The Association of Student Perceptions With Student Motivation and Cognitive Engagement in the Year 11 Economic Framework Unit

Leah Gransden

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THE ASSOCIATION OF STUDENT PERCEPTIONS WITH STUDENT MOTIVATION AND COGNITIVE ENGAGEMENT IN THE YEAR 11 ECONOMIC FRAMEWORK UNIT

by

Leah Gransden, B. A. (Education)

A Thesis Proposal Submitted in Partial Fulfilment of the
Requirements for the Award of

Bachelor of Education (Honours)

at the Faculty of Education, Edith Cowan University

Date of Submission: December 1997
Abstract

Many Western Australian Economics teachers have voiced concern with the level of motivation of students studying Economics and the apparent decline in the number of students in secondary institutions choosing Economics as an upper school subject (Lewis & Norris, 1996). A need therefore seems to exist for data about secondary students' thoughts and feelings towards Economics.

This exploratory study aimed to investigate and describe student perceptions, motivational orientations and cognitive engagement, as experienced by Year 11 Economic students when studying the Economic Framework unit. This unit is the only compulsory unit in Year 11 Economics and is typically associated with motivational problems.

Due to the interpretive nature of the research, data were derived incorporating mainly qualitative techniques. A case study approach was used to examine the perceptions, motivational orientations and cognitive engagement of four students. The main sources of data were questionnaires, a lesson observation, semi-structured interviews and teacher lesson plans, records and reports.

In general the student perceptions of the Economic Framework unit were wide ranging and complex and included perceptions of previous experience, self and course content, instructional practices and task value. There appeared to be some reasonably well defined associations between these perceptions and student motivational orientations and cognitive engagement.

The findings provide Economics teachers, the Secondary Education Authority and other Curriculum developers, with valuable feedback, which could be used to
improve the quality of learning in Economics and therefore, encourage healthy student motivation and cognition.
Declaration

"I certify that this project 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."

Signature: 

Date: December 1997
Acknowledgements

I acknowledge firstly God, from whom I receive all things. I would also like to thank my family and friends, particularly my mother Gail, Joanna and Bardia, for their unwavering support during the long hours spent on my thesis. Special thanks to my supervisor Kevin Barry, whom I and many others appreciate and admire. His sincerity, expertise and patience have been invaluable.
Table of Contents

| Abstract                        | 1 |
| Declaration                     | 3 |
| Acknowledgements                | 4 |
| List of Tables                  | 13|
| List of Figures                 | 14|

CHAPTER

I  INTRODUCTION  15

Overview  15
Background  15
Purpose  16
Significance of the Study  16
Research Questions  17
Definition of Key Terms  18

II  LITERATURE REVIEW  21

Overview  21
The Learning and Teaching of Economics  21
Student Perceptions  24
Student Self-Perceptions  26
III THEORETICAL BASIS OF THE STUDY

Overview 39
Theoretical Framework 39
Conceptual Framework 40

Student Entry Characteristics 40
Student Self-Perceptions 41
Course Content, Instructional Practices and Task Value 41
Achievement Goal Orientation 42
IV METHOD OF RESEARCH

Overview

Research Design

Restatement of the Purpose of the Study

Research Questions

Selection of the Sample Students
  Sample
  Background information
  Ethical considerations

Data Collection
  Kinds of data obtained
  Sources of data
  How data were obtained

Data Analysis
  Analysis of the Motivation for Learning Questionnaire
  Analysis of Interviews
  Data Organisation

Generalisability
Validity
Reliability

V  FOUR CASE STUDIES OF STUDENT PERCEPTIONS TOWARD THE ECONOMIC FRAMEWORK, THEIR ACHIEVEMENT GOAL ORIENTATIONS AND THEIR COGNITIVE ENGAGEMENT

Overview
Case Study of Joanna
  Background
  Entry Characteristics
  Student Self-perceptions
  Course Content, Instructional Practices and Task Value
  Achievement Goal Orientation
  Cognitive Engagement
  Academic Achievement
Case Study of Bardia
  Background
  Entry Characteristics
  Student Self-perceptions
  Course Content, Instructional Practices and Task Value
Achievement Goal Orientation 81
Cognitive Engagement 82
Academic Achievement 85

Case Study of Dallin 85
Background 86
Entry Characteristics 86
Student Self-perceptions 86
Course Content, Instructional Practices and Task Value 88
Achievement Goal Orientation 90
Cognitive Engagement 91
Academic Achievement 93

Case Study of Michael 94
Background 94
Entry Characteristics 94
Student Self-perceptions 95
Course Content, Instructional Practices and Task Value 97
Achievement Goal Orientation 99
Cognitive Engagement 100
Academic Achievement 102
VI DISCUSSION

Overview
Restatement of the Subsidiary Questions
Subsidiary Question 1A
  Conclusion
Subsidiary Question 1B
  Conclusion
Subsidiary Question 2
  Conclusion
Subsidiary Question 3
  Conclusion
  Conclusion
  Conclusion
  Conclusion
  General Conclusion

VII CONCLUSION AND IMPLICATIONS

Overview
Overview of the Study
Overview of Conclusions
Research Questions
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conclusions</td>
<td>136</td>
</tr>
<tr>
<td>Implications</td>
<td>141</td>
</tr>
<tr>
<td>Student Self-perceptions</td>
<td>141</td>
</tr>
<tr>
<td>Student Perceptions of Learning Activities</td>
<td>142</td>
</tr>
<tr>
<td>Achievement Goal Orientations</td>
<td>143</td>
</tr>
<tr>
<td>Limitations of the Study</td>
<td>145</td>
</tr>
<tr>
<td>Recommendations for Future Research</td>
<td>146</td>
</tr>
</tbody>
</table>
REFERENCES  148

APPENDICES  158

Appendix A. Motivation and Strategies for Learning Questionnaire  159
Appendix B. Cover letters  165
Appendix C. Interview schedules  170
Appendix D. Notes on classroom observation  175
Appendix E. Teacher checks  180
Appendix F. Motivation and Strategies for Learning Questionnaire results  183
Appendix G. Researcher’s personal perspectives  186
LIST OF TABLES

Table 1. Salient perceived causes for success and failure 28
Table 2. Teacher’s perception of Joanna’s effort levels 75
Table 3. Teacher’s perception of Bardia’s effort levels 83
Table 4. Teacher’s perception of Dallin’s effort levels 92
Table 5. Teacher’s perception of Michael’s effort levels 101
Table 6. Summary of case study attributions 110
Table 7. Summary of teacher lesson plans 181
Table 8. Teacher records summarising student achievement 181
Table 9. Teacher perceptions of student effort levels 182
Table 10. Motivation and Strategies for Learning Questionnaire results 184
**LIST OF FIGURES**

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure 1.</td>
<td>Role of student mediation in achievement</td>
<td>25</td>
</tr>
<tr>
<td>Figure 2.</td>
<td>Conceptual Framework</td>
<td>44</td>
</tr>
<tr>
<td>Figure 3.</td>
<td>Case study summary of Joanna</td>
<td>104</td>
</tr>
<tr>
<td>Figure 4.</td>
<td>Case study summary of Bardia</td>
<td>105</td>
</tr>
<tr>
<td>Figure 5.</td>
<td>Case study summary of Dallin</td>
<td>106</td>
</tr>
<tr>
<td>Figure 6.</td>
<td>Case study summary of Michael</td>
<td>107</td>
</tr>
<tr>
<td>Figure 7.</td>
<td>Correlation between task value and ego orientation</td>
<td>124</td>
</tr>
<tr>
<td>Figure 8.</td>
<td>Correlation between task value and effort regulation</td>
<td>126</td>
</tr>
</tbody>
</table>
CHAPTER ONE

Introduction

Overview

Chapter One describes the background, purpose and the significance of the study. The research and subsidiary questions are presented. Key definitions relating to the study are defined.

Background

The Year 11 Economics syllabus is designed to emphasise Economics in contemporary society. It consists of one compulsory unit and ten optional units. The Economic Framework unit is the compulsory unit, and aims to provide students with an understanding of the economic structure of our society.

The Economic Framework unit was purposefully chosen for this study of student perceptions and motivation, for it is more closely related to Year 12 Economics than any other unit in the Year 11 course. Experience has also shown that the Economic Framework unit is pivotal to the formation of key understandings required in Year 12 Economics. Additionally, an informal questionnaire of, and anecdotal evidence from, teachers of Economics indicates that the Economic Framework unit had more motivational problems than the optional units which allowed students to engage in more varied, relevant and interesting tasks.
Purpose

The key purpose of this research was to gain a 'deeper' understanding into student attitudes, beliefs, understandings and thoughts toward Economics, as perceived by the selected participants. The study explored the possible influence of these student perceptions on the motivational orientations adopted by these students and the level of cognitive engagement employed, in Year 11 Economics.

Significance of the Study

This study of the Economic Framework unit was significant for several reasons. Firstly, teachers and students of Economics have expressed concern with the lack of student interest and motivation in the Economic Framework unit in Year 11 Economics. In particular, dissatisfaction exists with the lack of variety in teaching methods, which tend to be teacher-centred, student learning activities. These were conceivable reasons for the lack of student interest and motivation in Economics. The main purpose of this study was to gain insight into these problems and their possible causes.

Secondly, in the Year 11 Economics syllabus it states that 'the designers of the syllabus believe that student interest in Economics should be fostered.' This was clearly one of the main aims of the syllabus committee, however, to the researcher's knowledge there has been no research to date concerning this key objective. It follows that exploring student thoughts and feelings toward Economics and the influence of these perceptions on achievement goal orientations and cognitive engagement, could provide valuable feedback for educators. In turn, this may stimulate adaptation of curriculum and instructional practices in order to motivate students in Year 11 Economics.
Finally, the study could add to the meagre body of research into student perceptions and motivation in upper secondary classrooms. Another postgraduate student in the Faculty of Education at Edith Cowan University studied in the area of student perceptions and motivational orientations. However, to the best of the researcher's knowledge, little, if any work, has been conducted in Western Australia on student perceptions and motivation in the subject of Economics.

Research Questions

The major research question was:

What are the perceptions of Year 11 Economics students toward the Economic Framework unit, and what are the possible associations of these student perceptions with student motivation and cognitive engagement in Year 11 Economics?

The following subsidiary questions contributed in an important way to the analysis of the major research question:

1. When studying the Economic Framework unit, what student perceptions are held about:

   a) themselves: their ability, effort, control, expectations and self-efficacy;

   b) course content, instructional practices, and value of tasks in the Economic Framework unit?
2. When studying the Economic Framework unit, what are the possible associations of these student perceptions with the individual's adoption and activation of particular achievement goal orientations in Year 11 Economics?

3. What are the possible associations of these student perceptions and achievement goal orientations with their cognitive engagement, in the Economic Framework unit?

Definition of Key Terms

Achievement goals are cognitive representations of each student's goals or purpose of learning (Dweck & Elliott, Dweck & Leggett, Ford & Nicholls, cited by Pintrich & Schrauben, 1992, p.155). Generally achievement goals are classified as either mastery goals which may be directed toward understanding or mastery of the task, or ego goals which focus on demonstrating superior ability or gaining others' approval. Work-avoidant students do not have high levels of ego or task goals. In this thesis three achievement goals are considered: ego goal orientation, task goal orientation and work-avoidance orientation. A student may have one or more of these goals when studying the Economic Framework unit.

Attribution theory proposes that a learner's willingness to engage in an academic task in an achievement situation, is influenced by the factors which they feel have caused previous success and failures (Weiner, 1990). Four factors which are generally considered attributable to performance are ability, effort, task difficulty or luck.
Locus of control describes the ownership which students attach to their successes and failures. A student with an external locus of control perceives an outcome as being affected by an external force, such as chance (luck) or others (task difficulty). A student with an internal locus of control perceives an outcome as being attached to internal factors, such as ability or effort (Biggs & Moore, 1993).

Motivation is an explanatory concept which can be used to gain insight into the goals that initiate and direct an individual's behaviour. Motivation increases student cognitive engagement and, in turn, facilitates learning.

Self-efficacy describes an individual's beliefs about their performance capabilities in a particular domain (Schunk, 1985). In this study, self-efficacy refers to a student's belief in his or her ability and his or her performance expectations in the Economic Framework unit.

Task value refers to a student's perceptions of the importance, interest and utility of the course content and learning activities in the Economic Framework unit.

Task importance refers to the significance that the student attaches to the task, based on perceived salience or personal relevance.

Task interest refers to feelings of enjoyment or satisfaction, determined to a degree by the student's general interest in the course content, the task, and other contextual factors. In this thesis, task interest is considered a "latent characteristic" of the student
Activation of task interest may vary, according to the learning context, and the students' perception of the task in a particular environment.

*Task utility* refers to the students' perception of the benefits or gains, derived by completing the task.

*Cognitive engagement* in this study includes the types of activities which students choose to engage in both during and outside of class time, the degree of cognitive strategy use and the intensity of effort invested in these activities.
CHAPTER TWO

Literature Review

Overview

This literature review is organised around the research questions and associated concepts, and specifically it focuses on:

a) the teaching and learning of economics;

b) student perceptions;

   student self-perceptions;

   student perceptions of course content, instructional practices and task value;

c) student perceptions and achievement goal theory;

d) student perceptions and cognitive engagement.

The Learning and Teaching of Economics

A number of recent journal articles reveal that there is widespread dissatisfaction with the teaching and learning of economics. This is conveyed by Borg and Shapiro, (1996) who propose that "economics is one of those subjects that students either love or hate, and, more often than not, the emotion expressed is for the latter" (p.1).

The results of a survey of first-year economics courses offered in Australian universities, compared with those obtained for undergraduate economics courses
offered in the United States, reveal that in both the United States and Australia, there is “disenchantment with the traditional lecture/tutorial model often used in economics, which has encouraged experimentation with the teaching sequence, to de-emphasise the pivotal role of the lecture and engage the students more actively in their own instruction” (Lee, Burgess & Kniest, 1996, p.89).

The survey demonstrated that “the use of innovative teaching methods is much lower in Australia than in the United States” (Lee, Burgess & Kniest, 1996, p.89). The survey also indicated that lecturers wished to introduce a range of reforms to the organisation and teaching of first year economics in Australian universities. According to White (1995) “Economics Departments are increasingly concerned about teaching effectiveness and about ways of measuring teaching effectiveness” (p.79).

Lectures, supplemented by problem sets, written assignments and limited classroom discussion, constitute the primary package of instructional techniques used to teach economics in North American colleges and universities. A recent report on the status of the economics major argues that the “overarching goal of economics education” should be that of enabling students to “think like economists” (Carlson & Schodt, 1995, p.17). According to Carlson and Schodt (1995), “to help our students learn to think like economists, we need to consider seriously ways of moving beyond the traditional modes of instruction” (p.17).

A recent article in The Australian, written by the economics correspondent, Ian Henderson, (“Economics Out of Favour,” 1997) highlighted the falling enrolments in economics degree courses and the decline in economics honours students in Australian universities. In Western Australia new enrolments in economics degrees have fallen by 48 per cent (Lewis & Norris, 1996, p.5).
Associate Professor Lewis and Professor Norris of Murdoch University in Western Australia, pinpoint a number of key causes for the declining enrolments in universities. Firstly, perceptions of the favoured business studies courses are seen to be more job oriented and more likely to lead to higher paying occupations. Secondly, "interest in economics in schools has been falling in every State" (Lewis & Norris, 1996, p.3). Thirdly, there is the problem of student perceptions of economics. According to Lewis and Norris students feel economics is a "difficult, dull, abstract subject" and would prefer a subject which is more rounded and pragmatic (Lewis & Norris, 1996, p.3).

A follow up article appeared in The Australian ("Your Say," 1997), and posed the question, "Should economics be more user-friendly?" Results from The Australian Online revealed that 66% of the respondents felt that economics should be more user friendly. This sentiment was encapsulated by a university business student who stated that he found microeconomics "boring and difficult... maybe there is a way of teaching it to make it more interesting and easier to learn" ("Your Say," 1997).

Perhaps if students considered economics to be more interesting and relevant, more students could be persuaded to study economics at university. Although academic economists are satisfied with the rigorous training in most economics courses and are critical of less rigorous business studies courses (Lewis & Norris, 1996, p.21-22), students do not appear to be of the same opinion. Lewis and Norris (1996) concluded their paper with a plea that although "it may be a little late, clearly, academics need to thoroughly assess the content and structure of units in economics degree programs and 'service' units, with a view to matching them to student preferences" (p.22).
In terms of enrolments in upper school economics, there has been a similar trend to that of universities. Between 1991 and 1996, there has been a significant aggregate decline of 45% in the number of students choosing economics as a final year school subject in Australian schools (Anderson & Johnson, cited in Lewis & Norris, 1996, p.2).

Commentators generally ascribe three major reasons for this decline in enrolments in upper school economics. Firstly, changes in the upper school curriculum, where there has been a rapidly increasing demand for vocationally oriented subjects, such as business studies (Lewis & Norris, 1996, p.13). Secondly, there is general disaffection with the nature of economics which “may be perceived as rigorous and/or boring and dull... thus reducing interest” (Lewis & Norris, 1996, p.15). Thirdly, there seems to be overuse of lecturing and under use of active student engagement in learning activities (Carlson & Schodt, 1995; Lee, Burgess & Kniest, 1996). According to Lewis and Norris, (1996), teachers can and need to do something about this student perception of the dull and somewhat irrelevant nature of upper school economics. This echoes worldwide pleas that serious consideration be given to reforming current modes of teaching and learning in economics (Carlson & Schodt, 1995; Lee, Burgess & Kniest, 1996).

