academically and are excluded.

Tinto’s model claims that any of these factors may negatively influence the commitment of the student to continuing their university education and may cause them to re-assess their life goals and intentions. In some circumstances, it might be argued that the change in the student’s commitment to continuing university is a legitimate response to lack of educational quality of the programs offered to students. For example, it has been long suggested that culturally insensitive or racist attitudes increase the likelihood that black students will withdraw from university. In other instances it appears the student’s desire to re-assess their life goals may be independent of the educational quality of the course or may even occur because the educational quality of the course either broadened the student’s horizons and enabled them to choose a different life path or made demands that the student did not meet. Therefore Tinto’s model cannot be used to establish a link between student retention and the requirements of quality assurance, either positively or negatively, in the absence of other evidence.

Can benchmarking overcome this problem? In the absence of an adequate explanatory model, does benchmarking overcome these difficulties? Benchmarking does not assume that it is necessary to know how or why something occurs, but only the extent to which the phenomenon under observation deviates from previously identified norms. This position does not overcome the problem with assumptions about the meaning of retention and attrition. The retention data compared with predicted institutional norms, show the extent to which the actual retention deviates from what is expected, but without an explanatory model, nothing can be inferred about quality, unless the quality of the course is defined primarily as its ability to retain students. Few academics or policy makers would wish to publicly support this position, which values retention more highly than student development or the maintenance of academic or professional standards within academia.
To summarise, even if the model were valid, it could not provide an explanation that would support the use of retention data as an indication of quality, using the definition chosen in stage 1. Benchmarking is still ultimately dependent on explanatory models to provide a rationale for linking data to the chosen concept of quality.

Conclusion

This method formalises the process of answering the question: ‘Can a coherent theoretical path be drawn between the entity about which data is being collected and a chosen definition of quality?’ It could be applied to ‘test’ the same data, against multiple concepts of quality, or to assess the validity of different data collection methods against a single concept of quality.

There is no satisfactory theoretical basis for making claims that data purporting to show high institutional levels of student retention assures the quality of the educational experience. Such claims are dubious on three counts. Firstly because the reliability of the data is not sufficient, secondly, because the dominant model is theoretically and empirically suspect and thirdly because even if the dominant model were valid, it would provide no coherent pathway between the concept of quality inferred from quality assurance and the data gathered about student retention. Equally, and for the same reasons, there is no support for the proposition that high rates of student departure demonstrate the educational quality of a program or institution. There is no adequate theoretical basis for claiming any relationship between institutional data reporting student retention and statements about educational quality, in the absence of other forms of assessment.

References


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Concepts of ‘Quality’: and the Problem of ‘Customers’, ‘Products’ and Purpose in Higher Education
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Abstract

Concepts of quality and methods of measurement appropriate to commercial settings have been applied to higher education without adequate consideration of their applicability. One result has been inconsistency between the desired outcomes of quality assurance, explicit philosophical choices about the concept of quality and the choice of methods to demonstrate quality. Within the commercial context where the concept of quality assurance originated, the concept of quality is referenced variously to features of the product, customer satisfaction, the fitness of the product for its intended purpose, the process of production of the product, or the culture of the organisation.

An exploration of the relationship between different concepts of quality, and the purposes of quality assurance and quality improvement requires discussion of how concepts such as ‘customer’, ‘product’, ‘intended purpose’, apply in the context of higher education. The purpose of the paper is to clarify these relationships and develop a framework that will make explicit the different identifiable positions on ‘quality’ in higher education and describe the relationship between alternative definitions and key issues for the philosophy of education such as the nature of the relationship between students and the university, the purpose of higher education and how academic standards for degrees should be established.

The paper concludes by indicating how this approach may be used to aid the process of designing and improving quality assurance and quality improvement processes.

Keywords: quality assurance, universities

Background

Quality management in education has gained prominence in Australia during the past ten years, (Anderson, Johnson, & Milligan, 2000; DETYA, 2000b; Harman & Meek, 2000). A consequence has been the appearance of a multiplicity of measures as ‘quality indicators’ for higher education including, staff qualification profiles, staff research output, graduate destinations surveys, course experience questionnaires, data on student attrition, and calculations of student progress units. (Andrews, Aungles, Baker, & Sarris, 2000; DETYA, 1999, 2001a; Long & Johnson, 1997). A review of the literature on quality management in higher education reveals difficulty in making judgements about educational quality arises because of the difficulty in collecting, acquiring and interpreting data that validly reflects educational quality independently of other variables (Reed, 1995; Yorke, 1999).

The concept of quality assurance and it methods were originally developed within a commercial context, (Australian Quality Council, 2000) and form an important element
in rational approaches to management. In the commercial context, 'quality' is a technical concept having several distinct meanings and defined by the relationship between measurement and explicit criteria. Different concepts of quality in higher education will be related to the intended purposes of quality assurance in higher education.

Lack of clarity about how quality is defined is problematic because it leads to confusion about how quality should be measured and what claims about quality can legitimately be made on the basis of data collected. If individual staff or institutions focus excessively on gathering data to support quality claims without adequate clarity about their definition of quality and their assumptions about the methods and purpose(s) of higher education, it will lead to simplistic thinking about quality and quality measurement. Poor interpretation of data produces faulty policy (Reed, 1995), and undermines the possibility of quality. A potentially undesirable outcome of this state of affairs is that measures chosen to demonstrate quality, as implicitly defined in one way, may fail to satisfy the requirements of quality assurance, based upon a different (implicit) definition of quality. The choice of how quality is defined is important because it should derive directly from the philosophy of the enterprise and should be used to inform both internal functioning of the organisation, especially how control is exercised and legitimised, and its external public relations, especially how its products and services can be marketed to the public (Australian Quality Council, 2000).

Although different definitions of quality have been acknowledged in higher education (Harman & Meek, 2000), there has been no satisfactory method to systematically link the assumptions underpinning the different concepts of quality with the stated purposes of quality assurance and quality improvement and hence the implications of these links for validity in the choice of quality assurance and quality improvement processes.

The paper uses definitions of quality offered by Cameron and Sine (1999), and compares these with the concepts of quality found in higher education in Australia. This comparison will test the adequacy of current Australian conceptualisations of quality in higher education and indicate considerations requiring attention when the concept of quality assurance is applied in an educational rather than a commercial setting. The paper will conclude with a framework relating different concepts of quality to the concepts of 'customers', 'product', 'intended purpose(s)', within of higher education.

**Quality in commercial organisations**

In commercial contexts, measurement of quality is relative to standards referenced to either an attribute of the product (including how well it satisfies customers, fits its intended purpose, represents value for money, conforms to recognised standards or represents transcendent excellence), or to the overall functioning of systems and process which produce the product or service, including the values, norms and of orientation staff within the organisation at all levels (Cameron & Sine, 1999). Cameron makes use of Juran's terminology and refers to the attribute-of-product-referenced methods as the "little q", and the organisational-functioning methods as "big Q" approaches to quality. In a commercial setting these concepts are generally unproblematic, because the product, or service and the customer are easily identifiable, the intended purpose of the product or service is not a matter of contention. Within higher education, the application of each these concepts is contested. The source of this divergence of opinion arises from philosophical differences concerning the purpose(s) of higher education and hence different judgements about the identity of the 'product' or service and the appropriate relationships between students, universities, academic staff, industry, the professions and government.
Table 1: Concepts of quality (based upon Cameron & Sine (1999))

<table>
<thead>
<tr>
<th>Concept of quality (C&amp;S)</th>
<th>Definition: “Quality is...”</th>
<th>Example</th>
<th>How measured?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transcendent</td>
<td>Quality can not be defined but can be recognised</td>
<td>Innate excellence or beauty</td>
<td>Perceived by those who are sensitive cannot be measured.</td>
</tr>
<tr>
<td>Product-based</td>
<td>‘Unpriced attributes contained in each unit of priced attribute’</td>
<td>Extra desired features (by the customer?) or durability</td>
<td>Measure ‘features’ exceed expectations</td>
</tr>
<tr>
<td>User-based</td>
<td>Fitness for use; Satisfies customers</td>
<td>Fulfills customer expectations</td>
<td>Measure level of customer satisfaction</td>
</tr>
<tr>
<td>Production based</td>
<td>Conforms to specifications</td>
<td>Reliable</td>
<td>Measure against what is promised</td>
</tr>
<tr>
<td>Value based</td>
<td>Best for price; Best for actual use</td>
<td>Value for money</td>
<td>Efficiency based upon cost per unit</td>
</tr>
<tr>
<td>System-based</td>
<td>System to produce services that satisfy customers</td>
<td>Accepted systems for quality assurance adhered to</td>
<td>Check whether systems are in place and adhered to</td>
</tr>
<tr>
<td>Cultural</td>
<td>Organisation’s culture supports the constant attainment of customer satisfaction through integrated use of training, techniques and tools</td>
<td>Quality as a ‘mindset’ throughout the organisation in all aspects of work</td>
<td>Examine whether the organisation supports customer satisfaction in an integrated way</td>
</tr>
</tbody>
</table>

Cameron and Sine offer seven different definitions of quality. In the first five of these, they argue that quality is defined as an attribute of the product or service, as measured in different specified ways (Table 1). All the definitions assume the product or service can be clearly identified. In addition, the third, sixth and the seventh definitions (and possibly the second) assume there is a customer who buys the product or service and whose requirements can influence the standard of service provision or of the artefact, and who may be willing to either accept lower standards and pay less or to pay more for a better quality product or for better service. In the third and fifth definition there is an assumption that the product or service should ‘fit’ its intended use or be adequate for its intended use, and this pre-supposes a shared understanding of the nature of the intended use.

The concept of quality in higher education in Australia

Prior to the application of quality assurance to education, it was assumed ‘standards’ within institutions could be recognised by academic peers (Anderson et al., 2000) and this implies an understanding of quality akin to Cameron and Sine’s, ‘transcendent’ definition of quality. Since that time, other concepts of quality have been applied to education. In this paper, the main sources of statements about quality in higher education are (Anderson et al., 2000; DETYA, 1998b, 2000a, 2001a, 2001b; Harman & Meek, 2000; Kemp, 1999).

Within Australian literature on quality in higher education few documents make explicit what they mean by quality in higher education or acknowledge alternative concepts of quality. One exception is Harman and Meek (2000). They provide an overview of how three different writers have defined educational quality. Firstly they summarise Birnbaum’s categories where he found quality was defined by USA college presidents in three distinct ways. The ‘meritocratic’ group defined quality according to whether the institution conformed to scholarly norms, the ‘social’ group, according to whether the institution satisfied the needs of important constituent groups, and the ‘individualistic’ group according to whether the institution contributes to the individual growth of the learner.
Next they summarise Lindsay who suggests the quality may be either referenced to ‘production – measurement’ or to ‘stakeholder satisfaction’. Finally, they outline Middlehurst who developed categories by looking at the ways ‘quality’ was used, and found: quality as ‘a defining characteristic or attribute’ or ‘grade of achievement’, ‘an outstanding performance or achievement’ or ‘fitness for purpose/ performance meets specification’. Harman and Meek judge that the last of these definitions is most satisfactory, but suggest that because of the lack of agreement about purpose and standards, institutions should set their own goals. Table 2 provides a comparison between the definitions discussed by Cameron and Sine and concepts found in the education literature.

These formal definitions raise some interesting issues. The differences illustrated by Birnbaum’s definitions stem directly from differences in position on the purpose of education. Lindsay’s dichotomy between measuring products directly or measuring stakeholder satisfaction parallels some of the distinctions within Cameron and Sine’s framework, but replaces the concept of customers with the more complex concept of stakeholders. Some of Middlehurst’s categories reflect the everyday usage of quality (as being ‘superior’ or better than expected) in addition to the technical meaning used in the language of quality assurance.

The literature on the purposes of quality assurance provides secondary evidence, from which definitions of quality can be inferred. According to the brief provided to Anderson et al (2000, 10) the government view of the reasons why Australia needs a quality assurance system are:

- “To protect our educational reputation in respect of both the quality of our educational processes and our standards
- For public accountability purposes, particularly to satisfy the taxpayer that it is getting value for money and that the government subsidies are supporting educational activities of an appropriate standard
- To inform student choice and especially in the light of diversity of offerings and variation in price
- To promote and improve quality processes and outcomes at individual institutions as well as disseminate good practice, leading to overall system improvement”
  (Anderson et al., 2000)

Taken together, the explicit and implied definitions of quality found in the recent higher education Australian literature, show a predominant concern with “little q” or ‘quality as attribute of the product’ concepts, (especially measuring standards, reputation, accountability, outcomes and customer satisfaction) rather than “big Q” concerns central to the formal quality assurance processes for universities.
Table 2: Concepts of Quality and Standards in Higher Education

<table>
<thead>
<tr>
<th>Concept of quality (C&amp;S)</th>
<th>Concept of quality in HE</th>
<th>How measured?</th>
<th>Problem posed</th>
<th>Concept of Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transcendent</td>
<td>&quot;Quality as inherent&quot;</td>
<td>Perceived by those who are sensitive cannot be measured.</td>
<td>Unmeasurable, therefore not useable within rational management</td>
<td>Fixed</td>
</tr>
<tr>
<td></td>
<td>Anderson's 'standards'</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Product-based</td>
<td>&quot;Quality as exceeding expectations&quot;</td>
<td>Measure 'features' that exceed expectations</td>
<td>What product or service does higher education offer and to whom? Whose expectations?</td>
<td>Floating, but implies need to exceed minimum</td>
</tr>
<tr>
<td></td>
<td>Middlehurst</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>User-based</td>
<td>&quot;Satisfies customers&quot;</td>
<td>Measure level of customer satisfaction. (Fitness for purpose as judged by customer)</td>
<td>Who is the customer?</td>
<td>Floating</td>
</tr>
<tr>
<td></td>
<td>&quot;Fitness for purpose&quot;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Harman &amp; Meek</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Production based</td>
<td>&quot;Norm-related&quot;</td>
<td>Measure against what is promised</td>
<td>What is promised? What is the purpose of higher education?</td>
<td>Fixed against a specification that may not be absolute</td>
</tr>
<tr>
<td></td>
<td>Harman &amp; Meek</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value base</td>
<td>&quot;Efficiency&quot;</td>
<td>Efficiency based upon cost per unit. (Implicit concept of adequacy)</td>
<td>What is the unit? What is the product? What is the purpose of higher education?</td>
<td>Floating</td>
</tr>
<tr>
<td></td>
<td>Harman &amp; Meek</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>System-based</td>
<td>&quot;Quality as system&quot;</td>
<td>Check whether quality systems are in place and adhered to</td>
<td>What is the relationship between quality systems and outcomes? Who is the customer? What is the product?</td>
<td>Floating</td>
</tr>
<tr>
<td></td>
<td>AVCC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cultural</td>
<td>&quot;Quality as organisation&quot;</td>
<td>Examine whether the organisation supports customer satisfaction in an integrated way</td>
<td>Who is the customer? What is the relationship between quality organisations and outcomes?</td>
<td>Floating</td>
</tr>
<tr>
<td></td>
<td>AVCC</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

KEY: Column 1: Cameron and Sine’s concepts of quality. Column 2: aligns concepts of quality from education quality literature in Australia with those of Cameron and Sine. Column 3: suggests the kind of measurement in education appropriate to each concept of quality. Column 4: indicates the questions to be resolved when each concept is applied to education. Column 5: examines whether ‘academic standards’ of degrees are assured within the meaning of each concept.

Measurement and standards

Similar concepts of quality are found in both commercial and educational literature. Apart from the first concept of quality, only the norm-related concept and the product-related concepts have any direct relationship to standards. Within the remaining five concept of quality, there is no direct relationship between quality and assurance of academic standards. Thus, many of the current methods of demonstrating quality (including evidence of student satisfaction, course experience questionnaires, graduate destinations surveys, and quality audits) cannot be used as evidence that standards have...
been maintained. This last conclusion concurs with Thompson et al who asserted that the quality audits in the UK, which are similar in process to those in Australia, can monitor the adequacy of universities’ management systems but have no means of monitoring the adequacy of universities’ self set goals or standards of achievement (Thompson, Tyler, & Howlett, 1995).

Several writers have acknowledged multiple concepts of quality, but have considered this to be unproblematic, for example, (Cheng & Ming, 1997; Harman & Meek, 2000; Owlia & Aspinwall, 1996). Harman and Meek believed the diversity was beneficial and did not explore what would happen if multiple concepts of quality were used to inform quality indicators. The contribution of Cameron and Sine is the recognition that the definitions are conceptually different and that it is necessary to choose a definition of quality. Owlia and Aspinwall (1996, p. 19) attempt to resolve the issue of multiple concepts of quality in education by combining the different measures through a process of weighting the different factors, but this disregards their fundamental epistemological incompatibility, as illustrated by how standards are determined. Cheng and Tam(1997, p. 30) suggested integrating some or all of the models according to circumstance, but this also ignores incompatibility issues.

**Customers, products and purposes in higher education**

The table illustrates that the technical concepts of quality, (all concepts except ‘quality as transcendent’), on which quality assurance depends, derive their meaning from being able to identify customers, products and the purpose of what is produced. In higher education the application of these concepts is problematic. Students are the group most often referred to as the ‘customers’ of education, see, for example, (DETYA, 1998a, p. 4; West, 1998). According to Scrabec (2000, p.298), if students were the customers of higher education, in a business relationship, they would determine both the purpose of the product and the standards of its specification. (Scrabec, 2000) argues that students are not customers. The concept of students as customers is also inconsistent with the government’s concept of the role of universities as meeting the needs of industry and the professions (DETYA, 2001a; Harman & Meek, 2000) and with other concepts of the purpose of higher education as being primarily concerned with student development (Pascarella & Terenzini, 1991). Scrabec suggests students are recipients (or maybe purchasers) but not customers, even though some aspects of the relationships may be customer-like (McCollough & Gremler, 1999; Owlia & Aspinwall, 1996).

Are industry and the professions the customers of universities? Some government policy documents could be consistent with this position (ACNielsen Research Services, 1999) and this would imply that students are the ‘products’. However, if industry and the professions were customers, within current government policy this would have implications for the funding of university places as well as the nature of the relationship between universities, the professions and industry. This position would undermine the purpose of higher education as student development and would be inconsistent with the role of universities as cultural institutions and providers of basic research. Although it may be proposed as a future role for universities, it does not reflect the current relationship.

Finally, it might be argued that the government itself is the customer of universities and in some respects this is the most plausible position. It could be consistent with the role of universities as cultural institutions, as providers of basic research and as providers of education that develops the individual potentialities of students. The product of universities would be the services they provide to students, the community and industry and in extending both basic and applied knowledge. Students, communities and industry
would be beneficiaries, but not customers. Arguments against this position concern the traditional autonomy of universities, although Anderson and Johnson (1998) suggest the degree of autonomy enjoyed by universities varies different countries. It is however, difficult to conceptualise the government in a simple 'customer' relationship relative to universities, because governments in democracies have representative status, and theoretically, represent a plurality of conflicting interests. For these reasons, the concept of 'customer' is problematic as a description of the relationship between government and universities and the concepts of stakeholders and beneficiaries are more fitting.

The concept of stakeholders and beneficiaries does not fit easily with commercially derived quality assurance processes. Measuring stakeholder and beneficiary satisfaction requires the ability to make judgements about how to balance conflicting requirements or desires. In these circumstances, it would be appropriate to measure both student and industry satisfaction, but judgements about how and whether to respond to dissatisfactions would depend upon assessing the balance of the consequences of fulfilling the desires of one stakeholder against the consequences for other stakeholders. An organisation supporting 'stakeholder and beneficiary satisfaction in an integrated way' requires all individuals to have a highly sophisticated understanding of the competing functions, roles and purposes of university education and to make judgements enabling them to respond appropriately, by balancing different imperatives. This sometimes necessitates making decisions that will leave some stakeholders dissatisfied, in the interests of either maximising benefit or achieving overriding priorities.

When concepts of quality are applied to stakeholders and beneficiaries instead of customers, the task of deciding whom to satisfy has no simple answers. The task of assessing whether an individual or organisation supports stakeholders' and beneficiaries' satisfaction in an integrated way would require a highly complex qualitative assessment. The complexity would mean different people could come to different judgements about the most appropriate response in any given situation.

Summary

The analysis in this paper has uncovered three fundamental problems with the use of commercially derived concepts of quality and quality assurance in the context of higher education. These are:

- One of the major motivations for quality assurance is the requirement to reassure potential education consumers about the 'quality of educational processes and ...standards' but many of the current 'quality indicators' are unable to do this, because the concept of quality on which they are based does not require the standard of the product to remain fixed.

- The assumption universities have customers is an over simplification that is convenient in making use of commercially derived methods of quality assurance, but does not take account of the complexities of the relationships and purposes of university education. Replacement of the concept of 'customer' by 'stakeholder and beneficiary' more accurately describes the relationships and purposes in higher education, but increases the complexity of quality assurance processes and the subjectivity of judgements about quality.

- Attempts to integrate or 'weight' different concepts of quality are theoretically unsatisfactory because the concepts are derived from different epistemologically incompatible, assumptions, as illustrated by the example of determination of standards.
Conclusions

The paper concludes that it is more appropriate to consider the relationship between the university and other individuals and agencies as being a stakeholder-beneficiary relationship rather than a customer relationship, because this more accurately reflects the nature of obligations in the educational rather than commercial context. This necessitates a more complex interpretation of the relationship between quality indicators, including student or employer “satisfaction” data and claims about quality, and an adaptation of the commercially derived quality assurance methods.

References


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Quality Interventions: Examining the Unintended Effects of Quality Policies on Academic Standards and Staff Stress

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Abstract

The purpose of quality assurance measures is to demonstrate quality of a product or process. It is tacitly assumed that the quality assurance process is either neutral or will encourage improvement in quality. This paper examines how data collection processes undertaken for quality assurance change the reward and motivational systems within universities and asks whether it is reasonable to assume that quality assurance strategies act benignly in their effects on aspects of educational quality such as standards and staff stress. The problem is important because it is undesirable if quality assurance measures adversely contribute to diminution of standards or unacceptable staff working conditions. Although validity of individual quality measures has been addressed in several studies, no study has examined the unintended consequences of individual measures or the combined effects of several measures on universities as organisations. Answers to these questions would permit those designing quality assurance strategies to predict the likely effects of data collection on the behaviour of those working within the organisation and on the educational experience for students. The problem will be addressed using systems dynamics methodology to map the combinations of effects of policies and strategies on reward systems and expected organisational behaviour. The analysis results in a new application of a methodology that will help those designing quality assurance processes avoid unintended outcomes from quality policies.

Keywords: Quality, Universities, Organisations

Background

In Australian universities, quality assurance is defined as "the policies, attitudes, actions, and procedures necessary to ensure that quality is being maintained and enhanced" (Australian Vice-Chancellors' Committee, 2000, p. 46) and the purpose of adopting the current approaches to quality included the intention that it should "facilitate progressive improvement of standards" (Skilbeck & Connell, 2000, p. 6). A question posed in this paper is whether quality assurance processes contribute to pressure within universities to reduce standards and increase staff stress, through their unintended effects on university institutional strategy and the reward systems.

Recent management texts, for example (Senge, 1994), stress the importance of being aware of assumptions and findings ways of rigorously scrutinising our 'mental models' of the world. The method he proposes uses a 'conversational approach' to testing models, and links strongly to the theme of this conference. Although the claimed focus of quality assurance and improvement processes in universities has been 'whole organisation' approaches to quality (DETYA, 2000), no literature was found that examined the unintended effects of quality interventions upon the function of universities as organisations and the consequences for equity, academic standards, professional standards or workplace stress, even though concerns about all these issues appear in the literature (Elson-Green, 2001; Gosden & Hampton, 2000; Winefield,
Stough, Jagdish, & Gillespie, 2001). The efficacy of whole of organisation approaches to quality management depends not upon whether single measures produce their intended outcome, but upon the overall effects of the cumulation of ‘quality interventions’ and other policy measures. It has been recognised that management interventions (of which quality assurance is an example), change the internal dynamics of organisations in complex ways that may give results that are not always anticipated by those initiating the interventions, (Forrester, 1972, p. 273; Wolstenholme, 1990). Measurements of the efficacy of quality management should therefore include assessment of unintended outcomes of quality interventions and should be explicitly related to the intended concept(s) of quality. Since public universities in Australia must now have quality plans to promote the adoption of organisational changes that improve educational quality, it appears that the lack of any framework to predict or detect unintended effects of proposed change is a serious shortcoming.

This paper outlines a method of predicting and detecting unintended outcomes of strategies arising from institutional policies, using conceptual qualitative systems dynamics modelling to map the organisational effects of policy interventions to enable detection of undesirable interactions between strategies.

**Higher education policies and quality**

The government outlined its requirements for the current quality system, DETYA (1999b, p.5), in the context of its overall vision for education. In this report suggested indicators of quality for Australia Higher Education as:

- Percentage of staff with a PhD
- Percentage of students from overseas
- Percentage of students satisfied with their course overall
- Percentage of students satisfied with their acquisition of generic skills
- Percentage of students satisfied with the quality of their teaching

More recent documents have extended the list of indicators, (McKinnon, Walker, & Davis, 2000). An examination of the Quality Improvement plans (2001-2003) (DETYA, 2001,) of Western Australian universities shows that these indicators have influenced the plans of institutions, especially with regard to data about student satisfaction, the main focus of government policy. The plans also indicated intent to monitor staff research output as part of the quality process.

Other government policy objectives have influenced institutional strategies, including policies to increase efficiency of universities and reduce university reliance on government funding. ‘Efficiency’ policies have a direct effect on institutional strategy by reducing available government funding. The AVCC and DETYA have documented and monitored changes in the sources and types of government funding for universities. Public funding per student place has been declining since 1984; during the same period student contributions to fees have risen, rising most sharply between 1996 and 1999. The total proportion of revenue from public funds and student payments has declined, despite a steep increase in the rate of student payments. (AV-CC, 2000, p. 5). The consequences for the teaching and learning processes have been an increase in the staff student ratio. In 2001 there was one member of academic staff for every 18 student compared with 12.7 in 1987, (Megalogenis, 2001). These figures show that the cost cutting processes forced by changes in government funding have had a direct impact on staff student ratios, and are therefore relevant to considerations of policy and educational quality.
Outline of the systems dynamics methodology

Systems Dynamics is a methodology originally developed to map the interaction between policies within complex organisations (Forrester, 1972, p. 273) and locates unintended and ‘counter-intuitive’ effects of policy. The method examines how policy informs strategy and how strategy influences institutional processes, such as the exercise of power and control and the flow of resources within organisations and across organisational boundaries. It is based upon the concept that strategies act across organisational boundaries, and that overall outcomes may be other than what was intended. The diagram presented in this paper is the initial conceptual diagram.

Organisational boundaries

For the purpose of analysing how organisational quality assurance and efficiency policies have influenced academic and professional standards and staff stress, four organisational groupings have been delineated:

- University management,
- University teaching staff,
- Professional institutions,
- Students.

The rationale for dividing universities into two discrete organisational units is that the locus of control and responsibility for teaching is divided (Cooper, 1998). Students are a separate stakeholder group, because they have been identified as ‘customers’ of the universities whose feedback on satisfaction is part of the quality assurance process (DETYA, 1999a). Student behaviour is influenced by separate policies and considerations, including policies relating to financial support, and therefore, they form a separate constituent group in organisational terms. The professional institutions are included because they have been identified as a having a role in auditing standards for professional courses (DETYA, 1999a,45).

Resources

The term ‘resource’ describes both human and physical resources and time. Examples of resources include: the students, the teaching staff, classrooms, time available to staff for teaching related activities, and time available for students to study. This paper examines the effects of institutional strategy on ‘time available for staff to teaching related activities’ and briefly discusses other evidence relating to the time available to students to participate in university learning activities.

Processes

The main processes of interest to an examination of how policies affect standards and staff conditions is how policies affect:

- The reward system within universities and hence place pressure on staff decision-making processes about how to prioritise their time
- Staff and student perceptions of the nature of the teaching and learning process and of their respective duties and responsibilities within this process

Information systems

Two information systems are relevant to the problem of standards and staff stress within universities: the formal quality monitoring systems (student satisfaction surveys,
attrition data,) and the informal information channels that influence decision-making about standards.

**Policy objectives and associated strategies**

Five policy objectives have been selected that have direct bearing on teaching processes and reward structures within universities, when viewed systemically. The rationale for choosing these policies is that they either form the basis of common university quality assurance / performance measures (evidenced in quality improvement plans) or are based upon the forced need for universities to diversify funding sources and reduce costs because of the progressive reduction in the real value of the combined public subsidy and fees per student place, or because they change the nature of the teaching and learning relationship. The policy objectives are:

- Improve staff qualifications
- Improve staff research output
- Improve efficiency
- Increase student numbers
- Monitor staff teaching performance

Each of the five policy objectives is pursued through strategies. Some typical strategies employed to achieve desired policy outcome are shown in Table 1. These are used in the analysis that follows.

**Table 1: Policy objectives and institutional strategies**

<table>
<thead>
<tr>
<th>Policy objective</th>
<th>Institutional Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve staff qualifications</td>
<td>Reward through tenure and promotions</td>
</tr>
<tr>
<td></td>
<td>Support with study leave</td>
</tr>
<tr>
<td>Improve staff research output</td>
<td>Reward through tenure and promotions</td>
</tr>
<tr>
<td></td>
<td>Reward staff by giving them and a share of the Research Activity Index (RAI) point value</td>
</tr>
<tr>
<td></td>
<td>they generate</td>
</tr>
<tr>
<td>Improve efficiency</td>
<td>Increase student: staff ratio</td>
</tr>
<tr>
<td></td>
<td>Increase student numbers (becomes policy objective)</td>
</tr>
<tr>
<td>Increase student numbers</td>
<td>Recruit more local and overseas full fee paying students</td>
</tr>
<tr>
<td>Monitor staff teaching performance</td>
<td>Monitor student satisfaction with study</td>
</tr>
<tr>
<td></td>
<td>Monitor student retention and student progress</td>
</tr>
</tbody>
</table>

Institutional strategies manipulate the reward structures, have consequences for teaching processes, and can affect the flow of resources, (especially how staff prioritise their time), processes (especially teaching and learning processes) and information flows (especially the degree of surveillance experienced by teaching staff) within the organisation (see Figure 1).
CONCEPTUAL DIAGRAM

University Management

Figure 1: Conceptual diagram of reward and monitoring systems

Key: HECS: Student Fees contribution

Description of the diagram

Qualifications policy strand: The use of the measurement of ‘the proportion of staff with PhD’s’ as a measure of university quality leads to pressure on academic staff to upgrade qualifications. Staff study time reduces the time available for teaching related activities and has no demonstrable relationship to teaching quality (Terenzini & Pascarella, 1994).

Research policy strand: Research output has become more important to universities. Staff are encouraged to spend more time in research related activities. Again, there is no demonstrable relationship between research output and teaching quality (Terenzini & Pascarella, 1994) and research activities reduce the time available for teaching related activities.

Efficiency policy strand (class size): The average class sizes have become larger especially in first year courses. Whilst larger class sizes do not necessarily imply the quality of teaching and learning processes is reduced, class size contributes to the
difficulty of teaching, and has implications for teaching processes. It is more difficult to effectively teach larger groups of students in ways that engage all class members in teaching and learning activities. This has been recognised and universities offer professional development courses to help staff improve their teaching skills and the learning outcomes for large classes. These courses represent another call on the time of the staff member, reducing time for teaching related activities, for research, or for qualification improvement. Class size changes teaching processes.

Efficiency policy strand (student numbers and diversity): The second strategy within the efficiency strand represents attempts by universities to increase their student numbers. Two principle strategies are used to address this policy objective. Firstly universities have devised alternative entry pathways and secondly they have sought ways of increasing their numbers of fee-paying students. Both these strategies have increased the diversity of the student group (Meek & Wood, 1998). In the USA where trends towards open enrolment are more advanced, diversity is such that in some universities almost 40% of students have not achieved Year 6 standards in literacy and numeracy when they enter college, (Tinto & Riemer, 1998). More diverse groups require greater teaching skills to keep members effectively engaged in learning and increase the overall difficulty of teaching. Professional development courses are offered to help academics improve their skills, but this represents another claim on their time. Diversity changes teaching processes.

Monitoring staff teaching performance policy strand: The policy objectives of this strand are concerned with the strategies universities use to monitor staff teaching performance within the institution. This strand represents what university management chooses to measure for internal management purposes. Common measurements include surveys of student satisfaction with individual units, and data on student retention and progress rates. Staff are aware that their future employment may depend upon demonstrating a good performance on these measures and are therefore under pressure to teach in ways that prioritise satisfying and retaining students and accelerating the progress of students through the course, even where this may conflict with sound educational principles and practices. These strategies might be expected to influence goals and decisions within the teaching process.

Students as ‘customers’: Increases in HECS and the acceptance of full fee paying students means that students have now become ‘customers’ of the university and this almost certainly changes their expectations of university education. The change in status is supported in the overview of quality in higher education, (DETYA, 1999b, p. 14). Customers buy a ‘product’, but whether students believe they are buying an educational process or a final qualification is a moot point and has implications for perceptions of responsibility for failure and of what constitutes an appropriate level of study effort. (For a discussion of why student should not be considered as customers see, (Scrabec, 2000).) Evidence from McInnis indicates that students on average spend less time in study related activities, even if not employed, (McInnis, 2001).

Students and paid work: Student poverty has been recognised as a growing concern (Long & Hayden, 2001; Turale, 2001). There is evidence that students are under increasing pressure to work substantial hours whilst studying fulltime (Long & Hayden, 2001; McInnis, James, & Hartley, 2000). If these perceptions are accurate, then other things being equal, the consequences are that students without independent financial support have less time available for study because of work commitments.

Professional institutions and professional standards: The professional institutions are a formal part of the proposed quality assurance process that links universities with industry and commerce, (DETYA, 1999b). The professional institutions accredit
university courses by granting recognition of their qualifications and admitting graduates of specific courses to the professional institution. Some institutions stipulate specific professional learning outcomes and learning processes (for example, Australian Association of Social Workers, Institute of Engineers Australia) others make more general judgements about standards, (for example, the Australian Computer Society). In many courses, the professions accredit content (and perhaps process and staff professional qualifications) but academic staff make judgements about whether students satisfy the professional requirements and may have some flexibility in how the standards are interpreted.

Academic standards: Academic teaching staff have responsibility for delivering courses that are approved by the university. In practice, this means that they are required to make autonomous judgements about the standards of student work. Student appeals may trigger a review of judgements of academic staff, but students appeal only when they believe their marks are too low, not too high. Unlike the UK, there is no system of external moderation of student work in Australia, (Harman & Meek, 2000).

Discussion

From a systemic perspective, the various strategic responses to government policies combine to produce a prima facie systemic pressure that tends to reduce the time available to academic staff to spend on preparing to teach students and on meeting with students outside formal tuition times. There are fewer opportunities to compensate for this within formal teaching time because the average class sizes have increased. From other data, it also appears that students have less time available to spend on study related activities and are less willing to prioritise their studies (McInnis, 2001).

Academic staff who rationally prioritise their time according to institutional rewards systems would minimise their time spent time on teaching related activities and organise the teaching and learning process to prioritise keeping students happy rather than insisting on any standards of achievements. Many skilled teachers entertain their students as they engage them in meaningful learning activities. Less skilled teachers may be able to compensate for their lack of teaching skill by increasing the entertainment value of their lectures. Since, in practice, most academic staff can set their assessment standards without scrutiny, rational staff members would allow standards to float to whatever level satisfies students and would design assessment tasks to minimise staff time spent marking and providing individual feedback to students.

By contrast, staff wishing to maintain academic and professional standards will find themselves in an extremely stressful position. They will find that teaching has become more difficult as classes are more diverse and larger, that offering individual support to students takes up more of their time, students may respond negatively in satisfaction surveys because they feel that academic and study expectations of the staff member are too high. At the same time they face institutional pressure to undertake research, improve their qualifications and undertake professional development. The logical consequence of this is that they will only be able to maintain teaching quality either by extending their working hours (as indicated, (McInnis, 2000)) or by foregoing non-teaching opportunities that might enhance their promotion and career prospects.

From an organisational perspective, the diagram indicates three factors (structural, strategic and expectation) contribute to this undesirable situation. A structural problem occurs because academic teaching staff have responsibility for academic standards but inadequate control of resources necessary to support standards. Government controls the size of the resources pool, university management allocate resources within the organisation, academic staff have limited control over how they prioritise their time but
no control over other resources. A strategic control problem occurs because of the choice of monitoring processes and the operation of reward systems. The monitoring processes ignore research that indicates no evidence of a relationship between teaching quality and attrition in higher education (McNis, Hartley, Polesel, & Teese, 2000). Other strategies derived from quality assurance requirements, reward staff who give lower priority to teaching support activities. Unrealistic expectations are masked because academic duties are not referenced to available time. Management can make increasing demands upon teaching staff without assessing whether staff have time to perform the task to the required standard. It is argued elsewhere (Cooper, 1998), that it is in the interests of university management to better support collegially management arrangements for academic teaching. Perhaps instead bureaucratic management principles should be applied rigorously throughout the university to co-locate control and expose unrealistic expectations responsibility by requiring academic workloads to be referenced to available time.

Avoiding unintended consequences

Two measures could help universities avoid setting up systems that deliver unintended consequences. First view universities systemically, so that interventions are evaluated against the big picture rather than local optimisation or narrowly defined objectives that may damage organisation as a whole (Ison, 1999). (This implies monitoring that transcends a focus on intended outcomes.) Second develop an organisational culture that encourages reflection, recognises that there are of multiple perspectives on the meaning of data, that 'quality conversations' can facilitate awareness of assumptions, test the applicability of mental models, provide means of constructively working with conflict and difference and a processes for airing alternative possibilities and visions for the future (Senge, 1994). Such a perspective moves beyond 'sloganeering' quality to achieving a flexible management style that will facilitate change consistent with quality.

Conclusions

A systemic perspective on university organisational reward systems indicates that efficiency and quality improvement policies may combine to have unintended consequences contrary to the initial overriding policy intention. It is suggested that universities might integrate a similar monitoring process into their quality assurance processes so that they can anticipate how policies might combine, monitor for unintended outcomes and identify how they might best take remedial action.

References


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PART A

Expanding the horizons of university learning through quality management: A comparison of the effects of different evaluative methods on curriculum and accountability

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Abstract

Quality management initiatives have been introduced into universities both as a means of learning how to improve the education that students receive and as part of an ideological initiative to make universities more responsive to the opinions of students and future employers. A problem occurs because these two uses of quality management are not always mutually compatible. In organisational terms, tensions exist the requirements of organisational learning and those of accountability, and this may be exacerbated if evaluative measures are inappropriately integrated into the organisational reward system. This paper contrasts the use of Graduate Attributes with Graduate Skills Assessments in quality management from an organisational learning perspective and explores the strengths and limitations of each. Although the internal validity of the Graduate Skills Assessment test has been extensively developed, its impact on curriculum, its acceptability to students, and the practicalities of using the test for benchmarking purposes have received less attention. The method of developing Graduate Attributes through curriculum change processes is well established, but the inherent limitations of this method for quality assurance purposes are rarely discussed. The problem will be addressed using a case study method that describes and analyses the use of Graduate Attributes as a quality improvement tool and the potential considerations for any widespread use of the Graduate Skills Assessment test. The paper concludes that although each approach has some merit, there are dangers if the measures appropriate to quality assurance are permitted to dominate quality management and impede organisational learning initiatives that are essential to authentic quality improvement.

Keywords: Quality, universities, graduate skills

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Judy Kulisa

Background

Since 1998, universities have been required to include statements about graduate attributes (GAs) in their Quality Assurance and Improvement plans (DETYA, 2001), while the Graduate Skills Assessment (GSA) have been trialled since 2000 (Gallagher, 2000, p. 30), with the intention that these will be adopted by universities as part of a quality management strategy. The question posed in this paper is how Graduate Attributes and Graduate Skills Assessment should be used within a quality management process that conceives of the university as a learning organisation. This question is important because unless quality measures are used appropriately, mistakes will be made in interpreting data and developing policies (Reed, 1995, p.325).

Introduction

The section that follows will define ‘quality management’ and outline the implications of a learning organisation perspective for the quality improvement process. The next section will describe the Graduate Attributes approach and its use by Youth Work staff at Edith Cowan University, describe the Graduate Skills Assessment test, assess the practicalities of its use, and explore the potential of both Graduate Attributes and Graduate Skills Assessment measures within quality management. The final sections summarise and conclude the paper.

Definitions

Quality management in education refers to:

“The management of quality control and quality improvement, and to those aspects of the overall management functions that determine the components of quality policy... (and) the design and maintenance of quality assurance mechanisms” (Harman & Meek, 2000, p.13).

This definition shows that quality management has two distinct functions of quality assurance and quality improvement. In this paper an organisational learning model of management is assumed, and the terms are distinguished in the following ways. Quality assurance is concerned with the externally focussed accountability functions where the purpose of collecting data is to demonstrate to those who are monitoring performance that specified outcomes have been achieved. Quality improvement is concerned with internally focussed individual or organisational learning where the purpose of collecting data is to enable learning to occur that will inform strategies that deliver genuine quality improvements.

The two quality processes occur independently and their goals may sometimes conflict, especially where attempts are made to use the same data for both purposes. In particular, requirements for data that will satisfy the external demonstration of quality, may suppress the dissemination of data necessary for organisational learning where such data may be potentially damaging to external appearances of quality or embarrassing to the
public profile of the institution. The two terms are also not interchangeable because people requiring data for ‘public consumption’ will seek to present data in ways that always maximise the appearance of quality, irrespective of the underlying reality. People requiring data for monitoring purposes will seek to use the data according to the political exigency of their role. By contrast, people requiring data for learning purposes will seek out aspects of processes that are less than completely satisfactory even when monitored outcomes appear to show that adequate performance has been achieved. From this it can be inferred that quality assurance has only a secondary relationship to the process of improving the quality of the education process, while quality improvement has a secondary relationship to demonstrating the quality of the education process.

Graduate attributes and graduate skills assessment

Both measures are similar because they treat the student as the ‘product’ of university education, in contrast to most other measures that treat students as ‘customers’. Both measures are also similar because they represent a generic approach to qualities of ‘what graduates should be’ that transcends both the disciplinary ‘silos’ and the concept of education as being concerned only with disciplinary knowledge or specific professional skills. In other respects they are very different, because the specification of Graduate Attributes forms part of a curriculum approach to quality, whilst the Graduate Skills Assessment seeks to measure the outcomes, or cognitive achievements, of graduating students.

Graduate attributes

Graduate attributes relevant to the unique mission of each university, are identified by each institution and consist of a list of ‘capabilities’ that all students should have by the end of their degree. (DETYA, 2001, p. 32). Universities devise their own lists of graduate attributes but are expected to include ‘core’ attributes described as ‘knowledge attributes’, ‘thinking attributes’, ‘practical attributes’, and ‘personal attributes and values’. It is anticipated that exact nature of these attributes and their application in different courses would be ascertained within each university after consultation with relevant members of the professions or the ‘business community’.

The Youth Work team at Edith Cowan University received a small University grant to develop Graduate Attributes for the undergraduate youth work program. The university has as its core values ‘Service’, ‘Professionalism’ and ‘Enterprise’. These values have been translated into nine curriculum categories to form the Graduate Attributes Framework for the university, within which course specific Graduate Attributes are identified. The process used by the team is set out in Table 1.
Table 1: Graduate Attributes as a curriculum development method

<table>
<thead>
<tr>
<th>Task</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customise university Graduate Attributes Framework</td>
<td>Collation of data from: Field survey; Job advertisements; AQF National Competencies for Youth Work; Academic staff; Current students</td>
</tr>
<tr>
<td>Identify how the attribute might be enhanced by university education</td>
<td>Staff discussion of how the teaching processes were intended to develop skills, help students clarify values, and provide relevant knowledge</td>
</tr>
<tr>
<td>Identify where in the curriculum the attribute will be developed</td>
<td>Review the major units proposed for re-accreditation and identify the unit(s) most suitable for the development of each attribute, including the possibility of sequencing the development of attributes across units.</td>
</tr>
<tr>
<td>Identify assessment techniques that will support the acquisition of graduate attributes</td>
<td>Staff discussion of how assessment processes and topics might be adapted to support students in acquiring and practising relevant graduate attributes</td>
</tr>
<tr>
<td>Incorporate assessment methods and changes to content into the curriculum</td>
<td>Review existing unit outlines and where necessary make alterations to the content and assessment methods</td>
</tr>
</tbody>
</table>

The Graduate Attributes Framework identified by Edith Cowan University provided a starting point for the project. The process we used required that we customise the Graduate Attributes Framework to suit profession specific requirements for our graduates. The team had already undertaken a research project to find out about potential employer expectations of newly qualified youth work graduates, appendix 3, (Bridgland, Cooper, Kulisa, & Sercombe, 2002). We used this data alongside data gained from field consultations, job specifications from recent advertisements for the kinds of jobs suited to new graduates, the Australian Qualifications Framework National Competencies identified for Youth Work, a survey of youth work teaching staff and surveys of current students, to identify attributes considered essential for newly qualified graduates. An earlier field survey (Cooper, Love, & Buchanan, 1992) had identified that youth work agencies valued personal qualities that transcended specific skills or competencies, and this was supported by more recent evidence from a variety of sources. Current students were surveyed because many of our students are already in youth work employment.

The next stage in the process required staff discussions to identify how and whether each of the identified ‘attributes’ could be developed within the context of a university course. This process engaged the team in peer discussions concerning the potential of the course to help students to gain essential knowledge and skills, how the course helped students to clarify their personal and professional values and how (and whether) the course should and could assist students in the development of personal qualities that would help them in their future career.

The third stage of the project was concerned with staff discussions about assessment. Assessment focuses student learning and to some extent the content of teaching that occurs within units. We decided that the best way to consolidate proposed curriculum changes within units was to make changes to assessment tasks and processes. The Graduate Attributes identified for Youth Work will be incorporated initially as a voluntary component, into the portfolios that students are required to produce for their professional assessment. The inclusion of Graduate Attributes into student portfolios provides a way of assessing learning that occurs across several units. The inclusion is initially voluntary, to provide an opportunity to assess whether this approach is acceptable to students and worthwhile in its implementation. In the final stage, the changes to the assessment and content of units were incorporated into the official unit outlines for each of the compulsory units that make up the ‘major’ in the Bachelor of Social Science (Youth Work).

The strengths of this approach were that it engaged the teaching staff in a comprehensive review of the curriculum and included discussions about the purpose of
the degree, its content and its assessment methods. It helped to ensure that the degree, although modular, avoided repetition and built sequentially towards appropriate academic and professional development for students. As a quality improvement method within a learning organisation it has merit as it encouraged staff to seek input from a variety of stakeholders and to discuss content, assessment and teaching methods with each other. A quality curriculum contributes to the quality of the teaching and learning process. If the curriculum is conscientiously followed, if staff have adequate teaching skills, and if the assessment processes are rigorously applied, students should, if they pass the course, have acquired the requisite attributes.

The quality of graduates, however, cannot be assured, simply on the basis that the curriculum of the course is of high quality. From a quality assurance perspective, the adoption of the Graduate Attributes process by itself, cannot guarantee that other factors have not subverted the quality and integrity of the course. The quality of the students graduating will still depend on the capacity of the staff to implement the curriculum in ways that permit quality teaching and learning and rigorous assessment. For these reasons, Graduate Attributes although useful for quality improvement purposes, cannot be used for quality assurance purposes.

Graduate Skills Assessment

In 1999, Kemp, as Minister of Education, announced that the government had commissioned the Australian Council for Educational Research to develop a test to assess graduate skills (Kemp, 1999). The test was intended to serve several purposes. It was intended to act as an entry-level diagnostic test that would enable universities to offer appropriate support to poorly performing students, it was intended as an exit level test to assist graduate programs and employers in the selection of applicants. It was intended as a measure that could be administered at entry and exit to allow universities to demonstrate their worth by assessing the value they add to individual student performance. Finally, it was promoted as a test that would allow employers, prospective students, universities and government to compare the performance of students across disciplines and across institutions, (DETYA, 2001). The test claimed to assess four different types of generic skills, ‘interpersonal understanding’, ‘critical thinking’, ‘problem solving’ and ‘written communication skills’. The results of the pilot study indicated consistent differences between disciplines with arts and law students apparently having higher aggregate scores on three of the four measures than students from other disciplines. Only in ‘problem solving’ did engineering students fare marginally better than arts and law students.(DETYA, 2001)

We have no direct experience of the Graduate Skills Assessment tests, but informal feedback from staff who have experience of the tests in pilot form, indicate that the tests were not popular with students. In the pilot study, students were not required to pay for the tests and at the institution in question only a small minority of students enrolling through special entry schemes undertook the tests, as part of the conditions of their acceptance.

This raises the questions of who would pay for student testing, who owns the test results and why students would choose to participate. If universities want to use the data for benchmarking purposes, then they, not their students, should pay the costs. If this were to happen and the institutions paid for two sets of testing per student (as happened in the pilot, although this was paid for out of research funds), the cost would represent a sizable budget sum that some would argue might be better spent on enhancing other aspects of teaching and learning provision. Further, for benchmarking purposes, institutions would require a high level of participation in testing, something which is
unlikely if students themselves dislike the tests and do not recognise them as being personally useful. If the students pay for the tests, then only students who require the tests for the purposes of gaining employment or entry to further study would take the test. For these purposes only the final test would be of value and only those students who expected to excel would opt to take the test. The results would be the student’s property and the institution would have no claim to them. In any case, test results from an unrepresentative group, without entry tests, would be of little value to the institutions for benchmarking or quality assurance purposes.

The strengths of these tests are that they offer some students the opportunity of quantitatively confirming the level of their generic skills. This may be especially useful for Arts students. In some circumstances it may offer academic counsellors an additional diagnostic test to determine how best to help failing students to develop academic skills or allow some students to monitor their own progress. The limitations of the test for quality assurance purposes are tied to practicalities of cost and student participation. It seems unlikely to be useable for benchmarking purposes unless government funds are earmarked to cover testing costs and students can be persuaded to participate. The test is not useful for quality improvement purposes within the context of a learning organisation for the following reasons. The pre-test/post-test, at best claims to indicates the degree of improvement in each of the four test areas over the period of the student’s enrolment. The tests cannot give any information about why any improvements occurred or even whether they were related to formal university activities, or whether they were the result of other forms of learning, life experience or maturation.

The data collection requirements and process of the two approaches are very different. It is argued here that quality improvement, conscientiously undertaken, would alleviate the necessity for quality assurance. The quality of the whole institution would be as good as it possibly could be, in any given circumstances. From this perspective, the best quality assurance measure is for the institution to support staff who conscientiously undertake quality improvement as an integral part of their daily duties. This forms the philosophical basis of current quality audit processes and is recommended by the Australian Quality Council (Australian Quality Council, 2000).

**Quality improvement or quality assurance?**

Sometimes quality assurance processes are instituted alongside quality improvement processes, as is the current situation in Australia. This becomes problematic however, if quality assurance is prioritised at the expense of quality improvement. If this occurs, individual and institutional effort may be directed towards finding means of achieving high scores according to the monitoring processes rather than attending to the often time consuming and difficult processes of quality improvement derived from authentic individual and organisational learning. Conscientious quality improvement becomes subverted by attempts to ‘beat the system’ through devising ways of improving output scores without the necessary attention to fundamental quality improvement. This is most likely to occur when benefits and penalties are attached to the demonstration of outcomes. Currently, individuals are offered incentives such as promotion or continued employment, if they demonstrate good research scores and high levels of student satisfaction with their teaching. Institution may be publicly humiliated if it appears they do not excel on monitored outcomes. This provides a strong temptation for individuals and institutions to be distracted from genuine quality improvement by the more pressing need to appear to achieve or exceed the requirements of monitored outcomes, as measured.
Conclusions.

Graduate Attributes and Graduate Skills Assessment both have uses and limitations within quality management processes. Within quality management there is a fundamental difference in purpose between quality assurance and quality improvement processes. There is a danger that the priorities of quality assurance can distract from the more fundamental process of quality improvement. This could be countered by conscious institutional efforts to support authentic quality improvement processes. Care should be taken at an institutional level to avoid inadvertently rewarding apparent 'quality' (as indicated by one-dimensional outcome measures) more highly than sustained and integrated approaches to organisational learning and improvement.

References


Paper 6 (November 2002)

A PAPER SUBMITTED TO ANZSYS 2002.

**Paper Title:** Are Critical Systems Thinking and System Dynamics complementary or incommensurate? A theoretical analysis and a practical example

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**Paper Category:** Research In Progress

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- that they agree to the paper being refereed, evaluated, and commented upon in accordance with accepted academic practice, and that decisions on the inclusion or exclusion of a paper will be binding and at the discretion of the conference organisers.
- that at least one author will register for the conference, present the paper in accordance with the timetable, and answer questions and discuss the paper with other delegates at that time.

**ABSTRACT**

This paper is concerned with exploring the theoretical compatibility and practical benefits of combining methods developed within Systems Dynamics with Critical Systems Thinking. The paper will begin by identifying the potential benefits of such a combination and the issues that would need to be addressed for the combination to be theoretically credible. The paper will then describe the contribution of this approach to a real-world ‘problem-situation’ of quality in higher education in Australia. The paper will conclude by offering guidelines that enable a theoretically permissible use of qualitative Systems Dynamics diagramming within a critical perspective.

Keywords: System Dynamics, Critical Systems Thinking, Multi-method research

**INTRODUCTION**

This paper will explore how and whether Systems Dynamics and Critical System Thinking are theoretically compatible. Assuming that a pragmatic approach to systems is rejected for the reasons argued by Flood (1990, p138), then an attempt to combine
apparently incommensurate systems approaches must take care to identify and resolve any theoretical differences in the underlying assumptions of the two approaches.

The first section of the paper will identify the theoretical positions of both Critical Systems Thinking and System Dynamics. The second section of the paper will discuss different methods that have been proposed for combining theories and methods that seem to be grounded in competing or opposing assumptions and will identify the most appropriate way forward in this instance. The third section of the paper will illustrate how a methodology combining Critical System Thinking and qualitative System Dynamics is being used to examine quality in higher education in a Western Australian university. The paper will conclude by identifying any general guidelines for using these two different approaches to systems thinking together.

TWO THEORETICAL POSITIONS

The first section of the paper will identify the theoretical positions of both Critical Systems Thinking and System Dynamics. In each case, the initial outline will as far as possible, frame the discussion in language that does not implicitly favour either theoretical position and will describe each approach in its own terms, relying on accounts given by practitioners from within their own paradigm. The purpose of the exercise is to identify theoretical and ideological assumptions and core practical concerns rather than to repeat standards critiques. The process will begin by outlining critical systems thinking and contrasting its theoretical position with other systems theories using Burrell & Morgan’s typography (Burrell & Morgan, 1979, p29). Challenges for critical systems, as identified from within its own belief structures by its own practitioners will then be discussed. The discussion of Critical Systems Thinking will conclude by identifying how the perspectives of System Dynamics may assist resolution of problems within Critical Systems Thinking. The same process will then be repeated for System Dynamics, concluding with an identification of how the perspectives of Critical Systems Thinking may assist resolution of problems within System Dynamics.

Critical systems Thinking

Critical systems Thinking is defined rather generally by Flood (1990, p204) as ‘a broad notion of critical science employed with a systems perspective’. He narrows the definition by identifying ‘critique’, in the sense implicit in his definition, as a process that

‘puts up a common opposition to instrumental rationality, because such a rationality can be linked to control in the human condition in a similar way to the idea of power in control of the natural world.’(Flood, 1990, p204).

Instrumental rationality is the focus on making decisions about how (technically) to achieve a particular ‘end’ or objective, divorced from considerations of the value, ethics or human consequences, of pursuing the ‘end’.

Critical Systems Thinking, differs in its ontological and epistemological assumptions from other forms of systems inquiry in a number of important ways. A typology devised by Burrell and Morgan (1979, p29), provides the clearest way of illustrating the differences that will be important in the context of this discussion. In this typography Burrell and Morgan differentiate between paradigms within social theory, and later within organisational theory. The differentiation is made on two counts. Firstly, according to whether the underlying theoretical assumptions of the position are, on one axis, objectivist or subjectivist. Secondly, according to whether underlying ideological assumptions about society assume the desirability social regulation (social order, social
control) or the necessity for radical social change (social change, social conflict). Figure 1 illustrates some of the key differences in assumptions about methodology and social relationships that would characterise each of the four positions in their simplest form.

Flood (1990, p83) argues that Burrell and Morgan's typology does not provide a complete taxonomy of the different possible theoretical positions, (realist anti-positivist positions are hard to place) and in this he appears to be correct. However, for purposes of this paper, Burrell and Morgan's typology adequately illustrates the important differences that cause problems in trying to combine systems approaches in the social sciences.

In figure 2, the three major strands of systems thinking in social science as identified by Flood (1990), fall into different quadrants on Burrell and Morgan's typology, in terms of their theoretical and ideological assumptions.