**Student Perceptions**

Path breaking work on student perceptions in the classroom has been conducted by Weinstein (1983) and Wittrock (1986). They have identified the following major domains of student perceptions within the classroom:
a) student self-perceptions, thoughts and feelings about selves;
b) student perceptions of the classroom, including the climate and group processes;
c) student perceptions of the teacher, involving the teacher's philosophy, beliefs, attitudes to teaching, expectations and treatment of students;
d) student perceptions of learning, the quality of instruction, management and observational skills, teaching strategies and activities, and classroom goals.

A key feature of Wittrock's analysis, and one that is highly relevant to this thesis, is that teaching influences or mediates student cognition, which in turn affects student achievement (Wittrock, 1986). This process is shown in Figure 1.

```
Teaching,  ↔  Student Cognitions  ↔  Student Achievement
Teachers  (Thought Processes)
```

Figure 1. Role of student mediation in achievement (Barry & King, 1993).

To understand and improve teaching, educational research should examine student cognitive processes, which mediate achievement. Students do not passively receive instruction (Weinstein, 1983). For example, in reality, what is taught is not necessarily what is learned (Biggs & Moore, 1993). There is an increasing awareness of
the valuable insights that students, as active interpreters of classroom processes and outcomes, can provide to researchers.

According to Wittrock (1986), “teaching exerts its influence on achievement through student motivational processes, which can be controlled directly by the student as well as by the teacher or other people and factors” (p.306). It follows that for all students, even the most capable, high levels of effort, concentration, and persistence are necessary to develop understanding (Meece, 1994).

Student Self-perceptions

Student self-perceptions of ability, effort, control, expectations for future performance and self-efficacy influence the achievement goal orientations they adopt and their level of cognitive engagement in learning activities (Pintrich & Schrauben, 1992; Schunk, 1991). As such, student self-perceptions are particularly significant in this thesis. Central to an understanding of the role of student self-perceptions in learning, is the work of Bernard Weiner on attribution theory (Weiner, 1990).

Attribution Theory

Attribution theory (Weiner, 1990) emphasises the importance of student perceptions in attributing the causes of their success and failure. According to attribution theory, students’ classroom behaviours, including the motivation to sustain behaviours or to perform future tasks, are affected by their perceptions of the causes of their successes and failures.

These perceived causes of past performance generally fall into four categories: ability, effort, task difficulty and luck (Weiner, 1990). These causes exist within a three
dimensional system including locus of control, stability and controllability. Each of these dimensions is presumed to influence how a person might interpret their successes and failures. This is summarised in Table 1.
Table 1. Salient perceived causes of successes and failures (McInerney & McInerney, 1994).

<table>
<thead>
<tr>
<th></th>
<th>Locus of control</th>
<th>Stability (perceived degree of personal constancy of factors over time)</th>
<th>Controllability (perceived element of personal responsibility)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABILITY</td>
<td>Internal</td>
<td>Stable</td>
<td>relatively uncontrollable</td>
</tr>
<tr>
<td>EFFORT</td>
<td>Internal</td>
<td>Unstable</td>
<td>controllable</td>
</tr>
<tr>
<td>TASK</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DIFFICULTY</td>
<td>External</td>
<td>Stable</td>
<td>uncontrollable</td>
</tr>
<tr>
<td>LUCK</td>
<td>External</td>
<td>Unstable</td>
<td>Uncontrollable</td>
</tr>
</tbody>
</table>

According to McInerney and McInerney (1994, p.358), all three dimensions may affect an individual’s expectancy for future success and failure on a particular task. Success and failure can be perceived as stable where the cause of success and failure remains constant, or unstable, where the attribution (such as effort) can change. Controllability refers to the perceived level of personal responsibility and control of the attribution for success and failure. Locus of control refers to “where people locate responsibility for success and failures – inside or outside themselves” (Woolfolk, 1993, p.592). An individual possesses an internal control belief if they believe they have a
considerable degree of control over their learning. A person with an external locus of control believes that success and failures are generally beyond personal control and depend upon external factors such as task difficulty, luck, or both.

In summary, and looking at Table 1, there are four major perceived causes of success and failure: ability, effort, task difficulty and luck. These perceived causes of success and failure may be related to three dimensions or continua: locus of control, stability and controllability. For example, ability attributions of success and failure have an internal locus of control and are relatively stable and uncontrollable. Task difficulty attributions have an external locus of control, are stable and uncontrollable, while luck is external, unstable and uncontrollable.

In terms of future expectations for success, students who perceive a correlation between internal factors such as ability and effort, and outcomes, are likely to have higher performance expectations for success and performance. This is particularly so if the attribution is to effort, a factor that is within the control of the student. Conversely, students whose expectations for success or failure are linked to external factors such as task difficulty or luck, will most likely have lower success expectations for these factors are uncontrollable, and in the case of task difficulty, stable. Typically these students see ability as a factor over which they have little control and this leads to lower success expectations.

Ability perceptions require a little more explanation in that they refer to an individual’s belief about how well they think they can perform different tasks. Perceptions of ability vary among individuals, and change with age (Nicholls, 1984). It is likely that by the time students have reached the later years of high school, most of
them will equate more effort with less ability, and hold the conception that ability is a relatively stable trait (Nicholls, 1983; Schunk, 1991).

Student ability perceptions play a critical role in the formation of achievement goals (Nicholls, 1983; Meece, 1994). Reviews of research on motivation have shown that “individuals who develop and maintain positive perceptions of their abilities, report higher performance expectations, greater control over learning, and greater interest in learning for intrinsic reasons” (Covington, Eccles, Adler, Futterman, Kaczala, Meece & Midgley; Harter & Connell; both cited in Meece, 1994, p.3).

Self-efficacy

Students’ perceptions of academic self-efficacy often vary according to the learning environment (Travers, Elliott & Kratochwill, 1993) and are particularly vital in influencing their motivation (Zimmerman, 1989; Biggs & Moore, 1993). Covington and Beery (1976) believe the link between self-efficacy and performance at school is quite straightforward. If a student feels that a task cannot be completed successfully, he or she probably will not make a serious attempt at it. If the student believes the task can be completed with some success, they will probably attempt it. Pintrich and De Groot (1990) have found that students’ self-efficacy reports were highly correlated with their expectations for success.

Students also take into account how effectively they think they learn from various learning activities. If they perceive a learning activity to be worthwhile, and this learning activity is used often in their learning environment, this tends to engender self-efficacy (Schunk, 1991). For example, if a student feels that he or she learns well
by note-taking from a textbook, and the teacher uses note-taking as a learning strategy, then self-efficacy should be high.

Research on self-efficacy postulates that self-efficacy influences the levels of goal challenge people set (Zimmerman, Bandura & Martinez-Pons, 1992), intrinsic motivation, effort levels and task persistence (Schunk, 1985). Self-efficacy beliefs are also likely to be pivotal mediators of cognitive engagement in classrooms (Pintrich & De Groot, 1991). Pintrich and Garcia (1991) found students who were efficacious about their ability reported that they were more likely to use cognitive strategies such as rehearsal, elaboration and organisation and invest higher levels of effort.

**Student Perceptions of Course Content, Instructional Practices and Task Value**

Pintrich and Schrauben (1992) contend that research findings (Pintrich & Garcia, 1991; Pintrich, Smith, Garcia & McKeachie, 1991) support the view that student perceptions of course content relate to whether a student will become cognitively engaged or not. Students who report higher interest and value in course content report higher levels of effort investment and higher levels of cognitive strategy use, including critical thinking, rehearsal, elaboration and organisation.

Student perceptions of instructional practices, including learning activities (Corno & Rohrkemper, 1985), instructional strategies and self-evaluation of achievement, also influence their motivation and cognitive engagement (Pintrich & Schrauben, 1992)

In terms of learning activities, Biggs and Moore (1993) posit a number of conditions for learning activities which foster intrinsic motivation and optimise meaningful learning. Firstly, the activity should be potentially meaningful. Secondly,
mismatch or conflict between the activity and what the learner already knows encourages positive intrinsic motivation (McInerney & McInerney, 1994; Travers, Elliott & Kratochwill, 1993). That is, the activity should be challenging. When cognitive mismatch is minimal, an activity may require less effort, and could be seen as boring. Thirdly, the student should be active in the learning activity.

Research suggests that instructional strategies which emphasise the simple transmission and recall of facts, are not conducive to the development of task goals and self-regulated learning (Ames, 1992). On the other hand, co-operative learning activities have been found to promote task orientation (Ames, 1992). They also increase student involvement, thinking and control over learning.

Evaluation in the classroom can also affect motivational goals. For example, when teachers reward self-improvement, provide students with opportunities to improve their grades, use a variety of evaluation methods, and avoid comparing student work, students are more likely to adopt a task orientation that supports self-regulated learning (Ames, 1992). When teachers raise concerns about students’ abilities and encourage public learning situations that involve peer-referenced self-evaluations, students are more likely to adopt an ego goal orientation (Meece, 1994).

Findings in the area of student perceptions and task value propose that perceptions of task value directly influence a student’s decision to become cognitively engaged, and therefore, indirectly influence academic achievement (Pintrich & De Groot, 1990). Task value refers to a student’s perceptions of the importance, interest and utility of the course material in the Economic Framework unit. Pintrich and De Groot (1990) conducted a study with junior high school students, who were required to rate their value of tasks, motivational orientations and cognitive engagement. The
findings suggest a similarity between goal orientation and perceived task value, in that students who had task goals also related higher interest and value in tasks. Therefore, it also is likely that there would be similarities in relations between goal orientation and cognitive engagement, and task value and cognitive engagement (Pintrich & Schrauben, 1992).

### Student Perceptions and Achievement Goal Theory

Achievement goal theory (or orientation as it is sometimes referred to) is a major focus of this study, for recent research has demonstrated an apparent link between achievement goal theory and student perceptions (Meece, 1994). Achievement goal theory is also relevant in that it examines the reasons for student cognitive engagement in tasks in achievement situations and explores the links between motivational orientations and cognitive engagement (Meece 1994; Dweck & Leggett, 1988).

The literature on achievement goal orientation has its origins in studies done by achievement motivation theorists who "try to explain the initiation, direction, and intensity of an individual's behaviour in situations in which performance can be evaluated according to some standard" (Stipek, 1993, p.9). Orientations may vary as the result of individual differences, or they may be induced by environmental factors.

Some of the well known theories associated with achievement motivation include the expectancy-value theory (Feather, cited in Good & Brophy, 1997), and attribution theory (Weiner, 1990). A more recent theory of achievement motivation and a central focus for this thesis, is achievement goal theory (Meece, 1994). Achievement
goal theory focuses on three kinds of achievement goal orientations: performance or ego orientation, learning or task orientation, and work-avoidance orientation.

_Ego Orientation_

Nicholls (1984) posits that individuals who pursue ego-oriented goals, engage in tasks for extrinsic reasons, such as demonstrating high ability, gaining favourable judgements of their abilities or getting good grades. According to Pintrich and Schrauben (1992, p.156), students who hold an ego goal orientation are "assumed to be approaching the task with a focus on performance or grades or pleasing others." A sense of accomplishment is derived from doing well with minimal effort, demonstrating superior ability, or meeting some other normatively defined standard of success. Ego-oriented students are more likely to view their abilities as stable traits that can be judged in relation to others. According to Jagacinski and Nicholls (1984), these individuals tend to use a differentiated conception of ability, in which given equal outcomes, higher effort implies lower ability. Ego-oriented students focus on their conceptions of ability and competition to interpret their success in academic situations (Nicholls, 1992).

_Task Orientation_

Individuals who pursue task-oriented goals (Nicholls, 1984), engage in tasks for intrinsic reasons, such as mastery, curiosity, challenge, or developing a deeper understanding or competence. According to Pintrich and Schrauben (1992, p.156), students who hold an intrinsic goal orientation are "assumed to be approaching the task with a focus on learning and mastery." Task orientation emphasises the importance of the learning process and performing to the best of one's ability, as opposed to
demonstrating ability to others (Nicholls, 1992). Feelings of pride, success, and accomplishment are derived from achieving on the basis of self-referenced standards.

Regardless of a task-oriented student's conception about the nature of ability, he or she relies more on concepts like understanding and collaboration to interpret success in academic situations (Nicholls, 1992). Ames and Archer (1988) examined students' motivational processes and their relationship with task and ego goals in the classroom environment. From their research, they found that students who were predominantly mastery-oriented (task-oriented) in the classroom exhibited a stronger belief that their success was a result of their investment of effort.

Work-avoidance Orientation

Students with work-avoidance orientation attempt to get by with exerting as little time and effort as possible in a task (Meece, Blumenfeld & Hoyle, 1988). Students with a work-avoidant attitude toward learning tend to employ effort minimising strategies such as copying work, guessing, and rarely actively engage in cognitive activities. Work-avoidant students are more motivated to avoid failure than to achieve success (McInerney & McInerney, 1994) and are most motivated by tasks that reduce the possibility of failure.

Multiple and Variable Goal Orientations

An important feature of the literature on goal theory is that a student can pursue multiple and variable goal orientations (Wentzel, 1992; Pintrich & Garcia, 1991; Nicholls, 1992). Achievement motivation theory assumes that goals are cognitive representations of the varying purposes students adopt, according to the particular
achievement situation they are in (Dweck & Elliott, 1986). That is, in terms of multiple goal orientation, a student can pursue both ego and task goals for learning. Additionally, students' goal orientations vary in different subject areas.

Student Perceptions and Cognitive Engagement

There is evidence to suggest that students' perceptions of the classroom, combined with their motivational orientations and their beliefs about learning, are relevant to cognitive engagement (Ames & Archer, 1988). Ultimately, it is the learner who will choose whether to become cognitively engaged in a task (Pintrich & De Groot, 1990). Student cognitive engagement may vary as a function of a student's perception of a task (Pintrich & Schrauben, 1992). What is it that motivates students to attempt to define a problem, select appropriate strategies and invest cognitive engagement? Motivational theory has traditionally focused on three general components of learners' motivated behaviour (Pintrich & De Groot, 1990; Pintrich & Schrauben, 1992):

a. what activities does the learner choose to attempt?

b. if they engage in the activity, how much mental energy do they invest?

c. to what degree do they persist with the activity?

Initially, the learner must decide whether to become involved in an activity or not. If the student decides to engage in the activity, he or she needs to utilise cognitive strategies. Some students may use surface processing strategies, such as rehearsal of information, to carry out the task (Biggs & Moore, 1993), while others may use deep
processing strategies, such as elaboration, organisation, or critical thinking. Ideally, according to Biggs and Moore (1993) school learning should involve deep learning.

Research conducted by Pintrich (1989, cited in Pintrich & Schrauben, 1992) concluded that college students with high internal control beliefs were more likely to use rehearsal, elaboration, organisation and self-regulatory strategies, than those with low internal control beliefs.

Moreover, students with an internal locus of control believe they have more control over their successes and failures and are more likely to become involved in activities, invest more effort and persist in the face of difficulty, than students with an external locus of control (Schunk, 1991).

Achievement Goal Orientations and Cognitive Engagement

In terms of achievement goal orientations, there seems to be “a very consistent and positive relation between students' achievement goal orientation and their cognitive engagement in learning” (Pintrich & Schrauben, 1992, p.168). For example, an intrinsic (task) orientation toward learning is positively related to cognitive engagement (Pintrich & De Groot, 1990; Pintrich & Garcia, 1991). Moreover, task oriented students are more likely to use deep cognitive strategies (Pintrich & Schrauben, 1992). Those who exhibit extrinsic (ego) orientations toward course content, may be less willing to invest the time and effort required for deeper processing. Rather, to obtain good grades, they are more likely to engage in surface processing strategies, such as rehearsal. Research also suggests that expectancy and value components are positively related to self-regulated learning (Schiefele, cited in Pintrich & De Groot, 1990).
In terms of task selection, students who pursue ego goals and have high ability self-perceptions, are more likely to choose moderately difficult tasks. Success in these tasks enables them to satisfy extrinsic goals such as demonstrating high ability, getting good grades or receiving praise (Dweck, 1983). However, students who pursue task goals and have high self-perceptions of ability, are more likely to seek challenging and interesting tasks that will enable them to develop mastery, understanding and competence (Dweck, 1983).

Easy tasks, as opposed to challenging tasks, tend to be chosen by students who lack confidence in their ability, and are often work-avoidant. If a task is seen to be difficult or likely to result in failure, they are likely to choose to engage in self-defeating strategies to avoid demonstrating a lack of ability, or to just give up because they lack belief in their ability (Dweck, 1983).

Summary of Literature Review

In summary this literature review has sought to highlight some of the literature associated with the teaching of economics and the role a study of student perceptions might play in understanding the learning occurring in this subject area. To that end, some of the significant literature in the field of student perceptions as it relates to perceptions of self; course content, instructional practices and task value; achievement goal orientation; and cognitive engagement, has been reviewed.
CHAPTER THREE

Theoretical Basis of the Study

Overview

The theoretical basis and conceptual framework of this study are described in this chapter. The underlying assumptions and descriptions of key definitions are also included.

Theoretical Framework

This study stemmed from the perspective-seeking, qualitative philosophy of research. From this particular viewpoint, the researcher conducts a divergent study, often in one context, with several possible answers to the question, taken from the multiple perspectives of those involved (Langenbach, Vaughn & Aagaard, 1994). A perspective such as this has allowed researchers to examine what actually occurs in the classroom, from the point of view of those who were there. This was especially significant in this study for a key theoretical assumption was that students are active interpreters of classroom reality, who are able to draw inferences about the causes and effects of behaviour (Weinstein, 1983). Learners' perceptions of teaching are the functional element that influences student learning and achievement (Wittrock, 1986). The perspective-seeking philosophy gives credence to student perceptions, in developing further insights and understanding into motivation in Year 11 Economics.