<table>
<thead>
<tr>
<th>Objectivist/ Social order</th>
<th>Objectivist/ Social conflict</th>
</tr>
</thead>
<tbody>
<tr>
<td>Favours the use of the classical methods of natural science. Views social relationships, including power relationships naturalistically.</td>
<td>Favours the use of the classical methods of the natural sciences. Views social relationships and power as intimately tied to ideology and ideology as the product of economic relationships. Precepts of Scientific Marxism are given the status of scientific laws.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Subjectivist/ Social order</th>
<th>Subjectivist/ Social conflict</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rejects the use of the methods of natural sciences. Uses interpretive methods of inquiry for understanding social relationships. Views social relationships as a product of shared interpersonal understandings.</td>
<td>Rejects unreflective use of both the classical methods of natural sciences and the methods of interpretive inquiry. Social relationships are considered as a product of shared interpersonal understandings but the ways in which these understandings develop is open to manipulation by social institutions that encourage and propagate 'false consciousness'.</td>
</tr>
</tbody>
</table>

Figure 1: Different theoretical and ideological positions, based upon Burrell and Morgan's typology.
OBJECTIVIST/ SOCIAL ORDER
Social System Theory* derived from General Systems Theory
Development of causal modelling of social systems: Simons,
Adaptation of 'hard' systems methods developed in engineering
to social problems

OBJECTIVIST/ SOCIAL CONFLICT

SUBJECTIVIST/ SOCIAL ORDER
Soft systems thinking
Development of 'soft' system inquiry: Checkland, Ackoff
Soft Systems Methodology

SUBJECTIVIST/ SOCIAL CHANGE
Critical Systems Thinking
Development of 'critical' system inquiry: Ulrich, Flood,
Jackson, Keys
Critical Systems Heuristics, Total systems intervention,
Local systems intervention

Figure 2 Three theoretically/ ideologically different approaches to systems thinking
in social science

*Flood refers to this as 'traditional systems’ thinking. The term used in this diagram is
taken from Burrell and Morgan, as this is the terminology more commonly used in the
social science literature to describe 'traditional systems thinking' as applied to social
processes.

According to Flood (1990, Chapter 5), the radical 'epistemic' shift that differentiates
Soft Systems Thinking from Social Systems Theory is its replacement of objectivist
theoretical assumptions with subjectivist assumptions about the nature of social reality.
The 'epistemic' shift that differentiates Critical Systems Thinking from Soft Systems
Thinking is the recognition that subjective experience includes 'false consciousness'.

An acceptance of false consciousness affirms that the subjective explanations offered by
individuals who report their understanding or perceptions of social situations, will
include not only their knowledge, but also their self-deception and their self censorship,
induced both by their perceptions of the power relationships between themselves and
others and their perceptions about consequences of conforming or breaking with
expected behaviour or opinion. Thus, one of the key tasks for critical systems theory is
to find methods of uncovering distortions and self-deceptions induced in human
thought and communication.

Researchers themselves are not immune to the distorting effects of ideology, and this
poses a problem for all critical inquiry incorporating the concept that 'false
consciousness' distorts knowledge. A widespread response to this (developed within
diverse traditions including critical pedagogy, feminism and national liberation
movements), has been the use of self-reflection with the purpose of identifying
underlying 'normative' assumptions behind commonly accepted explanations for social
processes, and then developing alternative explanations derived from different
(contrary) sets of assumptions. This process is generally referred to as consciousness
or consciousness-raising, see, for example, (Freire, 1972). One of the key tasks for
Critical Systems Theory is to identify suitable methods that can be used in systems
inquiry to assist with this self-reflective process (Flood, 1990, p104). One of the
systems methodologies that has been most publicly successful in challenging
established orthodoxy and assumptions in public policy has been System Dynamics, as
evidenced, for example, in the work of Forrester whose model, in the 1960’s,
challenged accepted thinking on urban renewal (Forrester, 1995) and Meadows
(Meadows, Meadows, Randers, & Behrens III, 1972), whose work in the 1970’s
successfully provided a plausible alternative to the dominant assumptions about
economic growth and sustainability. On this basis, System Dynamics seems to offer a method that might resolve one of the challenges identified from within Critical Systems Thinking, namely the need to develop a range of methods capable of facilitating scrutiny of the possible outcomes if social processes and public policy are viewed from perspectives other that the ones most commonly accepted.

**System Dynamics**

The guide to the first tutorial on modelling from the online Massachusetts Institute of Technology System Dynamics Education Project defines System Dynamics in the following way:

‘System Dynamics can provide a common language for mathematics, biology, ecology, physics, history and literature. System Dynamics is an academic discipline created in the 1960’s by Dr. Jay W. Forrester of the Massachusetts Institute of Technology. System Dynamics was originally rooted in the management and engineering sciences but has gradually developed into a tool useful in the analysis of social, economic, physical, chemical, biological and ecological systems... In the field of System Dynamics the system is defined as a collection of elements that continually interact over time to form a unified whole. The underlying relationships and connections between the components of a system is called the structure of the system...The term dynamics refers to change over time...One feature that is common to all systems is that a system’s structure determines the system’s behavior.” (Martin, 2000, p6)

The discussion that follows emphasises the similarities between human and natural systems. Without any discussion of difference, the program proceeds to teach the fundamental concepts and technicalities concerned with terminology, diagramming and the use of computer software in System Dynamics modelling.

From this description, System Dynamics appears to be a method closely identified with Social Systems Theory and therefore appears, prima facie, to be both theoretically and ideologically incompatible with Critical Systems Thinking.

However, other literature from System Dynamics writers and practitioners indicates dissatisfaction with the limitations that occur if System Dynamics methods are applied to social systems strictly based upon the precepts of ‘traditional systems’ or ‘social systems’ theory. Sterman (1991), whilst not rejecting ‘traditional systems theory’, summarises many of the concerns, including: concern about adequately modelling human processes, concern about the nature of the relationship between models and ‘reality’, the difficulty of including non-numerical data within computer models, the potential for distortion arising from biased choice of model boundaries, and the difficulties for consumers of models in understanding the assumptions and processes used by ‘expert’ modellers. His observations are now presented in more detail.

In discussions on the nature of the connection between the model and ‘reality’, Sterman recognises the tension in modelling social systems between the competing demands of ‘comprehensiveness’ and ‘comprehensibility’. Comprehensiveness demands the inclusion of all relevant factors while comprehensibility demands simplification, in order to make the model understandable. His solution to this tension indicates that he sees models as an aid to thinking and conceptualisation about the ‘problems or situations’ from which the purpose of the model was derived, rather than as a faithful representation of an ‘objective reality’.
‘a truly comprehensive model of a complete system would be just as complex as that system and just as inscrutable. The map is not the territory – and a map as detailed as the territory would be of no use (as well as being hard to fold)... The art of model building is knowing what to cut out, and the purpose of the model acts as the logical knife.’ (Sterman, 1991, p5)

This view is confirmed in later discussion when Sterman (1991, p10) asserts that ‘simulation models are “what if” tools.’

Having argued that human decision-making does not follow rational rules, Sterman expresses concern about the adequacy of computer modelling processes for human decision-making. He finally proposes an anthropological approach as a suitable basis for collecting reliable data about actual human behaviour in a range of contexts. It is instructive to examine his reasons.

‘In addition to reflecting the physical structure of the system, a simulation model must portray the behaviour of the actors in the system. In this context, behavior means the way in which people respond in different situations, how they make decisions. The behavioral component is put into the model in the form of decision-making rules, which are determined by direct observation of the actual decision making process...The description of the decision-making rules is one potential trouble spot in a simulation model. The model must accurately represent how the actors in the system make their decisions, even if their decision-making rules are less than optimal...Unfortunately, discovering decision-making rules is often difficult. They can not be determined by aggregate statistical data, but must be investigated first hand.’ (Sterman, 1991, pp11-12) (My emphasis)

The third point of difficulty that Sterman raises concerns the difficulties posed by social issues for those working within a ‘traditional systems’ perspective of the natural sciences, namely the assumption that the only useful variables are those capable of quantification. His explanation of the problem would be familiar to anyone in soft systems, although his solution of making ‘reasonable estimates’, presumably quantitative, may be more contentious.

‘The majority of the data are soft variables. That is, most of what we know about the world is descriptive, qualitative, difficult to quantify, and has never been recorded...Leaving such variables out of models just because of a lack of hard numerical data is certainly less “scientific” than including them and making reasonable estimates of their values. Ignoring a relationship implies that it has a value of zero – probably the only value known to be wrong! (Forrester 1980)’ (Sterman, 1991, p12).

The fourth difficulty concerns the powerful influence of the choice of model boundaries, and hence relevant feedback systems, over the model outcomes. When a modeller chooses their boundaries, they are making judgements about what factors to include in the model and what to exclude from the model. These judgements are informed by the assumptions of the person building the model and are a potential source of error. He explains his argument in the following way.

‘The definition of a reasonable model boundary is another challenge for the builders of simulation models. Which factors will be exogenous? What feedbacks will be incorporated into the model? In theory, one of the great strengths of simulation models is the capacity to reflect the important feedback relationships that shape the behavior of the system and its response to policies. In practice, many simulation models have very narrow
boundaries. They ignore factors outside the expertise of the model builder or the interests of the sponsor, and in doing so they exclude important feedbacks. The consequences of omitting feedback can be serious.’ (Sterman, 1991, p13) (My emphasis)

To illustrate his point he provides an example of a model evaluating different energy strategies for, amongst other things, their impact on economic growth. The model provided great detail about the factors it included but treated the economy as exogenous to the boundaries of the model and therefore ignored an essential feedback.

A fifth difficulty he identifies concerns the practices within computer modelling relating to documentation and awareness of assumptions. He contrasts the shortcomings of computer modelling as practiced with the theoretical advantages of computer modelling frequently cited to support its use. He makes the following observations

‘In theory, computer models offer improvements over mental models in several respects:

- They are explicit; their assumptions are stated in written documentation and open for all to review.
- They infallibly compute the logical consequences of the modeler’s assumptions
- They are comprehensive and able to interrelate many factors simultaneously.
- A computer model that actually has these characteristics has powerful advantages over a mental model. In practice however, computer models are often less than ideal:
- They are so poorly documented and complex that no one can examine their assumptions. They are black boxes.
- They are so complicated that the user has no confidence in the consistency or correctness of the assumptions
- They are unable to deal with relationships and factors that are difficult to quantify, for which numerical data do not exist, or that lie outside the expertise of the specialists who built the model’ (Sterman, 1991, p4-5)

Finally, Wolstenholme, writing in 1990, offers an alternative formulation of the purpose of System Dynamics, takes a different perspective and makes the following observations about his view of the direction and potential for System Dynamics. In his claims about the purpose and contribution of System Dynamics, his words reinforce the perception that the primary role of models in System Dynamics is as aids to thinking rather than as representations of the ‘real’ world. He claims the purpose of System Dynamics is to,

‘facilitate(s) understanding of the relationship between the behaviour of the system over time and its underlying structure and strategies/ policies/ decision rules’, (Wolstenholme, 1990, p2)

Of the key benefits of the method, he says

‘The first is its ability to generate structures which can be transferred to create insights in to other systems...The second is its ability to help in identifying the counter-intuitive behaviour of systems’, (Wolstenholme, 1990, p3)

In his definition he remains ideologically firmly within a ‘social order’ paradigm, but this appears as a matter of personal choice rather than a logical necessity. If this is so, it
opens the possibility that the qualitative modelling processes (which he indicates can stand alone as a methodology) could be used within alternative theoretical paradigms.

He defines System Dynamics as,

'A rigorous method for qualitative description, exploration and analysis of complex systems in term of their processes, information, organisational boundaries and strategies; which facilitates quantitative simulation modelling and analysis for the design of system structure and control.' (Wolstenholme, 1990, p3), my emphasis.

and makes the observation that

'In addition to a broadening of applications of the traditional method, there has emerged in recent years a broadening of the method itself. In particular, there has been a move away from an obligatory use of quantified simulation models towards increasing recognition of the relevance of the diagramming phase of the subject (Wolstenholme 1982, Wolstenholme and Coyle 1983, Morecroft 1988, Meadows 1980)...The use of System Dynamics diagrams to structure and analyse ill-defined situations can be considered as a free standing methodology, having much in common with the soft system problem solving methodologies recently developed as an alternative to science-based approaches (Checkland 1983,1987, Ackoff 1978, Eden et al. 1979, Bryant 1989, Rosenhead 1989, Keys 1988). Alternatively, this extended use of diagrams can be seen as a front end to conventional System Dynamics methodology.' (Wolstenholme, 1990, p2-3), my emphasis.

This statement is important because Wolstenholme proposes the development of a purely qualitative branch of System Dynamics modelling, divorced from any theoretical connection with Social Systems Theory and ‘traditional systems’ thinking, with no necessity for quantification.

Taken together, the observations made by System Dynamics practitioners indicate a willingness to look at applications and methods that lie outside the philosophical realm of the methods and techniques of the classical natural sciences and a recognition of fundamental dissimilarities between the subjects (or objects) of social science research and natural science research. The quotations also indicate that System Dynamics is at some times viewed as a methodology firmly tied to ‘traditional systems theory’, whilst at other times it is presented as methodology, method or even technique, not necessarily tied to any particular theoretical perspective.

Practitioners within both System Dynamic and Critical Systems have identified significant challenges within their own approaches to systems inquiry. Critical System Thinking potentially offers System Dynamics insights into the ways in which ideology and ‘false consciousness’ support erroneous assumptions and how power distorts communication, and how both these processes adversely affect simulation modelling unless active measures are taken to reduce the distorting effects of these processes. System Dynamics offers Critical Systems Thinking tools that may aid with the processes of self-reflection and comparison of likely outcomes of alternative sets of assumptions about social processes.

THEORY AND METHODOLOGY: CO-JOINING DISPARATE APPROACHES TO INQUIRY

The previous section concluded with the observation that practitioners within both Critical Systems Thinking and System Dynamics have identified challenges from within their own paradigm, that the methods and insights of the ‘other’ approach might help to
resolve, but that the two approaches are often considered to be contrary in their fundamental theoretical and ideological assumptions, (see for example Flood’s (1990, p148-150) discussion of Jackson and Keys’s, ‘systems of systems’ schema). This section will examine some alternative ways in which apparently incommensurate approaches can be reconciled to create a theoretically coherent research methodology. This section will discuss the approaches suggested by Flood (1990) and those offered by Lewis and Grimes (1999), and identify the most appropriate way(s) forward in this instance.

Flood approached this problem by developing a general framework that characterised six different responses to combining or co-joining disparate ‘paradigmic concerns’ (this term includes the ideological, ontological, epistemological, methodological and method base of each approach (Flood, 1990, p135)). Through argument, he quickly disposed of all approaches except ‘complementarism’ and ‘methodological imperialism by subsumption’. Complementarism, he defined as ‘methodological incommensurability and theoretical commensurability (at a meta-level of reasoning)’(Flood, 1990, p138), whilst ‘methodological imperialism by subsumption’, he claimed, operated in the following manner:

‘a methodology is adopted that may call upon other methodologies at a specific point in order to act as sub-methodologies to deal with specific matters. For example, if the ‘what’ had been decided upon through the use of the mother methodology, a ‘how’ methodology may be drawn into the process.’ (Flood, 1990, p140).

Flood’s argument that ‘methodological imperialism by subsumption’ can be disposed of by appealing to epistemology based upon Habermas, appears to be an unwitting example of theoretical, if not methodological imperialism by subsumption and should therefore not be accepted.

Lewis and Grimes (1999, pp 2-4) identify two different approaches to multi-paradigmatic research. ‘Paradigm bracketing’ where the researcher identifies and makes explicit, the implicit assumptions of the paradigm informing research or literature and dialogically compares the insights gained from differing multiple perspectives after the biases have been acknowledged. In research, this requires sequential analysis of the same data from two or more paradigmic perspectives and separate recording of the observations arising from each set of assumptions. The second technique they identify is ‘paradigm bridging’ where the theorist aims to identify any theories that provide ‘transition zones’, between paradigms. These ‘transitional zone theories’ integrate between paradigms in ways that resolve the tension between theories for the issue of concern. The example given is of the way in which Gidden’s structuration theory provides a ‘transition zone theory’ between social theory that explains human behaviour with reference to social structure and social theory that explains human behaviour in terms of shared meanings (Lewis & Grimes, 1999, p3). There is some similarity between paradigm bridging and complementarism.

Each of the four approaches each require different degrees of theoretical ‘fit’ between paradigms, as shown in Figure 3.

<table>
<thead>
<tr>
<th>Paradigm bracketing</th>
<th>Paradigm bridging</th>
<th>Complementarism</th>
<th>Methodological Imperialism by subsumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>Least ‘fit’ required</td>
<td>Most ‘fit’ required</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 3: Comparison of requirements for ideological, theoretical and methodological ‘fit’
The differences between the various methods for co-joining theoretically and methodologically different approaches are shown in Figure 4.

<table>
<thead>
<tr>
<th>Requirements</th>
<th>CST plus SD as logically tied to SST</th>
<th>CST plus SD as an independent method(ology)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paradigm bracketing</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Paradigm bridging</td>
<td>Probably not</td>
<td>Possibly</td>
</tr>
<tr>
<td>Complementarism</td>
<td>No</td>
<td>Probably</td>
</tr>
<tr>
<td>Methodological imperialism by subsumption</td>
<td>No</td>
<td>Yes, qualitative aspects of method, quantitative aspects limited use</td>
</tr>
</tbody>
</table>

Figure 4: Summary of the differences between approaches that combine different methodologies and theories.

How does this apply to Critical Systems Thinking and System Dynamics? The discussion in the previous section indicated that System Dynamics could be considered in either of two ways. Either as a methodology that is logically independent of any single theoretical perspective, despite the shared adherence by most practitioners to ‘traditional systems thinking’, or as a methodology logically dependent upon ‘traditional systems theory’ or Social Systems Theory. Each possibility is considered in Figure 5.

Assuming that System Dynamics can be accepted as a method independent of ‘traditional systems thinking’, and the quotes from both Wolstenholme and Sterman seem to permit this possibility, the simplest theoretically permissible way of combining the two approaches is ‘methodological imperialism by subsumption’, where System Dynamics becomes a ‘helper methodology’ within an overall Critical Systems theoretical framework. Alternatively, if System Dynamics is not divisible from ‘traditional systems thinking’ and Social Systems Theory, as implied by the first definition provided by Martin, the only permissible way of combining the two approaches is through paradigm bracketing.

APPLICATION TO A REAL WORLD SITUATION

This section reports how System Dynamics has been used within a critical theoretical perspective, in part of an on-going PhD research project. The overall project will provide a critical review of the current quality processes in Australian Higher Education. Ison(1999) has previously argued that universities should be viewed systemically, so that interventions are evaluated against the big picture rather than local optimisation or narrowly defined objectives that may damage organisation as a whole.
However, quality policies appear to have been implemented without consideration of either the likely combined effects of government policy or the likely effects of quality strategies, on organisational reward systems (Cooper, 2002), implying that ‘mental models’ assumed by those formulating quality policy in higher education has been linear, rather than systemic. System Dynamics was used as a ‘helper methodology’ within a critical systems theoretical framework (Flood’s ‘methodological imperialism by subsumption’) to develop an alternative systemic ‘mental model’ for interpreting the likely combined effects of quality policy and other government policy initiatives on the rewards structures within universities and ultimately, on the teaching and learning processes for students.

The approach taken was to use qualitative System Dynamics diagramming as a freestanding methodology independent of Social Systems Theory, as proposed by Wolstenholme, to build a conceptual model that would act as one triangulation point in the study to integrate known research findings about different aspects of higher education in Australia. Data was drawn from multiple research studies, documentary analysis of the quality plans of all the universities in Western Australia (DETYA, 2001) and from AUQA quality reviews available at the time. The aspect of the research problem that this method was intended to address is encompassed within the research question:

How is the collection of ‘quality data’ influencing the control and reward systems within a university and are these changes likely to hinder or assist in achieving the intended ‘quality’ outcomes?

The qualitative model was developed through an examination of the literature detailing different aspects of higher education policy and university management strategy to provide a conceptual map of how the combinations of Federal Government policies were likely to affect the operating environment of university managers, staff, and professional institutions and the relationships between each of these groups. The initial conceptual map was constructed for one university and the tacit knowledge of the author as a staff member assisted in interpreting how the different strategies interacted within the model. An early (and subsequently amended) form of the model was presented at the 7th ANZSYS conference (Cooper, 2001) and a revised version of the model was presented to the HERDSA 2002 conference (Cooper, 2002).

The purpose of the model was to identify any unintended outcomes arising from the combination of management strategies responding to different policy imperatives. The model indicated that the combined effects of policy decisions seemed likely to produce systemic pressures at two points within the organisation and that these pressures would tend towards either:

- A reduction in academic standards
- Increased academic staff working hours
- Increased staff stress.

The diagram was indeterminate about how the pressures identified conceptual would translate into outcomes. This is because no satisfactory way could be found of symbolically representing ‘the decision-making rules’ within the diagram for the individual decision-making of staff members and students. Outcomes depended upon exactly the combination of decisions made by individual members of both staff and student groups. Decisions made by some individuals may compensate for, or aggravate the consequences for other individuals and influence their choices. However, the
manner in which individual choice was influenced was not straightforward and appeared to depend on the differing values-judgement made by individuals as they weighed their beliefs about the integrity of their work against their beliefs about their self-interest (any of which beliefs might themselves, be erroneous). The decision-making situation began to resemble a complicated form of the ‘Prisoner’s Dilemma’. (The Prisoner’s Dilemma is as philosophical conundrum that formed the basis of a psychological experiment exploring the interplay of morality and self-interest. Two people had to make independent decisions about whether to make an altruistic or a selfish choice (without knowledge of the other person’s decision). If both chose altruistically neither suffered, if one made a selfish choice and the other an altruistic choice, the altruistic choosers suffered, if both made selfish choices, both suffered, (Honderich, 1995, p719).) It was decided not to develop the model beyond this point.

If it is assumed that System Dynamics is a being used as a helper methodology within Critical Systems Thinking in this part of the research project, then the research methodology has achieved the following useful outcomes:

- It has provided a conceptual structure for ordering and cross comparing the results of existing studies examining different issues in Australian universities that may be relevant to the research problem.
- It has been helpful in suggesting possibly avenues for relevant investigation and research.
- It has identified counter-intuitive effects, likely to produce one or more outcomes that are incompatible with an overall increase in quality in the long term. The conceptual model within the diagram implied that current policies would tend to hinder some aspect of quality improvement, even though it was indeterminate about precise outcomes. This implication was independent of the ability to predict outcomes of particular combinations of individual decision making of staff and student groups.
- From the point of view of a critical systems perspective, the model has served its purpose.

If it is assumed that System Dynamics is theoretically indivisible from Social System Theory and that a paradigm bracketing method would be required in this part of the research project, then the work done so far would form only the first stage of the process of documenting the organisational dynamics of policy within the university from a Social System Theoretical perspective using System Dynamics as the methodology.

A quantitative model would have to be constructed and tested

The problem of determining decision-making rules would become a significant focus within the model development process and a potential weak spot within the model.

Methods would have to be found for symbolically and numerically representing the set of decision-making rules within the model, which, in this case, would require the development of a defensible method of translating non-logical behaviour into logical programming rules, without relying on approximations gathered from aggregate data, (see Sterman’s discussion of decision-making rules presented in the first section of the paper).

If this could be satisfactorily achieved, the findings would be presented along with the assumptions of ‘traditional systems thinking’. A separate qualitative organisational analysis from a critical systems perspective would have to be undertaken and reported, along with the assumptions of critical systems thinking. The findings of the two studies and their assumptions would be dialogically compared to see what new insights could
be achieved through the juxta-positioning and dialogue between different ‘pictures’ of the same system. There are no plans to develop the current study in these directions.

CONCLUSIONS

This paper has demonstrated that it is possible to devise a theoretically acceptable methodology by combining Critical Systems Thinking with System Dynamics and that such a combination provides benefits in real situations. It has been argued that one of the major concerns of Critical Systems Thinking is to find suitable methods to help with the task of questioning assumed explanations of social phenomena and their relationships. Qualitative System Dynamics can be useful to this process because it is a method that requires that hidden assumptions in tacit mental models are made explicit, in order to represent the relationships between processes in a schematic diagram. The diagramming stage of System Dynamics requires researchers to explicitly identify their assumptions about system boundaries, relevant factors and the nature of the relationships between factors. This process allows scrutiny by others and provides a visual representation that aids exploration of the situation, communication and critique. In the real situation under discussion, System Dynamics diagramming was used primarily as a reflective method that provided a format for communication of what was previously only a mental model in the thoughts of the researcher. The critique by others resulted in a re-working of the relationships and changes to the ways in which the some relationships were conceptualised. It is doubtful whether the conceptual clarification would have occurred as easily without a visual medium for sharing and testing the concepts within the mental model.

The more general insights gained from this process have been that there are several alternative ways of developing theoretically permissible methods for combining apparently incompatible theories and methods. Four alternative methods were contrasted in Figure 4, and this schema provides a reference point for future use. In some instances more than one method of combination may prove theoretically satisfactory. When this occurs, the choice of how theories and methods should be combined needs to be guided by the requirements of the problem being addressed.

REFERENCES


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Paper 7 (July 2003)

Edu-Business: the Hidden Presumptions of Commercially Derived Quality Management in Higher Education

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Abstract

The adoption of commercially derived quality management techniques in higher education worldwide has led to changes in the language used to describe both the purposes of higher education and the relationships between teachers and learners within higher education. This paper examines whether the presumption that business relationships can be applied to the context of higher education can be justified. This question is important because the commercially derived methods of quality management commonly used in universities rely upon the tacit assumption that the there is a "business", which has "customers" who buy "products". If these terms cannot be meaningfully applied to education, then commercially derived quality management methods are inapplicable to universities and the measurement and management of quality in higher education will need to be re-thought from first principles.

Introduction:

The most widespread response to concern about quality in higher education has been to apply commercially derived quality management methods to universities (Anderson, Johnson, & Milligan, 2000, p5; Gallagher, 2000). This begs questions about whether the purposes, roles and relationships tacitly assumed within quality management models can be found within higher education. This paper uses the findings of an Australian study of quality management in higher education to illustrate the tensions arising from a poor fit firstly between the assumptions of quality management and the purposes, roles and relationships within higher education, and secondly between students as customers of higher education and the Australian governments' intended purposes of higher education. Attempts at resolving this problem by applying the concept of stakeholder to higher education, in place of customer relationships moves the locus of the problem. It resolves some of these difficulties but creates irresolvable problems with the use of many of the commercially derived quality management methods. It has been argued elsewhere that the application of commercially derived management methods forces universities to distort their own understanding of their purposes, roles and relationships in order to fit with the implicit assumptions of the quality management model [Cooper, 2003, in press #483]. This paper compares the conceptualisation of the purposes of higher education with the tacit assumptions about purpose implicit within commercial quality management models.

Background

Key milestones in the post-war history of the Australian university have been the social justice agenda of the Whitlam government in the 1970's, which enacted the Bill abolishing of student fees at universities and extended the Federal government role in higher education (Gallagher, 2000). The next milestones stemmed from the 'clever country' policies of the Hawke government in the 1980's that marked the beginning of government policy to use higher education as a driver of economic growth (Candy &
Maconachie, 1997, p2). The purpose of this policy was to reduce Australia’s economic reliance on ‘primary’ production by expanding the ‘knowledge economy’. This economic strategy required more of the population to be educated to a higher level. However, neither Labor nor Coalition governments have been willing to foot the bill for this expansion as the per capita figures for university spending illustrate (Australian Vice-Chancellors’ Committee, 2001b; Megalogenis, 2001). University reform begun in 1987 led to the amalgamation of colleges and institutes of technology with universities that: ended the binary higher education system; began the massification of higher education; and marked the start of a progressive shift in the burden of cost away from Federal government and towards the student, (Australian Vice-Chancellors' Committee, 2001a). Figures show that this latter process has accelerated since 1996, as the Howard Coalition government has intensified its program of introducing (pseudo) markets into public services and pursuing policies to extend the privatisation of higher education (Gallagher, 2000). Quality management is a condition of Federal government funding, (DETYA, 2000b). The quality management processes require universities to individually collect data to prove that they are meeting their self-determined goals and to establish processes to ensure continuous quality improvement (Australian Vice-Chancellors' Committee, 1999). These quality processes are externally audited, once every five years by the Australian Universities Quality Agency (AUQA), a quasi-independent body receiving government funding to perform this task, (DETYA, 2000a).

**Purposes in higher education in Australia**

English models of university education have provided the strongest influences shaping the idea of university in Australia. The history of universities shows that universities have not remained static over time nor have they been monolithic even within one time and country, (Preston, 2002). Preston’s overview also illustrate that practical and vocational education has a history dating at least from mediaeval times, as does the contrary idea of separation of universities from the practical concerns of the world. Higher education has often had multiple (and contradictory) purposes (Preston, 2002). Support for multiple purposes of universities also comes from educational research on students’ orientation to learning reported in (Marton, Hounsell, & Entwistle, 1997).