The data collected were context sensitive. The interpretive approach concurs with the philosophical belief that reality is created in the mind of the individual and
those individual perceptions are subjective rather than objective (Langenbach, Vaughn & Aagaard, 1994).

The social cognitive model of student motivation guided this study (Pintrich, cited in Pintrich & Schrauben, 1992). Three key assumptions were identified in this model. Firstly, and most importantly, "students’ beliefs (cognitions, perceptions) about themselves and the task or classroom environment act as mediators of their behaviour" (Pintrich & Schrauben, 1992, p.151). Secondly, the beliefs and cognitive processes of the individual student are pivotal in negotiating adaptations to the social environment. Finally, motivational beliefs and self-regulating processes are embedded in the social context of the environment, rather than as traits inherent in the individual student.

Conceptual Framework

The conceptual framework for this thesis was based on Pintrich and Schrauben’s (1992) conceptual framework for motivation and cognition in the classroom context and Mansfield’s (1997) adaptation of it. The conceptual framework is outlined in Figure 2, and contains the major dimensions of this study. Most of the detail of the dimensions of the study have been outlined in the literature review and are briefly recapitulated below.

Student Entry Characteristics

Initially, the students entered the classroom to begin Year 11 Economics, with unique characteristics and personal experiences. Presage variables including reasons for choosing Year 11 Economics and prior knowledge, experience and achievement influenced each student’s interpretation and construction of values and beliefs.
Student Self-perceptions

All entry characteristics affected how students perceived themselves, in terms of ability, effort, control, their attributions and expectations for success and failure and their self-efficacy. In turn, these self-perceptions influenced their perceptions of course content, instructional practices and task value.

Course Content, Instructional Practices and Task Value

In the conceptual model student self-perceptions were associated with their perceptions of course content, instructional practices and task value.

Student perceptions of the course content referred to the value and importance which students placed on the material in the Economic Framework unit. The course content in the Economic Framework unit included topics such as inflation, unemployment and price elasticity.

Instructional practices related to the student learning activities and the way that students evaluated their achievement in the Economic Framework unit. Activities included summarising from the text, note-taking, group discussions and workbook activities (see Appendix E). Students generally evaluated their achievement on self-referenced standards, peer-referenced standards, or both.

A particularly important part of this component of the model was task value. Task value can affect the strength of behaviour in learning (Pintrich & Schrauben, 1992). Accordingly, it was appropriate to analyse the value which students placed on learning tasks in the Economic Framework unit.
In this analysis, task value referred to a student’s perceptions of the importance, interest and utility of the course material in the Economic Framework unit. Task importance referred to the significance that the student attached to the task, based on perceived salience or personal relevance. For example, tasks in the Economic Framework unit may have held greater importance for a student who labelled him or herself an avid Economist. Task interest referred to feelings of enjoyment or satisfaction, determined to a degree by the students’ general interest in the course content, the task, and other contextual factors. In this model, task interest was considered to be a “latent characteristic” of the student (Schiefele, cited in Pintrich & Schrauben, 1992, p.158). Activation of task interest may have varied, according to the learning context, and the students’ perception of the task in this environment. Task utility referred to the students’ perception of the benefits or gains, which may have been derived by completing the task.

*Achievement Goal Orientation*

The next component of the model was achievement goal orientation. Achievement goals were described as cognitive representations of each student’s goals or purpose of learning (Dweck & Elliott, Dweck & Leggett, Ford & Nicholls, cited by Pintrich & Schrauben, 1992). Students with high task-orientation tended to choose challenging tasks, enjoyed the process of learning, and evaluated their performance on self-referenced standards. High ego-oriented students tended to choose tasks that allowed them to demonstrate competence or superior ability, desired the product of learning and evaluated performance using norm-referenced evaluations. Work-avoidant students tended to do the minimal requirement to avoid failure. Goal orientation guided
the general behaviour in learning in the Economic Framework unit. It has been assumed that students can adopt both task and ego orientations simultaneously.

Achievement goal orientations were associated with cognitive engagement and performance.

**Cognitive Engagement**

The cognitive engagement component of the model focused on types of activities which students chose to engage in both during and outside of class time, intensity of effort invested in these activities and degree of cognitive strategy use. In the model, cognitive engagement was associated with academic achievement.

**Academic Achievement**

The final component of the model was academic achievement. Academic achievement relates to the final grade and percentage, which the student achieves in the Economic Framework unit.

**Associations or Relations Between Components**

Pintrich and Schrauben (1992) have demonstrated relations between some of the components of motivation in this conceptual framework. For the purpose of the conceptual framework of this thesis, it has been assumed that these associations exist. Evidence may emerge in the study to confirm or question the association between some of these components for students studying the Economic Framework unit.
Figure 2. Conceptual framework for motivational orientations and cognition in the Year 11 Economic Framework unit. Adapted from Pintrich and Schrauben's (1992) conceptual framework for motivation and cognition in the classroom context and Mansfield's (1997) adaptation of this model.
CHAPTER FOUR

Method of Research

Overview

This chapter describes the method of research used in this study, the sample selection process, background details and ethical considerations. The research involved a study of a metropolitan school in Perth, Western Australia. Four sample students were chosen from a class of nineteen Year 11 students studying the Economic Framework unit. Data were collected over a nine week period. A description and justification of the research design is given, including a description of the data collection and data analysis procedures. Reliability and validity issues are addressed. This chapter concludes with a discussion of the generalisability of the findings.

Research Design

Given the nature of the research question, a naturalistic, exploratory design was chosen as the most appropriate approach for investigating student perceptions and achievement goal orientations in the Year 11 Economic Framework unit. A case study approach was chosen to gain a deeper insight into the learning and motivation of each student. The study was bound within the context of a single Year 11 Economics class. A combination of qualitative and quantitative methods, such as questionnaires, lesson observation, semi-structured interviews with sample students, and teacher reports and records was used to gather data. It was felt that this combination of research methods would provide a rich source of data, which in turn could engender confidence in the
conclusions drawn from the study (Krathwohl, 1993; Stewart & Kamins, 1993). Data were collected over a nine week period.

Restatement of the Purpose of the Study

The aim of this study was to answer the following questions relating to student perceptions, motivational orientations and cognitive engagement in the Year 11 Economic Framework unit:

Research Questions

The major research question was:

What are the perceptions of Year 11 Economics students toward the Economic Framework unit, and what are the possible associations of these student perceptions with student motivation and cognitive engagement in Year 11 Economics?

The following subsidiary questions contributed in an important way to the analysis of the major research question:

1. When studying the Economic Framework unit, what student perceptions are held about:
   a) themselves: their ability, effort, control, expectations and self-efficacy;
   b) course content, instructional practices, and value of tasks in the Economic Framework unit?
2. When studying the Economic Framework unit, what are the possible associations of these student perceptions with the individual’s adoption and activation of particular achievement goal orientations in the Economic Framework unit?

3. What are the possible associations of these student perceptions and achievement goal orientations with their cognitive engagement in the Economic Framework unit?

Selection of the Sample Students

The sample was selected on the basis of the results from the Motivated Strategies for Learning Questionnaire (MSLQ). The MSLQ was developed by Pintrich and his colleagues at the University of Michigan in 1982 and has been widely used with junior high school, college and university students. The MSLQ is a self-report instrument, based on a cognitive view of motivation and learning. It has been subject to statistical and psychometric analysis, including internal reliability coefficient computation, factor analysis, and correlations with academic performance and aptitude measures. The MSLQ demonstrates predictive validity and reasonable factor validity. (Pintrich, Smith, Garcia, & McKeachie, 1991). To confirm validity, the teacher was questioned about student responses on the MSLQ.

The MSLQ was divided into two parts, motivation and learning. The motivation section contained items related to value components such as intrinsic goal orientation, extrinsic goal orientation and task value; expectancy components such as control beliefs
and self-efficacy for learning and performance; and affective components such as test anxiety (see Appendix A). This section of the MSLQ will be referred to as the Motivation for Learning Questionnaire (MLQ). The learning strategies section of the MSLQ contained items related to cognitive and metacognitive strategies such as rehearsal, elaboration, organisation, critical thinking and metacognitive self-regulation; and resource management strategies such as time and study environment, effort regulation, peer learning and help seeking (see Appendix A). This section of the MSLQ will be referred to as the Strategies for Learning Questionnaire (SLQ).

The MSLQ was administered to the whole class in two separate parts at different times. The 31 items relating to motivation (MLQ) were administered at the beginning of the research process to help identify a sample. The 50 items relating to learning strategies (SLQ) were administered toward the end of the Economic Framework unit. This provided more information about the learning strategies used throughout the Economic Framework unit, rather than what strategies the students intended to use.

The MSLQ is designed to be used at course level, therefore, it does not have a set of norms for motivation and learning strategies. It is suggested that norms for comparative purposes are developed locally, based on the course, the instructor or instructors and the institution. Based on these suggestions, the means for the class in the study have been used as the norm. This has allowed the responses of the sample students to be compared with a norm based on the same course, instructor and institution.

An assumption embedded in the theoretical framework of the MSLQ is that student responses vary as a function of different subjects (Pintrich, Smith, Garcia, &
McKeachie, 1991). The wording of items on the MSLQ were changed slightly to reflect motivation and learning strategies relevant to the Economic Framework unit.

Students were required to rate themselves on a seven point Likert scale from "very true of me" to "not very true of me at all." Crossing 1 on the scale of 1 to 7 indicated the student felt that the statement was very true of him or herself. Crossing 7 on the scale of 1 to 7 indicated the student felt the statement was not very true of him or herself. The scale is shown below:

1  2  3  4  5  6  7

very true                                    not very true
of me                                        of me at all

If a student answered 3 on a question in the questionnaire, it will be shown in this thesis as 3/7, a score that indicates that the student most likely felt that the statement was or was not true of himself/herself. On the other hand, an answer of 1/7 would be a strong indicator that the student felt the statement was true of him or herself.

Four students were chosen for the sample mainly on the basis of the MLQ results in the areas of intrinsic goal orientation (indicator of task goal orientation) and extrinsic goal orientation (indicator of ego goal orientation).

Sample

The sample students were selected so as to gain maximum variation on motivational patterns and achievement goals. The sample students included a student
with a high ego orientation and a high task orientation; a student with a high task orientation and a low ego orientation; a student with a high ego orientation and a low task orientation; and a student who had a work-avoidance orientation. According to Pintrich and Schrauben (1992, p.156), students who hold an extrinsic goal orientation are “assumed to be approaching the task with a focus on performance or grades or pleasing others.” Therefore, extrinsic motivation was used as an indicator of ego goal orientation. According to Pintrich and Schrauben (1992, p.156), students who hold an intrinsic goal orientation are “assumed to be approaching the task with a focus on learning and mastery.” Therefore, intrinsic motivation was used as an indicator of task goal orientation.

Joanna (female) was chosen because she had a high level of extrinsic motivation (indicator of ego orientation) and high level of intrinsic goal orientation (indicator of task goal orientation). Thus, Joanna was representative of a student with high ego orientation and high task orientation.

Bardia (male) was chosen because he had a low level of extrinsic motivation (indicator of ego goal orientation) and high level of intrinsic goal orientation (indicator of task goal orientation). Thus, Bardia was representative of a student with low ego orientation and high task orientation.

Dallin (male) was chosen because he was representative of a student with a high level of extrinsic motivation (indicator of ego goal orientation) and low level of intrinsic goal orientation (indicator of task goal orientation). Thus, Dallin was representative of a student with high ego orientation and low task orientation.

Michael (male) was chosen because he had a low level of extrinsic motivation (indicator of ego goal orientation) and low level of intrinsic goal orientation (indicator
of task goal orientation). Thus, Michael was representative of a student with work-avoidance orientation.

The **procedure for drawing this sample** will be discussed later in this chapter.

**Background information**

All four sample students were Caucasian. For all students, English was the main language spoken at home. Time spent at the school ranged from one and a half years to seven years. All students were enrolled in a range of different classes, and three out of four students were focusing on TEE and entry into university, while the other student was focusing on TAFE. The students attended a private secondary school in the metropolitan area of Perth, Western Australia. Further background information on each student will be provided in chapter 5.

**Ethical considerations**

All participants, including the principal, the teacher and the students involved in the research, provided informed consent to participate in the study (see Appendix B). Students were required to obtain parental/guardian permission and were informed of their option to withdraw from the study at any time. Ethical clearance was obtained for the audio-taping of the sessions and the interviewing of students. Anonymity and confidentiality were retained throughout the study. Data collected were secured. A fictional name was given to the school, which is referred to throughout the study as a metropolitan secondary school. Each case study student was given a pseudonym to secure their anonymity.
Data Collection

Kinds of data obtained

The main types of data obtained in this study were student perceptions of themselves, the course content, instructional practices and task value, their achievement goal orientations and their level of cognitive engagement, during the Economic Framework unit in Year 11 Economics. The achievement goal orientation of each student was established and then monitored throughout the study.

Some of the techniques employed to obtain data were chosen in an attempt to elicit what students were actually thinking and feeling. For example, after the researcher observed students in the classroom learning about various economic concepts, they were later interviewed about what they were thinking about the learning process. By probing the minds of the learners, greater insight was gained about the perceptions of Year 11 economics students towards the Economic Framework unit and the possible associations of these student perceptions with student motivation and cognitive engagement.

Sources of data

Data were derived from the MLQ, SLQ, semi-structured interviews with selected students, a lesson observation and teacher reports and records.

How data were obtained

i.) Questionnaire

The Motivated Strategies for Learning questionnaire, as discussed in the previous section on sample selection, was used to gather data on all students in the Year
11 Economics class. This self-report instrument was used to assess student motivational orientations and their use of different learning strategies for the Economic Framework unit.

Initially the MLQ was administered to the entire class. Prior to the survey the students were informed about the research in general and the main topic of the survey, student motivation. Emphasis was given to the importance of giving honest answers, not the answers that they thought the researcher wanted to hear. They were told that any information revealed in the study would not be held against them in any way or influence their grades. Students were required to put their name on their survey.

The survey took approximately 10 minutes for the students to complete. Although some of the students were joking around before they started, they settled down before answering the survey and appeared to answer the questions seriously. Nineteen student surveys were completed and collected.

(a) Drawing the sample from the MLQ

The survey had a total of 31 questions relating to student motivation. Four questions related directly to intrinsic motivation. The score on each question was totalled, to give a score out of 28. The lower the score the more intrinsically motivated the student. Four questions related to extrinsic motivation. The score on each question was totalled, to give a score out of 28. The lower the score the more extrinsically motivated the student.

Totals for both intrinsic and extrinsic motivation were analysed to choose a sample of students. Two students who were most representative of the sample student profile characteristics in this class were chosen. The reason two students were chosen
was in case one student chose not to be involved in the interviews. First of all the student who most closely matched the required characteristics was asked to be involved in the study. All accepted willingly, therefore, there was no need to ask other students to be involved in the study.

It was relatively easy to obtain student profiles with high ego and task orientation; low ego and high task orientation; and high ego and low task orientation respectively. The work-avoidance orientation was more difficult to obtain, as few students in the class reported relatively low levels of both ego and task orientation. A possible reason that few students reported low levels of motivation could have been that most people are not likely to admit to themselves, let alone to others, their weaknesses (Covington, 1989). The student chosen for this student profile appeared to be the most work-avoidant in the class. According to his responses on the MLQ, he was not motivated toward high grades or toward personal satisfaction. His results on the MLQ were well below the class means, indicating comparatively low levels of both intrinsic motivation and extrinsic motivation. His levels of intrinsic motivation were even lower than his levels of extrinsic motivation.

(b) Triangulation of the Motivation for Learning Questionnaire

In obtaining data, triangulation was used to prevent ready acceptance of initial impressions and confirm the sample classification (Burns, 1995). In trying to accurately interpret student thoughts and feelings in the responses on the MLQ, the classroom teacher was briefly questioned on aspects of the student questionnaire results. The purpose of this was not to include the opinion of the teacher in the data collection, but to use an additional method of data collection to support student responses, to check for
inconsistencies, and therefore increase validity (Krathwohl, 1993). The teacher was questioned about her opinion of the degree of motivation which each of the sample students exhibited during the Economic Framework unit. Her comments on each student were generally consistent with the student responses on the MLQ.

(c) Inviting desired sample students to be involved in the research

The four sample students were invited to be involved in the research. It was clearly stated that it was not compulsory, but voluntary. The researcher assured each student that the study would not influence their grades or the researcher's perception of them as students. The researcher also stated that if the students did not want to be involved in the research, that she would not be upset or disappointed with them because other students could be invited to be involved. The students were reminded that all information was confidential and names would not be mentioned in the study, and that each student was free to change his or her mind at any point during the study. The four sample students were brought together, and the researcher explained the aims and processes of the research. Each student was then allowed to go away and think about their decision and tell the researcher the next day. All four students invited to participate, willingly agreed to be involved in the study.

ii.) Semi-structured interviews

Over the 9 weeks of the research collection, three interviews were conducted with each of the four students. All interviews had a basic structure with open-ended questions and scope to develop topics and concerns which emerged during the interview process. All interviews were audio-taped. Notes were taken to describe the students
facial expression, body movement and gestures, and voice tone of each student in order to provide the context in which the behaviours occurred (Burns, 1995). This information proved useful in attempting to discover and interpret each student’s feelings.

Initially, four interviews had been planned for each of the four sample students. However, a close analysis of the third set of interviews revealed that saturation point (Burns, 1995) had been reached and therefore they were terminated.