The conflicting purposes of higher education can be categorised according to whether the intention is to provide individual benefit to students or broader societal benefit and according to whether ‘benefit’ is conceived normatively or transformatively. This provides the following typology:

- **Normative/ individual**: Student development within normative bounds of culture, ‘the cultured man’ (when concepts of acculturation were more strictly gendered)
- **Normative/ societal**: Normative professional and vocational preparation, to both serve industry (or empire) and the professions
- **Transformative/ individual**: to seek new knowledge for its own sake irrespective of considerations of immediate utility and profit, or social acceptability
- **Transformative/ societal**: Emancipative and transformative social and personal change;

The purpose of this schema is to illustrate differences in roles and relationships arising from different kinds of university mission. Many universities have purposes that inhabit different areas of schema.

**Purposes, roles and relationships in higher education**

Different purposes of education give rise to different roles and relationships both within and between academia and society, see Table 2.
Table 2: Four different purposes in education and implications for roles and relationships

<table>
<thead>
<tr>
<th>Purpose</th>
<th>1: University education for student development</th>
<th>2: University education for social/economic development</th>
<th>3: University education as emancipative cultural development within civil society</th>
<th>4: University education as transformative of society and individuals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pedagogic orientation</td>
<td>Student development</td>
<td>Assure minimum skill, competence and right attitudes and values of graduates</td>
<td>Excellence in academic discipline</td>
<td>Consciousness raising, social activism, political change</td>
</tr>
<tr>
<td>Academic staff role</td>
<td>Teachers and mentors</td>
<td>Assessors of professional competence and work skills</td>
<td>Experts on transmitting knowledge and producing new knowledge;</td>
<td>Partners in learning</td>
</tr>
<tr>
<td>Student staff relationship</td>
<td>Student as student</td>
<td>Student as trainee</td>
<td>Student as scholar; student as disciple</td>
<td>Student as learning partner, colleague</td>
</tr>
<tr>
<td>University Relationship with industry</td>
<td>University 'civilizes' industry through educating its future leaders according to normative cultural values</td>
<td>University responsive to needs of professions and industry</td>
<td>Higher education ignores industry</td>
<td>Higher education transforms people who transform society including industry and commerce</td>
</tr>
</tbody>
</table>

The differences in conception of purpose give rise to very different assumptions about the nature of the student role, the nature of the academic role and the nature of the relationship between students and academic staff, see Table 2. Whilst a visit to any university would uncover a diversity of opinion on the relative primacy each purpose, and courses combining different purposes, not all the roles and relationships are mutually compatible.

**Purpose roles and relationships in commercially derived quality management methods**

According to Cameron & Sine, in the literature on quality management 'quality' is used in specialist technical ways. They distinguished five distinct technical meanings of quality that differ from everyday usage. The meanings of quality used in commercial quality management are referenced to either attributes of the product or referenced to customer satisfaction or customer expectation of the product. Quality management assumes there are products, (where the term product includes services) and assumes that there is a customer relationship between the business and the person who pays for the product. So what happens to the purposes of higher education if quality management methods, that assume a customer relationship, are applied to higher education? This is one of the questions posed in the research.

**Research Findings**

The research project is concerned with a critical examination of the conceptual basis and practical application of quality management policy in Australian universities in the period since 1996. Three types of documentation pertaining to quality in Higher Education in Australia were examined: Government policy on quality in Higher Education and its associated justificatory 'research'; the formal 'quality plans' for five universities in Western Australia, representative of a variety of types of university, as categorised by Andrews et al (2000, p20-22); the reports of Panels whose task it was under the Australian Universities Quality Agency guidelines, to review and report on quality in clusters of programs. The part of the study reported here focuses on
government policy and changing conceptions of quality and the implications of this for roles and relationships in higher education. The findings show policy that the attempt to impose market relationships on higher education overly simplifies the roles of universities in ways that cannot coherently encompass even the aspirations of government policy.

Higher education policy and quality

Statement about the purposes of higher education, provide the context in which quality initiatives should be understood, as the conceptualisation of quality as fitness-for-purpose has been influential especially in the post 1996 period, (Harman & Meek, 2000). In the West report, (West, 1998), the focus is both highly individual and normative and societal goals are conceived as an indirect consequence of the achievement of normative-individual goals. The most recent review of higher education, initiated in 2002 (Nelson, 2002a) articulates a broader conceptualisation of purpose, including the normative-individual purposes identified in the West report, statements about the value of knowledge independent of utility, and the importance of the contribution of universities to Australia’s cultural and economic well-being.

Between 1996 and 2001, quality was conceptualised as fitness for purpose (Harman & Meek, 2000) and customer satisfaction. The student was considered as the primary customer of universities, (DETYA, 1999; Kemp, 2000) and this was used to justify transferring costs to students. The idea of students as customers of universities fits easily with the market philosophy that underpinned government policy. The idea of students as customers also fitted easily with commercial quality management techniques, which universities were being encouraged to use. The idea of student as customer fitted badly with parts of government policy concerned with using universities as a means to achieve societal goals. Since 2002, policy documents refer to universities as having multiple stakeholders (Nelson, 2002a, 2002b) rather than customers. This resolves some of the difficulties of lack of fit between the private relationship of student as customer and the government’s desire for universities to deliver identifiable short-term societal benefits. Difficulties emerge however, because the quality management methods developed in commercial settings tacitly assume customer relationships.

Quality plans and university purpose

Examination of university quality plans shows that although universities express their overarching mission and goals in terms of diverse educational purposes, the pressure for performance indicators has forced universities to express their measures of success in the language of business. The adoption of the language of business as the medium to evaluate the success of universities, distorts purposes, roles and relationships. The methods of measurement contained in the quality plans aligned with the assumption that the students have customer relationships to the university, for example, the naïve use of surveys of student satisfaction and statistics on student retention and attrition, although no universities claimed that students were its customers. Three quality indicators were common to all five universities, the ‘Course Experience Questionnaire’ (CEQ), the Graduate Destinations survey, and student progress and attrition data. The tacit assumptions that provide justification for these measures are not mutually consistent. Justification for use of the CEQ, which measure student satisfaction with their course, is based on the tacit assumption that students are customers. Justification for use of the Graduate Destinations survey, which is used as a proxy measure of employer satisfaction with graduates and measures the number of graduates obtaining fulltime employment, relies on the tacit assumption that employers are customers and students are products. Justification for the use of the student progress and attrition data is based
on the tacit assumptions that quality is defined as processing efficiency and that students are products. Other data collection strategies focussed mainly on verifying the market positioning of each institution relative to other universities.

Reports on quality

The reports of quality review panels illustrate that they encountered significant difficulties in applying quality management methods such as 'business excellence', to a university context. Panels were uncomfortable with the assumption that students had a customer relationship with the university as can be seen from the following extract:

"Written student evaluations and student interviews provided the panel with the only evidence of quality teaching. More objective and structured analysis across the whole University and Faculties is called for to verify positive claims in relation to this and other schools."

For panels, quality could not be simply equated with either retaining students or satisfying student expectations.

Analysis of research findings

The research findings are being used in this paper to address three questions. Do students have a customer relationship with universities? Can the relationship between students, universities academic staff and society be usefully and legitimately conceptualised in terms of stakeholder relationships and if so, what are the implications of this? Can commercial quality management methods be adapted to incorporate stakeholders in place of customers?

Customers and universities

Commercial quality management assumes there is a customer relationship between the business and the organisation or person who buys their products. Even in commerce, quality management that relies on satisfying customers' wants and needs is problematic in some circumstances, especially when there is high variability in customers wants (Harrison & Harrington, 2000). Research indicates that student expectations are varied, so the 'private university' with the mission of giving customers what they want might still have some difficulties. In education there is further potential for mismatch between students expectations and the ability of universities to satisfy students. Students may have a faulty understanding of the means-ends linkages between what they want and what they need to do to get what they want. In this case, the university may offer an interesting and appropriate course leading to the desired qualification but the student may be dissatisfied, because they are unwilling or unable to put in the necessary effort needed to meet the requirements. Notwithstanding these difficulties, this section of the paper explores the implications of the concept of customer for the roles and relationships implied by the purposes of higher education. The questions asked include, if students are the customers of universities:

- What would be the product of universities? Can student customers legitimately determine the standard of the product?
- What would be the implications for others who consider they have interests in higher education?
- How would this affect the purposes of higher education? What are the implications for funding and for equity issues? How would this affect the economic purposes of higher education?
If students were customers of universities, what would be the product they purchased? It has been argued that the product must be the curriculum and teaching process rather than the qualification, (Cooper, 2002). It has been suggested (Scrabec, 2000) that students cannot have a customer relationship with universities because this would enable them to dictate the standards of the product. This is disputed by (Swenson, 1998) who claims that students can be customers without dictating standards. Although Swenson would be right if universities simply prepared students for awards that were examined entirely independently of the university, in a situation where universities internally examine their students and award degrees without external moderation (as is the case in Australia) Scrabec is right in believing that in a free market situation, universities may be tempted to adjust their standards to meet the market. Finally, if students have a customer relationship with universities they cannot be treated as products and the internal efficiency and priorities of the university becomes its own business.

If students are customers, what legitimate interest do other parties have? If higher education becomes a private transaction between universities and their student customers, no other parties have any legitimate interest. In these circumstances, the public role of universities in society would be minimal, as universities would function as wholly private institutions. According to market philosophy, both government and business would forgo the right to intervene in university affairs.

**Stakeholders and Universities**

A stakeholder approach to relationships between universities and staff, students, industry, government and the public, resolves some of the difficulties arising from the assumption that universities have customers and satisfactorily accommodates the public role of universities. This section examines the implications for accepting a stakeholder model. If universities have a stakeholder relationship with other parties

- Who would have legitimate claims? How would competing claims be balanced?
- How would it affect the concept of outputs of universities and the assessment of the nature and standard of the product, output or contribution?
- How would this affect the purposes of higher education? What would be the implications for funding and for equity issues

In higher education, the list of stakeholders usually includes at least students, staff, employers of graduates, clients of consulting services, industry, venture partners and regional communities (Nelson, 2002a) but may also include other interested parties such as professional associations, curriculum developers, accrediting bodies, parents, and education and training bodies (Anderson et al., 2000). This variation indicates there are unresolved boundary issues concerning who should be considered as a stakeholder. Weiss(1995) claims that stakeholder theory depends upon ‘implicit social agreements’ to which ‘all members of society are party’. This enables stakeholder theory “to identify and legitimate the interests of stakeholders who are not directly involved, such as communities, who may be affected indirectly as a consequence of the activities of an enterprise”, (Weiss, 1995). Weiss argues that these implicit social agreements are problematic in the market economy of modern capitalism because they run counter to the existing social contract for business in contemporary society, which he refers to as ‘the minimalist morality of modern capitalism’, (Weiss, 1995 p6). The features of stakeholder theory that are problematic in the business world are not necessarily problematic in the university context, if universities forgo the ideology of market framework.

Problems remain concerning how the interests of stakeholder groups can be known, whether they are assumed to be homogeneous, and how stakeholder interests can be
effectively pressed within university decision-making. Weiss argues that Stakeholder Theory makes claims that serve to strengthen the professional managerial class because stakeholder theory gives the ‘professional managerial class’ the responsibility for balancing and responding to the competing claims of stakeholders. In universities the problems of increasing managerial power and of determining how conflicting interests should be balanced and represented remain salient for universities in deliberations about how to determine the nature and standards appropriate to university courses, and in determining how courses should be funded and how equity issues should be resolved.

Customers, stakeholders and quality management

The analysis so far suggests that stakeholder relationships fit with the purposes of higher education better than customer relationships. Two questions remain. If stakeholder theory provides an appropriate description of relationships between universities and students, society and government, can universities operate within a market framework? Secondly, can commercial quality management methods accommodate stakeholders in place of customers? The first question can be answered fairly quickly. The second question requires a longer answer.

For the reasons outlined by Weiss (1995), there are philosophical tensions between stakeholder theory and free market capitalism, because of the moral privilege accorded by market capitalism to rights associated with contract. If stakeholder theory applies to universities, then universities cannot be assumed to work within a market framework.

Commercial quality management methods vary in their definitions of quality, but all assume that the relationship between the business and the purchaser is a customer relationship where a customer buys a product. If universities have stakeholders instead of customers then the ‘simplifying’ benefits of the customer relationship are lost. It is, in principle, relatively easy to respond to ‘customer wants and needs’. When stakeholders are substituted for customers, things become more difficult. For example, in the context of universities, if ‘industry’ wants more engineers, ‘society’ needs more nurses and students prefer to study law, whose interests should take precedence when universities decide how many student places to offer in different disciplines? If students were customers, the answer would be to expand the law schools. If universities are responsive to stakeholders, then managers, in government departments and in universities must decide the balance of such claims. If quality were defined as ‘supporting customer satisfaction in an integrated way’ it would be relatively easy to survey customers to find out the extent to which they are satisfied with the service they have received. If quality were defined instead as ‘supporting stakeholder satisfaction in an integrated way’, there would be no simple way to interpret what this would mean. Consider the example above of the allocation of student places. No solution will satisfy all stakeholders. In these circumstances data on student attrition and progress and employer satisfaction have no simple relationship to the quality of the courses offered.

The decisions are both complex and subjective, much more complex that simply responding to a single customer group. Frequently the wants and needs of some groups must be sacrificed in order to satisfy the wants or need other groups. In universities the basis of such decisions are value-based, contentious, political and contested. Commercial quality management methods are unsuited in circumstances of contested values and are therefore unsuited for use in universities.

Implications of these research findings

The implications of the research findings for the measurement of quality in universities are that naïve output measures that (tacitly) assume students are customers or products
of universities provide no useful indication of educational quality. The complexity of purpose of universities cannot be usefully reduced to simple indicators. The use of simple indicators privileges small parts of the overall purpose of higher education and risks distorting the overall institutional purpose and operation. The consequence of this is likely to be that only those parts that are measured are prioritised to the detriment of other purposes, see (Ison, 1999).

Conclusions

Lessons from history show that many important ways of understanding the world have been initially perceived as heretical. The heretical perspective in one era can become the transformative perspective in another and then the orthodoxy against which others rebel at another time, as for example the materialist worldview. Universities have value as one of the custodians of heretical and transformative ideas in society. To maintain this role some parts of university endeavour must be freed from the requirement to only serve immediate utility. This means that universities will need to continue to have multiple, contradictory and ambiguous purposes. The risk with current measures is that universities will recast themselves as quasi-commercial organisations, readjust their goals accordingly and diminish both their social and transformative purposes. To avoid this, quality must be re-conceptualised to take account of the differences between education and commerce.

References


Critical Management, Critical Systems Theory and System Dynamics

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STREAM: OR/Systems Thinking for Social Improvement

Abstract

This paper explores the theoretical compatibility and practical benefits of combining methods developed within Systems Dynamics with Critical Systems Thinking to address concerns relevant to critical management. Three questions arise. The first is how System Dynamics methods might be useful in critical management studies. What ‘problems’ within critical management studies might qualitative System Dynamics methods resolve? The second question is the nature of the theoretical relationship between Critical Systems Thinking and System Dynamics, asking where the potential similarities and differences in underlying theoretical perspective occur? The third question examines the extent to which it is possible to combine apparently incommensurate methodologies in a theoretically coherent way. Are there theoretically permissible ways of combining the methods of System Dynamics and Critical Systems Thinking? Can methods that were originally developed within a functionalist paradigm, be legitimately and usefully adapted for use within critical management studies?

This investigation is important because Alvesson and Deetz (in Clegg, Nord, & Hardy, 1996, p212) identified as problematic, both the lack of empirical studies within critical management studies and the lack of diversity of established empirical methods, developed in ways compatible with the theoretical assumptions of critical management theory. The former problem means that, typically, critical management studies use a limited range of methodologies and the (in)compatibility of other methods is assumed but is unelaborated and untested. The paper will conclude by identifying some general guidelines for combining these two different approaches to systems thinking.

Introduction

According to Jackson (1991, p183) critical management science (sic) had its origins in the 1970’s when the first radical attacks were launched upon traditional management science. The early critique originated from Soft Systems thinkers and from Marxist scholars who questioned assumptions about the primacy of rationality and the ‘naturalisation’ of social relationships within mainstream management science. By the 1990’s the ‘critical edge’ of critical management had moved, and both soft systems thinking and Marxist organisational theory were being interrogated from alternative
perspectives, especially those derived from critical theory or postmodernism of resistance, see Reed’s (1996) account of the historical development of organisational studies and Jackson’s (2003) account of the emergence of critical systems thinking.

Two Theoretical Positions

The first section of the paper will identify the theoretical positions of both Critical Systems Thinking (CST) and System Dynamics (SD). In each case, the initial outline will frame the discussion in language that does not implicitly favour either theoretical position and will describe each approach in its own terms, relying on accounts given by practitioners from within their own paradigm. The purpose of the exercise is to identify theoretical and ideological assumptions and core practical concerns rather than to repeat standard critiques. The process will begin by outlining CST. Challenges for CST, as identified by its practitioners will then be discussed. The discussion of CST will conclude by identifying how the perspectives of SD may assist resolution of problems within CST. The same process will then be repeated for SD, concluding with an identification of how the perspectives of CST may assist resolution of problems within SD.

Critical Systems Thinking

The term “Critical Systems Thinking” may be used either generically or to refer to specific bodies of work. Flood and Jackson suggest that CST requires five fundamental commitments: to critical awareness; social awareness; emancipation; theoretical pluralism; and to methodological pluralism; (Jackson, 2003, p84). Midgley critiques this vision of CST (Midgley, 2003, p 109-112) and argues that all these ‘commitments’ are in different ways unsupportable. Midgley builds on Ulrich’s(1983) work, drawing attention to the need to enhance support for critical reflection on boundary decisions. A theme that unites critical systems thinking is emphasis on the need and utility of self-reflective practice.

Generically, CST is defined by Flood (1990, p204) as ‘a broad notion of critical science employed with a systems perspective’ and ‘critique’ is a process that

‘puts up a common opposition to instrumental rationality, because such a rationality can be linked to control in the human condition in a similar way to the idea of power in control of the natural world.’(Flood, 1990, p204).

According to Flood (1990, Chapter 5), the radical ‘epistemic’ shift that differentiates Soft Systems Thinking from Social Systems Theory is its replacement of objectivist theoretical assumptions with subjectivist assumptions about the nature of social reality. The ‘epistemic’ shift that differentiates CST from Soft Systems Thinking is the recognition that subjective experience includes ‘false consciousness’.

An acceptance of false consciousness affirms that the subjective explanations offered by individuals who report their understanding or perceptions of social situations, will include not only their knowledge, but also their self-deception and their self censorship, induced both by their perceptions of the power relationships between themselves and others and their perceptions about consequences of conforming or breaking with expected behaviour or opinion. Thus, one of the key tasks for critical systems theory is to find methods of uncovering distortions and self- deceptions induced in human thought and communication.

Researchers themselves are not immune to the distorting effects of ideology, and this poses a problem for all critical inquiry incorporating the concept that ‘false consciousness’ distorts understanding. A widespread response to this (developed within
diverse traditions including critical pedagogy, feminism and national liberation movements), has been the use of self-reflection with the purpose of identifying underlying ‘normative’ assumptions behind commonly accepted explanations for social processes, and then developing alternative explanations derived from different (contrary) sets of assumptions. This process is generally referred to as consciousness or consciousness-raising, see, for example, (Freire, 1972). Self-reflection forms the core of the process of consciousness and this explains why self-reflection has such a central position in the methods of CST, even when practitioners disagree on the relative importance of other methods and techniques. One of the key tasks for CST that Flood and Midgley agree upon is the need to identify suitable methods that can be used in systems inquiry to assist with the self-reflective process (Flood, 1990, p104) (Midgley, 2003, p117). One of the systems methodologies that has been most publicly successful in challenging established orthodoxy and assumptions in public policy has been System Dynamics, as evidenced, for example, in the work of Forrester whose model, in the 1960’s, challenged accepted thinking on urban renewal (Forrester, 1995) and Meadows (Meadows, Meadows, Randers, & Behrens III, 1972), whose work in the 1970’s successfully provided a plausible alternative to the dominant assumptions about economic growth and sustainability. On this basis, SD seems to offer a method that might resolve one of the agreed challenges identified from within CST, namely the need to develop a range of methods capable of facilitating scrutiny of the possible outcomes if social processes and public policy are viewed from perspectives other than the ones most commonly accepted. Jackson (Jackson, 2000, p155) also suggested that SD might be useful for assessing different policy options. The question that remains is whether SD can be used with CST in a theoretically permissible way.

**System Dynamics**

According to the first tutorial on modelling from the online Massachusetts Institute of Technology SD Education Project, (Martin, 2000, p6), SD

‘... can provide a common language for mathematics, biology, ecology, physics, history and literature.’

The discussion that follows emphasises the similarities between human and natural systems. Without any discussion of difference, the program proceeds to teach the fundamental concepts and technicalities concerned with terminology, diagramming and the use of computer software in SD modelling. From this description, SD appears to be a method closely identified with Social Systems Theory and therefore appears, prima facie, to be both theoretically and ideologically difficult to reconcile with CST.

Other literature from SD writers and practitioners indicates distance from Social System Theory and recognition of its limitations. Sterman (1991), summarises some accepted limitations including: concern about adequately modelling human processes; concern about the nature of the relationship between models and ‘reality’; the difficulty of including non-numerical data within computer models; the potential for distortion arising from biased choice of model boundaries; and the difficulties for consumers of models in understanding the assumptions and processes used by ‘expert’ modellers. His observations are now presented in more detail.

On the nature of the connection between the model and ‘reality’, Sterman recognises a tension between the competing demands of ‘comprehensiveness’ and ‘comprehensibility’. Comprehensiveness demands the inclusion of all relevant factors while comprehensibility demands simplification, in order to make the model understandable. His solution to this tension indicates that he sees models as an aid to
thinking and conceptualisation about the ‘problems or situations’, rather than as faithful representations of an ‘objective reality’.

‘A truly comprehensive model of a complete system would be just as complex as that system and just as inscrutable. The map is not the territory – and a map as detailed as the territory would be of no use (as well as being hard to fold)... The art of model building is knowing what to cut out, and the purpose of the model acts as the logical knife.’ (Sterman, 1991, p5)

This view is confirmed in later discussion when Sterman (1991, p10) asserts that ‘simulation models are “what if” tools’. Meadows et al(2003), also consider that their models provided means of exploring possibilities rather than predicting outcomes.

Secondly, Sterman, accepting that human decision-making does not follow rational rules, expresses concern about the adequacy of computer modelling processes for human decision-making. He proposes an anthropological approach for collecting reliable data about actual human behaviour in a range of contexts. It is instructive to examine his reasons.

‘The description of the decision-making rules is one potential trouble spot in a simulation model. The model must accurately represent how the actors in the system make their decisions, even if their decision-making rules are less than optimal...Unfortunately, discovering decision-making rules is often difficult. They can not be determined by aggregate statistical data, but must be investigated first hand.’ (Sterman, 1991, pp11-12) (My emphasis)

Thirdly Sterman raises concerns about the difficulties posed by social issues for those who assume that the only useful variables are those capable of quantification. His explanation of the problem would be familiar to anyone in soft systems, although his solution of making ‘reasonable estimates’, presumably quantitative, may be more contentious.

‘The majority of the data are soft variables. That is, most of what we know about the world is descriptive, qualitative, difficult to quantify, and has never been recorded...Leaving such variables out of models just because of a lack of hard numerical data is certainly less “scientific” than including them and making reasonable estimates of their values. Ignoring a relationship implies that it has a value of zero – probably the only value known to be wrong! (Forrester 1980)’ (Sterman, 1991, p12).

The fourth difficulty concerns the choice of model boundaries, and hence relevant feedback systems, over the model outcomes. When modellers choose their boundaries, they are making judgements about what factors to include and what to exclude from the model. These judgements are informed by the assumptions of the person building the model and are a potential source of error. He explains his argument in the following way.

‘The definition of a reasonable model boundary is another challenge for the builders of simulation models. Which factors will be exogenous? What feedbacks will be incorporated into the model? In theory, one of the great strengths of simulation models is the capacity to reflect the important feedback relationships that shape the behavior of the system and its response to policies. In practice, many simulation models have very narrow boundaries. They ignore factors outside the expertise of the model builder or the interests of the sponsor, and in doing so they exclude important feedbacks. The consequences of omitting feedback can be serious.’ (Sterman, 1991, p13) (My emphasis)
Awareness of the distorting effects of choice of model boundaries is a concern shared by critical systems thinkers.

A fifth difficulty he identifies concerns the practices within computer modelling relating to documentation and awareness of assumptions. He contrasts the shortcomings of computer modelling as practiced with the theoretical advantages of computer modelling frequently cited to support its use. He makes the following observations:

'In theory, computer models offer improvements over mental models in several respects:

They are explicit; their assumptions are stated in written documentation and open for all to review.

They infallibly compute the logical consequences of the modeler's assumptions.

They are comprehensive and able to interrelate many factors simultaneously.

A computer model that actually has these characteristics has powerful advantages over a mental model. In practice however, computer models are often less than ideal:

They are so poorly documented and complex that no one can examine their assumptions. They are black boxes.

They are so complicated that the user has no confidence in the consistency or correctness of the assumptions.

They are unable to deal with relationships and factors that are difficult to quantify, for which numerical data do not exist, or that lie outside the expertise of the specialists who built the model' (Sterman, 1991, p4-5)

Wolstenholme, offered an alternative formulation of the purpose of SD, and observes that


Wolstenholme proposes the development of a purely qualitative branch of SD modelling. Jackson (2000, p154) argues that Wolstenholme is working within a functionalist perspective because he is describing systems without adequate reference to human consciousness and meaning, Sterman's and Meadow's comments imply that they see exploration of meaning in mental models as a primary role of SD. This indicates that the SD qualitative modelling processes may be used within alternative theoretical paradigms. Senge applied SD to the development of learning organisations, combining both functionalist and interpretivist perspectives, but, as Jackson (2000, p272) points out, he did not examine the theoretical compatibility of the two perspectives. To conclude the observations made by some SD practitioners recognise dissimilarities between the subjects (or objects) of social science research and natural science research and the difficulties of applying natural science methods, but offer no analysis of how the use of SD within other perspectives changes the nature of its claims.

Practitioners within both SD and CST have identified significant challenges within their own approaches to systems inquiry. CST potentially offers SD insights into the ways in
which ideology and ‘false consciousness’ support erroneous assumptions; how power distorts both communication and choice of boundaries; and how all these processes adversely affect simulation modelling unless active measures are taken to reduce the distorting effects of these processes. SD offers CST tools that may aid with the processes of self-reflection and comparison of likely outcomes of alternative sets of assumptions about social processes.

**Perspectives on theoretical difference**

Discussion of theoretical difference first came to prominence in organisational theory through Burrell and Morgan’s work on sociological paradigms (Burrell & Morgan, 1979). The history of the ‘paradigm wars’ in organisational studies has been recounted from different perspectives, for example, (Clegg & Hardy, 1996), (Burrell, 1996), (Alvesson & Deetz, 1996), (Reed, 1996) (Ackroyd, 1994; Martin, 1992; Mingers & Gill, 1997) (Donaldson, 1996). In response to the difficulties identified with using the term ‘paradigm’ Alvesson and Deetz have used the phrase ‘metatheory of representational practices’. This seems to be congruent with Burrell and Morgan’s original intention in writing about ‘paradigms’, as reported by Burrell(1996). It was not their intention to create a taxonomy but to draw attention to differences that had been previously ignored, to ‘create space’ in organisational theory for studies based in theoretical assumptions other than a ‘naturalised’ functionalism.

**Review two Typologies: Burrell & Morgan and Alvesson & Deetz**

In 1979, Burrell and Morgan first published their typology and legitimised debate about alternative theoretical ways of conceptualising and representing what happens within organisations (Burrell & Morgan, 1979). In this typography (summarised in figure 1), they (1979, p29) differentiate between ‘paradigms’ within social theory, and within organisational theory. The differentiation is according to two dichotomies. First whether the underlying theoretical paradigm assumptions are objectivist or subjectivist; and second, whether social regulation or radical social change is assumed to be socially desirable. Figure1 illustrates some of the key differences in assumptions about methodology and social relationships that characterise each of the four positions in their simplest form.