The structure and purpose of the interviews was as follows:

a) Interview one (before lesson 1 observation)

The aims of the initial interview were threefold. The key aim of the initial interview was to develop a rapport and mutual trust with the students, and to familiarise them with the research process. Data collected were used to further verify or to question whether students had been accurately placed in each of the four categories. The interview also allowed the collection of information on each student’s entry characteristics and student perceptions. Information pertaining to the extent to which the researcher felt these aims had been achieved was recorded in student profile journals. These journals were then reviewed before each interview to ensure any queries were addressed and clarified.

The preliminary interview was semi-structured, including informal, open-ended questions (see Appendix C). This type of interview allowed the researcher flexibility with questions and helped engender a more relaxed atmosphere in order to develop trust and hopefully encourage valid responses by the participants. Students were encouraged to speak openly about feelings and experiences, and were reassured that the role of the
researcher was not to be judgemental, and that there were no right answers to the questions asked. Allowing students to speak freely also enhanced the researcher's ability to accurately interpret and describe student perceptions.

b) Interviews two and three (following lesson observation)

Interview two explored student perceptions of the course content, instructional practices and task value in the Economic Framework unit. In addition, questions were asked about motivation, to enable the researcher to monitor any changes in student motivational orientations (see Appendix C).

After a lesson on inflation, the interviewer conducted the third semi-structured interview with each student individually in a room away from the classroom. One purpose of the interview was to monitor the achievement goal orientations of each of the students. Questions were also asked, which related to the cognitive engagement elicited during activities in the lesson observed. This allowed the researcher to examine possible links between student perceptions, achievement goal orientations and cognitive engagement.

The interviews were audio-taped and notes were taken. All interviews were summarised and coded at the conclusion of each session.

iii.) Lesson observation

One 45 minute lesson (9.25 am - 10.05 am) on inflation was observed at the beginning of the fourth week. This was after the preliminary interview and prior to the second interview. The lesson took place in a small classroom, with two couches at the back of the classroom. The researcher sat in an unobtrusive position at the back of the
classroom on one of the couches, in a position where she could see each of the four sample students clearly. The researcher was an observing non-participant during the lesson observation. Descriptive notes were written on the overt actions of each sample student, and on the general classroom environment (see Appendix D).

The data obtained from the lesson observation were used primarily for validation purposes, to support and substantiate the findings gained during interviews with the sample students. It also allowed the researcher to gain insights into overt student behaviour, the classroom processes, students’ actual learning situations and the overall classroom atmosphere.

iv.) Student profile

An informal personal file of each student was kept, recording the reflections of the interviewer and an evaluation on the extent to which the aims of each interview were met.

v.) Teacher lesson plans, achievement records and effort perceptions

Teacher lesson plans for the Economic Framework model were summarised to gain a broader idea of the nature and range of learning activities used in the classroom in the study, beyond the observed lesson. This made the investigation of instructional practices more comprehensive and accurate.

Teacher records were used to show achievement of each sample student in the Economic Framework unit.

Teacher estimates of sample student’s efforts during class time, homework and preparation for assessments were used solely for triangulation of data. Some
inconsistencies were found, highlighting the difference in the teacher’s perceptions of student efforts and the students’ perception of their own effort.

Summaries of teacher lesson plans, achievement records and effort estimates are shown in Appendix E.

Data Analysis

Analysis of the Motivation for Learning Questionnaire

Data collected from the MLQ were analysed to ascertain a purposive sample. The students who were most closely representative of the profile characteristics were chosen to select a sample with a maximum spread of motivational orientations. The responses of those students who were chosen and accepted to be part of the sample, were summarised, annotated and filed. The full range of motivational items in the questionnaire was analysed for the follow-up interviews.

The learning strategy items in the questionnaire were administered and analysed towards the conclusion of the Economic Framework unit. This provided valuable information about the experience of all students in the class, not just the sample.

Answers on individual questions in both the MLQ and SLQ were used in conjunction with other sources to try to gain an overall picture of individual and class student perceptions, motivational orientations and cognitive engagement. Questions on the MLQ and SLQ were grouped into categories and averaged to provide an overall score, which gave a general idea of motivation and learning. These were then compared to the means for the class, to assess whether the sample students were above or below the class mean for aspects of motivation and learning (see Appendix F).
A Pearson's correlation was used to find out whether a significant correlation existed between student self-perceptions, perceptions of task value, intrinsic motivation, extrinsic motivation, effort regulation, self-regulation, rehearsal, elaboration and organisation.

Analysis of interviews

All interviews were transcribed from the audio-tapes. Transcripts were summarised, and data were categorised under the following headings: student entry characteristics, student self-perceptions, perceptions of course content, instructional practices and task value, and achievement goal orientations and cognitive engagement.

The following codes (based on Mansfield, 1997) were used to organise and categorise information collected.

| Joanna; high ego, high task goal orientation | J  |
| Bardia; low ego, high task goal orientation | B  |
| Dallin; high ego, low task goal orientation | D  |
| Michael; low ego, low task goal orientation | M  |

| Student Entry Characteristics | EC |
| Student Self-perceptions       | SSP|
| Course Content                | CC |
| Instructional Practices       | IP |
| Task Value                    | TV |
| Achievement Goal Orientations | AGO|
| Cognitive Engagement          | CE |
After reading through categorised summaries, emerging themes and relationships of importance were highlighted by underlining key words or marking unusual or interesting points that required further attention. The focus of interview questions was guided by an analysis of previous data. Some interview questions were added to probe deeper into specific areas.

Data organisation

Files were created for each sample student to allow a cross analysis of different sources of information. For example, data on Joanna collected in the interviews were compared to her responses on the MLQ, and the lesson observation data, to check for inconsistencies. Some questions in follow-up interviews were added to clarify these inconsistencies.

Student profile journals were updated after interviews to try to gain a broad understanding into the student’s perceptions and feelings.

Hard copies of the transcripts and summaries were made, and then data were categorised. The information was also stored on computer disks and copied for safe keeping.

Generalisability

Rich, subjective data were obtained by using a case study approach, which focuses attention on the complexities of the case, not on a whole population. This study did not aim to establish generalisability throughout Western Australia or Australia. The main concern was to collect data describing specific and real experiences, from the perception of students involved. Data collected in this type of setting, utilising semi-
formal interviews and observation, may give the researcher an opportunity to observe closely and develop rapport with the subjects. This approach also fosters a degree of flexibility, and in-depth understanding of the situation.

Using a case study approach can provide valuable stepping stones to further research in an area of study. Case studies can generate significant subjective data, which in turn may encourage the exploration of intricacies of particular phenomena in other contexts. The data obtained may also be preliminary to major investigations (Burns, 1995). If a case study is plausible in one context, the interpretations may be plausible in other contexts. As stated by Burns (1995, p.313), case study conclusions are “instrumental rather than terminal.”

An aim of most case studies is to probe deeply into phenomena in a bound context (Carroll & Johnson, 1990). Burns (1995) asserts that a premise of some case studies is that a case can be located that is typical of many other cases, and that “once such a case is studied it can provide insights into the class of events from which the case has been drawn” (p.314). This study aimed to explore and describe, and was therefore not generalisable to other situations. However, findings should provide valuable data and insights, which should point the way for further studies.

Although these benefits may arise, it is also important to note that case studies, such as the ones conducted in this thesis, should be interpreted with caution for they may be atypical of the general population.

Validity

Validity is generally defined as the trustworthiness of findings drawn from data (Carroll & Johnson, 1990). Internal validity is essential to the design of a credible
investigation. A foreseeable problem, which could reduce the internal validity of the study, is the questionnaire results, which may include artificial responses. Also semi-structured interviews may allow the researcher to influence the participants’ responses. To reduce these potential influences, the following measures were taken:

Firstly, triangulation (the use of two or more methods of data collection in the study of some aspect of human behaviour) has been used to prevent ready acceptance of initial impressions (Burns, 1995, p.273) and ensure that the “final evaluation report reflects multiple realities of specific social relationship.” In trying to accurately interpret student thoughts and feelings, surveys, semi-structured interviews, lesson observation and teacher lesson plans and reports were combined to check for inconsistencies. To further validate the MLQ responses of students, the classroom teacher was briefly questioned on aspects of student motivation. The teacher was also asked to estimate effort invested by the subjects, during class time, for homework, and in preparation for tests. The purpose of this is not to include the opinion of the teacher in the data collection, but to use an additional method of data collection to support student responses on the questionnaires and in the interviews, and therefore increase validity.

Member checks include checking with participants that their accounts have been correctly interpreted and accurately written, and change where necessary, aspects of interpretation of information according to feedback. After interview data had been collected and summarised, participants were given data relating to their responses to review and provide feedback on any inaccurate interpretations of their responses. Two minor changes were made to clarify and improve the interpretation of the subjects’ responses. Member checks allowed the researcher to further improve the validity of
member responses and reduce the possible influence of the researcher on the participants’ responses.

The researcher bracketed her prejudices (see Appendix G). This involved explicating and taking into account personal perspectives, attitudes and preconceptions underlying assumptions on the question and stating research assumptions and biases (Burns, 1995). It is quite easy for the case study investigator to allow personal opinions or equivocal evidence to direct and shape the study and its findings and conclusions. By openly stating prejudices before collecting data, and by being aware of temptation of subjective bias, it is hoped that the researcher was able to build explanations based on the student perceptions, rather than choose information to advance a personal cause (Carroll & Johnson, 1990).

Strategies postulated by Burns (1995, p.271-272) to protect internal validity were incorporated into the design of the study. These included:

1. continual comparison, reflection, self-monitoring and re-evaluation. Student profiles were compiled and updated throughout the study. Questions were altered after various stages in the data collection process, according to the divergence of the case studies. The researcher maintained a “healthy scepticism” (Wolcott, 1990), trying not to jump to conclusions based on one comment or source, and at the same time considering and valuing each piece of datum.

2. observation in natural settings. During the lesson observation, classroom learning continued with minimal disruptions, possibly, as it would have done without the observation;
3. conversation between two trusting parties to capture what is important in the minds of the participants themselves. The interviews were semi-formal, facilitating a relaxed and non-threatening atmosphere.

4. interpretation of data in context. A lesson observation, coupled with interviews and questionnaires, were used to probe the thoughts, feelings and intentions of the participants; teacher lesson plans of the entire Economic Framework unit were summarised (see Appendix E) and used to provide additional understanding into the context of student learning activities.

5. awareness that the presence of the researcher may change the behaviour of the people being studied. Talking to the students, explaining the purpose of the research and clarifying any queries, were crucial to reducing these effects. It was important for the students to know that the study would not affect their grades.

6. awareness that people give artificial responses. Claims were corroborated from multiple observers, including the participants, the teacher and the interviewer. Multiple sources were also used to cross-check responses. Inconsistencies that were identified, were investigated further.

Reliability

Reiability in qualitative research is defined as the degree to which the research could be replicated. Reliability is said to exist when another researcher could replicate the steps taken in the original research. Inter-observer reliability is said to be the extent to which the conclusions drawn by the researcher are sufficiently congruent with conclusions, which would have been made by other researchers of the same phenomenon.
The following steps have been taken to enhance the reliability of this study:

1. Research questions, theoretical perspectives, and research procedures have been clearly and specifically outlined.

2. Researcher perspectives and biases have been explicated by bracketing prejudices at the beginning of the data collection process.

An additional concern, which can be detrimental to reliability, is the inclusion of false or distorted information. A lack of trust between the researcher and respondents or a tense atmosphere could cause such problems (Carroll & Johnson, 1990). The increased tracing of information over time can reduce these problems. A limitation of this study was the length of time available for the study. However, the researcher was familiar with the settings of the research environment, and already had an association and positive rapport with the class involved in the study. These associations were used to the benefit of the researcher, as they allowed a relaxed, open atmosphere. It was made very clear to each student that the researcher was keen to learn of their real experiences and thoughts about the Economic Framework unit. It was emphasised that their genuine perspectives were of value and that their point of view could not be wrong or right.
CHAPTER FIVE

Four Case Studies of Student Perceptions Toward the Economic Framework Unit, Their Achievement Goal Orientations and Their Cognitive Engagement

Overview

In this chapter, each student in the sample is discussed as an individual case study. The information obtained on each student addresses the research questions using the components of the conceptual framework. Statements from interviews are used to provide context and realism to the case studies. The Motivation for Learning Questionnaire (MLQ), Strategies for Learning Questionnaire (SLQ), the lesson observation and teacher checks are used to validate data. Class means and ranking of groups on the MLQ and SLQ are used to provide a comparison with students in the same context. The chapter concludes with a summary of each case study.

Case Study of Joanna: A Student With High Ego and High Task Goal Orientation

Background

Joanna was a sixteen year old Caucasian female. She was studying the Year 11 subjects of Economics, Human Biology, English, Foundations of Maths, History and Early Childhood Studies. She had attended the metropolitan high school for one and a half years and generally thought school was reasonably enjoyable. She was not involved in extracurricular activities, because she often worked outside of school time. Her career goal was to be a teacher.
Entry Characteristics

Joanna generally had a positive experience during Year 10 Economics, which she found to be enjoyable, interesting and of value. She perceived Year 10 Economics to be practical, and liked the application of economic concepts to real life situations. Joanna was not confident of her ability in Economics. She did not consider her Year 10 academic results to be "that good" (Interview one). However, she felt that she learned some important understandings about economics. This positive experience in Year 10 Economics had been a crucial factor in Joanna choosing Economics in upper school.

Student Self-perceptions

Joanna perceived ability as "understanding, and practical application of this understanding" (Interview one). Her self-perception of ability was relatively low, for she stated in interview one that she was "not really confident" about economics (Interview one). Joanna’s lack of confidence in her ability in the Economic Framework unit was reflected in her answers to the MLQ and throughout the interview process.

Q: I’m confident I can understand the most complex material presented to me by the teacher in the Economic Framework unit.
J: 4. (MLQ15).

Q: I believe I will receive an excellent grade in the Economic Framework unit.
J: 4. (MLQ5).

J: I’m not a straight A student, but I still try my hardest and try to do what I am capable of doing. (Interview one).
Joanna felt that ability "didn't really influence achievement a lot" in the Economic Framework unit (Interview one).

J: I'm not really confident (in my ability), but I'm getting good marks.
(Interview one).

Joanna attributed her success and failure predominantly to effort, a controllable and unstable cause. Despite low ability perceptions, Joanna invested great amounts of effort in her work and felt that she could achieve a degree of success and satisfaction in Economics. In her perception, understanding came as a result of effort and this understanding was something of a challenge in the Economic Framework unit.

Q: If I try hard enough, then I will understand the course material in the Economic Framework unit.
J: 1. (MLQ18).

Q: I think the course material in the Economic Framework unit is easy for me to learn.
J: 5. (MLQ23).

Joanna felt that effort was essential for her to achieve success in the Economic Framework unit and she consistently worked hard and put forth her best efforts. Joanna felt there was a strong link between the amount of effort she exerted and her success and failure in the Economic Framework unit. She felt that effort influenced achievement.
J: (the amount of effort you put in influences your achievement)...a lot. If you don’t study, you won’t really do well. (Interview one).

Joanna did not appear to feel that either luck or task difficulty played a significant role in determining achievement in the Economic Framework unit.

Joanna felt a high degree of control over her learning, and was well above the class mean as measured by the MLQ (see Appendix F). During the unit she willingly took responsibility for her learning and achievement. This was reflected in her response to not doing as well as she had hoped in her Economics semester examination.

Q: If I study in appropriate ways, then I will be able to learn material in the Economic Framework unit.

J: 1. (MLQ2).

Q: It is my own fault if I don’t learn material in the Economic Framework unit.

J: 3. (MLQ9).

J: I wasn’t very happy with it...I probably didn’t study enough each night.

(Interview three).

In terms of Joanna’s expectations for success in the Economic Framework unit, she did not regard her ability as high, had relatively low performance expectations, and appeared resigned to the fact that she was a mediocre student. She desired to do her best, and felt that by doing this she could receive a “good”, but not an “excellent” grade (Interview one).
Q: I'm confident I can do an excellent job on the assignments and tests in the Economic Framework unit.

J: 3. (MLQ20).

Given that student ratings of expectations of success or self-efficacy beliefs are highly correlated (Pintrich & Schrauben, 1992), the MLQ measure of Joanna’s self-efficacy is of interest. Joanna’s beliefs about her performance in the Economic Framework were low, at 3.13/7, well below the class mean of 2.52/7. Joanna’s self-efficacy ranked fourteenth (out of 19) in the class (see Appendix F).

Course Content, Instructional Practices and Task Value

Joanna considered the content of the Economic Framework “quite interesting” and “quite challenging” (Interview two).

In terms of instructional practices, Joanna derived the most satisfaction and enjoyment from classroom discussion, which she considered beneficial for developing understanding of the concepts in the Economic Framework unit. Understanding was fostered during discussion, because it not only provided an opportunity to exchange thoughts and challenge peers’ ideas, but also to have personal perspectives challenged. Note-taking was considered the least enjoyable and effective method of learning due to the superficial nature of “just copying, not really learning” (Interview two). Joanna suggested that a greater use of “videos and current Economics” would have made learning more enjoyable and meaningful (Interview two).

Joanna’s evaluation of her achievement in the Economic Framework unit was based on self-comparison. If the percentage achieved on an assessment was “above 80
percent” (Interview two), Joanna was pleased with her results. Her nature was non-competitive and she did not compare her results with peers. Joanna was disappointed when she did not meet her own standards.

J: If you don’t do well, it makes you feel down and like your not very good at it. (Interview two).

Joanna had a high task value. She felt that the Economic Framework unit was important in that it was a stepping stone to Year 12 Economics. Joanna generally associated feelings of enjoyment with the content and learning activities in the Economic Framework unit. Economics was seen to be useful in providing a source of “general knowledge”, but not a specific requirement for Joanna's desired career path. Task value, as measured on the MLQ, supported interview data. Her MLQ responses indicated that Joanna had above average task value for the Economic Framework. She was ranked equal fourth in the class (see Appendix F).

Achievement Goal Orientation: High Ego and High Task

Joanna had a high degree of ego orientation. Achieving a good grade and pleasing others were seen to be of great importance to Joanna. She was above the class mean for extrinsic motivation, and ranked equal fifth in the class.

Q: Getting a good grade in the Economic Framework unit is the most important thing for me right now.

J: 2. (MLQ7).
Q: I want to do well in the Economic Framework unit because it is important to show my ability to my family, friends, employer, or others.

J: 2. (MLQ30).

Joanna also had a high level of task orientation. Intrinsic reasons for learning included curiosity, the desire for challenge and a perceived value in developing understanding. She had the highest degree of intrinsic motivation in the class, as measured by the MLQ (see Appendix F).

Q: In a class like the Economic Framework unit, I prefer course material that arouses my curiosity, even if it is difficult to learn.

J: 1. (MLQ16).

According to the MLQ, Joanna was marginally more intrinsically motivated (1.25/7) than extrinsically motivated (1.75/7). When given the choice between a good grade and learning, Joanna responded that she would prefer to learn, indicating a higher degree of intrinsic than extrinsic motivation.

Q: If I had the opportunity in the Economic Framework unit, I would choose assignments that I can learn from, even if they don’t guarantee a good grade.

J: 1. (MLQ24).

Cognitive Engagement

When Joanna chose to engage cognitively in an activity, whether it was during class time or outside of class time, she generally invested high levels of effort and cognitive strategy use.
During class time, Joanna’s perception was that she applied approximately “90% effort during class time” (Interview one). This was supported by her responses on the SLQ.

Q: During class time I often miss important points because I’m thinking of other things.
J: 7. (SLQ2).

During class time, Joanna worked hard and tried to focus on the task. She listened carefully to develop an understanding of concepts being taught. When working on tasks during class time Joanna generally concentrated and thought about the notes she was taking down. In her words she was “trying to understand” the information (Interview two). This was supported in her responses on the SLQ.

Q: I try to play around with ideas of my own that are related to the material that I am learning in the Economic Framework unit.
J: 1. (SLQ35).

These findings were supported by the apparent amount of effort invested during the observed lesson (see Appendix D).

Outside of class time, Joanna also expended considerable effort on the Economic Framework unit. She completed all homework, and prepared quite thoroughly for assessments. She followed a study plan, which allowed for “3 x 30 minutes per week for Economics” (Interview one). Joanna’s responses on the SLQ supported these conscientious study habits.
Q: When I study for this unit I often feel so lazy or bored that I stop before I finish what I had planned to do.
J: 7. (SLQ6).

Q: I rarely find time to review my notes before an exam.
J: 7. (SLQ49).

The classroom teacher’s perception of Joanna’s effort levels matched Joanna’s comments during interviews and with her responses on the SLQ.

Table 2. Teacher’s perceptions of Joanna’s effort levels

<table>
<thead>
<tr>
<th>During class time:</th>
<th>lesson</th>
<th>75%-80%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outside class time:</td>
<td>homework</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td>assessment preparation</td>
<td>not thorough</td>
</tr>
</tbody>
</table>

Generally, Joanna’s effort persistence was high in the face of disinterest, boredom or difficulty.

Q: Even if I don’t like what we are doing in the Economic Framework unit, I work hard in order to do well.
J: 2. (SLQ17).
Q: Even when unit materials are dull and uninteresting, I manage to keep working until I finish.

J: 1. (SLQ43).

Q: When the work in the Economic Framework unit is difficult, I either give up on it or only study the easy parts.

J: 7. (SLQ29).

Joanna’s effort-regulation, as measured by the SLQ, ranked equal first at 1.3/7, supporting the interview data, the teacher’s perception of Joanna’s efforts and the lesson observation.

Joanna completed the SLQ at the end of the Economic Framework unit and claimed high levels of cognitive strategy use, including rehearsal (1.75/7), elaboration (2.5/7), and organisation (2.0/7) and critical thinking (3.20/7). All of these levels of cognitive strategy use were well above the class means of 3.20/7, 3.58/7, and 4.08/7, 4.06/7 respectively. In comparison to the class, Joanna was ranked second for rehearsal, third for critical thinking, fourth for elaboration, and sixth for organisation (see Appendix F).

Academic Achievement

Joanna achieved a B grade in the Economic Framework unit. Her overall result for the unit was 66%.
Case Study of Bardia: A Student With Low Ego and High Task Goal Orientation

Background

Bardia was sixteen years old, male and Caucasian. Bardia first attended the metropolitan high school in primary school, and had been attending this school for seven consecutive years. Bardia did not generally enjoy school and did not participate in any extracurricular activities in Year 11. He studied Economics, Chemistry, Physics, English, Introductory Calculus and Applied Computing in Year 11. Bardia’s desired career was to be a Systems Analyst or a Computer Programmer.

Entry Characteristics

Overall, Bardia had a positive experience in Year 10 Economics. Bardia did not like Geography or History in Year 10, but did quite well in Economics and decided to pursue Economics because he considered it “much more interesting” (Interview one) and different to anything he had done before. Bardia would have preferred more variation in the learning methods in Year 10 Economics.

Student Self-perceptions

Bardia perceived ability as an “approach or understanding of things” and everyday use of these understandings (Interview one). Bardia was confident in his ability in Economics. He felt that the content was quite easy to understand. Bardia’s responses in the MLQ and interviews indicated a high self-perception of ability.

Q: I believe I will receive an excellent grade in the Economic Framework unit.
B: 2. (MLQ5).
Q: I'm confident I can understand the most difficult complex material in the Economic Framework unit.

B: 2. (MLQ15).

Bardia believed that there was a link between ability and achievement in the Economic Framework unit. Bardia felt that low ability would result in low achievement. He believed that learning to understand and use sound interpretation skills would result in high achievement.

B: If you have not got much economic ability you are probably not going to do well at all. If you know you are good and can understand and interpret, you will do well. (Interview one).

Bardia recognised the importance of effort to achieve learning and success. He felt that a link existed between achievement and effort and unless he tried he felt he would not be successful.

B: If you don’t put in effort you won’t do well at all. Unless you try you won’t get anywhere. (Interview one).

B: The amount of effort I put in reflects how well I do. (Interview three).

Although Bardia was confident in his ability and saw the importance of effort in learning, he felt he was not as successful as he could have been in economics. He attributed his poor performance to lack of effort, which was the result the boring nature of what he was learning in the Economic Framework unit.
B: I'm confident, but I have not been doing that well because I have not been studying. I am slacking off because we are going over the same thing and it is boring. If we learned something new I would make more of an effort. We are going over the same stuff again and again and again. (Interview one).

Bardia did not feel that either task difficulty or luck was influential on his success or failure.

Bardia felt in control of his learning and took responsibility for his learning and achievement in assessments.

Q: It is my own fault if I don't learn the material in the Economic Framework unit.

B: 2. (MLQ9).

Bardia was quite confident in his expectation of success in the Economic Framework unit and this was confirmed by his high self-efficacy on the MLQ. His score on self-efficacy was 2.38/7, which was above the class mean of 2.52 (see Appendix F).

Q: I expect to do well in the Economic Framework unit.

B: 2. (MLQ21).

Course Content, Instructional Practices and Task Value

Bardia initially enjoyed the course content in the Economic Framework unit, but became bored with the repetition. He found the learning interesting only when he was learning something new. Inflation was considered a very interesting topic because it
was "stimulating" and new, "less tedious" than some of the other topics (Interview two).

Bardia perceived the learning activities in the Economic Framework unit to be often boring, and therefore did not try his hardest or attempt to reach his potential. Of the learning activities in the Economic Framework unit, Bardia favoured learning that was provided in a real-life situation, as this was more interesting and easier to understand. He also liked learning and applying new calculations. He strongly disliked summarising content. Bardia felt that it was quite difficult to summarise and had difficulty in distinguishing between important and unimportant points. He also disliked long teacher explanations, for this reduced his interest in the topic.

Bardia used self-referenced and norm-referenced evaluation. To self-evaluate performance on assessments, Bardia would assess his test performance on the most difficult test questions. If he did reasonably well on the questions that he found challenging, then he was pleased.

B: I look at the mark, and then look at the questions I have and have not done.

If I have done well on the difficult questions then I am quite happy. (Interview two).

Bardia also compared his results with those students he considered to have the same ability as himself. If they had worked as hard as he had and achieved around the same results, he was satisfied with the outcome.

Bardia's task value was moderate. He perceived importance in the activities, because he felt that the understandings gained would be useful life skills. Bardia associated feelings of enjoyment and satisfaction with the learning activities and
content when the activities were new and challenging, but felt frustrated and uninterested when they were not. In terms of task utility Bardia’s perceptions were low because economics was not a prerequisite for his desired career path.

Bardia’s responses on the MLQ, in terms of measuring task value, were moderate at 3.2/7. He was ranked equal tenth in the class (see Appendix F).

Achievement Goal Orientation: Low Ego and High Task

The results from the MLQ survey indicated that Bardia had low levels of ego orientation. Getting a high grade and trying to please other people was of virtually no importance to Bardia. He showed the lowest level of ego orientation in the class, as measured by the MLQ (see Appendix F).

Q: Getting a good grade in the Economic Framework unit is the most important thing for me right now.
B: 6. (MLQ7).

Q: I want to do well in the Economic Framework unit because it is important to show my ability to my family, friends, employer, or others.
B: 7. (MLQ30).

Bardia had extremely high levels of task orientation and was ranked third in the class on the MLQ for task orientation (see Appendix F). He was keen to learn and understand economics as he valued its practical application. He was not interested in pleasing others, peers or the teacher. His main desire was to engage in “interesting”
learning that was not just "hum drum" (Interview two). He wanted to learn things that he could apply to real life situations.

Q: If I had the opportunity in the Economic Framework unit, I would choose assignments that I can learn from, even if they don't guarantee a good grade.

B: 2. (MLQ24).

Q: In a class like the Economic Framework unit, I prefer course material that arouses my curiosity, even if it is difficult to learn.

B: 2. (MLQ16).

B: Economics is interesting and I want to know what I am doing when I fill out my tax form or when I read about the budget in the newspaper. (Interview one).

**Cognitive Engagement**

When Bardia made the choice to cognitively engage in an activity in the Economic Framework unit, whether it was during class time or outside of class time, his level of effort was generally low and inconsistent.

Bardia felt that he invested approximately 50% effort during class time. When working on a task during the Economic Framework unit, Bardia was generally thinking about the work. If he was bored, his mind would sometimes wonder to non-class activities. He expressed an awareness that 50% effort was below his capabilities, but attributed his lack of effort to the repetition of content. He described how he felt during the lessons, as "just droning" through the learning (Interview two).
Responses in the SLQ generally supported Bardia's self-perception that he invested relatively low amounts of effort during class time.

Q: During class time I often miss important points because I'm thinking of other things.

B: 5. (SLQ2).

The classroom teacher also felt that Bardia invested approximately 50% effort during lessons, and stressed her perception that Bardia's efforts were often inconsistent.

Table 3. Teacher's perceptions of Bardia's effort levels

<table>
<thead>
<tr>
<th>During class time:</th>
<th>lesson</th>
<th>50%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outside class time:</td>
<td>homework</td>
<td>50%</td>
</tr>
<tr>
<td></td>
<td>assessment preparation</td>
<td>inconsistent, not thorough</td>
</tr>
</tbody>
</table>

During the lesson observation, Bardia appeared to be on task almost all of the time. This was more than his perception of being on task approximately half the time. When asked about this discrepancy in the interview following the lesson observation, Bardia stated that he was cognitively engaged most of the time because he found the lesson quite interesting and challenging (see Appendix D).

B: If it's more interesting I'm going to pay more attention rather than drifting off. (Interview three).
Outside of class time Bardia had fair to poor study habits.

Q: I make good use of study time for the Economic Framework unit.

B: 5. (SLQ12).

Q: I memorise key words to remind me of important ideas in the Economic Framework unit.

B: 7. (SLQ28).

Q: I rarely find time to review my notes before an exam.

B: 6. (SLQ49).

When preparing for assessments, Bardia’s effort was inconsistent. He usually completed homework, but the teacher added that homework was often late. However, he invested effort in practice essays because he enjoyed writing essays in Economics. The classroom teacher felt that Bardia’s study efforts were not very thorough, supporting Bardia’s self-perception of his study habits.

In terms of task persistence, Bardia felt that because challenge and interest were lacking in the Economic Framework unit, this reduced the incentive to persist in the face of boredom. However, he increased his efforts when he found something difficult or challenging.

Q: Even if I don’t like what we are doing in the Economic Framework unit, I work hard in order to do well.

B: 5. (SLQ17).
Q: When the work in the Economic Framework unit is difficult, I either give up on it or only study the easy parts.

B: 7. (SLQ29)

On the SLQ Bardia’s effort regulation was 4 out of 7, which was quite low, well below the class average of 2.92 out of 7 (see Appendix F).

Bardia completed the SLQ at the end of the Economic Framework unit and reported that during the unit his actual use of cognitive strategies was low and inconsistent. This included a very low use of rehearsal (6/7), organisation (5.5/7), elaboration (4.83) and critical thinking (4.40/7). On a class basis, he was ranked eighteenth, eighteenth, nineteenth and equal thirteenth on each of these learning strategies (see Appendix F).

Academic Achievement

Bardia achieved a B grade for the Economic Framework unit. His overall result for the unit was 55%.

Case Study of Dallin: A Student With High Ego and Low Task Goal Orientation

Background

Dallin was a sixteen year old, male Caucasian. Dallin liked school, showing interest in a wide range of non-academic aspects of school life. During Year 11 he performed in the school production, Me and My Girl. He was an ambassador for his school in public speaking, debating and interschool swimming. He also volunteered his
time and energy to Amnesty International. Dallin's Year 11 subjects included Japanese, Economics, Human Biology, Geography, English and Foundations of Mathematics. He attended the metropolitan high school for four consecutive years and considered school to be socially enjoyable. Dallin was chosen as Head Boy for 1998. Dallin's desired career path was in the area of Commerce.

Entry Characteristics

Year 10 Economics was a highly positive experience for Dallin. He found it to be "interesting and related to the real world" (Interview one). He enjoyed the learning activities in Year 10 which included note-taking, videos and mnemonics. Dallin felt that he did "really well" in Year 10 Economics and for this reason chose Year 11 Economics (Interview one).

Student Self-perceptions

Dallin perceived ability as "how you apply yourself and how well you do at school" (Interview one). Dallin's self-perception of ability was very high. Dallin felt that understanding concepts in the Economic Framework unit was "really straightforward" (Interview one). Dallin's responses on the MLQ indicated high ability self-perception.

Q: I'm confident I can understand the most complex material presented to me by the teacher in the Economic Framework unit.

D: 2. (MLQ15).
Q: I’m confident I can do an excellent job on the assignments and tests in the Economic Framework unit.

D: I. (MLQ20).

D: I’m capable of getting an A if I work really hard. (Interview one).

Dallin perceived an association between ability and achievement. He considered ability to be the main determinant of success, although he also believed that effort influenced achievement. Therefore, Dallin linked achievement with ability and effort. He perceived a direct link between ability and achievement and had a strong belief in the importance of investing effort to achieve success.

D: I have to put in a good amount of time for Economics but I don’t mind studying for it because it’s quite easy to study for, just learning definitions and stuff. It takes quite a bit of effort to get good marks. (Interview one).

Dallin did not feel that either luck or task difficulty were significant in determining his success or failure.

Dallin thought that the amount he learned and achieved was within his control, was his choice, and therefore his responsibility.

D: Your in control, it’s your choice. I chose it so I have to do well in it.

(Interview one).
Dallin had positive expectations for success in the Economic Framework unit. He expected to achieve an A grade with hard work.

Q: I expect to do well in the Economic Framework unit.
D: 2. (MLQ21).

Q: I am certain I can master the skill being taught in the Economic Framework unit.
D: 2. (MLQ29).

These high performance expectations were confirmed by his high levels of self-efficacy on the MLQ, where his score was 1.88/7 (see Appendix F), well above the class mean of 2.52/7.

Course Content, Instructional Practices and Task Value

Dallin claimed that he felt the course content in the Economic Framework unit was interesting because “you need it to get the foundation for other learning...for future learning” (Interview two).

Dallin generally enjoyed the learning activities used in the Economic Framework. Dallin preferred working on his own rather than working in groups. Dallin’s preference for learning activities in the Economic Framework unit was “reading from the book and taking notes” (Interview two). He enjoyed these two activities the most as it provided him with structure and allowed him to work at his own “pace” (Interview two). He also considered reading from the text and taking notes to be
the most effective learning methods. Group work was seen to be the least enjoyable and
effective method of learning because "no one did anything" (Interview two).

In terms of self-evaluation of achievement, Dallin used two methods: peer-
comparison and self-evaluation. Dallin was a highly competitive student and desired to
achieve better results than his peers.

Q: If I can, I want to get better grades in this class than most of the other
students.

D: 1. (MLQ13).

Dallin also had a self-referenced standard of "80% and over" for success
(Interview two). Good results motivated him to strive for success in future assessments.

D: If you get good marks you want to keep getting good marks. (Interview
two).

Dallin exhibited an extremely high task value. Dallin considered most topics in
the Economic Framework unit to be interesting and highly enjoyable. The Economic
Framework was considered to be important because it was considered a crucial building
block for Year 12 Economics and a Commerce degree.

D: I need Economics for my course at university and it gets scaled up in the
Tertiary Entrance Examination. (Interview three).