<table>
<thead>
<tr>
<th>Objectivist/ Social order</th>
<th>Objectivist/ Social conflict</th>
</tr>
</thead>
<tbody>
<tr>
<td>Favours the use of the classical methods of natural science. Views social relationships naturalistically.</td>
<td>Views social relationships and power as intimately tied to ideology and ideology as the product of economic relationships. Precepts of Scientific Marxism are given the status of scientific laws.</td>
</tr>
<tr>
<td>Subjectivist/ Social order</td>
<td>Subjectivist/ Social conflict</td>
</tr>
<tr>
<td>Rejects the use of the methods of natural sciences. Uses interpretive methods of inquiry for understanding social relationships. Views social relationships as a product of shared interpersonal understandings.</td>
<td>Rejects unreflective use of both the classical methods of natural sciences and the methods of interpretive inquiry. Social relationships are considered as a product of shared interpersonal understandings but the ways in which these understandings develop is open to manipulation by social institutions that encourage and propagate ‘false consciousness’.</td>
</tr>
</tbody>
</table>

*Figure 1. Different theoretical and ideological positions, based upon Burrell and Morgan’s typology.*
Some commentators critique Burrell and Morgan's typology because it is not comprehensive or does not do justice to some perspectives; for example, Flood (1990, p83) argues that the framework does not provide a complete taxonomy of the different possible theoretical positions, (objectivist anti-positivist positions are excluded, see also (Jackson, 1991, p22)). Alvesson and Deetz (1996, p195) object that the objectivist/subjectivist divide implicitly privileges the functionalist position, by concealing the subjective nature of the underlying assumptions in objectivist ontology. They (1996) also note that the typology creates artificial boundaries between theoretical perspectives by implying greater polarisation between positions than is justified and by supporting the idea that there can be no meaningful communication between research based in different paradigms. The survival of the typology for over two decades and its citation and use in recent work indicates that researchers still find it useful despite its incompleteness and contested conceptual divisions, see for example, (Flood, 1990; Jackson, 1991; Lewis & Grimes, 1999).

Although Alvesson and Deetz (1996, p196) explicitly state that in naming polarities they change a 'continuous world' into a 'discontinuous' one and place together theoretical positions that differ, they developed an alternative typology. They use this to highlight important theoretical differences that are collapsed within Burrell and Morgan’s typology, between critical management studies based in critical theory and those based in oppositional post-modern perspectives, see Table 2.

<table>
<thead>
<tr>
<th>Dissensus/ local-emergent</th>
<th>Dissensus/ elite-a priori</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dialogic studies; Postmodern; Deconstruction</td>
<td>Critical studies; Late modern; Reformist</td>
</tr>
<tr>
<td>Rejecting of all 'grand narrative'; rejecting of the naturalisation of power relations; Rejecting of claims to universalism. Problematises individual autonomy and often sceptical of concepts of moral responsibility. Focus on centrality of meaning over rationality, fragmentation of personal identity;</td>
<td>Asserts partiality of science and its pretence of neutrality. Accepting of societal goals of emancipation and liberation; rejecting of the naturalisation of power relations; accepting of concept that humans share some universal qualities by virtue of being human. Problematises individual autonomy and moral responsibility with the concept of false consciousness, the role of the unconscious and ideology/ distorted communication but ultimately accepting of some degree of moral responsibility</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Consensus/ local-emergent</th>
<th>Consensus/ elite-a priori</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interpretive studies; Premodern; Traditional; Rejecting of 'grand narrative', naturalises power relations; sceptical of claims to universalism; accepting of claims to individual autonomy and moral responsibility. Focus on centrality of meaning and lived experience rather than concerns of rationality.</td>
<td>Normative studies; Modern; Progressive; Accepts neutrality of science; views social relationships naturalistically. Founded upon the premises of the 'grand narrative' of the enlightenment; including primacy of rational thought and acceptance of individual autonomy and responsibility as unproblematic concepts</td>
</tr>
</tbody>
</table>

Table 2 A reproduction of Alvesson & Deetz ‘Contrasting dimensions from the metatheory of representational practices’ (Alvesson & Deetz, 1996, p196), incorporating and summarising some material from adjacent tables

In figure 3, the three major strands of systems thinking in social science as identified by Flood (1990), fall into different quadrants on Burrell and Morgan’s typology, in terms of their theoretical and ideological assumptions.
OBJECTIVIST/ SOCIAL ORDER
Social System Theory* derived from General Systems Theory
Development of causal modelling of social systems: Simons,
Adaptation of ‘hard’ systems methods developed in engineering to social problems
Classical System Dynamics

OBJECTIVIST/ SOCIAL CONFLICT

SUBJECTIVIST/ SOCIAL ORDER
Soft systems thinking
Development of ‘soft’ system inquiry:
Checkland, Ackoff
Soft Systems Methodology
Soft System Dynamics?

SUBJECTIVIST/ SOCIAL CHANGE
Critical Systems Thinking
Development of ‘critical’ system inquiry:
Ulrich, Flood, Jackson, Keys
Critical Systems Heuristics, Total systems intervention, Local systems intervention

Figure 3 Three theoretically/ ideologically different approaches to systems thinking in social science (based on Flood)

* (Parsons, 2003) (1963) was a leading exponent of Social Systems Theory. Flood refers to this as ‘traditional systems’ thinking. Burrell and Morgan used terminology from social science literature.

When Alvesson & Deetz’ topology is substituted, it is not so clear where the different traditions within CST should be located. It might be argued that in its nature, CST must be based in the dissensus/ elite- a priori quadrant by virtue of its foundational systemic assumptions about interrelatedness, or for Jackson and Flood, by the fixed nature of their five commitments, (Jackson, 1991, p184). Alternatively, the focus upon pluralism and the potential legitimacy of multiple perspectives might place CST in the dissensus/ local emergent quadrant. More likely, many of the distinctions of position within CST can be more properly located at different places along the continuum between elite-a priori and local-emergent within the dissensus half of the diagram.

Dissensus/ local-emergent
Critical Systems Thinking
Critical systems thinking as Discordant pluralism Gregory

Dissensus/ elite-a priori
Critical Systems Thinking
‘Critical’ system Thinking as complementarism:
Critical Systems Heuristics, Total systems intervention, ?Local systems intervention

Consensus/ local-emergent
Soft systems thinking
Development of ‘soft’ system inquiry:
Checkland, Ackoff
Soft Systems Methodology

Consensus/ elite-a priori
Social System Theory* derived from General Systems Theory
Development of causal modelling of social systems: Simons,
Adaptation of ‘hard’ systems methods developed in engineering to social problems

Table 4: Critical Systems Thinking using Alvesson & Deetz schema
Comparing the typologies produced by Burrell and Morgan with that of Alvesson and Deetz illustrates both the strength of this type of approach in drawing attention to difference, and its weakness in accentuating artificial polarities.

Working With Theoretical And Methodological Difference

This section will examine some alternative ways in which apparently incommensurate approaches can be reconciled to create a theoretically coherent research methodology. This section will discuss the approaches suggested by Flood (1990), Gregory (1996) and those offered by Lewis and Grimes (1999), and identify the most appropriate way(s) forward in this instance.

Flood (1990, p135) developed a general framework that characterised six different responses to combining or co-joining disparate ‘paradigmatic concerns’ (this term includes the ideological, ontological, epistemological, methodological and method base of each approach). Through argument, he quickly disposed of all approaches except ‘complementarism’ and ‘methodological imperialism by subsumption’. Complementarism, he defined as ‘methodological incommensurability and theoretical commensurability (at a meta-level of reasoning)’ (Flood, 1990, p138), whilst ‘methodological imperialism by subsumption’, he claimed, operated in the following manner:

‘a methodology is adopted that may call upon other methodologies at a specific point in order to act as sub-methodologies to deal with specific matters. For example, if the ‘what’ had been decided upon through the use of the mother methodology, a ‘how’ methodology may be drawn into the process.’ (Flood, 1990, p140).

Flood’s argument that ‘methodological imperialism by subsumption’ can be disposed of by appealing to epistemology based upon Habermas appears to be an unwitting example of theoretical, if not methodological imperialism by subsumption and should therefore not be accepted. Gregory (1996), reprinted (2003, p132), came to the same conclusion following a different line of argument, and also develops a more detailed critique of the System of Systems Methodologies, Gregory (2003, p137)

Lewis and Grimes (1999, pp 2-4) identify two different approaches to multi-paradigmatic research. ‘Paradigm bracketing’ where the researcher identifies and makes explicit, the implicit assumptions of the paradigm informing research or literature and dialogically compares the insights gained from differing multiple perspectives after the biases have been acknowledged. In research, this requires sequential analysis of the same data from two or more paradigmatic perspectives and separate recording of the observations arising from each set of assumptions. The second technique they identify is ‘paradigm bridging’ where the theorist aims to identify any theories that provide ‘transition zones’, between paradigms. These ‘transitional zone theories’ integrate between paradigms in ways that resolve the tension between theories for the issue of concern. The example given is of the use of Giddon’s structuration theory to provide a ‘transition zone theory’ between social theory explaining human behaviour with reference to social structure and social theory explaining human behaviour in terms of shared meanings (Lewis & Grimes, 1999, p3). There is some similarity between paradigm bridging and complementarism. Gregory’s position of discordant pluralism provides a third alternative, beginning from the presumption that paradigms cannot always be bridged.

Gregory argues that attempts to bridge paradigms may exercise ‘illegitimate force’ tantamount to imperialism by subsumption because bridging often requires some of the discords between paradigms to be trivialised or marginalised in the interests of accommodation. Gregory argues that this disadvantage can be overcome if conciliation
is not imposed and the similarities and differences between pairs of paradigms are used to enhance critical appreciation of the research issue. Gregory explains the difference between complementarism and discordant pluralism in the following way:

"The complementarist legitimates his or her position through immanent critique and through the recognition of limitations, whilst the discordant pluralist's position is legitimated by its critique of both similarities and differences, in which methodologies are viewed as challenging and supplementing one another." (Gregory, 2003, p138)

Discordant pluralism resembles paradigm bracketing, but the constellation metaphor allows the tensions within paradigms and the synergies between paradigms to be recognised without either being forced into the apparent harmony of complementarism or the apparent opposition of paradigm bracketing. Although the examples of the method of 'discordant pluralism' provided by Gregory (Gregory, 2003, p134-135) show the method being used by Jay and Bernstein to analyse the philosophic influences on Adorno when the whole body of his work was scrutinised (and reference work analysing the philosophical systems of Derrida and Habermas) this same method should be applicable to the more limited circumstances of a single piece of work, to clarify the tensions and synergies between theories and methodologies used that appear to require incompatible assumptions.

Each of the five approaches requires different degrees of theoretical 'fit' between paradigms, as shown in Figure 5.

<table>
<thead>
<tr>
<th>Paradigm bracketing</th>
<th>Discordant pluralism</th>
<th>Paradigm bridging</th>
<th>Complementarism</th>
<th>Methodological imperialism by subsumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>Least 'fit' required</td>
<td></td>
<td></td>
<td></td>
<td>Most 'fit' required</td>
</tr>
</tbody>
</table>

**Figure 5: Comparison of requirements for ideological, theoretical and methodological 'fit'**

Combining the approach of Lewis and Grimes with those of Gregory and Flood, the differences between the various methods for co-joining theoretically and methodologically different approaches are shown in Figure 6.

<table>
<thead>
<tr>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paradigm bracketing</td>
</tr>
<tr>
<td>Acknowledges difference and does not attempt to combine the different approaches,</td>
</tr>
<tr>
<td>Discordant pluralism</td>
</tr>
<tr>
<td>Acknowledges synergies and tensions but avoids a 'reconciliation under duress'</td>
</tr>
<tr>
<td>Paradigm bridging</td>
</tr>
<tr>
<td>May co-join theoretically and methodologically incommensurate paradigms if a suitable bridging theory can be found that resolves the relevant issue of difference,</td>
</tr>
<tr>
<td>Complementarism</td>
</tr>
<tr>
<td>Requires theoretical but not methodological commensurability</td>
</tr>
<tr>
<td>Methodological imperialism by subsumption</td>
</tr>
<tr>
<td>Subsumes methods from one paradigm and uses them within the theoretical and methodological assumptions of another</td>
</tr>
</tbody>
</table>

**Figure 6: Summary of the differences between approaches that combine different methodologies and theories.**
How does this apply to CST and SD? The discussion in the previous section indicated that SD could be considered in either of two ways: as a method that is logically independent of any single theoretical perspective, despite the shared adherence by most practitioners to ‘traditional systems thinking’ with its implicit base in Social Systems Theory; or as a method epistemologically tied to ‘traditional systems theory’ and Social Systems Theory (SST). Each possibility is considered in Figure 7.

<table>
<thead>
<tr>
<th>Paradigm bracketing</th>
<th>CST plus SD as theoretically dependant on SST</th>
<th>CST plus SD as theoretically independent of SST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discordant pluralism</td>
<td>Possibly</td>
<td>Possibly</td>
</tr>
<tr>
<td>Paradigm bridging</td>
<td>Probably not</td>
<td>Possibly</td>
</tr>
<tr>
<td>Complementarism</td>
<td>No</td>
<td>Probably</td>
</tr>
<tr>
<td>Methodological imperialism by subsumption</td>
<td>No</td>
<td>Yes, qualitative aspects of method, quantitative aspects limited use</td>
</tr>
</tbody>
</table>

Figure 7: Method of combining theory: implications for theoretical permissibility of Critical Systems Thinking (CST) and System Dynamics (SD)

Assuming that System Dynamics can be accepted as a method independent of ‘traditional systems thinking’, and the quotes from both Wolstenholme and Sterman seem to permit this possibility, it is theoretically permissible to combine the two approaches within a critical epistemology using ‘methodological imperialism by subsumption’, where SD becomes a ‘helper methodology’ within an overall CST framework. There is no theoretical reason why this should not be done, unless pluralism becomes a foundational commitment. Alternatively, if SD is not divisible from ‘traditional systems thinking’ and Social Systems Theory, as implied by the first definition provided by Martin, paradigm bracketing provides a permissible way of combining the two approaches.

‘Discordant pluralism’ would probably provide a theoretically legitimate means of combining CST and SD irrespective of whether or not SD were assumed to be theoretically tied to SST. The ‘constellations’, however, would differ depending upon the assumed nature of the relationship between SD and SST. If SD were assumed to be theoretically independent of social system theory, the ‘constellation’ at a theoretical level would contain only the assumptions of critical systems thinking. One implication of this position is that any claims made on the basis of analysis using SD methods must be clearly consistent with the theoretical assumptions of CST and must be careful not to use SD as a ‘Trojan horse’ that introduces and legitimates the familiar assumptions of SST and functionalist sociology. The implication of adopting a discordant pluralism approach, according to Gregory (2003, p138) is that one ‘seeks to gain critical appreciation’ and its purpose is ‘transformation through understanding of self and others’. For example, this approach could be used legitimately as an aid to challenging habitual ways of seeing the world or a means of developing alternative ‘mental models’ to assist exploration of ways of seeing situations and
relationships with others. Within such a theoretical framework, caution must be exercised to avoid making claims that imply that diagrams produced using SD methods represent a singular correspondence with reality.

If SD were assumed to be theoretically dependent upon social system theory then the 'constellation' would contain the core ontological and epistemological assumptions of both CST and SST. If Burrell and Morgan's Typology is applied to this constellation then no synergies would be apparent between the two theoretical perspectives and oppositions would appear on both the 'objectivist-subjectivist' axis and on the 'social order-social conflict' axis. However, if Alvesson and Deetz framework is applied whilst the tension would remain on the 'consensus-dissensus' axis, a synergy may appear (depending on the version of CST) on the 'elite/a priori versus local/emergent' axis, acknowledging the similarity between the two theoretical positions especially in their assumptions about the potential of at least some forms of education and some uses of technology to achieve emancipation and bring improvements to the human condition. An implication of this is that analysis of data should be theoretical consistent with any shared underlying assumptions between the two theoretical positions, and should acknowledge and constructively use the tensions between the theoretical positions to interrogate analysis that depends upon disputed assumptions.

Application To A Real World Situation

The final section of the paper will illustrate how a methodology combining CST and qualitative SD is being used to examine quality in higher education in a Western Australian university. This section reports how I have used SD within a critical theoretical perspective, in part of my PhD research project. The project critically reviews the quality processes in Australian Higher Education. An early finding was that assertions about quality assumed each 'quality measure' could be viewed in isolation from other strategies rather than systemically. This meant that institutional strategies were adopted without consideration of the cumulative effects of combined strategy (Cooper, 2002b). I found that the combined effects on 'educational quality' of multiple policies that aspire to achieve different ends have not been examined, and the structural effects of policy interventions on organisational mechanisms for reward and control have not been considered.

A qualitative model was developed through an examination of the literature detailing different aspects of higher education policy and university management strategy to provide a conceptual map of how the combinations of Federal Government policies were likely to affect the operating environment of university managers, staff, and professional institutions and the relationships between each of these groups. In this conceptual map I used my knowledge as a staff member in interpreting how the different strategies interacted within the model. I presented an early (and subsequently amended) form of the model at the 7th ANZSYS conference (Cooper, 2001), a revised version of the model to the HERDSA 2002 conference (Cooper, 2002b), and an earlier version of some of the ideas in this paper to the 8th ANZSYS conference, (Cooper, 2002a).

The purpose of the model was to:

- Develop a systemic conceptualisation of how policies interact to change the organisational pressures that actors experience within a university.
- To identify potential unintended outcomes that combined management strategies may exacerbate
- To include these findings in a multi-method critical analysis of quality management in Australian Universities

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The diagram first mapped how the strategic responses of one institution to government policies combined to change the internal demands and the rewards systems within the university. Time was identified as a resource over which academic staff and students could exercise some power, through the power of deciding how to allocate their own time between the different tasks that comprised their role and through deciding how to prioritise those demands. For academic staff the nature of the pressures would encourage them to accommodate to changed demands and rewards by either

- Seeking ways to reduce their own workload, especially their teaching load, (and that of students). This has implications for the nature of the teaching and learning relationship between staff and students and for academic standards;

And/or

- Increasing the numbers of hours worked to maintain their previous academic practices whilst accommodating new demands. This has implications for long term well being and burn out;

And/or

- Attempting to achieve more in less available time, with potential implications for increased both staff stress and standards;

As it was assumed that both academic staff and students would make individual choices about how they responded to the pressures, the diagram was indeterminate about how the pressures identified conceptually would translate into outcomes. The issue of individual choice in responding to situations is one of the more problematic aspects of quantitative SD modelling. The decision-making situations in this diagram typify this problem. To quantify this model would require the modeller to formulate ‘decision-making rules’ to take account of differences in individual values, differences in individuals’ perception of their situation, and differences in the degree to which decisions of individuals are affected by the choices made by colleagues. No theoretically satisfactory way could be found of symbolically representing ‘the decision-making rules’ within the diagram that would adequately describe the individual decision-making of staff members and students and the mutual effects of decision-making. Outcomes depended upon the exact combination of decisions made by individual members of both staff and student groups. Decisions made by some individuals may compensate for, or aggravate the consequences for other individuals and influence their choices. However, the manner in which individual choice was influenced was not straightforward and appeared to depend on the differing value-judgement made by individuals as they weighed their beliefs about the integrity of their work against their beliefs about their self-interest (any of which beliefs might themselves, be erroneous).

The decision-making situation began to resemble a complicated form of the ‘Prisoner’s Dilemma’. This is a philosophical conundrum that formed the basis of a psychological experiment exploring the interplay of morality and self-interest. Two people had to make independent decisions about whether to make an altruistic or a selfish choice (without knowledge of the other person’s decision). If both chose altruistically neither suffered, if one made a selfish choice and the other an altruistic choice, the altruistic chooser suffered, if both made selfish choices, both suffered, (Honderich, 1995, p719).

It was decided not to develop the model beyond this point. If it is assumed that SD is not theoretically dependent upon Social Systems Theory, then SD can be justifiably used as a technique within CST for clarifying mental models and providing a visual and symbolic language that facilitates discussion of mental models. If it is used in this way, however, it is not possible to make predictive claims about system behaviour.
In this part of the research project, the combined research methodology has achieved the following useful outcomes:

- It has provided a conceptual structure for ordering and cross comparing the results of existing studies examining different issues in Australian universities that may be relevant to the research problem.
- It has been helpful in suggesting possibly avenues for relevant investigation and research.
- It has provided a way of conceptualising the relationships between institutional strategies and their cumulative effects on organisational demands and reward systems.

The conceptual model within the diagram was of necessity indeterminate about precise outcomes, because from a critical perspective individual choices about how to respond were interactively mediated by the perceptions, values, actions and interpretations of actors within the organisation. The diagram showed however, that independent on individual choices, current policies would tend to hinder some aspect of the institutional concept of ‘quality improvement’ (through lower academic demands, less attention to teaching or increased staff stress). This implication was independent of the ability to predict outcomes of particular combinations of individual decision making of staff and student groups. Diagramming therefore identified counter-intuitive organisational pressures, likely to encourage one or more outcomes that are incompatible with the long-term achievement of the institutional goal of quality improvement. From the point of view of a critical systems perspective, the model has served its purpose.

If SD were theoretically indivisible from Social System Theory then either a paradigm bracketing method or an alternative method derived from discordant pluralism would be required in this part of the research project. For a paradigm bracketing methodology, the work done so far would form only the first stage of the process of documenting the organisational dynamics of policy within the university from a SST perspective using SD as the methodology.

A quantitative model would have to be constructed and tested

The problem of determining decision-making rules would become a significant focus within the model development process and a potential weak spot within the model.

Methods would have to be found for symbolically and numerically representing the set of decision-making rules within the model, which, in this case, would require the development of a defensible method of translating non-logical behaviour into logical programming rules, without relying on approximations gathered from aggregate data, (see Sorman’s discussion of decision-making rules presented in the first section of the paper).

If this could be satisfactorily achieved, the findings would be presented alongside the assumptions of SST. A separate qualitative organisational analysis from a critical systems perspective would have to be undertaken and reported, along with the assumptions of CST. The findings of the two studies and their assumptions would be dialogically compared to see what new insights could be achieved through the juxta-positioning and dialogue between different ‘pictures’ of the same system. If the premise of theoretical dependency on SST were assumed, discordant pluralism would require a similar process, possibly with slightly different analysis methods. There are no plans to develop the current study in these directions because it would not be possible to produce an internally coherent quantitative model; there are no obvious gains in pursuing this line of research.
Conclusions

This paper has demonstrated that it is possible to devise a theoretically acceptable methodology by combining CST with SD and that such a combination provides benefits in real situations. It has been argued that one of the major concerns of CST is to find suitable methods to help with the task of questioning assumed explanations of social phenomena and their relationships. Qualitative SD can be useful to this process because the method requires that hidden assumptions in tacit mental models are made explicit, in order to represent the relationships between processes in a schematic diagram. The diagramming stage of SD requires researchers to explicitly identify their assumptions about system boundaries, relevant factors and the nature of the relationships between factors. This process allows scrutiny by others and provides a visual representation that aids exploration of the situation, communication and critique. In the real situation under discussion, SD diagramming was used primarily as a reflective method that provided a format for communication for tacit assumptions within a mental model in the thoughts of the researcher. The critique by others resulted in a re-working of the relationships and changes to the conceptualisation of some relationships. It is doubtful whether the conceptual clarification would have occurred as easily without a visual medium for sharing and testing the concepts within the mental model.

The more general insights gained from this process have been that there are several alternative approaches to developing permissible methods for combining apparently incompatible theories and methods. Five alternative methods were contrasted in Figure 6, and this schema provides a reference point for future use. In some instances more than one method of combination may prove theoretically satisfactory. When this occurs, the choice of how theories and methods should be combined needs to be guided by the requirements of the problem being addressed.

References


The Spectacle of Quality In Everyday University Life: Why the Emperors Have No Quality Clothes

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Abstract

“So now the emperor walked under his high canopy in the midst of the procession, through the streets of his capital; and all the people standing by, and those at the windows cried out, “Oh! how beautiful are our emperor’s new clothes! what a magnificent train there is to the mantle; and how graceful the scarf hangs!” In short, no one would allow that he could not see these much-admired clothes; because in doing so, he would have declared himself either a simpleton or unfit for his office.

Certainly none of the emperor’s various suits had ever made so great an impression as these invisible ones. “But the emperor has nothing on at all!” said a little child. “Listen to the voice of innocence!” exclaimed his father; and what the child had said was whispered from one to another. “But he has nothing at all on!” at last cried out all the people. The emperor was vexed because he knew the people were right; but he thought the procession must go on now: And the lords of the bed-chamber took greater pains than ever to appear to hold up a train, although, in reality, there was no train to hold,”

From “The Emperor’s New Clothes” Hans Christian Andersen (Andersen, 1994), pp135-135

How is it that academics and university management have apparently failed to notice that the fundamental assumptions of quality management in Australian universities are obviously flawed? What has happened that has persuaded so many academics to suspend their normal standards of critique? This paper suggests that quality and quality management in Higher Education have acquired a ‘privileged’ status, akin to the non-existent clothes of the emperor. This is a problem. Although ‘quality’ and ‘quality management’ have been presented in contradictory ways for different audiences, the privileged status of ‘quality’ has impeded examination of the concepts. This, coupled with ambiguous definition, has inhibited critique of many policies and practices that would have otherwise been contested.

The first part of this paper presents an overview of the theoretical assumptions and contextual background that informs this study. The second part of the paper provides a synopsis of documentary research into quality management in Australian higher education. On the basis of these findings it is argued that quality management has functioned not only as a managerialist technology to change the internal dynamics of
management relationships within universities, as described in other contexts by, for example, (Boje & Winsor, 1993; Harley, 1999), but also as a ‘managerialist story’ to facilitate a re-orientation of universities away from a primarily educational function and towards a focus that is primarily commercial, whilst retaining the mantle of the primacy of their educational role.

The third part of the paper ‘re-tells’ quality as a ‘problematised’ construct rather than a naturalised concept. The fairy story, ‘The Emperor’s New Clothes’ is used as a shadow narrative to counter the effects of implicit privileging of the concept of quality to highlight the ideological nature of quality management and the hegemonic manner in which the language of commerce has been ‘naturalised’ within education and used to ‘blind’ other ways of seeing universities. The Emperor’s New Clothes is allegorical in meaning, describing the power of hegemonic ideology to ‘blind’ people to obvious discrepancies, and to trust what they ‘may not’ question above what they actually experience. The story also illustrates how the power of hegemonic ideology is dependant upon human frailties, such as desires to appear ‘clever’ and to avoid being thought of as ‘stupid’ or ‘unfit’ for their position, and the pressure to conform and concur with the beliefs of others. The paper draws parallels between the manipulative methods and exploitation of human frailty used to support the ideology of clothing in the narrative of the Emperor’s New Clothes and the manipulative methods and exploitation of human frailty used to support the ideology of the quality narrative in Higher Education in Australia. The paper examines the ‘cloak’ of quality, the rhetoric of its purveyors and supporters, the statements of believers in the ‘cloak of quality management’ in higher education in Australia, and ultimately reveals the ‘naked emperor’. The final part of the paper discusses the significance of the findings for informing resistance to quality management in universities.
Introduction

Quality management has been invoked in Australian universities as a rationale for national higher education policy and planning 'reform', for example, (Candy & Maconachie, 1997; Kemp, 1999). This paper addresses the question of how, from a critical perspective, academics should respond to current methods of quality management in universities. This is important because, in our daily work, academic staff in Australian universities encounter decisions and practices, whose only rationale is their centrality to university quality management processes. The problem has broader significance because quality management in higher education is widespread in OECD countries, see for example, (Anderson, Johnson, & Milligan, 2000b) and many of the structural issues identified in this paper have application in other contexts. Other writers on discourse in educational management, for example, (Humes, 2000, p47), have discussed the ideological nature of managerialist constructs and have alluded to the place of quality management techniques, such as TQM, within a broader educational management discourse.

An important contention in this paper is that the ideology of quality management has been used not only to impose managerialism onto the structure of working relations within universities but also to support covert changes to the dominant ways in which the purpose of higher education is conceptualised. It is argued here that quality management has been used to strengthen the 'normative' role of universities of preparing students to accept and fit into leadership roles within (capitalist) industry and the professions, and to weaken other purposes of education including those of developing critically awareness to support students in questioning 'accepted wisdom' in their personal lives and the world around them.

The first section of this paper explains the theoretical perspective of the research. The second section of the paper discusses how the problem of quality management in higher education in Australia emerged from analysis of three different types of quality management documents. The third section of this paper builds on this to develop a 'shadow narrative' method to 're-tell' the quality management story in ways that show how the 'technology' of quality management can be used to legitimate and privilege or marginalise, particular positions within key debates in higher education. The purpose of this section is to build a plausible alternative 'story' of the function and role of quality management in higher education in Australia. The final part of the paper concludes by discussing the significance of the alternative 'story' of quality management and suggesting how this view can inform action.

The theoretical foundations of the study

The purpose of this section is to explain underlying theoretical assumptions that form the background to the main study. This section discusses perspectives on purposes in Higher Education, the history and context of the emergence of quality management in universities in Australia, and the everyday and the technical meanings of 'quality' in quality management.

Perspectives on purposes in Higher Education

Education can be viewed as having a dual potential, for realising both oppositional and normative goals, Connell in (van Krieken et al., 2000, p123). The normative purposes are described variously as social harmony, social conformity, social control, or the maintenance of hegemony. The oppositional purposes are described variously as liberation, emancipation, and erosion of hegemony. Sociological perspectives differ in
their assessment of the relative desirability of normative and oppositional purposes as goals of education. They differ too in their optimism about the attainability of either type of goal in practice. Within functionalist sociological perspectives, because of the role of education within modernist thinking as the main force for overcoming mediaeval superstition and ignorance, some critical ‘oppositional’ purposes of education have been valued alongside its ‘normative’ role in supporting social conformity and promulgating hegemonic values. ‘Critical’ perspectives on education are united by their opposition to dominant conceptions of societal good, and by their belief that the ‘normative’ goals of education act against the interests of many in society. The critical perspectives are divided in their conceptions of societal good, on the question of whether any totalising conception can offer improvement, and on how the oppositional purpose of education is best supported.