The MLQ measure of task value supported the interview data, showing that
Dallin had the highest task value in the class, at 1.2/7 (see Appendix F).
Achievement Goal Orientation: High Ego and Low Task

Dallin displayed the characteristics of a student with high ego orientation. The primary motivation for Dallin was the desire to achieve success in tests, which was a prerequisite to a Commerce degree. He was ranked equal first for extrinsic motivation on the MLQ.

D: Yes (I am highly motivated) because I want to do well. (Interview two).

Q: Getting a good grade in the Economic Framework unit is the most important thing for me right now.
D: 1. (MLQ7).

Q: I want to do well in the Economic Framework unit because it is important to show my ability to my family, friends, employer, or others.
D: 1. (MLQ30).

It was apparent that Dallin’s orientation was predominantly ego, as extrinsic rewards were seen to be more desirable than intrinsic rewards. When given the choice between easy learning and challenging learning, Dallin’s strong preference was easy learning, even if he found it less interesting or enjoyable. He also preferred a good grade to challenging assignments.

Q: In a class like the Economic Framework unit, I prefer course material that arouses my curiosity, even if it is difficult to learn.
D: 7. (MLQ16).
Q: In the Economic Framework unit, I prefer material that really challenges me so I can learn new things.

D: 6. (MLQ1).

Q: If I had the opportunity in the Economic Framework unit, I would choose assignments that I can learn from, even if they don’t guarantee a good grade.

D: 4. (MLQ24).

Dallin’s task mastery was relatively low. He exhibited some characteristics of a task-oriented student in the interview process, however, on the MLQ Dallin was ranked eighteenth for intrinsic motivation at 4.75/7. This was well below the class mean of 3.16/7 (see Appendix F).

Cognitive Engagement

When Dallin chose to cognitively engage in an activity, whether it was during class time or outside of class time, his level of effort was very high and consistent.

Dallin invested high levels of effort during class time. He felt it was important to get as much as he could out of each lesson. Dallin’s self-reported responses on the SLQ supported this.

Q: During class time I often miss important points because I’m thinking of other things.

D: 6. (SLQ2).
Dallin’s self-perception of his effort was supported by the lesson observation. He appeared to be very focused during most of the lesson (see Appendix D).

Outside class time, Dallin invested high amounts of effort and cognitive strategy use. He always completed all homework, and his assessment preparation was comprehensive.

Q: When I study for this unit I often feel so lazy or bored that I stop before I finish what I had planned to do.

D: 7. (SLQ6).

Q: I rarely find time to review my notes before an exam.

D: 7. (SLQ49).

The classroom teacher had a similar perception of Dallin’s efforts. She felt that he invested approximately 90% effort during class time, completed all homework and prepared thoroughly for assessments.

<table>
<thead>
<tr>
<th>Table 3. Teacher’s perceptions of Dallin’s effort levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>During class time: lesson</td>
</tr>
<tr>
<td>Outside class time: homework</td>
</tr>
<tr>
<td>assessment preparation</td>
</tr>
</tbody>
</table>

In terms of persistence, Dallin consistently invested high levels of effort, even for tasks he disliked or considered to be too easy, boring.
Q: When the work in the Economic Framework unit is difficult, I either give up on it or only study the easy parts.

D: 7. (SLQ29).

Q: Even if I don’t like what we are doing in the Economic Framework unit, I work hard in order to do well.

D: 1. (SLQ17).

His effort-regulation, as measured by the SLQ, ranked equal first at 1.3/7, and this was supported by all other sources of data in the study (see Appendix F).

Dallin completed the SLQ at the end of the Economic Framework unit and reported that during the unit he used cognitive strategies frequently. He reported very high levels of rehearsal (2.25/7), elaboration (2.33/7), organisation (1.5/7) and critical thinking (2.20/7). These scores were well above the class means of 3.20/7, 3.58/7, and 4.08/7, 4.06/7 respectively. On a class basis, Dallin was ranked first for critical thinking, equal second for organisation and equal fourth for rehearsal for elaboration (see Appendix F).

**Academic Achievement**

Dallin achieved an A grade for the Economic Framework unit. His overall result for the unit was 70%.
Case Study of Michael: A Student With Low Ego and Low Task Goal Orientation

Background

Michael was a male Caucasian, sixteen years of age. He had attended the metropolitan high school for four consecutive years and derived most satisfaction at school from socialising with his peers. Michael participated in school Scuba Diving classes. His Year 11 subjects included Economics, Geography, Maths in Practice, Senior English, Applied Computing and Work-Studies. Michael's desired career was in the travel industry.

Entry Characteristics

Michael had both positive and negative perceptions of Year 10 Economics. He “found aspects a bit boring and hard to understand” (Interview one). In Year 10, the main lesson activities which Michael felt were used most often were notes and discussions which he did not enjoy.

M: The notes aren't very enjoyable when you have to write out pages and pages.

(Interview one).

Michael was disappointed with his Year 10 results. He felt that he could have done better. Despite reports of these negative experiences while studying Year 10 Economics, Michael still liked Economics and maintained a moderately positive attitude toward the subject.
Student Self-perceptions

Michael defined ability as "how much work a person gets done" (Interview one). His self-perception of his ability appeared to be quite low. He felt that his ability was "not as good as it could be" (Interview one).

Various sources revealed inconsistent and often contradictory data on Michael's ability perceptions. The data from the interviews conflicted with the MLQ data and the lesson observation data. Within the MLQ, there were inconsistencies between responses. For example, some responses relating to ability self-perceptions indicated that he felt a degree of confidence, while other responses indicated a significant lack of confidence in his abilities.

Q: I'm certain I can understand the most difficult material presented in the Economic Framework unit.

Q: I'm confident I can understand the most complex material presented to me by the teacher in the Economic Framework unit.
M: 2. (MLQ15).

Q: I think the course material in the Economic Framework unit is easy for me to learn.
M: 5. (MLQ23).

During interview one, Michael stated that he felt "pretty confident" with the course material in the Economic Framework unit, but the tone of his voice and facial
expressions indicated that the word “pretty” in “pretty confident”, probably meant not very confident. His voice was soft, a little shaky and he avoided eye contact when saying this. He sounded as though he had little confidence. He did not sound or appear confident in his abilities.

To some extent, Michael associated achievement with ability. His perception was that students who knew all the work (high ability) did not have to study (invest the effort). Because of this perception, Michael was pleased when he did well on a test for which he had not studied: success equated with ability.

Michael felt that task difficulty and luck were influential in determining the amount of success he achieved. Michael attributed his achievement in assessments to how much study he did, what he studied and whether the content he studied “was in the test or not” (luck). He also felt that quite often the tests given were “too hard” (task difficulty) (Interview one).

Michael felt that it was an individual’s choice as to how much effort they put into studying for assessments. He generally took responsibility for his learning, and believed he had some, but not complete, control over his learning.

M: It is up to you how much you learn. (Interview one).

M: ...if I don’t want to learn it I’ll just slack off and won’t learn it. (Interview one).

Q: It’s my own fault if I don’t learn the material in the Economic Framework unit.

M: 4. (MLQ9).
Q: If I don't understand the material, it's because I didn't try hard enough.

M: 2. (MLQ25).

Michael did not expect to receive an excellent grade. However, he had believed that if he did his best, he probably would not fail the Economic Framework unit.

Q: I believe I will receive an excellent grade in the Economic Framework unit.

M: 4. (MLQ5).

M: ... (it is important to do my best in the subject because) I don't want to fail the course. I thought I would need it for a job, but I don't know (Interview one).

Michael appeared to have moderately low expectations for success in the Economic Framework unit and this was confirmed by his low self-efficacy on the MLQ. His score on self-efficacy was 3.75/7, which was below the class mean of 2.52 (see Appendix F). Michael was ranked eighteenth out of the nineteen students in the class.

Course Content, Instructional Practices and Task Value

Michael enjoyed course content that taught life skills, such as the unemployment topic. He also liked the topics with "easy" content. (Interview two).

M: ... (my favourite topic was) probably unemployment, because you learn what to do when you are unemployed. (Interview two).
Michael felt that some topics were "boring", and others contained too much content (Interview two).

Of the learning activities in the Economic Framework unit, answering questions in groups, was considered to be the most enjoyable lesson activity. This was because it was "not as hard" as the other lesson activities (Interview two). Michael answered some questions during discussion. Michael felt that he probably learned the most from practicing how to do essays. Taking notes was considered to be the least "enjoyable" activity because it was quite boring and superficial (Interview two).

M: Taking notes gets boring when you have to do it for a long time. (Interview two).

M: Just write it down and don't take much notice of it. (Interview two).

Michael generally evaluated his achievements through a self-evaluation of how much preparation he invested in preparing for the assessment and the degree of success associated with the outcome. The higher the mark and the lower the effort, the more pleased he was with the result.

M: If I don't put much work in and get a score higher than I expected, I like that. (Interview two).

Michael also evaluated his performance through peer-comparison.

In terms of task value, Michael saw it important to learn the course content in order to avoid failure. He did not think that understanding the course content was important.
Q: It is important for me to learn the course material in the Economic Framework unit.

M: 2. (MLQ10).

Q: Understanding the material in the Economic Framework unit is very important to me.

M: 7. (MLQ10).

Michael had little intrinsic interest in the course content and activities. He felt that after leaving school, Economics could be useful in obtaining a job. Toward the middle of the study Michael became aware that he did not directly need Economics for a career in the travel industry and this led to a further loss of interest. Michael’s self-report on the MLQ for task value was the lowest in the class (see Appendix F).

Achievement Goal Orientation: Low Ego and Low Task

Michael did not appear to have strong ego or task orientation, and seemed to pursue a work-avoidance goal orientation. Michael appeared to have moderate extrinsic motivation, measured at 3/7 on the MLQ. This was below the class average of 2.33.

Q: Getting a good grade in the Economic Framework unit is the most important thing for me right now.

M: 5. (MLQ7).

Q: I want to do well in the Economic Framework unit because it is important to
show my ability to my family, friends, employer, or others.

M: 3. (MLQ30).

Michael did not appear to be motivated to learn for intrinsic reasons, such as curiosity or challenge and on the MLQ scored 4.25/7. This score gave him a very low class ranking of seventeenth in the class (see Appendix F).

Q: In a class like the Economic Framework unit, I prefer course material that arouses my curiosity, even if it is difficult to learn.

M: 5. (MLQ16).

Q: In the Economic Framework unit, I prefer things that really challenge me so I can learn new things.

M: 6. (MLQ1).

**Cognitive Engagement**

When Michael chose to cognitively engage in an activity, either during class or outside of class time, his level of effort was very low and inconsistent.

During class time, Michael claimed a high, but exhibited a low level of effort. However, on the MLQ, his responses indicated low levels of task engagement.

Q: During class time I often miss important points because I'm thinking of other things.

M: 2. (SLQ2).
Michael stated that he invested approximately 75% effort during class time. In
the lesson observed, however, he was generally off task (see Appendix D). This may
also indicate that his responses in the interview may have been a face-saving strategy.
It is also possible that Michael felt he invested 75% of the effort he perceived he was
capable of investing.

The classroom teacher’s perception of Michael’s efforts during lessons also
clicted with his self-report. The teacher felt that Michael invested approximately
35% effort during class time.

Table 4. Teacher’s perceptions of Michael’s effort levels

<table>
<thead>
<tr>
<th></th>
<th>During class time:</th>
<th>Outside class time:</th>
</tr>
</thead>
<tbody>
<tr>
<td>lesson</td>
<td>35%</td>
<td>homework</td>
</tr>
<tr>
<td></td>
<td></td>
<td>50%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>assessment preparation</td>
</tr>
</tbody>
</table>

Outside of class time, Michael did minimal amounts of homework and study for
assessments.

M: I do it straight away, get it over and done with. (Interview one).

M: I study what I need to know for the assessment, it depends on the
assessment. (Interview one).

These study habits were confirmed by his responses on the SLQ.
Q: When I study for this unit I often feel so lazy or bored that I stop before I finish what I had planned to do.

M: 1. (SLQ6).

Generally Michael was not persistent in his efforts, particularly when he was disinterested, bored with the content or the task, or if he found the activity too difficult.

Q: When the work in the Economic Framework unit is difficult, I either give up on it or only study the easy parts.

M: 2. (SLQ29).

Michael's effort-regulation, as measured by the SLQ, ranked equal seventeenth at 4.8/7 (see Appendix F).

Michael reported very low levels of cognitive strategy use on the SLQ. These included rehearsal (3.75/7), elaboration (4.33/7), and organisation (4.0/7) for which Michael was ranked fourteenth for rehearsal, thirteenth for elaboration, and fifteenth for elaboration. Critical thinking (3.40/7) was the only measure of cognitive engagement that was above the class average (see Appendix F).

**Academic Achievement**

Michael achieved a D grade for the Economic Framework unit. His overall result for the unit was 40%.
Figures 3 to 6 provide concise summaries of the data collected on each of the case study students during this exploratory study. Information is provided on students' entry characteristics and self-perceptions. Perceptions of the course content, instructional practices and task value in the Economic Framework unit are noted. Students' achievement goal orientations, cognitive engagement and academic achievement are briefly revised.
### Student Entry Characteristics

<table>
<thead>
<tr>
<th>Reason</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reasons for choosing</td>
<td>positive experience in Year 10</td>
</tr>
<tr>
<td>Economics in upper school</td>
<td></td>
</tr>
<tr>
<td>Prior experience</td>
<td>found Year 10 Economics enjoyable, interesting and valuable but lacked confidence in her abilities</td>
</tr>
<tr>
<td>Prior achievement</td>
<td>average</td>
</tr>
</tbody>
</table>

### Student Perceptions

<table>
<thead>
<tr>
<th>Student self-perceptions of:</th>
<th>ability</th>
<th>low</th>
<th>control</th>
<th>high</th>
<th>effort</th>
<th>high</th>
<th>expectations</th>
<th>moderate</th>
<th>self-efficacy</th>
<th>moderate</th>
</tr>
</thead>
</table>

### Course Content, Instructional Practices, Task Value

<table>
<thead>
<tr>
<th>Course content</th>
<th>Instructional practices</th>
<th>Learning activities</th>
<th>Evaluation</th>
<th>Task value</th>
<th>importance</th>
<th>interest</th>
<th>utility</th>
</tr>
</thead>
<tbody>
<tr>
<td>quite interesting and challenging</td>
<td>liked group work, disliked note taking from the text book</td>
<td>self-comparison</td>
<td>high</td>
<td>high, important knowledge base for Year 12 economics</td>
<td>high, quite interested in content, tasks less interesting</td>
<td>moderate</td>
<td>moderate</td>
</tr>
<tr>
<td>high, important knowledge base for Year 12 economics</td>
<td>high, quite interested in content, tasks less interesting</td>
<td>moderate, a source of general knowledge, not directly related to career path</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Achievement Goal Orientation

<table>
<thead>
<tr>
<th>Goal Orientation</th>
<th>Ego (engage in tasks for extrinsic reasons)</th>
<th>Task (engage in tasks for intrinsic reasons)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>very high</td>
<td>very high</td>
</tr>
</tbody>
</table>

Mastery goal orientation was slightly higher than performance orientation.