Until recently education has been conceived in ‘modernised’ nations as a pursuit that is different in character from commerce. Both the nature of educational purposes and the nature of the relationship between teacher and learner have been considered as different from the relationships found in commerce. In many countries the financing of education does not depend on private commercial arrangements because education is viewed as a ‘public good’ within the overarching concept of civil society. Likewise, control of education has been seen politically as a ‘public’ not private concern. Because the process of education acts as a means for social selection, reproduction and advancement, the history of education is marked by power struggles for control (or autonomy) of education.

Beginning in the 1980’s the focus of justificatory discourse within education has transferred from the ‘civil society’ to the forces of the ‘market’, (van Krieken et al., 2000, p237). From a socio-cultural perspective, cultural changes that removed or blurred the divide between commerce and education are significant. The nexus between education, culture, identity and the commodification of education was an anticipated by some in the 1960’s as a likely feature of late capitalist society, see for example Dubord, in Kellner (Best & Kellner, 1997, p3). If universities changed from a primarily educative role to a primarily commercial role whilst retaining the mantle of education, perceptions of legitimate purposes for higher education in society would change significantly. This would have implications for the perceived legitimacy and marginalisation of competing ‘normalising’ and ‘oppositional’ purposes of education in the dominant educational discourse. It is argued here that the most significant function of the adoption of commercially derived quality management within higher education is to collapse the differentiation between education and commerce within the sector of higher education.

Quality and universities in Australia: history and context

Higher education in Australia the late 1980’s and the early 1990’s was built around the Hawke government myth/ slogan of the ‘clever country’. The myth of the ‘clever country’ was a development of the myth of the ‘lucky country’. No longer could Australians rely on their ‘luck’ to enjoy their ‘paradise on earth’; now they had to become ‘clever’. Central to this myth, are the concept of higher education as a tool for economic development, and the vision of full integration of universities into the service of national and trans-national capitalism. This policy required a greater proportion of students to attend university, however the government did not wish to maintain the per capita funding for student places at the 1987 level. This problem was resolvable if students could be persuaded to pay more, if university management could be persuaded to expect less money from government and if academic staff could be persuaded to teach students in larger and more diverse groupings, with fewer resources. At the same
time, this policy agenda required that universities be persuaded to better attune their courses to the requirements of both industry and students, and increase the numbers of international students taught both onshore and offshore.

Candy and Maconachie (1997, p5) suggest that discussion of university quality can be traced back 150 years, and concern about ‘teaching quality’ has been discussed in reviews since 1963. Until the mid 1990’s, however, concern about quality in universities revolved around ‘standards’ and the comparability of awards granted in different disciplines and in different institutions. In 1985 in the Hudson Report on ‘Efficiency and Effectiveness in Higher Education (Candy & Maconachie, 1997, p7) suggested introducing formal quality management in Australian universities. This was raised and again in 1992, (National Board of Employment Education and Training, 1992), but measures were not introduced system wide until the late 1990’s.

The justificatory explanation for quality management played to concepts of modernisation and the need for universities to reform themselves, to become ‘efficient’ and ‘effective’, to change from pre-modern inward looking institutions where academics research and transmit knowledge according to their personal interests (the ivory tower model) to outward looking institutions responsive to the expectations of industry, students and the global education market (the edu-business model). Later, the Howard government extended the reach of market-derived ideology in the university sector by introducing policies to increase competition between universities. These policies aimed to create pseudo-markets through corporatisation of public bodies including universities, who would compete on even terms with each other and with profit-making organisations providing higher education. According to the myth about the ‘invisible hand’ of the market, this should increase ‘customer choice’, and value for money.

Quality management has fitted well with the ideology of government policies since the late 1980’s because it is embedded in the ideology of the market. The brief provided to Anderson et al (2000b, p10) for their report on international and national practices in quality management and accreditation stated that the intended purposes of quality assurance and accreditation were: reassuring students and employers that standards were being maintained (even though funding was not); allaying concerns of international students about the credibility of Australian degrees; re-assuring the taxpayer they were getting value for money; and helping students make ‘informed choices’. Approved methods of quality management require universities to individually collect data to prove that they are meeting their self-determined goals and to establish processes to ensure continuous quality improvement (Australian Vice-Chancellors’ Committee, 1999). These quality processes are externally audited, once every five years by the Australian Universities Quality Agency (AUQA), a quasi-independent body receiving government funding to perform this task (DETYA, 2000).

**The technology of Quality in management**

The concept of quality in everyday life is transcendent: it can be recognised, but not defined (Cameron & Sine, 1999). In everyday life, it is difficult to be ‘against quality’. In quality management ‘quality’ has one of five different technical meanings that all differ from the everyday use, see Table 1. The technical usages of quality are ideologically embedded in positions that naturalise the values and relationships of market capitalism while everyday usage does not. According to the market myth, implicit in these technical meanings of quality, is the idea that there is a product to be sold to a customer, (see Table 1), and that customers also have certain relationships and rights, including rights to determine the standards of products through their buying power and the operation of the free market.
Table 1: Concepts of quality (based upon Cameron & Sine (1999))

<table>
<thead>
<tr>
<th>Concept of quality (C&amp;S)</th>
<th>Definition: “Quality is...”</th>
<th>Example</th>
<th>How measured?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transcendent</td>
<td>Quality can not be defined but can be recognised</td>
<td>Innate excellence or beauty</td>
<td>Perceived by those who are sensitive cannot be measured.</td>
</tr>
<tr>
<td>Product-based</td>
<td>‘Unpriced attributes contained in each unit of priced attribute’</td>
<td>Extra desired features (by the customer?) or durability</td>
<td>Measure ‘features’ exceed expectations</td>
</tr>
<tr>
<td>User-based</td>
<td>Fitness for use; Satisfies customers</td>
<td>Fulfill customer expectations</td>
<td>Measure level of customer satisfaction</td>
</tr>
<tr>
<td>Production based</td>
<td>Conforms to specifications</td>
<td>Reliable</td>
<td>Measure against what is promised</td>
</tr>
<tr>
<td>Value based</td>
<td>Best for price; Best for actual use</td>
<td>Value for money</td>
<td>Efficiency based upon cost per unit</td>
</tr>
<tr>
<td>System-based</td>
<td>System to produce services that satisfy customers</td>
<td>Accepted systems for quality assurance adhered to</td>
<td>Check whether systems are in place and adhered to</td>
</tr>
<tr>
<td>Cultural</td>
<td>Organisation’s culture supports the constant attainment of customer satisfaction through integrated use of training, techniques and tools</td>
<td>Quality as a ‘mindset’ throughout the organisation in all aspects of work</td>
<td>Examine whether the organisation supports customer satisfaction in an integrated way</td>
</tr>
</tbody>
</table>

The rhetoric of business quality, variously defines quality as ‘customer satisfaction’, ‘product conformity’ to norms, ‘efficiency’, ‘fitness for (intended) purpose’, ‘reliability’, and ‘adherence to accepted systems’ or ‘effectiveness of organisational systems for meeting and anticipating customer needs’, see Table 1. The language of quality management is the language of commerce. Whilst these concepts may be relevant to the intended purposes of many commercial organisations, they exclude important purposes of education. When university management describe what they do in terms of quality management, they must use the language of commerce, because this is the language of quality management. They centralise those aspects of their normative role that fit best with commerce and exclude those aspects of educational purpose both normative and oppositional that do not. To describe their educational purpose in the language of quality management university managers distort their former ways of seeing ‘purposes’ and ‘relationships’ in education and their conceptions of who has legitimate power. If the student becomes the customer, the student, not the university sets the standards for the ‘product’ (what ever the ‘product’ is). Universities become free to market to customers whatever ‘products’ they think they can sell, shoddy and cheap, high class and expensive or even shoddy and expensive, and universities can sell their ‘products’ to the highest bidder without the need to consider equity issues.

**Documentary Research into Quality: origins and findings**

This study arose from a different project. I was reviewing the literature on student attrition to see what could (or should,) be done to reduce levels of student attrition in two professional degree programs. The literature on quality management asserts that student attrition is indicative of low quality. Surveying the literature, it became clear that the research on student attrition could not justify this assertion, (Cooper, 2002b). I began examining the research basis of other ‘quality measures’ and found similar dissonances between the findings of educational research and assertions about quality and its ‘measures’. The idea for this research project emerged from these dissonances.

Three types of documentation pertaining to quality in Higher Education in Australia were examined. Firstly, I examined Government policy on quality in Higher Education
and its associated justificatory 'research'. This established the dominant or hegemonic presentation of the ideology of quality management in Australian Universities. Secondly, I examined, the formal 'quality plans' for five universities in Western Australia. These universities were representative of a variety of types of university, as categorised by Andrews et al (2000, p20-22). This established the public face of the response by university management to the government's higher education quality policy. Thirdly, I examined examples of the reports of Panels whose task it was under the AUQA guidelines, to review and report on quality in clusters of programs (termed 'Areas of Scholarship'). The purpose of this was to find out how review panels reported the application of quality policy in real situations.

**Research Findings:**

The review of government policy documents on quality in higher education uncovered contradictions and ambiguities. Many of these arose directly from the use of the language of business to describe the process of education. The concept of customers is central to the 'technical' meanings of quality, but the concept fits poorly with the context and relationships of education (Cooper, 2002a). Some documents (Kemp, 1999) explicitly or implicitly assumed that students were customers of the universities without considering the broader consequences of the 'customer relationship' for the teaching process, academic standards and control of the curriculum. In other documents students appear as the products of universities and industry becomes the customer. Definitions of quality were often implicit rather than explicit and ambiguity allowed contradictory implications to pass unnoticed. For example the goals of quality management have been variously stated, (Harman & Meek, 2000) (Anderson, Johnson, & Milligan, 2000a) (DETYA, 1998, 1999) (DETYA, 1997) but the diverse goals are based in different definitions of quality, having mutually incompatible assumptions, see Table 1. Ambiguities in the definition of 'quality management' have also permitted different stakeholders to be presented with alternative rationales for quality management, such as efficiency; accountability; improved responsiveness to the expectations of industry and the professions; service improvement; improved responsiveness to students. These are incompatible rationales because they are based on competing tacit definitions of quality (Cooper, 2002a). The benefits of quality management have been creatively adjusted to suit all political audiences and the slippery nature of 'quality' conceals the contradictions.

The quality plans for five universities indicated that there was some difference in the self-identified goals of different institutions. This aligns with government policy and planning for universities, which is premised on the idea that different universities will compete indirectly by occupying different 'niche markets', where each will develop their own unique strengths, and hence have different goals. It might be assumed this would lead to different methods for monitoring progress towards their unique goals. Despite the diversity of institutional goals, however, the methods of quality measurement described in all five quality plans were similar and for four of the five, almost identical. There were some differences in choice of parameters for statistical comparison, but the basis for this selection seemed to relate only to how well statistics might support claims to superiority over other universities in the state and nationally. The quality plans were couched in the language of corporate business. Commodification of higher education was also evidenced by the choice of institutional 'goals' many of which were commercial rather than educational.

The reports of quality review panels illustrate that significant contradictions were apparently 'invisible' to university management, to many academic staff and to quality auditors. The documents show when quality review panels were aware of contradictions
they sought various ‘devices’ to dispose of them in ways that left the quality management processes intact. For example, when asked to report on the standard of teaching in the university the quality panels recognised there was no agreed definition or measures of ‘good teaching’. They expressed concern at relying solely on accepted indirect measures of quality management such as student evaluations or discussions with students, student and employer satisfaction surveys and student progress data because of the partial and indirect nature of this evidence. Panels also commented on the difficulty arising from their brief to discuss quality in isolation from funding. None of these concerns led panels to reject or criticise either the ‘project’ of quality management and its assumptions or to question whether the quality audit process was meaningful. A key finding of the research was that there was a deep-seated unwillingness to question the fundamental ‘goodness’ of quality management processes indicating that quality management has an ideologically privileged status that places it beyond critique in everyday academic life.

The research concluded that quality management provides what Boje (1999) calls, a useful ‘managerialist story’. It has been successfully as a ‘technology’ to naturalise the norms of business capitalism in education. The process ‘privileges’ some of the normative purposes of education, especially its purpose of preparing a pliant workforce, and marginalised alternative normative and oppositional purposes. This has consequences for perceptions of the purpose of universities, the nature of the academic role, and the nature of the student role. The use of quality management also served to legitimate reduced government funding of higher education whilst maintaining a rationale for tighter control over universities. The apparently neutral, even positive appearance of ‘quality management’, especially when presented as a method for quality improvement, is such that few people dare risk questioning the wisdom of current quality management practices in universities.

**Alternative quality stories**

The purpose of the third part of the paper is to generate an alternative ‘story’ of quality management. The purpose of this story is to offer insight into: how the ideology of quality management has been legitimated in higher education in Australia; why quality management has been so readily accepted as appropriate to universities; and how university managers, academics and students have been persuaded to ‘believe in’ quality management in universities, or at least to support a myth, which, if it were presented to them as an object of study, they would reject as intellectually incoherent. This exploration uses ‘shadow narrative’ as a method to generate an alternative story that is consistent with the research findings. Shadow narrative takes the embedded meaning within an allegorical story and uses it to develop alternative understandings of a familiar situation.

Boje describes ‘re-storying’ methods and their application in offering alternatives to the ‘managerial stories’ in corporations, see for example, (Boje, 1995), and Rosile (1998). In Europe and Eurasian there is a rich heritage of ‘re-storying’ for social, political and religious resistance. In this ‘genre’, suppressed social, political and religious analysis is presented in literary form, in material now considered as children’s literature but originally intended for adult audiences, (Daee, 1996). Many traditional ‘fairy stories’, nursery rhymes and other traditional fantasy stories, also have multi-layered meanings, including meanings that resisted dominant ideology of the time. ‘The Emperor’s New Clothes’ forms part of that tradition. A political reading of the story illustrates the mechanisms by which people can be persuaded by ‘ideology’ to deny their own experiences, akin to Lukes’ ‘third face’ of power, (van Krieken et al., 2000, p103). The story was selected to ‘re-story’ quality management in Australian universities by
‘shadowing’ one layer of allegorical meanings in the original story. The method provides a device for setting aside familiar assumptions and suspending familiar judgements. Judgments about whether this exercise is valuable, should be based on an assessment of whether the alternative ‘story’ provides plausible and useful alternative ways of seeing and responding to the events. The alternative story claims to provide insight. It makes no exclusive claims to ‘truth’.

Some threads within the story

The plot: In the story, the emperor wants some new clothes for a grand procession. Many tailors compete for the contract. The tailors who are finally employed claim that they can make special clothes; visible only to those who are fit to hold their position. The tailors go through the pretence of measuring, fitting and sewing non-existent cloth, pretending they can see the ‘cloth’ and the ‘clothes’ and admiring the finished ‘product’. The ‘cloak’ especially is much admired. The courtiers and the emperor pretend they can see the ‘cloth’ and the ‘clothes’ because, although they see nothing because there is nothing to see, they are unwilling to acknowledge to others that they may be unfit for their positions. Each including the emperor, fears it is only they who cannot see the clothes. They think if they pretend they can see the clothes others will, possibly, not realise that they are unfit for their position. It does not occur to anyone to question the whether the clothes exist. It does not occur to anyone to question the assertion that those who see no clothes are unfit for their position. The population has been told before the procession about the special nature of the clothing. When the emperor appears the courtiers pretend to hold the nonexistent train high. The people admire the clothing keen to prove that they can see it and are thus fit for their position. Only one small child shouts out, “But the emperor has nothing on at all!” After some hesitation, other people in the crowd agree. The emperor and the courtiers continue the procession, as if the tailors’ story were true even though the emperor now knows the clothes do not really exist.

Building blocks and ideas for a new story

The cast: It was easy to cast the various governments as the tailors, because quality management was ‘sold’ to the universities by government. There were some difficult casting decisions, especially in deciding how to cast the Emperor. The Australian Vice-Chancellors (university presidents), won out. They have symbolic and real power and seem to fit this role best. They have not publicly spoken out against quality management and have supported the charade, (Australian Vice-Chancellors Committee, 2002), although they have vocally criticised government spending cuts and reducing student support. The courtiers are those close to power and with their own needs to support the powerful. Senior management in universities, the Australian Universities Quality Agency and possibly some academics, seem an obvious choice. The crowd are the rest of the population including other academics, students, taxpayers and non-taxpayers. They (we) have less formal power but also have less investment in quality management and less to lose by its critique. As for the child, this role has not been cast, but we all have potential here.
Table 2: The cast

<table>
<thead>
<tr>
<th>The Emperor's New Clothes</th>
<th>Universities and Quality management in Australia</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Emperor</td>
<td>The Australian Vice-Chancellors</td>
</tr>
<tr>
<td>Courtiers</td>
<td>Australian Universities Quality Audit, University management, some academic staff</td>
</tr>
<tr>
<td>The Tailors</td>
<td>Various governments since the 1980's but especially the Howard government post 1998</td>
</tr>
<tr>
<td>The Crowd</td>
<td>Some academics, students, the taxpayers, the non-taxpayers</td>
</tr>
<tr>
<td>The Child</td>
<td>Situation vacant: Volunteers please!</td>
</tr>
</tbody>
</table>

**The cloak of quality:** In the story the cloak (or clothing) has the capacity to confer status on its wearer, to legitimate their fitness for their position. Clothing also has the capacity to conceal.

Quality management has been used to legitimate the government program of ‘reform’ (cost cutting) of universities and the reduction in public funding per student place. Quality management confers status and legitimacy by giving the appearance of ‘objective’ measurement of standards and by appearing to provide useful information to potential ‘consumers’ or ‘customers’ of education. The quality management program has been used to re-assure domestic students that although university funding per student place has decreased substantially, (Megalogenis, 2001) (AV-CC, 2000) and students are being asked to pay a greater contribution towards the cost (Long & Hayden, 2001), they are still getting something that is as good as ever, or even better (after all they are paying more). Quality management also functions to reassure overseas students and to support the credibility of universities in the ‘international education market’.

**Quality and human frailty:** In the original story, the tailors could only succeed because of the gullibility, vanity, weaknesses, fears and self-doubt of the emperor, courtiers and population. The acceptance of quality management has also been dependant on human frailty. How do you make students pay more for less service and make academics work harder for less pay and stop university management from complaining about cuts?

How do you make students pay more for less? Tell them they are now customers and they have rights. Tell them that as customers they can demand value from the universities. Flatter them. Tell them they are important. Tell them that, in the name of either quality improvement or quality assurance, they now have a voice (don’t tell them that their voice will be ineffective at improving anything for them because they generally won’t be consulted until after they have completed a course or after they have graduated and the universities cannot afford to improve quality on reduced budgets.). Tell them that as customers they will also have to pay more because customers are supposed to pay for what they buy. Cut their maintenance entitlements, so they will have to work more and won’t really want more time at uni or more demanding assignments. What about all those myths about students, who are ‘bludgers’, waste resources by taking places and not studying, get supported at the taxpayers expense for years and then go straight into well paid jobs after only contributing a fraction of the true cost of their education...

How do you make academic staff work longer and harder for less pay? Tell them that you know that they are not doing their job well enough and you have statistics to prove it. Never mind that the numbers have no real meaning. Show that the statistics are rigorous by spending heavily on checking the technicalities of statistical reliability but never, ever, let any one question your original assumptions or compare your assumptions with well-validated research. Keep it simple stupid. If they argue with the statistics, use all those good myths about overpaid lazy academics in ivory towers, tell
them they are out of touch, that they need to join the real world, that they have had it too
good for too long...

How do you stop university management from complaining about government policy?
Have a quality competition! Tell all of them they are going to be audited. Never mind
that the process would not stand up to scrutiny, because you can encourage them to
believe if they do well, and they might be able to, they might get more money, or at
least they might not lose as much as the other non-compliant universities. Alternatively,
just threaten them and tell them if they don’t join in the quality competition and pretend
that the rules are fair, they won’t get anything. Remind them too that there are always
those good old myths about university, the ones about inefficiency, poor management,
featherbedding, inflated salaries...

*Quality and the dynamic of interpersonal pressure*: In the original story the hope of
concealing inadequacy and weakness and the fear of appearing foolish conspired to
ensure that people did not reveal what they saw.

So, how come in the universities no one said anything, how come no one noticed? Well
perhaps some of us worried that those myths might be true. Perhaps some of us didn’t
really look behind the processes because it wasn’t in our area of study and weren’t we
pretty busy with teaching and research? Perhaps some of us were over overwhelmed by
the statistics or the impressive sounding reports, from well-known academics at
prestigious universities. Perhaps some of us thought, ‘this too will pass’. Perhaps some
thought ‘quality’, how can anyone be against improving quality, of course its what we
all want to do. Perhaps some of us were on short-term contracts and knew which side
our bread was buttered on, just follow the processes if you want to keep your job.
Perhaps some of us found it easier not to think. Perhaps some of us thought, well I’m
pretty new around here and everyone else seems to think its OK, so although it doesn’t
make sense to me, I must be wrong. So nobody said anything.

*Quality and resistance*: The child can resist the invisible clothing myth because they
have no vested interest in maintaining the myth, no personal need to prove their
worthiness to others and perhaps, no understanding of the price of social non-
conformity.

**A Tale of Two Qualities: Synopsis of quality stories in Australian Universities: to
be developed at the conference by participants.**

<table>
<thead>
<tr>
<th>A Dominant Quality Story</th>
<th>An Oppositional Quality Story</th>
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**So what?**

‘The spectacle...is the culture that springs from the commodity economy –the stage is
set, the action unfolds, we applaud when we think we are happy, we yawn when we
think we are bored, but we cannot leave the show because there is no world outside the
theatre for us to go to. In recent times, however, the societal stage has begun to crumble,
and so the possibility exists of constructing another world outside the theatre –this time
a real world, one in which each of us directly participates as subject, not as object. The situationist phrase for this possibility is “the reinvention of everyday life”. (Erlich, 1979)

Why worry? Does the quality charade matter?

Overt attempts to commodify education and unilaterally transform universities into purely commercial institutions would normally be resisted vigorously by university management, academic staff and students. The adoption of the ideology of quality management, as a ‘managerialist story’ has allowed a covert transformation in the nature and purposes of university education to take place, by stealth. This ‘story’ and the multiple meanings of ‘quality’, have been exploited within official government policy documents and quasi-independent research to present as ‘rational’, ‘obvious’ and ‘unquestionable’, assertions that are politically highly contentious and contrary well established research findings.

An important rationale for quality management for ‘internal consumption’ within universities, suggested that quality management was necessary to ensure universities improved the services they offer to students and to society. This rationale appeals to potentially ‘oppositional’ elements in universities precisely because quality management methods have been presented as neutral or even progressive means of solving problems of concern to radical elements within universities. By this means radical political resistance has been reduced and co-opted. Slippage between different technical and everyday meanings of quality has obscured the partisan nature of quality management made it difficult to ‘just say no’ to ‘quality’ without appearing to be unreasonable and self-serving.

The radical appearance of quality management claims has been politically useful in diffusing potential resistance to other policies reducing funding to universities and the increasing cost burden that is passed to students. Re-storying has presented the quality ‘tale’ in another light. It has allowed alternative ways of interpreting the ‘quality management’ story to emerge. If the oppositional potential higher education is to be retained, commodification of education must be resisted and quality management revealed as a conservative rather than a radical initiative.

What can be done?

Different critical perspectives hold different positions on what can or should be done. These are some possibilities

- Resist the managerial story by re-storying and by ‘inventing’ alternative stories that demonstrate alternative ways of seeing events.
- Laugh at quality management. Point out its obvious folly. Refuse to take its pretensions seriously. Comply with it only minimally.
- Revive real debate about the purpose(s) and functions of (higher) education.
- Talk about the differences between education and commerce.
- Talk about what quality could mean if universities fully embraced their potential for oppositional education.
- Make space to do educational work, judging it independently of institutional values.
- Make contact with others who do not share the dominant discourse on university education to gain support and professional validation.
- Wait until this management fad passes, as it will, and prepare to assess the next fad (Bing, 1995).
References


Australian Vice-Chancellors Committee. (2002). Quality through Diversity


Paper 10 (November 2003)

The Paradox of Quality and the Design of Quality Management Systems in Higher Education

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Abstract

Researchers into quality management in commercial firms have identified a 'paradox of quality'. They have found that: many initially successful quality improvement programs fail to maintain their success; some successful quality improvement programs have unexpected and unwanted 'side effects' that reduce overall profitability of the company; implementation of successful quality improvement programs does not automatically translate into improvement in sales growth or profitability. This paper addresses the question of what, if anything, those responsible for designing quality management systems in Australian higher education can learn from research that seeks to explain the reasons for the quality paradox. This question is important because since the 1990's Australian higher education has adopted commercial derived quality management techniques, and much time and effort may be saved if quality improvement programs in higher education can learn from quality management failures in the commercial sector. This paper is in four sections. The first section introduces the problem. The second section summarises and discusses the findings and analyses of the 'paradox of quality' as presented by Repenning and Sterman. The third section assesses their applicability to higher education and draws together the implications for higher education. The final section makes summarises the main findings, draws conclusions, makes recommendations about possible responses to these findings and makes recommendations about future research, suggesting that meanwhile those involved in Australian higher education should respond to these findings by applying the precautionary principle.

Introduction

Successful design of any system depends upon the development of an appropriate 'model' of reality. A useful model is one that retains the most salient relationships, avoids erroneous assumptions and disregards information that genuinely has no relevance (Sterman, 1991). The current approaches to the design of quality management systems in Australian universities fall short of these requirements in a number of ways. Firstly, those responsible for designing quality management systems in higher education in Australia have accepted assumptions about the indicators of low quality in higher education, that are not supported by well established educational research, (Cooper, 2002c, 2003a). Secondly those developing quality management policy and those designing quality management systems have failed to take a systemic perspective when devising quality management strategies (Cooper, 2002b). Thirdly many quality management practices have been applied without sufficient regard for differences in context between business and education (Cooper, 2003a). Finally existing research into
the reasons for the failure of quality management systems in industry seems to have been ignored by those designing quality management systems.

A review of sample plans shows that universities have embraced a range of commercially derived quality practices (Cooper, 2003a, 2003c; DETYA, 2001). In view of their willingness to embrace the practices of commerce, with little scrutiny of their application to the context of higher education, it is perhaps surprising to find that studies offering explanations of how and why quality management fails in commercial contexts, for example (Keating, Oliva, Repenning, Rockart, & Sterman, 1999; Sterman & Repenning, 1997), have not been closely scrutinised.

This paper examines the extent to which the research findings of Sterman, Repenning et al about the ‘quality paradox’ are applicable to the context of higher education, and analyses the implications of this body of work for policy makers and managers designing quality management processes in higher education. The first section of this paper provides background information about quality management in Australian universities, and outlines briefly the differences between commercial contexts and the educational context, and the reasons for believing that it is necessary to consider the extent to which commercially derived practices and research are applicable to higher education. The second section presents the findings of Sterman et al. The third section discusses similarities and differences between industry and higher education for each stage of Sterman and Repenning’s analysis. The final section draws out the overall implications this body of work for policy makers and managers designing quality management programs in Australian higher education and the conclusion summarises the implications and makes suggestions about possible ways forward and future research.

**Background**

The contention of this paper is that appropriate design of quality management systems in higher education must not only determine the applicability of commercially derived quality management methods to non-commercial contexts, but must also take account of research that discusses reasons for failure of quality management in some commercial contexts and assess its relevance. This paper takes one body of such research and examines the applicability of its findings to the context of Australian higher education.

Most commercially derived quality management methods depend upon tacit assumptions that normal commercial purposes, roles or relationships apply; that is, that the main purpose of the enterprise is to make a profit by selling products (including services), to customers. It has been argued elsewhere that the application of these methods to education has ignored important differences in purpose, roles and relationships between the commercial context and the educational context (Cooper, 2002a, 2003a). Problems arise from: difficulties in the applicability of the concept of customer relationship in the context of education; problems in determining the identity and nature of the product; and the impossibility of subsuming the diversity of purposes of universities, within the commercial profit motive. It has been argued elsewhere that it is not a tenable to assume that students have a customer relationship to universities (Cooper, 2002a; Dunkin, 2002; Scrabec, 2000). It is interesting to note that the concept of student as customer dominated Australian government higher education policy in the period 1999-2001, for example, (DETYA, 1999), but has disappeared since 2002 to be replaced by concepts of stakeholder relationship, see for example, (Nelson, 2002). It has been argued elsewhere that most quality management methods cannot accommodate stakeholder relationships in place of customer relationships (Cooper, 2003b).
The paradox of quality

Sterman and others set out to explain why a high proportion of quality improvement projects in industry have been less than completely successful and why, even when projects have been apparently initially successful, they have not been able to maintain success (Sterman & Repenning, 1997). Their research took a systemic perspective on quality management and their intention was to use this to integrate the insights of two different types of approach to quality management: those that focus on changes to the physical structure of work processes; and those that focus upon the behavioural component of those working in organisations. Their intention was to produce a representation of the interdependencies between human behaviour and the physical structure of work processes. Causal loop diagrams were used as a means of representing the inter-relationships between process factors and human factors (Sterman & Repenning, 1997). The diagrams are intended to be qualitative representations of interdependencies and the authors did not claim to mathematical specify the nature of the relationships between variables, which may be linear, non-linear, or include time delays. Using these diagrams, they identified four factors militating against fundamental quality improvement. They further identified how time delays between actions and outcomes can mislead manager in their understanding of the causes of low productivity or quality and lead them to make decisions and develop strategy that aggravates the very situation they are attempting to rectify.

The original research project collected detailed data from several large commercial firms in the USA. Repenning and Sterman (1997, p 22) summarise their findings in the following way:

"Three methods of improving the throughput of a process were identified: increasing work pressure and control structure, defect control and defect prevention. The key failure mode we identified starts with managers erroneously attributing the cause of low process capability to worker ‘laziness’ or ‘lack of discipline’ rather than to fundamental problems within the process. The cognitive and social psychology literature suggests such misattributions are likely and indeed they are observed in numerous organisations. Given this misattribution managers react by choosing the first option, increasing control and production pressure. Improvement programs in such settings fail because increasing production pressure and control limit the effectiveness of process improvement activities, thus creating the situation, low process capability, that manager set out to correct. Soon these beliefs become embedded in the culture, routines and even the physical structure of the organisation perpetuating the cycle."

The next section of the paper summarises the main points of Repenning and Sterman’s analyses. For brevity, this summary omits many details of their original argument and several of their diagrams. The interested reader should consult their original work.

Meeting targets: the pressure to increase throughput

Repenning and Sterman begin by diagrammatically representing the relationships between gross throughput, net throughput, defects, and rework of defects. They identify two main strategies for increasing throughput, either to expand capacity through capital investment or to persuade the workforce to become more productive by working harder. Repenning and Sterman found that when people are under pressure to meet targets, in the short term, they respond by ‘working harder’ that is, they focus their efforts on throughput and defer tasks that do not immediately increase production, see diagram 1.
The virtuous cycle of improvement

Repenning and Sterman show what has sometimes been referred to as the ‘virtuous cycle’ of improvement. Time spent on process improvement obviates the future need for defect correction and ultimately frees up this time to be spent on further improvements. However, in the short term a choice must be made. People only have limited time available. If they spend time on improvement, they have less time to spend on re-work or tasks that will immediately improve their current throughput. Time spent on improving processes may ultimately repay itself when it leads to a reduction in defect introduction, by reducing rework effort required, but there is a time lag before this effect will be apparent and it will not improve short-term throughput results, see diagram 2.
Diagram 2: Three responses to requirement to increase throughput, adapted from Repenning and Sterman, 1997, Figures 2 & 4

**Behavioural biases against fundamental improvement**

In the third diagram Repenning and Sterman represent schematically the interplay between the physical structure of the organisation and behavioural decision-making. In a situation of finite resources, they claim there are four behavioural biases against fundamental improvement. Firstly, defects are more tangible that process problems. It is easy to see that something is wrong, but it is often difficult to accurately determine with certainty the underlying process contributions to the cause of the problem. Secondly, defect correction and process improvement work at different speeds. It is usually a time consuming process to identify improvements, retrain people to make the improvements and to alter organisational systems, whilst it is generally (individually) fairly quick to fix problems. In a situation of pressure, it is quicker to improve throughput just by spending time on defect correction. Thirdly the outcomes of ‘defect correction’ are more certain, known and immediate than the outcomes of process improvement to reduce problems. There is immediate feedback when a defect has been corrected, the results of process improvement are uncertain and may ultimately fail. It is suggested that there is a bias towards choosing the certain and immediate over the uncertain and long term. Fourthly, future process improvement does nothing to diminish the current stock of ‘defects’. The benefit of correction can be easily accounted. The benefit of prevention even when realised cannot be tangible counted with certainty, see diagram 3.
Misattribution of causes of low throughput

Repenning and Sterman claim that managerial judgement was not only affected by a bias against fundamental improvement but also by misattribution of the causes of low throughput. Differences in the salience and availability of information, and the disparate effects of time delays on outcomes, lead managers to make mistakes in their judgement about the causes of low throughput. Because judgements about causality are based upon covariance and contiguity in space and time, managers see that they get greater throughput from the workforce when they put pressure on them to work harder. Because of this, it is tempting for managers to believe that the workforce is under-utilised and the rational response is to ‘squeeze out the slack’. As they put pressure on the workforce, the workers focus on production and defer any tasks that do not immediately increase output. Process improvement activities, as they don’t contribute to immediate throughput, are deferred. To management it appears that pressure has successfully encouraged the workforce to expend more effort and appears to affirm the assumption that the workforce was slacking, see diagram 4.
Increasing production control, conflicting goals and eroding standards

According to Repenning and Sterman, once management have decided that the problem of low output rests with lack of effort, it appears at first as if increasing the pressure on the workforce, is a successful strategy to increase output. Management are therefore encouraged to maintain or increase pressure and surveillance. If the pressure on the workforce is prolonged or increased further, the workforce is caught between conflicting goals of demands to increase throughput, and demands to complete tasks necessary for long term quality maintenance and improvement that reduce their ability to maintain output in the short term. People look for 'work arounds' that will enable them to appear to meet the metrics that are intended to measure output and quality. Tasks that are not monitored or measured are left undone, even though the longer-term effects of these omissions may be severe, see diagram 5.
According to Repenning and Sterman, (1997, p22), their research found:

"Under time pressure and faced with multiple, incompatible objectives, workers will erode standards, cut corners, fail to follow up and resolve problems, and fail to document their work. They will keep the work arounds secret from management and manipulate metrics to appear to be in compliance with objectives when they in fact are not. In one firm we studied, product development managers improved the reported product development time not by making any fundamental improvements in the product development process, but by shifting away from risky and time-consuming breakthrough products to emphasise faster and easier line extension products. The reported product development time fell, but at a cost of reducing the rate of innovation, threatening the competitiveness of the firm. In another firm, manufacturing engineers facing an imminent launch of a new product made ad hoc changes to parts and tooling to resolve problems, but were too busy to report the changes to the design engineers. The design engineers then developed new parts based on the erroneous drawings, leading to still more problems in the next generation of products. These links create two additional positive feedbacks, the Process Integrity and Double Bind loops which inadvertently erode production capacity by introducing new process problems as a side effect of management's attempt to boost production."
Applicability of these findings

The implications of this research are potentially highly significant for the design of university quality management systems, if they apply to the educational context. The next section of this paper will examine whether the processes identified by Sterman and Repenning in a commercial context, apply within the context of Australian higher education.

Universities and pressure to increase throughput

It is possible to draw some parallels between the demands for industry to increase throughput and the pressures for universities to increase the numbers of students graduated from courses. The Australian government has been expanding the capacity of higher education (as measured by the number of student places at Australian universities) steadily since 1987 (Candy & Maconachie, 1997). This has been achieved partially by expansion of numbers of university academic staff and buildings, but the rate of capacity expansion has been far less than the rate at which the throughput of students has increased. A significant amount of the increase in throughput of students has been achieved by increases in the number of students taught per full time equivalent academic member of staff. The ratios have increased from around 12:1 to 18:1, over a ten year period, (Australian Vice-Chancellors' Committee, 2001), and some measures have been taken to increase space utilisation (for example, the three semester year, the use of distance education, increased use of weekend teaching, the lengthening of the working day).

Universities have also expanded their student support services and become more responsive to the needs and expectations of students, see for example, (Poole, Harman, Snell, Deden, & Murray, 2002). Course structures are more flexible (modularisation, facilitating part time and off campus study, opportunities for re-assessment, deferral and repeating failed units). More student support services (mainstream academic support and remedial help, academic advice enrolment and course transfer, counselling, disability support, specialised indigenous academic and cultural support, international student support, careers advice,) are provided. These interventions are primarily intended to help students who might not otherwise graduate to complete their courses and to improve their rates of subsequent employment. The university provides these services (at least partially) in order to increase the net throughput of (employable) students, (the rate of student graduate employment is used as one of the proxies for measuring the ‘quality’ of graduating students). Within this analogy these forms of student support might be classified as ‘rework’ to improve the throughput of ‘quality’ students. The overall outcome is that the numbers of students graduating have increased, the net throughput of students nearly doubled in the period 1988-1997 (Candy & Maconachie, 1997) and has grown much faster than the rate of increase in employment of academic staff.

What are the limitations of the application of this model to higher education? The first and most obvious limitation is that students are not passive objects to be ‘worked upon’ and ‘reworked’ by the organisation, in the same way as product parts on an assembly line. They are actors who by their own choices can affect the rate of ‘net throughput’ independently of the efficacy of the education processes or the support (rework) they receive. They can ‘hang in’ and pass despite ineffective teaching and poor support or fail or leave despite good teaching and high levels of support. (McInnis, Hartley, Polesel, & Teese, 2000) suggest that the quality of teaching is a relatively insignificant factor in student retention at university. Several studies on student retention confirm that student decision-making about whether to complete university courses or leave before
completion, is highly both complex and individually variable. Many major determinants of university student retention and attrition lie in factors outside the direct control of universities, and even those variables within the control of university staff have disputed significance in their mechanisms and relative importance (Braxton & Lien, 2000; McInnis et al., 2000; Tinto, 1993; Yorke, 1999). Finally, it is important to remember that sustaining ‘graduate throughput’ is only one of the purposes of universities. If universities are to retain academic credibility, the throughput of graduates should also reflect appropriate academic achievement by students. Expansion of student throughput must be balanced against the other purposes of universities, about which there is still some debate, see for example (Barnett, 1990; Claes, 2002; Levine, 2000; Preston, 2002; Sutherland, n.d.; Tierney, 2002).

Universities and the virtuous cycle of improvement

The assumption that improvement of processes reduces the rate at which problems are introduced ought in principle, to apply without problem to higher education. It is vitally important that the concept of ‘improvement’ be related to the primary purposes of university education, which, it is contended, are more complex than simply ensuring a throughput of graduates. If a university improves its processes for providing high quality in teaching and learning and in all aspects of support to students, then it might be reasonably assumed that more students would successfully graduate than if the quality of teaching were poor, student support were poor and administrative systems were inflexible. However, the research on student retention, as discussed in the previous section, requires reconsideration of this assumption. It cannot be assumed that fundamental quality improvement in teaching and learning will necessarily show up as increased throughput of graduates, or conversely that a lack of quality automatically be reflected in attrition, for more discussion of this point, see (Cooper, 2002c).

Universities and behavioural bias against fundamental improvement

The observations about the behavioural biases against improvement seem to apply in education. In some ways the context of Australian higher education may tend to accentuate the biases against fundamental improvement. The issue of time and quality improvement is a salient one for higher education in two respects. Firstly, time taken for the design and development of quality improvement processes has, for most academics, been additional to normal working tasks. In industrial, commercial and public service contexts, people are frequently relieved of their normal duties to take part in quality improvement activities. There has been no widespread suggestion of employing other staff to relieve academics of their normal duties whilst they spend time identifying how they could improve their work. Their other work just piles up. This potentially acts as a powerful psychological disincentive to participation in quality improvement processes, especially where the potential improvements do not offer immediate benefits of easing work tasks or saving time. Since changes to the education processes for students typically take a long time to implement and even longer before graduation rates are affected (if they are at all), changes leading ultimately to improvement (or deterioration) bring no immediate change to daily work pressure facing an individual academic.

Academia has long time scales for implementing change compared with many industrial contexts and this lengthens the time delays by extending the time period to elapse before the benefits of improvement processes can be seen. High uncertainty and subjectivity in judgement what constitutes improvement, unclear linkages between actions and outcomes and only limited ability to affect the ‘throughput of graduates’ without obviously jeopardising academic standards, all increase uncertainty about the outcomes
of process improvements. The political pressures to demonstrate immediate high throughput exacerbates the bias against solutions that do not produce immediate tangible benefit. Any one of these attributes would tend to increase the bias against fundamental quality improvement in university processes. The quickest, simplest and cheapest way to improve throughput is to lower expectations of student work and award passes to students who would otherwise fail.

Universities and misattribution of causes of low throughput

Universities are themselves in a bind. Government policy makers are simultaneously cutting the cost per student place and requiring universities to prove that they are maintaining or increasing quality as a prerequisite to maintaining their reputation, which is necessary for ensuring continued student application, and hence funding. What evidence is there that university managers attribute low throughput of graduates to low effort on the part of academic staff? The formal position of university management is ambivalent on this issue. Although few university managers openly criticise the effort and skills of academic staff, (any public admission of inadequacy of staff would reflect poorly on their reputation) most universities have increased the control they exercise over academics and have made attempts to formally measure and compare both the research output of academic staff and more recently, the ‘quality’ of their teaching. These actions are indicative of beliefs that academic staff need to be subject to greater coercion and control, and that such control will have beneficial outcomes for productivity and quality.

Universities, increasing control, conflicting goals and eroding standards

As university management has increased the monitoring of academic staff, goal conflicts have increased. For academics there has always been some tension between competing time demands from teaching, research and administration. The advent of formal monitoring proliferates demands by adding the demand of satisfying the metrics that purport to relate to each of these activities. If the activities being measured were amenable to easy, accurate quantitative measurement, the effects of such proliferations would perhaps be minor. Teaching, research and administration are, however, all complex tasks. ‘Good teaching’, for example, is multifaceted and neither simple nor easy to measure as subjective judgements about the ‘goodness’ of teaching place weight on differing values. Proxy measures of teaching effectiveness, such as student satisfaction, are not reliable indicators (Chun, 2002; Emery, Kramer, & Tian, 2003). If unreliable indicators are used as metrics purporting to indicate performance, and if there are adverse consequences for alleged ‘poor performance’, this establishes additional conflicting goals for academic staff to satisfy. Does the staff member prioritise the achievement of student satisfaction ratings or do they focus on providing a well-grounded educational experience for students? In some circumstances there may be little conflict, in others a choice will be required. Similar arguments could be made for research and for administration. Thus, in the context of higher education, increasing control leads to a proliferation of conflicting goals.

Is there any evidence that this has led to ‘work-arounds’ or eroding standards? This is something about which it would be difficult to gather reliable evidence. Work-arounds are by definition practices that workers keep secret from management. It is suggested that that academics within universities are not unlike other people, and when the pressure gets too great, ‘workarounds’ should be expected to develop. Academics may be able to identify examples either from their own experiences or from their observations of colleagues: the adoption of practices, contrary to good practice,
probably not sanctioned by the institution and perhaps not openly acknowledged, because of pressure to improve apparent performance as measured by metrics. Examples might include: reduced attention to important aspects of their work that are not valued on performance metrics; a neglect of formal systems of documentation; lack of priority given to staff meetings or staff development; lack of availability to offer support to colleagues; adoption of assessment processes that are least time consuming for staff; reluctance to fail students whose work is unsatisfactory if the student is likely to formally appeal. Workarounds are more likely to occur if staff are too stretched to do things properly, and will reduce feelings of job satisfaction in conscientious staff, especially if they believe that metrics are unfair. In the current political environment, there is systemic pressure too for management to collude with processes that inflate performance as measured by metrics irrespective of the underlying reality, (or at least to turn a blind eye). This has occurred because management needs the appearance of success on the metrics, to protect the reputation of the university, to ensure future student enrolments and hence maintain the future funding base of the university.

Summary

To recap, the paper has demonstrated that design of quality management processes for universities in Australia need to be radically rethought, and suggests current methods of quality management should be abandoned. The current methods have been devised without adequate attention to:

- The effects on management decision-making of the potential for misattribution of causation when cause and effects are either spatially or temporally dislocated;
- The capacity of performance metrics to establish conflicting goals, which erode standards and undermine the capability of the organisation as a whole;
- The effects of differential time delays between short term measures that apparently improve the student throughput and measures that result in fundamental improvement of the capacity for a university to efficiently provide quality education to students;
- The interconnectedness of multiple higher education policy interventions;

Insufficient attention to the first three of the above factors has resulted in erroneous decision-making, poor policy, self-defeating strategy and counter-productive intervention in industrial contexts. Evidence is presented in this paper shows that similar mistakes are being replicated in Australian higher education and this implies a poor prognosis for current quality policy, strategy and management interventions. Ideally, to remedy the current situation requires well-researched redesign of higher education policy, strategy and intervention planning from government departments, university management and from academic staff.

Conclusions

Systems Thinking offers powerful insights into understanding quality management in Australian higher education. Reppen and Sterman's analyses, when applied to universities, suggest that not managing quality at all is preferable to continuing self-defeating policies and interventions that create or reinforce environments conducive to erosion of integrity of process capacity. By not managing quality, resources currently allocated to spurious monitoring and reporting are liberated and could potentially be redirected towards locally devised interventions and innovations for long term process improvement.

In the absence of government policy change, university managers have only a limited ability to reduce the harm caused by current policy. Without government policy change,
the analyses presented in this paper suggest that damage cannot be completely avoided. Some of the means of limiting damage include:

The Australian Vice-Chancellor’s Committee (AVCC) could limit damage to Australian universities by forcefully raising concerns about the dangers and limitations of both the present metrics and the current inappropriate use of commercial quality management methods in higher education;

University senior managers could limit damage within their own organisations by decoupling data gathering for required by government metrics from internal individual performance assessment and rewards, thereby reducing the incentive for academics to distort their work priorities in order to satisfy ill-founded performance rewards.

Academics have very few options to ameliorate the present situation if university senior management and policy makers do not change their current approach to quality management. Academics could make their own professional assessments of their work independently of official quality measures. It is difficult to see, however, why they would choose to do this unless they had an over-riding commitment to professional values that was stronger than all considerations of self-interest. Choosing this option would certainly risk loss in terms of career advancement, pay and job security in the current environment.

Future research and action

Future research is required to enable the design of appropriate quality management methods that account fully for the differences between commerce and education and also take account of the complex interplay between process improvement and human behaviour in organisations, as described by Sterman and Repenning. A systemic approach to the design of quality management systems in Australian higher education would combine with a philosophically careful examination of the limitations of all underlying models and assumptions about quality in higher education with: attention to the interconnectedness of higher education policies; the effects of differential time delays on improvement; awareness of the potential for managerial misattribution of cause and effect; and awareness of the dangers of entrenching conflicting goals.

Until this occurs, application of the precautionary principle suggests it is preferable for both higher education policy makers and university managers to immediately abandon the present approaches to quality management rather than risk continuing to weaken higher education process integrity and capacity. Where abandonment of current policy is not politically possible, policy makers and managers should exercise extreme caution in their adoption of any commercial quality management strategies, and be mindful of the strong likelihood of erroneous management decision-making arising from misattribution of cause and effect.

References:


Paper 11 (December 2003)

Quality in Higher Education: What Next?

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Streams: I, L, S, or W

ABSTRACT

Commercial quality management methods have been applied in Australian higher education since the mid 1990's. It has been assumed without question that methods designed for commercial contexts can be applied unproblematically in an educational setting. This paper summarises research findings indicating that this is not so, and suggests possible ways forward. This issue is important beyond universities because since the 1990's commercial quality management methods have been applied in many public service and non-commercial contexts. Some of the problems raised in the context of higher education are likely to emerge elsewhere. The paper concludes by suggesting how more appropriate approaches to quality management might be developed in higher education and identifies implications for the non-commercial sector.

KEY WORDS: Quality Management, Higher Education, Customers, Stakeholders

INTRODUCTION

During the 1990's universities in Australia were encouraged by government to adopt management methods and practices derived from business, see for example, (Gallagher, 2000). In particular, universities were required to adopt quality management processes to demonstrate their effectiveness and efficiency at achieving their purposes, (DETYA, 1999a) which it was intended would articulate with furthering government policy for higher education (Marginson & Considine, 2000). This paper reviews changes in the ways that quality in higher education has been conceptualised since 1987 and draws attention to difficulties that arise when quality management methods based upon the relationships of commerce are applied in a non-commercial setting. The paper concludes by suggesting future directions.

BACKGROUND

Since the mid 1980's Government policy at a macro level has viewed higher education as an important driver for economic growth and development to enable Australia to move from being a resource-based primary industries economy to become a knowledge-based tertiary service economy (Considine, Marginson, Sheehan, & Kumnick, 2001; Marginson & Considine, 2000). The 'clever country' policies supported the expansion of higher education (Candy & Maconachie, 1997), and this led to the beginnings of public concern about quality (Anderson, Johnson, & Milligan, 2000b), as well as a progressive shift of costs away from government and onto the others especially students (Australian Vice-Chancellors' Committee, 2001a). From 1996 onwards strategies for pursuing these policies were developed within the broader framework of government
ideological commitment to the creation of pseudo markets in the health, education, welfare and human services sectors of the economy (Salvaris, 2000).

A study reviewing government documents and reports on higher education, for more detail of methods see [Cooper, 2003, in press #489], found that since the mid 1980's there have been three distinctly different ways in which quality has been conceptualised in higher education. In the period 1987-1996 educational quality was conceptualised in terms of how well the curriculum and teaching of institutions supported students' achievement of academic standards. Quality measurement was referenced to methods developed within educational theory by those concerned with educational evaluation. In the period between 1996 and 2001 commercial methods of quality management were applied to universities on the assumption that students were the customers of universities (DETYA, 1999a). Universities were required to become more responsive to their student customers (West, 1998). In the period since 2002, government policy has continued to apply commercial quality management to universities, but students are no longer referred to as the universities' customers. At the time of writing, student contributions have just been raised again in the 2003 Federal budget. The universities now have multiple stakeholders to whom they must be responsive (Nelson, 2002b). The next sections will review the benefits and disadvantages of each of these conceptualisations, and the 'corrective response' generated to overcome perceived deficiencies.

Quality as standards

Between the 1987 and 1996 quality was conceptualised as standards within disciplines (Australian Vice-Chancellors Committee, 1992; Candy & Maconachie, 1997; National Board of Employment Education and Training, 1992) and students were considered as beneficiaries of the educational processes offered by universities. The main benefit of conceptualising quality in this way is that it aligned with the principles of educational evaluation throughout the education sector at that time. This has changed to some extent since with the adoption of outcomes-based educational assessment in the compulsory and vocational education sectors. There are two main criticisms of the conceptualisation of quality as standards in university education, one practical and one ideological. The practical problem arose from the apparent disparity in standards between institutions and between disciplines for awards supposed to be of equal standing (Anderson et al., 2000b; G. Harman & V. L. Meek, 2000, p9). There appeared to be major problems in finding means of resolving this issue. The ideological objection related to internal referencing of standards within academia and this provided no reason why university curricula should be responsive to outside interests. Within the concept of quality as academic standards, students are beneficiary of the education systems and as such there is arguably no need for universities to be responsive to social change, students' interests and life goals or economic and social needs. Students have no obvious basis for a claim that their interests or opinions should be considered. In the extreme, this may lead to arrogant attitudes towards students by universities. The government policy response to this situation was to apply commercially developed quality management methods. Although the ground work for this process began in 1987 with Dawson's reform package, the full impact of these measures were not felt until 1996 when the incoming Liberal government removed the discretionary funding to higher education from which previous quality improvement projects had been funded (Candy & Maconachie, 1997) and began to cast students as customers of universities.
Quality as fitness for purpose, students as customers

Between 1997 and 2001, quality in universities was variously discussed as ‘fitness for purpose’ (G. Harman & V. L. Meek, 2000) or in terms of ‘efficiency and effectiveness’ (Gallagher, 2000). In this period there are many references to students as customers, for example, (Anderson & Johnson, 1998; Anderson, Johnson, & Milligan, 2000a; Andrews, Aungles, Baker, & Sarris, 2000; Australian Vice-Chancellors' Committee, 1999, 2000, 2001a, 2001b; Candy & Maconachie, 1997; Skillbeck & Connell, 2000; West, 1998), and this arguably dominated the way quality was conceived during this period. The full implications of students having a customer relationship with universities were not considered. Three questions emerge, if students are customers. First, what ‘product’ (including services) are students buying from universities? Second, how does the customer relationship between universities and students affect the rights of other parties (such as industry and government)? Third, is the ‘customer’ relationship compatible with the overall purposes of universities or the intentions of government policy? Potentially there are three benefits of conceptualising quality in terms of customer satisfaction, where the students are the customers. Firstly, it forces universities to focus more strongly on considering student opinion and may have countered the potential for arrogance that the earlier conceptualisation of quality potentially encouraged. The second benefit of seeing students as customers is that this conceptualisation fits best with the market ideology of government policy according with the language and assumptions of commercial quality management. The third main benefit is that it is easy to develop performance metrics based on customer satisfaction.

There are six main criticisms of the application of commercial quality management methods based upon the assumption that students are the universities’ customers. The first, and most serious is the charge that students don’t actually have a customer relationship with universities. There are many ways in which this point has been argued. Dunkin (2002) argues that the expert knowledge of academic staff relative to students means that students have a client, not a customer relationship. Others, for example (Scrabec, 2000) argue that students cannot have a customer relationship with universities because if they did it would enable them to dictate the standards of the product. This is disputed by (Swenson, 1998). Swenson might be right if the product student bought was the learning process, and universities simply prepared students for awards that were examined entirely independently of universities. Where universities internally examine their students and award degrees without any external moderation Scrabec is right in believing that universities might be tempted to adjust their standards to meet the market, especially when performance metrics are tied to student satisfaction rather than standards.

The second criticism of students as customers is that if students were the customers, they could not simultaneously be the product of universities and student success in achieving qualifications as a result of the program cannot be used as an indicator of the quality of this program because success requires requisite effort on the part of the student. The third criticism suggests that satisfying customer wants and needs is not always straightforward especially when wants and needs are diverse. Harrison & Harrington, (2000) discuss this difficulty in an industrial context. It is a mistake to think of students as having homogeneous expectations, see for example, Taylor in (Marton, Hounsell, & Entwistle, 1997). The fourth criticism is that universities have multiple purposes, not all of which can be contained within the commodified conceptualisations of education entailed by assuming that students are customers. Commodification of higher education will cause the suppression or loss of some parts of the purpose of education, especially aspects concerned with public interest. The fifth criticism is related to the fourth and suggests that if students were customers, higher education
would become a private transaction between the student and the university in which other parties would have no legitimate interest other than as defined under fair-trading. There would cease to be any obligation for education to further either social or economic purposes; there would be no obvious right of government to intervene in university affairs, as any subsidy arrangement to allow students to become the customers of universities would be a private arrangement between the government and the student. Finally, there is the argument that, although casting students-as-customers facilitates the development of performance metrics based upon customer satisfaction, this does not validate the original assumption that students are, if fact customers. Chun (2002) argues that too many of the supposed quality measures have been built around data that are easy to collect, rather than data that are useful to assessment of quality. The government policy response was to retain commercially developed quality management methods, but based upon the idea that universities have multiple stakeholders instead of customers.

Quality as fitness for purpose; multiple stakeholders

Since 2002 both government and university documents have referred to universities as having multiple stakeholders (Australian Vice-Chancellors Committee, 2002b) (Australian Vice-Chancellors Committee, 2002a, 2002c; Nelson, 2002b). The list of stakeholders is somewhat variable but usually includes at least students, staff, employers of graduates, clients of consulting services, industry, venture partners and regional communities (Nelson, 2002a) and may include other interested parties such as professional associations, curriculum developers, accrediting bodies, parents, and education and training bodies (Anderson et al., 2000b). The main benefit of seeing universities as having multiple stakeholders is that it better reflects the complexity of purpose in higher education (Cooper 2003).

There are six main criticisms of commercial quality management allied with the assumption that universities have multiple stakeholders. Firstly, who should be included as a stakeholder in universities? The most inclusive definitions would assume that the whole population of Australia, or even globally might be considered as stakeholders in Australian higher education. If one accepts arguments about the interconnectedness of all life forms, a case might even be made for the representation of non-human interests, (Singer, 1993). The second criticism relates to the practical issue of exactly how multiple stakeholder interests might be effectively represented and who would determine how conflicting claims should be equitably balanced. Wants and needs of multiple stakeholders may be expected to conflict because: there is variation both within and between each stakeholder group; all groups have both wants and needs, which may conflict; stakeholders do not necessarily have an accurate understanding of the means-ends linkages between their wants and their needs [Cooper, 2003, in press #489]. From all this, choices must be made about how to balance the wants and needs of different stakeholders and ultimately whose wants or needs to ignore. Weiss(1995), claims that because managers are entrusted with this task, stakeholder theories strengthen managerial power.