### Cognitive Engagement

<table>
<thead>
<tr>
<th>What activities students choose to become involved in</th>
<th>all, regardless of whether they were perceived to be interesting or boring</th>
</tr>
</thead>
<tbody>
<tr>
<td>The intensity of effort invested</td>
<td>very high</td>
</tr>
<tr>
<td>The degree of cognitive strategy use</td>
<td>very high</td>
</tr>
</tbody>
</table>

### Academic Achievement

| Grade          | B - 62% |

Figure 3. Case study summary of Joanna. Adapted from Pintrich and Schrauben’s (1992) conceptual framework for motivation and cognition in the classroom context and Mansfield’s (1997) adaptation of this model.
Figure 4. Case study summary of Bardia. Adapted from Pintrich and Schrauben's (1992) conceptual framework for motivation and cognition in the classroom context and Mansfield's (1997) adaptation of this model.
### Student Entry Characteristics

**Reasons for choosing**
- highly positive experience in Year 10 Economics in upper school

**Prior experience**
- found Year 10 Economics enjoyable, interesting and relevant

**Prior achievement**
- very high

### Student Perceptions

Student self-perceptions of:
- **ability**: very high
- **control**: very high
- **effort**: very high
- **expectations**: very high

### Course Content, Instructional Practices, Task Value

<table>
<thead>
<tr>
<th>Course content</th>
<th>interesting and enjoyable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructional practices</td>
<td>liked note taking from the text book, disliked group work</td>
</tr>
<tr>
<td>Learning activities</td>
<td>peer-comparison and self-comparison</td>
</tr>
<tr>
<td>Evaluation</td>
<td>very high</td>
</tr>
<tr>
<td>Task value</td>
<td>high, an important knowledge base for Year 12 Economics</td>
</tr>
<tr>
<td>Importance</td>
<td>high, very enjoyable and interesting</td>
</tr>
<tr>
<td>Interest</td>
<td>high, directly related to desired career of Commerce</td>
</tr>
<tr>
<td>Utility</td>
<td>very high</td>
</tr>
</tbody>
</table>

### Achievement Goal Orientation

- **Ego (engage in tasks for extrinsic reasons)**: very high
- **Task (engage in tasks for intrinsic reasons)**: very low

### Cognitive Engagement

- **What activities students choose to become involved in**: all, regardless of whether they were perceived to be interesting or boring
- **The intensity of effort invested**: very high
- **The degree of cognitive strategy use**: very high

### Academic Achievement

- **Grade**: A - 70%

---

Figure 5. Case study summary of Dallin. Adapted from Pintrich and Schrauben’s (1992) conceptual framework for motivation and cognition in the classroom context and Mansfield’s (1997) adaptation of this model.
### Student Entry Characteristics

<table>
<thead>
<tr>
<th>Reasons for choosing Economics in upper school</th>
<th>positive and negative experiences in Year 10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prior experience</td>
<td>found Year 10 Economics quite boring and difficult, disappointed with results, still enjoyed Year 10 Economics</td>
</tr>
<tr>
<td>Prior achievement</td>
<td>below average</td>
</tr>
</tbody>
</table>

### Student Perceptions

<table>
<thead>
<tr>
<th>Student self-perceptions of:</th>
<th>ability</th>
<th>low</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>control</td>
<td>moderate</td>
</tr>
<tr>
<td></td>
<td>effort</td>
<td>low, inconsistent</td>
</tr>
<tr>
<td></td>
<td>expectations</td>
<td>low, hopeful not to fail</td>
</tr>
</tbody>
</table>

### Course Content, Instructional Practices, Task Value

<table>
<thead>
<tr>
<th>Course content</th>
<th>some aspects interesting, others not interesting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructional practices</td>
<td>liked group work, disliked note taking from the text book</td>
</tr>
<tr>
<td>Learning activities</td>
<td>self-comparison</td>
</tr>
<tr>
<td>Evaluation</td>
<td>very low</td>
</tr>
<tr>
<td>Task value</td>
<td>moderate, important not to fail the course knowledge base for Year 12 Economics</td>
</tr>
<tr>
<td>importance</td>
<td>fluctuated, often low</td>
</tr>
<tr>
<td>interest</td>
<td>low, not directly related to career path</td>
</tr>
<tr>
<td>utility</td>
<td></td>
</tr>
</tbody>
</table>

### Achievement Goal Orientation

| Ego (engage in tasks for extrinsic reasons) | very low |
| Task (engage in tasks for intrinsic reasons) | very low |
| Work avoidance | high |

### Cognitive Engagement

| What activities students choose to become involved in | activities that were perceived to be interesting and enjoyable |
| The intensity of effort invested | low |
| The degree of cognitive strategy use | low |

### Academic Achievement

| Grade | D – 40% |

Figure 6. Case study summary of Michael. Adapted from Pintrich and Schrauben's (1992) conceptual framework for motivation and cognition in the classroom context and Mansfield's (1997) adaptation of this model.
CHAPTER SIX

Discussion

Overview

This chapter summarises and analyses the data collected from the four case study students in the Year 11 Economic Framework unit. Findings of various studies previously conducted in the areas of student perceptions, motivation and cognition have been confirmed by this study. Aspects of the findings in this study have also conflicted with the findings in previous studies of student perceptions, motivation and cognition. Data collected in this study will be used to support the discussion of the findings. Conclusions are drawn, based on evidence presented in this chapter and bearing in mind the issues under consideration. The discussion is organised around the three subsidiary questions of the study.

Restatement of the Subsidiary Questions

1. When studying the Economic Framework unit, what student perceptions are held about:
   a) themselves: their ability, effort, control, expectations and self-efficacy;
   b) course content, instructional practices, and value of tasks in the Economic Framework unit?

2. When studying the Economic Framework unit, what are the possible associations of these student perceptions with the individual’s adoption and
activation of particular achievement goal orientations in the Economic Framework unit?

3. What are the possible associations of these student perceptions and achievement goal orientations with their cognitive engagement, in the Economic Framework unit?

Subsidiary Question 1A: When Studying the Economic Framework Unit, What Perceptions Did Students Hold About Themselves?

Students varied in their ability self-perceptions. Joanna (high ego orientation, high task orientation) had moderate ability self-perceptions. She did not feel that ability was a significant factor affecting success. Bardia (low ego orientation, high task orientation) and Dallin (high ego orientation, low task orientation) had high ability self-perceptions and Michael (work-avoidance orientation) had low and inconsistent ability self-perceptions. Bardia and Dallin felt that ability was the main factor influencing success. Michael linked success with ability, but felt that other factors were more important.

All students, to varying degrees, associated effort with success and failure. Joanna felt that effort was the key determinant of success. Bardia and Dallin felt that effort was important in determining success, but not as important as ability. Michael felt that effort, luck and task ease were associated with success. Michael was the only student who felt that luck and task ease were highly influential in determining success. Dallin, Bardia, Joanna and Michael attributed failure mainly to lack of effort. Michael also felt that high task difficulty was associated with failure.
<table>
<thead>
<tr>
<th>Table 6. Summary of attributions for success and failure</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>JOANNA</strong> (high ego, high task orientation)</td>
</tr>
<tr>
<td><strong>BARDIA</strong> (low ego, high task orientation)</td>
</tr>
<tr>
<td><strong>DALLIN</strong> (high ego, low task orientation)</td>
</tr>
<tr>
<td><strong>MICHAEL</strong> (work-avoidance orientation)</td>
</tr>
<tr>
<td><strong>ATTRIBUTIONS FOR SUCCESS</strong></td>
</tr>
<tr>
<td>1. high effort (internal, unstable, uncontrollable)</td>
</tr>
<tr>
<td>2. high effort (internal, unstable, uncontrollable)</td>
</tr>
<tr>
<td>2. easy task (external, relatively stable, uncontrollable)</td>
</tr>
<tr>
<td>3. luck (external, unstable, uncontrollable)</td>
</tr>
<tr>
<td><strong>ATTRIBUTIONS FOR FAILURE</strong></td>
</tr>
<tr>
<td>1. low effort (internal, unstable, uncontrollable)</td>
</tr>
<tr>
<td>1. low effort (internal, unstable, uncontrollable)</td>
</tr>
<tr>
<td>2. difficult task (external, relatively stable, uncontrollable)</td>
</tr>
</tbody>
</table>
Findings in this study support the literature reviewed on attribution theory (Weiner, 1990).

Dallin and Bardia had high perceptions of their ability. Both students attributed their success mainly to the internal causes of ability and, to a lesser extent, effort (Table six). They also had relatively high expectations for success. Given that they viewed ability as a relatively stable trait (Nicholls, 1983; Schunk, 1991), and believed that they had high ability, to which they attributed their success, it was likely that they had high expectations for success. They also had internal control beliefs, therefore, they could take responsibility for, and internalise the feelings associated with, success.

Joanna had moderate ability perceptions. She attributed her success to effort. When she achieved success, she attributed it to high effort investment, not to high ability. Joanna had an internal locus of control, and took responsibility for her achievement because she attributed her success to an internal, controllable and unstable factor, effort (Table six). Although Joanna expected to achieve a moderate level of success by investing effort, she did not think she was capable of an “A” (Interview one). Joanna had a stable, moderate perception of her ability.

Michael had the lowest ability perception of the four students and had low expectations for success. Michael was also the only student who felt that luck and task ease were linked with success (Table six). Any success Michael achieved may not have been sufficient to improve his low expectations for success (Wittrock, 1986). Luck is a relatively uncontrollable and unstable factor, which does not provide encouragement for future success (McInerney & McInerney, 1994). Luck is also an external factor, which may have prevented Michael from internalising a feeling of satisfaction from success. This attribution may have prevented Michael from improving his ability perceptions.
when he achieved success (Biggs & Moore, 1993), or to develop more positive expectations for success.

Joanna, Bardia, Dallin and Michael attributed failure primarily to a lack of effort. One possible reason for this is that an effort attribution is not as potentially devastating as an ability attribution, for it implies that future improvement is possible with increased effort (Woolfolk, 1990).

Michael not only linked failure with lack of effort, but also with task difficulty. Although effort is an internal, unstable and controllable factor, task difficulty is external, relatively stable and uncontrollable. Michael generally felt that assessments in the Economic Framework unit were "too hard" (Interview three), and given that task difficulty is a relatively stable and uncontrollable factor, this may have discouraged hope for future success. This is in accord with Licht and Kistner’s (cited in Schunk, 1985) argument that attributing failure to a stable and uncontrollable cause, such as task difficulty, is likely to engender low success expectations.

Conclusion

The data in this study appear to support previous research in student causal attributions (Covington, Eccles, Adler, Futterman, Kaczala, Meece & Midgley; Harter & Connell, both cited in Meece, 1994; Biggs & Moore, 1993; Pintrich & De Groot, 1990; Schunk, 1991), in that:

1. Perceived ability bears a strong positive relationship to a student’s expectation for success. The students with higher ability self-perceptions had higher performance expectations than the students with lower ability perceptions.
2. The students' locus of control appeared to be reflected in their ability self-perceptions and outcome expectations (Covington, Eccles, Adler, Futterman, Kaczala, Meece & Midgley; Harter & Connell, both cited in Meece, 1994). The three students with an internal locus of control (Joanna, Bardia and Dallin) held higher self-perceptions of ability and performance expectations than the student with an external locus of control (Michael).

Subsidiary Question 1B: When Studying the Economic Framework Unit, What Student Perceptions are Held About the Course Content, Instructional Practices and Task Value?

Student Perceptions of Course Content

All students felt that the course content in the Economic Framework unit was important. Joanna, Bardia and Dallin felt strongly that content should be understood although Michael did not. Joanna and Dallin remained interested in the content in the Economic Framework unit throughout the course. Joanna also found the unit very challenging. At the beginning of the study, Bardia displayed high levels of interest, but as the unit progressed, he became increasingly dissatisfied with what he saw as repetition of content and a lack of variety and challenge. Michael found some aspects of the course content interesting, but generally considered the unit boring.

Two of the reasons given by commentators for the decline in enrolments in upper school economics are; general disaffection with the nature of economics which students often perceive as “rigorous and/or boring and dull... thus reducing interest” (Lewis & Norris, 1996, p.15) and an under use of active student engagement in learning
activities (Carlson & Schodt, 1995; Lee, Burgess & Kniest, 1996). Some of the students in this study appeared to have similar complaints about the learning of Economics.

**Self-efficacy and Student Perceptions of Learning Activities**

Students’ self-efficacy is influenced by how effectively they think they learn from various learning activities. If they perceive a learning activity to facilitate effective learning, and this learning activity is used often in their learning environment, this engenders self-efficacy (Schunk, 1991).

The most commonly used instructional practices in the Economic Framework unit were reading from the textbook and summarising the content, taking notes and answering workbook questions (see Appendix E). Less frequently used learning activities included quizzes, cartoons, newspaper articles and discussions.

Dallin liked note-taking and summarising from the textbook. He found these activities to be enjoyable and effective activities in facilitating learning. Moreover, these activities allowed him to work at his own pace. Dallin disliked group work and found it an ineffective learning activity. He also had the highest self-efficacy in the class (see Appendix F).

Joanna and Michael disliked note-taking from the textbook, preferring group work, which they felt was more enjoyable and interesting. Joanna had moderate and Michael had low, self-efficacy. Joanna and Michael felt that they did not learn effectively by note-taking, for it was superficial and required little thinking. The least used learning activity, group work, was considered the most effective activity for understanding, in accord with Ames (1992), who suggests that group work promotes thinking and understanding.
Bardia disliked long teacher explanations and summarising from the textbook. He enjoyed new and challenging learning activities, particularly those that were applicable to a real life context. Bardia did not feel that he learned effectively from summarising, however, he had relatively high self-efficacy, believing that he was capable of successfully completing the work in the Economic Framework unit. This was despite his perception that the content and instructional practices in the unit lacked interest and were not worthwhile.

There appears to be a link between perceived effectiveness of the learning activities, and belief in one's capabilities to effectively learn and succeed in the Economic Framework (self-efficacy).

**Student Self-evaluation of Performance and Achievement Goal Orientation**

Joanna and Bardia based their self-evaluation of achievement on self-referenced standards. Neither student was competitive in these evaluations. Dallin and Michael used a combination of norm-referenced standards and individual criteria for self-evaluating their performance. The implications of this will be discussed in the section on student self-evaluation of performance and achievement goal orientations.

**Student Perceptions of Task Value**

As measured by the MLQ, Dallin had the highest and Michael the lowest, task value in the class (see Appendix F). Dallin and Michael maintained a constant perception of task value throughout the study. Joanna's perception of task value was moderate, and fell only marginally as the study progressed. Initially, Bardia's perception of task value was relatively high, but there was some deterioration as the unit
progressed. By the end of the unit his task value was quite low. The implications of this will be discussed in the section on the possible association between task value and achievement goal orientation.

Conclusion

The data on student perceptions of the course content, instructional practices and task value indicate:

1. There are similarities between student perceptions in this study and the literature on the learning of Economics. Previous literature claimed that Economics is perceived by students as somewhat dull and abstract, lacking variation, interest and active student involvement (Carlson & Schodt, 1995; Lee, Burgess & Kniest, 1996; Norris & Lewis, 1996).

2. Regardless of goal orientation, more interesting and varied learning activities would lead to greater enjoyment in the Economic Framework unit.

3. Students who believed that the most frequently used learning activities were effective generally had higher levels of self-efficacy.

2. What are the Possible Associations of These Student Perceptions With the Individual Adoption and Activation of Goal Orientations When Studying the Economic Framework Unit?

Student Perceptions and Achievement Goal Orientations

Meece (1994) has demonstrated an apparent link between achievement goal theory and student perceptions. The data in this study appeared to confirm this finding.
At the beginning of the study, Joanna displayed characteristics of a student with high ego orientation and high task orientation. Her perceptions of self, course content, instructional practices and task value appeared to be associated with her maintenance of high levels of ego orientation and task orientation. This supports the belief that students can pursue more than one goal orientation simultaneously (Nicholls, 1992; Pintrich & Garcia, 1991; Wentzel, 1991).

Dallin displayed characteristics of a student with high levels of ego orientation, and low levels of task orientation. His positive perceptions of self, course content, instructional practices and task value appeared to be linked with sustained high ego orientation and low task orientation.

At the beginning of the study, Bardia had a high level of task orientation, with no apparent ego orientation. His perceptions of self, course content, instructional practices and task value seemed to be linked with a deterioration of task orientation.

At the start of the study, Michael exhibited low levels of task orientation and ego orientation, indicating a work-avoidance orientation. His perceptions of self, course content, instructional practices and task value seemed to be associated with a continued lack of motivation and work-avoidance behaviours.

Conclusion

The data on student perceptions and goal orientations supports previous literature on achievement goal orientations (Meece, 1994; Nicholls, 1992; Pintrich & Garcia, 1991; Wentzel, 1991), in that:

1. Students can have multiple goal orientations.
2. Student perceptions appear to be associated with achievement goal orientation and can affect the degree of task orientation during a course of study (in the case of Bardia, his perceptions led to the weakening of his task orientation).

**Student Self-perceptions and Achievement Goal Orientations**

According to the literature reviewed (Covington, Eccles, Adler, Futterman, Kaczala, Meece & Midgely; Harter & Connel, both cited in Meece, 1994) high ability self-perceptions are linked with greater levels of intrinsic motivation (task orientation). The data in this study appeared to vary from this literature.

Dallin had the highest ability perception, and the lowest level of task orientation of the four students. Joanna had a moderate ability perception, and relatively high levels of task orientation. Bardia displayed high ability self-perceptions, but his high levels of task orientation were not activated during the Economic Framework unit. However, Michael had low ability perceptions and low task orientation. Reasons for this variation between the findings in this study and the literature are discussed in the section on the possible association between task value, achievement goal orientation and effort regulation.

**Conclusion**

Reviews of research on motivation have shown that individuals who hold positive perceptions of their abilities, report greater interest in learning for intrinsic reasons (Covington, Eccles, Adler, Futterman, Kaczala, Meece & Midgley; Harter & Connell; both cited in Meece, 1994). The findings in this study which included four case study students, varied with this research. Higher ability perceptions were not
necessarily linked with greater levels of task orientation during the Economic Framework unit.

**Student Self-evaluation of Performance and Achievement Goal Orientations**

The data on student self-evaluation supports the literature on achievement goal theory.

Dallin had high ego orientation and low task orientation. He based evaluation on both self-referenced standards and norm-referenced standards and was highly competitive. He derived satisfaction from doing better than his peers. He felt that high ability was essential for success. This accords with Nicholls (1984) who argues that ego-oriented students are more likely to judge their abilities and performance competitively, in relation to others.

Bardia had low ego orientation and high task orientation. He based evaluation on both self-referenced and norm-referenced standards, although his preference was for self-evaluation. When he compared his work with peers, he was happy if he achieved the same result as a person with a similar ability level who had worked equally as hard. Bardia did not feel the need to display superior ability to his peers. This was in line with Nicholls (1984) who suggests that task-oriented students judge their ability and performance on self-improvement and performing to the best of one’s ability.

Joanna had high ego orientation and high task orientation. Her level of task orientation appeared to be higher than her ego orientation. She based her performance evaluation on self-referenced standards. She was not competitive, and felt that her success was a result of effort invested (Ames & Archer, 1988; Nicholls, 1984, 1992).
Michael was work-avoidant and based his performance on both self-referenced and norm-referenced standards. He was generally satisfied if he did not fail, or attained good marks with minimal effort (McInerney & McInerney, 1994; Meece, Blumenfeld & Hoyle, 1988).

The data on possible associations between evaluation of performance and achievement goal orientation generally supports literature on achievement goal theory. The student with an ego orientation was competitive and wished to demonstrate superior ability. However, he based his self-evaluation on both norm-referenced and self-referenced standards. The students who were predominantly task-oriented, were not competitive and did not desire to display superior ability. Self-referenced standards were the primary measure for self-evaluation of achievement. The work-avoidant student was generally pleased if he did not fail. He was particularly pleased if he did well with minimal effort.

**Conclusion**

There is an association between a student's self-evaluation of performance and their achievement goal orientation. Students with high ego orientation were more likely to be competitive and desire to demonstrate superior ability, than those who were predominantly task-oriented. Task-oriented students were more likely to base self-evaluation of performance primarily on self-referenced standards, than ego-oriented students.
Subsidiary Question 3: What Are the Possible Associations of These Student Perceptions and Achievement Goal Orientations With Their Cognitive Engagement in the Economic Framework Unit?