The third criticism is that stakeholder theory and quasi-market ideology make conflicting claims for legitimacy. Weiss(1995) claims that stakeholder theory depends upon ‘implicit social agreements’ to which ‘all members of society are party’. These agreements enable stakeholder theory to argue for the rights of those who are affected by the enterprise but not directly party to the contractual arrangements. Weiss argues that these implicit social agreements are problematic in the market economy of modern capitalism because they run counter to the existing social contract for business in contemporary society, which he refers to as ‘the minimalist morality of modern
capitalism', (Weiss, 1995 p6), based upon the primacy of property rights and contract. The fourth criticism is that stakeholder theory does not prevent the commodification of education and the consequent marginalisation of the less tangible contributions of universities although the tension between stakeholder theory and market capitalism weakens the claim of market-based theory that only measurable products are important. The fifth criticism is that it is impossible to develop performance metrics based upon stakeholders because of complexity and the subjective nature of decision-making about whose wants or needs to ignore. The simplifying benefits of the customer relationship lost. In the context of universities, judgements require complex claims to be balanced and these judgements will be influenced by contested ideological, political and ethical assumptions. Metrics cannot encompass either this level of complexity or the subjectivity arising from competing value systems. The response to this should be to seek an appropriate way forward from the current situation.

QUALITY: WHAT NEXT?

The present situation contains many inconsistencies. All the ‘fixes’ have served to move the location of the problem. The present position asserts that universities have multiple stakeholders but this is ideologically inconsistent with pseudo-market ideology. Although under current policy universities are required to be responsive to stakeholders, the tacit justification of many of the performance metrics assumes customer relationships. Commodification of universities marginalises the less immediately tangible contributions of universities to society, some of which appear to be valued in the government’s explicit statements about the purpose of higher education, see, for example (Nelson, 2002a). Since 1987, governments have been suggesting that universities should learn from business, so as a starting point, it is perhaps worth examining some of the available research into the reasons why quality management fails in commercial settings. As a contribution to this process, the findings of a study by Sterman and Repenning (1996) are briefly presented here. It should be noted that these research findings have been publicly available since 1996, before the implementation in Australian higher education of commercial quality management methods.

In their report Sterman and Repenning examine the reasons for the observed paradox that organisational improvement often seemed to be associated with negative outputs in terms of profitability. To explain this paradox they examined the relationship between human decision-making and the physical structure of the organisation in several large commercial enterprises. In their summary of their findings on reasons for success and failure of quality improvement initiatives large industrial firms Sterman and Repenning(1996,p22) report

"The key failure mode we identified starts with managers erroneously attributing the cause of low process capability to worker ‘laziness’ or ‘lack of discipline’ rather than to fundamental problems within the process. The cognitive and social psychology literature suggests that such misattributions are likely and indeed they are observed in numerous organisations. Given this misattribution, managers react by choosing the first option, increasing control and production pressure. Improvement programs in such a setting fail because increasing production pressure and control limit the effectiveness of process improvement activities, thus creating the situation, low process capability, that the manager set out to correct."

The implications of Sterman and Repenning’s study are that quality management initiatives attempting to introduce process improvement are likely to fail in situations where staff are already working at full capacity to satisfy with their existing targets.
This situation is aggravated and capability further eroded if the process improvement methods are implemented alongside coercive measures that demand increased throughput, reporting and surveillance. The situation described by Sterman and Repenning seems to describe what has occurred in higher education in Australia. The author is currently investigating the applicability of Sterman and Repenning methods and findings to the university context. The implications of this research are that strengthening the long-term capability of universities to genuinely improve their processes requires an acceptance that in the short term whilst changes are made, productivity may fall and cost rise. The research of Sterman and Repenning suggests that to achieve improvement would require:

- The abolition of existing performance metrics;
- A reduction in reporting and surveillance to free up time and opportunity for enterprises to find genuine ways to improve their processes; and
- Changes to the existing mental models that government policy makers and university managers use to ‘explain’ perceived deficiencies

Sterman and Repenning report that the last of these changes is the most difficult to achieve, in practice. Changes to the mental models of policy makers and university managers require them to encompass an understanding of firstly how quality improvement policies can be easily undermined by other policies and practices in the organisation and secondly how easily misattribution can occur, can become apparently self-affirming and lead to self-defeating policies and practices. Effective change to quality policy in higher education would require changes to the mental models of both university managers and Federal government policy makers who are managing the managers, to enable a fundamental rethink of university quality policy.

**IMPLICATIONS AND CONCLUSIONS**

The implications of this analysis have repercussions beyond universities. In many public sector and not-for profit organisations, commercial quality management methods have been applied. These methods often bring with them the tacit assumptions that the concept of ‘customer relationship’ can be appropriately to describe the relationship between the organisation and the intended recipients of its services. Since the nature of the customer relationship in the market economy is essentially a private one, this limits the moral basis of claims by other bodies to rights of intervention in the way the services are provided. If the Federal government wishes to retain the right to intervene, it must reject the customer model. If the customer model were replaced by a stakeholder model, and this would provide a moral basis for Federal government intervention, the government would have to abandon the application of market principles, since stakeholder theory is incompatible with the moral assumptions of free market capitalism.

Universities have been encouraged to learn about quality management and improvement from business and commerce. There are important differences between the commercial and educational context. The business-product-customer relationship is central to most commercial quality management methods. It is argued here that relationships within universities cannot be conceptualised as customer relationships. The concept of customers does not make sense in the educational context and this makes the methods dependent on customer relationships inapplicable. The notion of student as customer lingers, however, as a tacit assumption behind many of the currently required metrics for performance, and this should be remedied. The concept of stakeholders better describes the relationships within universities and between universities and society but stakeholder theory does not fit well with either commercial quality management methods or the metrics that they generate. Metrics cannot accommodate the subjectivity
consequent upon competing stakeholder relationships. Similar issues are likely to arise in other public service organisations that serve multiple stakeholders. Reputable research into the failure of commercial quality management initiatives in industry indicates that the main reason for failure is due to misattribution of the 'production problems' to individuals rather than processes. If these findings are applicable to universities, paradoxically, the most useful thing that both the government and university management could do right now would be to reduce reporting and accountability requirements to enable universities and academics to attend to process improvement issues.

REFERENCES


Australian Vice-Chancellors Committee. (2002c). Quality through Diversity


Appendix 3
SUPPLEMENTARY MATERIAL

This Appendix contains four documents:
- Document 3a: Model assumptions for QSD1 and data used to build model
- Document 3b: Details of documents in each data set
- Document 3c: Coding themes
- Document 3d: Additional data
Appendix 3a:
Models Assumptions for QSD1 and Data used to build Model

Assumptions for QSD1 model (CH.4)
The assumptions made in the model were that:
- Academic staff have considerable discretion about how they allocate their time between teaching, research and administration
- University management can manipulate those choices through offering rewards or imposing sanctions linked to performance of particular tasks
- Academic staff do not respond uniformly to rewards, sanctions and conflicting goals, their response will depend on their values and the values of peers
- Conflicting goals that cannot be satisfy will cause stress in the workforce
- Students have to make choices about how they allocate their time
- Students’ perception of their role will affect how they perceive their rights and duties
- Academic staff in practice have considerable control over both curriculum and assessment processes and standards and some control over the academic climate for learning, and can reward students performance or decide to apply sanctions for lack of performance
- Students do not respond uniformly to rewards, sanctions and conflicting goals (within the academic process and conflicts between academic demands and other life goals), their response will depend on their values and the values of peers
- Professional associations expect that universities will at least ensure that graduates have reached a minimum standard of professional competence.
- Professional accreditation bodies are variable in their degree of intervention in university courses, but are usually concerned mainly with issues of professional supply and shortage and with minimum skill outcomes for graduates rather than the detail of the day-to-day process by which the outcomes are achieved.

Boundary decisions in QSD1
The model is concerned with the dynamics of the combined effects government policies and university management strategies, within part of a new university, on students and academic teaching staff. The focus of the model is upon examining how broad changes to government policies since 1991 have changed the pressures upon students and academic teaching staff and the consequences of this for goal conflict. The affects of government policy are mediated through university management and through student responses to policy. Thus, university management, students and professional bodies are external to the boundaries of the model.

Model data: changes to context
This model was drawn up to reflect some changes in context relevant to performance of the academic role and to the learner role. These included:
- Reduced number of permanent (tenured) or semi-permanent (contract) academic staff in proportion to student enrolments (staff reduced from 5 FTE to 2.8 FTE).
- Reduction of the number of units in the award (from 28 to 22, now increased to 24)
- Reduction in the contact time per unit (teaching semester reduced from 15 weeks to 13 weeks to 12 weeks)
- Reduction in the number of specialised units (courses) in the award, from 20 units out of 28 to 12 units out of 24. Increase in the number of generic or optional units in the award (from 8 units out of 28 to 12 units out of 24)
• Restriction (by union agreement) of the formal ability of university management to maintain academic staff on temporary and casual academic contracts. Temporary staff were not made permanent, but could no longer be given consecutive temporary contracts, except in very restricted circumstances. This resulted in increased use of casual staff, and instability for temporary contract staff who could not be re-appointed to another contract without a break of service. Because casual staff are limited in the hours they can work this means that at least two casual staff must be employed to replace the teaching load of one full time staff member.

• Reduced teaching contact hours (from an average of 15 hours per week to not more than 12 hours per week), but increased class sizes and marking load, resulted in teaching a greater totally number of students in less contact time.

• Increased expectation for research productivity (all staff expected to demonstrate research activity)

• Formal quality reporting in addition to informal evaluations undertaken by teaching staff to help them gather information about student response to teaching (Participation in quality management briefing and training, participation in audit processes and ‘rehearsals’ for quality audits)

• Increased pressure to compete with other institutions in the local area (comparison between the entry score of students attracted and the number of entrants for whom the course is their first choice)

• Increase formalisation of management processes (formal annual performance management by line manager)

• Increased use of technology (use of computers in research, teaching and university administration requires academic staff to become conversant with the use of computer systems in each of these spheres. Training is in addition to normal teaching research and administrative duties.

• Amalgamation of degree programs into ‘super courses’, with loss of identity of previously discrete programs

• Reduction of clerical support (clerical support no longer provided for academics or co-ordinators of major)

• Increase in student support staff (student counsellors, academic support, careers advice, student support officers)

• Reduced staff annual leave entitlement from 6 weeks to 4 weeks
Appendix 3b:
Details of Documents in each Data Set

- DDS1a: Higher Education: Report for the 1999 to 2001 triennium: Chapter 1 Section on 'Quality' and 'Emergent Issues' and Chapter 2 preamble, 'Strategic directions', 'Developments' 'Students as Customers' 'Collaboration', 'Information Technologies', 'Internationalisation', 'Quality' and 'A diverse higher education system' (No section numbers in the report. Page numbers not given as the document is only available as an 'htm' file) (Kemp, 1999) (DDS1a_1)
- Higher Education: Report for the 2000 to 2002 triennium: Chapter 1, sections 1.1.1-1.1.4 and section 1.1.6. Chapter 2, Section 2.1, 'Quality in higher education' (DDS1a_2)
- Higher Education: Report for the 2001 to 2003 triennium: Chapter 1, Overview, only the following sections: preamble, 'student enrolments — continuing growth and diversification', 'university revenues — continuing growth and diversification', 'a sharper focus on quality'. Chapter 2 Section 2.1, 'Quality Assurance Framework', 2.2 'New elements of the framework' (DETYA, 2001a) (DDS1a_3)

References


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Appendix 3c:
Coding Themes

Initial themes identified and discussed in the thesis (all documents):

1a Concepts of quality/ standards
1b Quality assurance
1c Quality improvement
2a Purpose in higher education
2b Customers and higher education
2c Product and higher education
3 Rationale for quality management
4a Quality measurement/ indicators
4b Justifications for interpretation of meaning of quality indicators
4c Perceived difficulties with quality measures
4d Unintended outcomes/ realism
4e Underlying evaluation philosophy
5a Quality management methods
5b adaptations of quality management practices
5c difficulties with quality management method or system
5d claims of efficacy of quality management practices

Initial themes identified but not developed or discussed in detail in the final thesis (all documents)

1) Variety of roles and relationships in HE:

This theme was identified but is not developed in this thesis. The theme is summarised in Appendix 3d but was omitted from the thesis because of lack of space and the theme was less central to the main concerns of the thesis.

Emergent themes: All documents

1d reference point for Standards
2d Who are stakeholders?
2e How are stakeholders consulted?
3b Markets and universities

Emergent themes: Policy documents

1e Accountability to whom
3f Commoditisation of education
3b Competition
3g Workplace and governance ‘reform’
Emergent themes: Quality plans

Diversity in:
7 Concepts of Teaching and Learning
8 Concept of community service

Emergent themes: Panel reports

9 Organisational dynamics
10 Misunderstanding of their role
5c Criticisms of quality management practices
4c Criticisms of quality measurement
11 Dissatisfaction with terms of reference

Not all of the emergent themes have been developed or discussed in detail in the thesis. Some of the emergent themes not developed in the thesis are included in Appendix 3d.
Appendix 3d:

Additional Data

I had to make some difficult decisions about what data to exclude from detailed discussion within the thesis. The data included in this appendix was excluded from detailed discussion in the main body of the thesis because of lack of space. The data is presented here in condensed form has not been discussed in detail in the body of the thesis.

Additional data about perceptions about roles in universities

Table 4.2.5 University role and responsibilities

<table>
<thead>
<tr>
<th>Question 2: University (Management?) role and responsibilities</th>
<th>DDS1</th>
<th>Responsible for standards; training for research workforce; provide new knowledge; provide research that will support the economic prosperity and social cohesion of Australia; provide data as specified by the government; Australia’s universities play a vital role in the research and innovation system: they are the nation’s leading providers of training for our future research workforce, and generate much of the new knowledge which is essential to Australia’s long term economic growth and social cohesion. (2001)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DDS2</td>
<td>Some variety; Delight its clients; to ensure students meet the needs of employers and professions; to meet students own aspirations;</td>
<td></td>
</tr>
<tr>
<td>DDS3</td>
<td>Although the university is nominated as a stakeholder in the terms of reference, there is limited discussion of the university’s role</td>
<td></td>
</tr>
<tr>
<td>Q1</td>
<td>To retain students and process them swiftly</td>
<td></td>
</tr>
<tr>
<td>Q2</td>
<td>To ensure that students attain minimum levels of competence in generic skills as tested</td>
<td></td>
</tr>
<tr>
<td>Q3</td>
<td>To meet students expectations</td>
<td></td>
</tr>
</tbody>
</table>

Table 4.2.6 Academic staff roles and responsibilities

<table>
<thead>
<tr>
<th>Question 2a: Academic roles and responsibilities</th>
<th>DDS1</th>
<th>Respond to students and employers; add value to students; become a more flexible employee.</th>
</tr>
</thead>
<tbody>
<tr>
<td>DDS2</td>
<td>Provide evidence that they are: meeting students expectations; acquiring research funding and publishing; ensuring that student achieve standards required by government, employers, with larger classes, a more diverse student population and fewer resources; adhering to quality policy processes and procedures; providing community service;</td>
<td></td>
</tr>
<tr>
<td>DDS3</td>
<td>Staff are nominated as stakeholders in the terms of reference of the review for both documents. Both panels expressed concern about high staff workloads;</td>
<td></td>
</tr>
<tr>
<td>Q1</td>
<td>Retain students and process them speedily</td>
<td></td>
</tr>
<tr>
<td>Q2</td>
<td>Ensure students acquire generic skills before they graduate</td>
<td></td>
</tr>
<tr>
<td>Q3</td>
<td>Meet student expectations</td>
<td></td>
</tr>
</tbody>
</table>
Table 4.2.7 Professions and industry: roles and responsibilities

<table>
<thead>
<tr>
<th>Professions/industry</th>
</tr>
</thead>
<tbody>
<tr>
<td>DDS1 Accreditation. professional courses; provide funds to universities for research and training services;</td>
</tr>
<tr>
<td>DDS2 Stakeholder/Partners</td>
</tr>
<tr>
<td>DDS3 Both reports made recommendations that would increase the links between the university and some parts of industry work experience joint appointments; funding of monitoring</td>
</tr>
<tr>
<td>Q11 Attrition rate and the professions: potential tension</td>
</tr>
<tr>
<td>Q12 Graduate skills: potential tension between customised professional training and generic skills</td>
</tr>
<tr>
<td>Q13 Meeting student expectations: potential tension</td>
</tr>
</tbody>
</table>

Additional findings on Diversity: some differences found between the quality plans of five Western Australian universities, relevant to question 2.

Comparison of how each university sees the emphasis of its mission, its quality philosophy and its key indicators relating to teaching and learning.

1. University mission statements

Harman & Meek (2000) suggest that quality should be assessed in relation to the stated purposes each institution. The five western Australian institutions define their missions in the following ways.

University 1:
“the advancement of knowledge and the enrichment of culture”
They identify the special aspect of their mission as being their commitment to working through partnerships (partnerships with students, commerce and the community and collaboration across departments within the university) and their commitment to an international perspective for staff and students.

University 2:
“to provide a diverse and dynamic learning environment, university education of recognised quality, especially for those people employed in or seeking employment in the service professions”
They identify the special aspect of their focus as their commitment to preparation for the service professions and research relevant to the service professions.

University 3:
“extend knowledge, stimulate learning and promote understanding for the benefit of the community”
They identify their special commitment as being a commitment to accessibility (access and diversity), growth and efficiency and providing an “international outlook”.

University 4:
“The advancement of learning, knowledge and the professions and the provisions of university education within a context of Catholic faith and values”
They see their special focus as combining intellectual development with spiritual development and their geographic focus on the Kimberley region of Western Australia and their commitment to indigenous reconciliation.

University 5:
“to advance and transmit and sustain knowledge and understanding through the conduct of teaching, research and scholarship at the highest international standards for the benefit of international and national communities and the state of Western Australia”
This university identifies its special contribution as being teaching a balance of Arts Science and the ‘major professions’, having a strong research and postgraduate focus and an international focus for its activity and standards.

Discussion

Western Australia is effectively a closed market for local undergraduate education.

Omitted data on Niche markets.

In the quality plans the universities fairly accurately describe their intended ‘market focus’ and although they compete in some area, their main focuses effectively define specialisation.

Analyses of differences

Table Appendix 3d.4: Niche

<table>
<thead>
<tr>
<th>University</th>
<th>Nichel Special focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Partnerships with students, commerce, community and within and across the university, innovative use of technology, (elite aspirations?)</td>
</tr>
<tr>
<td>2</td>
<td>Preparation for the service professions, research for the service professions, multi-mode provision of education, regional and remote access to education</td>
</tr>
<tr>
<td>3</td>
<td>Accessibility, Interdisciplinarity</td>
</tr>
<tr>
<td>4</td>
<td>Spiritual and intellectual development, the Kimberley region, reconciliation between indigenous and non-indigenous Australians, professional preparation, supporting the work of Catholic and other Christian churches</td>
</tr>
<tr>
<td>5</td>
<td>Post graduate and research focus, ‘elite’ education</td>
</tr>
</tbody>
</table>

Omitted data on the diversity of concepts of ‘international’ as reflected in the quality plans of the five universities.

Table Appendix 3d.5 Perspectives on “international”

<table>
<thead>
<tr>
<th>University</th>
<th>“international” is...</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Providing education to international students, providing opportunities for students to study abroad, developing a ‘world class culture’ at the university, an international dimension to programs</td>
</tr>
<tr>
<td>2</td>
<td>Some discussion of international links relevant to professional education and referencing to international professional standards, but less specific focus</td>
</tr>
<tr>
<td>3</td>
<td>Providing students with an international outlook on the world</td>
</tr>
<tr>
<td>4</td>
<td>Not a major part of the mission</td>
</tr>
<tr>
<td>5</td>
<td>Providing a university education that is strongly referenced to international standards and research that is of international relevance</td>
</tr>
</tbody>
</table>

Discussion

Although most universities mention ‘internationalisation’ in their statements of purpose they do not mean the same thing by the term. University 5 aims to measure its courses and research by ‘international standards’, but does not have strong aspirations toward off shore provision of courses. University 1 aspires to measure itself by international
standards and focuses on off shore provision of courses through partnerships. University 2 has a limited international focus, concentrating in the area of education for the service professions. For University 3, ‘international’ means providing an international outlook for domestic and on shore international students. University 4 does not mention the international education market in this plan.

Omitted data on the diversity of concepts of ‘learning’ as reflected in the quality plans of the five universities.

Table appendix 3d.6 Perspectives on “learning”

<table>
<thead>
<tr>
<th>University</th>
<th>“learning” is...</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A partnership with the student, fostering self direction, a life long process, prepares students for their careers, satisfies diverse learning needs of students, strongly linked to the wider community</td>
</tr>
<tr>
<td>2</td>
<td>Relevant to the career and/or personal goals of the majority of students, provides challenge, ensures that students master key competencies</td>
</tr>
<tr>
<td>3</td>
<td>Assisting students to meet their potential, provide interdisciplinary study opportunities that meet students needs, combine academic qualities with employment skills and encourage lifelong learning</td>
</tr>
<tr>
<td>4</td>
<td>Holistic approach to education incorporating teaching curriculum and pastoral care, maximising employment prospects of graduates, providing a curriculum that encourages debate of issues central to a Christian life</td>
</tr>
<tr>
<td>5</td>
<td>The transmission of knowledge, mastery of the subject matter of a discipline, life long learning,</td>
</tr>
</tbody>
</table>

Discussion

All the quality plans mention learning, but again the different institutions do not apparently have the same concept of what learning is. In response to the West report (West, 1998), all of the quality plans specifically refer to the importance of lifelong learning. Universities 1,2,3 & 4, mention the importance of an employment focus, Universities 1 & 2 highlight the importance of responding to students’ career aspirations. University 1 is the only university that gives prominence to the concept of learning being about foster students’ self direction. University 2 is the only institution that specifically mentions the importance of being responsive to students’ own goals and but also conceptualises the purpose of learning as to enable students to master key competencies’. University 3 stresses the importance of interdisciplinary studies in ways accord with the purpose of university education as being to produce a ‘rounded’ individual who is broadly educated. University 4 is explicit about the Christian values that underpin the curriculum of the institution and has a perception of itself as an institution that provides opportunities for Christian scholarship and debate. University 5 differs fundamentally from the other institutions both because it is the only university that conceptualises the teaching and learning process as one of transmission of knowledge and also because of its focus on mastery of disciplinary subject matter.

Concepts of purpose of university education and learning are not unproblematic. These plans collectively reflect different aspects of Australian higher education policy but are also influenced by more general debates about the purpose of university learning.
Omitted data on the diversity of concepts of ‘community’ as reflected in the quality plans of the five universities.

Table Appendix 3d.7 Perspectives on “community”

<table>
<thead>
<tr>
<th>University</th>
<th>“community” is…</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Community service, partnerships with (local) community groups</td>
</tr>
<tr>
<td>2</td>
<td>Community service activities especially within the local communities within Western Australia, providing community education</td>
</tr>
<tr>
<td>3</td>
<td>Community service (within the local community), the development of public community clinics (veterinary, legal, women’s health, psychology)</td>
</tr>
<tr>
<td>4</td>
<td>The Catholic/ Christian community</td>
</tr>
<tr>
<td>5</td>
<td>The Australian and international communities</td>
</tr>
</tbody>
</table>

Discussion

Universities 1, 2, 3, & 4 conceptualise community as being predominantly the local community in the environs of the university, and closely tied to the State of Western Australia. University 4 conceptualises its community specifically as the Catholic/Christian community rather than the immediate local geographic community. In contrast University 5 conceptualises its communities as the world communities (of scholars?) and any benefit to the state of Western Australia or the immediate local environs as being secondary. From a critical perspective, the concept of community is extremely problematic. This is because all ‘communities’ are composed of individuals and groups, who have diverse, and often conflicting interests, different aspirations, and differential access to influence and power, (referencable). It is therefore important from the point of view of clarifying universities’ purposes and missions to be aware of which (section of) ‘community’ each institution is referencing itself to and the manner in which the referencing occurs, how it is used to justify the institutional mandate and how it perceives its sphere of influence. Within a local area it is easy to identify how a university chooses to target its community services and how it chooses to respond to multiple conflicting ‘community needs’. However, if a university references itself to national or international academic, political or commercial ‘communities’, it automatically references itself to established elite and powerful groups because the less established and less powerful to not have influence beyond the local interpersonal sphere.
Omitted data on diversity of. Quality “philosophy” or quality assessment guiding principles, from the five university quality plans,

Table appendix 3d.8, guiding principles or philosophy of quality

<table>
<thead>
<tr>
<th>University</th>
<th>Guiding principles</th>
</tr>
</thead>
<tbody>
<tr>
<td>University 1</td>
<td>Benchmarking</td>
</tr>
<tr>
<td>University 2</td>
<td>Australian Business excellence framework</td>
</tr>
<tr>
<td>University 3</td>
<td>None explicit</td>
</tr>
<tr>
<td>University 4</td>
<td>None explicit</td>
</tr>
<tr>
<td>University 5</td>
<td>“Systematic review”</td>
</tr>
</tbody>
</table>

Not all institutions made explicit any guiding principles informing their approach to quality.
Diversity in Key performance indicators identified in the quality plans of the 5 universities.

Table Appendix 3.9 Comparison of KPI’s

<table>
<thead>
<tr>
<th>University</th>
<th>Key performance indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Quality of graduates: Employment and study destinations of new first degree graduates; Employer satisfaction: core skills rating Quality of teaching: Perceived teaching quality (CEQ) Student progress and achievement: Subject load pass rate; estimated program completion rate Input: Research higher degrees enrolment as a percentage of the total student enrolment</td>
</tr>
<tr>
<td>2</td>
<td>Student load pass rate; course satisfaction; retention rate; graduate employment; load in external mode; expense within primary program in $,000 per successful EFTSU</td>
</tr>
<tr>
<td>3</td>
<td>Perceived quality of teaching (CEQ), unit evaluation, employment and study destination survey, uni employer perception survey Equity and access monitor access and success of student from different equity groups Interdisciplinarity: percentage of students undertaking 2 programs from different disciplines</td>
</tr>
<tr>
<td>4</td>
<td>Student satisfaction (university), graduate satisfaction (CEQ/PREQ), completion rates, small classes, operational teaching Quality committee, Graduate Destinations survey</td>
</tr>
<tr>
<td>5</td>
<td>Proportion of top 5% of school leavers applying to uni 5; Proportion of top 10% of school leavers applying to uni 5; enrolment at uni 5 as a proportion of all enrolments for the top 5% of school leavers; enrolment at uni 5 as a proportion of all enrolments for the top 10% of school leavers; proportion of student load passed; proportion of student load retained; unit evaluation; CEQ (mean graded scale), GDS (including graduate entrants)</td>
</tr>
</tbody>
</table>

Discussion

There is a high degree of similarity in the choice of key performance indicators, even though there was variation in the stated missions of the universities. The key performance measures to some extent reflect difference in mission. Many aspects of special focus are not captured in the quality indicators chosen Most measure relate to student satisfaction or progression rather than quality. (Tie in with material discussing the academic literature on the reasons for student attrition). There is one clear example of “quality as system” There is evidence of quality conceptualised as “value for money” All plan show evidence of quality being conceptualised as customer satisfaction, with students as customers (CEQ, unit evaluations etc.) All plans show evidence of assumptions of students as product (GDS, employer satisfaction surveys) There is no evidence from any of the quality plans of an acknowledgement that there may be conflict between different stakeholders’ wants, needs or expectation. There is no evidence from these quality plans of quality being conceptualised as “organisational culture”, except that the guiding principles of the Australian Business excellence framework discuss quality in cultural terms. There is evidence that standard measures (CEQ, GDS) are being used in customised ways.

So what?

‘Quality’ is being referenced to multiple concepts of quality including ‘quality as fitness for purpose’, ‘quality as value for money’, ‘Quality as system’, ‘quality as product meeting specifications’. Within all the quality plans students are assumed to be
both client/customers who need to be satisfied and products that need to conform to specifications and requirements of others.
In the quality plans, discussion moves between the different conceptualisations of quality seamlessly as if there were no difference between the underlying assumptions behind the different concepts. No attempts are made to explore the appropriateness of any of the various concepts of quality to either the ‘quality framework’ for the organisation or the mission and special focus of each institution.
The key indicators used by all institutions are broadly similar despite differences in overall mission measures are used in an essentially competitive rather than reflective way, designed to demonstrate the superiority of each institution compared with other universities rather than diagnostically to help institution identify aspects of their service delivery that requires attention. Judicious use of statistics seems to enable all institutions to support claims to superiority by referring to selective aspects of data. In some instances the selective differences can be justified by reference to the different niches of institutions. The broader argument about how and whether any of the indicators can be reliably correlated with any of the concepts of quality has not been considered, because of the ways in which the different concepts of quality have been elided in all the reports.