Cognitive Engagement in the Economic Framework Unit

Cognitive engagement was measured according to a student’s decision to engage in various activities, invest effort and use cognitive strategies. Cognitive engagement varied among sample students. Dallin would choose an easy activity that guaranteed good results over a more interesting, challenging activity, whereas Joanna and Bardia preferred a challenging activity. Michael did not seek a challenge or a high grade. During class time, Joanna and Dallin consistently invested high levels of effort. Bardia was inconsistent in his efforts during class time, on average investing 50% effort. Michael invested low levels of effort during class time. Outside of class time, completing homework and in preparation for assessments, Dallin and Joanna invested high and consistent levels of effort. Bardia’s efforts were moderate and inconsistent, completing all homework and investing only last minute efforts to study for assessments. Michael’s efforts were consistently minimal outside of class time.

The Association Between Achievement Goal Orientation and Choice of Activities

The literature on achievement goal orientation and choice of activities indicated that, despite self-perceptions of ability, students who pursue task goals are more likely to seek challenging and interesting activities which will enable them to develop competencies (Dweck, 1986). Work-avoidant students are most motivated by tasks that reduce the possibility of failure (McInerney & McInerney, 1994).
The case studies of Joanna and Bardia support this literature. Both students were highly motivated by task goals and indicated a strong preference for meaningful learning and challenging tasks over guaranteed good grades.

Students who pursue ego goals and have high ability self-perceptions, are more likely to choose less difficult tasks, which are more likely to enable them to demonstrate their competence (Dweck, 1986). The case analysis of Dallin was also in accord with this literature, for he indicated a preference for extrinsic rewards such as getting a good grade, over intrinsic rewards such as challenging learning (MLQ1).

Michael did not show a preference to seek challenging activities or good grades. He preferred group work to any other learning activity, possibly because group work tends to reduce pressure on individual’s self-esteem (Biggs & Moore, 1993) and also because Michael considered that activities in groups “wasn’t really that hard because the whole class was doing it together kind of. When you got an answer you just asked everyone what they got” (Interview three). This supports the literature, that work-avoidant are most motivated by tasks that reduce the possibility of failure, and require the least effort.

Conclusion

Students who are task-oriented are more likely to seek challenging and interesting activities rather than good grades (Joanna and Bardia). Students who pursue ego goals are more likely to seek good grades rather than challenging tasks (Dallin). Work-avoidant students are more likely to engage in activities that are less likely to result in failure and require the least effort (Michael).
The Possible Association Between Task Value and Achievement Goal Orientation

According to Pintrich and De Groot (1990), self-reports from junior high school students revealed a high, positive correlation between task value and goal orientation. The findings in this study support these findings.

For Joanna, Dallin and Michael, higher goal orientations appeared to be associated with higher task value, and lower goal orientations with lower task value. A possible explanation for this is that it appears that students, such as Joanna and Dallin who had high ego orientation, also viewed the learning activities and course content as important, interesting or valuable and that the tasks had high task utility. This is a relatively extrinsic reason for valuing the task. Students who pursued task goals, such as Joar, may have been motivated by interest, and therefore their task value was high. Work-avoidant students, such as Michael, who pursued neither goal, valued tasks less. Bardia had a high task goal orientation and a relatively high task value at the beginning of the Economic Framework unit. It is likely that because he valued the tasks less as the unit progressed, his task orientation was not activated.

Although it is beyond the scope of this study, but because it was a matter of interest and a relatively simple exercise, a Pearson's correlation was employed using the MLQ and SLQ data for the whole Year 11 class. The positive association appeared to exist between ego goal orientation and task value for the case study students, was similar to the association between these variables for the whole class.

Across the class, a significant positive correlation existed between self-reports of ego goal orientation and self-reports of task value. A high level of ego orientation was linked with high levels of task value. A lack of ego orientation was associated with lower levels of task value.
For the nineteen students, a significant positive correlation was found to exist between task value and ego orientation of 0.531 ($p_{tail} = 0.0097$). This is shown in Figure 7. Although no causal links can be assured (Burns, 1995), it is possible that ego goals were positively associated with task value in this class.

Figure 7. A scatter graph illustrating the correlation between task value and ego orientation for all students in the class.
Conclusion

The findings in this case study support past findings of Pintrich and De Groot (1990), showing a positive association between task value and ego goal orientation. A high level of ego orientation appears to be linked with higher levels of task value. The class data reflected and confirmed this association, showing a positive and significant correlation between task value and ego goal orientation.

The Possible Association Between Task Value, Achievement Goal Orientation and Effort Regulation

Findings in this study and previous studies (Pintrich & De Groot, 1990; Pintrich, Smith, Garcia & McKeachie, 1991) suggest that there is an association between task value, achievement goal orientation and effort regulation. Student perceptions of course content relate to a student's decision to become cognitively engaged. Students who reported higher interest, importance or value in course content, reported higher levels of effort investment and higher levels of cognitive strategy use, including critical thinking, rehearsal, elaboration and organisation.

In this study, if a student, such as Joanna or Dallin valued the content and learning activities in the Economic Framework unit, they appeared to have a higher level of motivation and invested higher levels of effort.

Conversely, if a student ceased to value the Economic Framework unit then motivation and effort declined. For example, Bardia generally enjoyed the content in the Economic Framework unit, but soon became bored with the repetition and lack of challenge. Bardia initially reported high levels of task orientation and extremely low
levels of ego orientation. His high level of task orientation was not sustained throughout the study. In fact, the opposite occurred. Bardia's task goals were reduced and almost extinguished. Toward the end of the unit, Bardia exhibited low levels of ego and task orientation. This lack of motivation appeared to lead to a reduction in his effort investment and cognitive strategy use.

Although it is beyond the scope of this study, but a matter of interest, a Pearson's correlation was also employed using the MLQ and SLQ data for the whole Year 11 class. The positive association that existed between task value and effort regulation for the case study students was similar to the association between these variables for the whole class.

A significant positive correlation was existed between task value and effort regulation of 0.546 (p1 tail = 0.0078). As shown in Figure 8, those students who valued the tasks in the Economic Framework unit reported higher levels of effort regulation.

![Figure 8](image.png)

Figure 8. A scatter graph illustrating the correlation between task value and effort regulation for all students in the class.
Conclusion

The findings in this study support research which have found a consistent, positive association between students achievement goal orientations and their cognitive engagement in achievement situations (Pintrich & Schrauben, 1992). Findings partially support research, which postulates that intrinsic motivation (task orientation) is highly correlated with cognitive engagement (Pintrich, 1985, 1986, 1987, 1989, cited in Pintrich & Schrauben, 1992; Pintrich & Garcia, 1991), in that:

1. Generally, the higher the task orientation the higher the effort levels (Joanna), and the lower the task orientation, the lower the effort levels (Michael). However, this association between task orientation and effort depended on the combination of goal orientation, which the student possessed. Reduced or low task orientation did not result in lower levels of motivation and cognitive engagement for a student who was high in ego orientation (Dallin). For a student who was high in task orientation, but not high in ego orientation, lower task orientation reduced his overall motivation and cognition (Bardia).

2. In previous studies (Pintrich, 1985, 1986, 1987, 1989, cited in Pintrich & Schrauben, 1992; Pintrich & Garcia, 1991) extrinsic motivation (ego orientation) was not significantly correlated with effort regulation. Therefore, the findings in this study conflict with these research findings, in that:

3. The case study findings showed a positive association between ego orientation and effort regulation. This was particularly evident in the case study of Dallin.
The Possible Association of Self-Efficacy With Cognitive Strategy Use, Such as Rehearsal, Elaboration, Organisation, and Effort Regulation

Self-efficacy is associated with cognitive engagement. Student self-efficacy beliefs have been shown to be positively related to various measures of cognitive strategy use, including rehearsal, elaboration and organisation, and effort regulation (McKeachie, Pintrich & Lin, 1985a, 1985b; Pintrich, 1985, 1986, 1987, 1989, all cited in Pintrich & Schrauben, 1992; Pintrich & Garcia, 1991).

Findings in this study for the case studies of Michael and Dallin supported past studies in the association between self-efficacy and cognitive engagement (Pintrich & De Groot, 1990; Pintrich & Garcia, 1991). However, the data for Joanna and Bardia were contradictory to past studies.

The findings for Dallin and Michael were in line with past studies, suggesting a positive link between self-efficacy, and use of cognitive strategies and effort regulation.

Dallin was confident in his abilities to succeed. He was highly motivated toward ego goals. He invested very high levels of cognitive strategy use and effort regulation.

Michael, the work-avoidant student, had low self-efficacy. He demonstrated low levels of ego orientation and task orientation. Cognitive strategy use and effort regulation levels were generally below average.

The findings for Joanna and Bardia revealed a relatively negative association between self-efficacy and cognitive strategy use and effort regulation.

Joanna had moderate self-efficacy. The literature suggests that she might therefore have moderate use of cognitive strategies and moderate effort regulation (Pintrich & De Groot, 1990; Pintrich & Garcia, 1991). On the contrary, Joanna
exhibited above average use of cognitive strategies and effort regulation during the Economic Framework unit. The salient factor associated with her high levels of cognitive engagement appeared to be her link between effort and achievement. The perception that the controllable factor effort, was responsible for her past failure, may not have been as detrimental to Joanna's future motivation, as attributing failure to ability. Joanna maintained the belief that she could improve her results by investing consistently high levels of effort during class time and outside school hours. This sustained her motivation and her cognitive engagement.

Bardia had relatively high self-efficacy, below average utilisation of cognitive strategies and effort regulation. Bardia reported that he was "slacking off" (Interview two) because of repetition and monotony of the course content and instructional practices.

Conclusion

Students who were high in self-efficacy were more likely to report high effort regulation, than those students with lower self-efficacy. Bardia was high in self-efficacy, but did not display high effort regulation because he did not value the tasks. Joanna had moderate self-efficacy, but invested high levels of effort because she attributed success and failure to effort, and pursued task goals.

The Possible Association Between Task Goal Orientation, Ego Goal Orientation or Work-Avoidance Orientation and Use of Deep Cognitive Strategies (Elaboration, Organisation and Critical Thinking)
There seems to be "a very consistent and positive relation between a student’s achievement goal orientation and their cognitive engagement in learning" (Pintrich & Schrauben, 1992, p.168). According to Pintrich and Schrauben (1992) if a student has a task orientation toward learning the course content, they might be more willing to use deep cognitive strategies. Deep cognitive strategies in this study refer to elaboration, organisation and critical thinking.

Joanna reported high utilisation of elaboration, organisation and critical thinking. This supported past findings that high levels of task orientation are related to high levels of deep cognitive strategy use.

Bardia had a low use of elaboration, organisation and critical thinking, well below the class average. As a highly task-oriented student, Bardia would have been expected to use more cognitive strategies, particularly deep approaches to learning. These data were in contrast to previous findings in the literature, which linked task orientation to use of deep cognitive strategies.

Bardia maintained the desire to master skills and learn for real life understanding, but given that he did not value the activities and content because of lack of interest, it is possible that these task orientations were not activated. As stated previously, Bardia did not pursue ego goals at all. When task orientation was not activated, he had no reason to become cognitively engaged and therefore did not, not even at a surface level.

According to the literature reviewed, those who exhibit an extrinsic (ego) orientation toward course content, may be less willing to invest time and effort required for deeper processing. Rather, to obtain good grades, they are more likely to engage in surface processing strategies, such as rehearsal (Pintrich & Schrauben, 1992).
Dallin, who had been ranked equal first in the class for ego orientation, demonstrated above average strategy use for both deep and surface cognitive learning strategies. This conflicted with the literature suggesting that students who pursue ego goals do not have high utilisation of deep cognitive learning strategies, such as elaboration, organisation and critical thinking (Pintrich & Garcia, 1991). A possible explanation for this is raised by Biggs and Moore (1993) who note that for a student high in ego goal orientation, if deep learning strategies are perceived to be required to achieve good grades, they will use them. During Interview three, Dallin stated that he would have appreciated the opportunity to learn from textbooks other than the one used in class. Wider reading is generally considered a deep learning strategy. After probing this statement, Dallin revealed that the reason he suggested that it would be useful to use books other than the textbook was because he felt that the test questions were different to the information in the textbook and this may have helped when answering test questions. He utilised deep learning strategies, not because he was task-oriented and genuinely curious about broader aspects of Economics, but because he felt it may better prepare him to answer test questions, and reach his desired goal of good grades.

Michael had low task orientation, and had a low use of cognitive strategies. When working on learning activities during class time he was thinking about “trying to get it finished” (Interview two).

Conclusion

Students with a task orientation were more likely to value and use deep cognitive strategies, such as elaboration, organisation and critical thinking. However, if an ego-oriented student perceived deep learning cognitive strategies and high effort
levels as prerequisites for obtaining a top grade, he or she was likely to use deep learning strategies.

An exception to this general finding, occurred when a student possessed a low ego orientation a high task orientation that was not activated (Bardia) and therefore, had a low use of deep cognitive strategies.

*Achievement Goal Orientation, Cognitive Engagement and Achievement*

This thesis has sought to examine some cognitive and motivational variables in achievement situations. Although achievement has not been a key component under investigation in this study, it significantly influences, and is influenced by, self-perceptions, achievement goal orientations and cognitive engagement. The final grades (see Appendix E) of the case study students appear generally to have a positive association with student perceptions and motivation in the Economic Framework unit and in turn, their cognitive engagement. The students who had higher self-efficacy, perceived the Economic Framework unit to be interesting, and worthwhile, and whose goal orientations were activated throughout the unit, demonstrated higher cognitive engagement. In turn, higher cognitive engagement appears to be positively linked with higher achievement.

*General Conclusion*

This study has revealed the great complexity of the association between student perceptions, motivational orientations and cognitive engagement. While the original concerns have remained valid, it is clear that many motivational and cognitive variables impinge on student learning in a course of study, such as the Economic Framework unit.
CHAPTER SEVEN

Conclusions and Implications

Overview

The foci of this chapter are the conclusions and implications of the findings of this study. The limitations of the study are summarised and areas of future research are noted.

Overview of the Study

The main focus of this study was to explore student perceptions of the Economic Framework unit, and the association of these perceptions with their motivation and cognition. A combination of qualitative and quantitative methods were employed to obtain data primarily from four case study students.

All students completed a Motivation for Learning Questionnaire (MLQ), from which the purposive sample was drawn. A student for each of the following profiles was obtained: high ego orientation and task orientation; low ego orientation and high task orientation; high ego orientation and low task orientation; low ego orientation and low task orientation. MLQ data were also used to find class means and provide rankings to which the case study students were compared (see Appendix F).

Three interviews were staggered over a nine-week period of data collection. Qualitative data collected provided information on student self-perceptions, perceptions of course content, instructional practices and task value, motivational orientations and cognitive engagement.
All students completed a Strategies for Learning Questionnaire (SLQ) at the end of the nine-week period, providing retrospective data on the learning strategies which students used during the Economic Framework unit.

A classroom observation, a teacher record of lesson plans and student achievement and teacher estimations of student effort were used for triangulation purposes.

**Overview of the Conclusions**

In summarising the conclusions of this study it must be emphasised that the study was an exploratory one and that the possible associations of student perceptions with student motivation and cognitive engagement in the Year 11 Economic Framework unit is a complex area for inquiry. This was not fully appreciated at the beginning of the study, for the practical classroom experience of the researcher had led to a belief that the problem was centred in the course content and learning activities. However, a careful study of the literature and the unfolding pattern of the case studies indicated the large, and complex, range of variables that impinged on student achievement in the Economic Framework unit. As such, the following conclusions are advanced on a tentative basis and with the limitations and the complexities of the study in mind.
Research Questions

The major research question was:

What are the perceptions of Year 11 Economics students toward the Economic Framework unit, and what are the possible associations of these student perceptions with student motivation and cognitive engagement in Year 11 Economics?

In broad terms, the response to this question is that the student perceptions of the Economic Framework unit are wide ranging and complex and include perceptions of previous experience, self and course content, instructional practices and task value. There appears to be some reasonably well defined associations between these perceptions and student motivational orientations and cognitive engagement. These relations are summarised in response to the following subsidiary questions:

1. When studying the Economic Framework unit, what student perceptions are held about:
   a) themselves: their ability, effort, control, expectations and self-efficacy;
   b) course content, instructional practices, and value of tasks in the Economic Framework unit?

2. When studying the Economic Framework unit, what are the possible associations of these student perceptions with the individual’s adoption and activation of particular achievement goal orientations in the Economic Framework unit?
3. What are the possible associations of these student perceptions and achievement goal orientations with their cognitive engagement, in the Economic Framework unit?

Conclusions

Subsidiary Question 1A: When studying the Economic Framework unit, what perceptions did students hold about themselves?

1. The data reported in this study supports the literature on attribution theory (Weiner, 1990). Higher expectations for success were held by those students who attributed their success to high ability and effort, and had higher ability perceptions, and attributed failure to effort. A moderate expectation for success was held by the student who attributed success and failure to effort and had moderate ability perceptions. The student with the lowest expectation for success, attributed success to effort, luck and task ease, and failure to effort and task difficulty, and had the lowest ability perception.

2. Research has shown that perceived ability bears a strong positive relationship to a student's expectation for success (Covington, Eccles, Adler, Futterman, Kaczala, Meece & Midgley; Harter & Connell, cited in Meece, 1994). The data in this study appear to support previous research in this area. The students with higher ability self-perceptions also had higher performance expectations than the students with lower ability perceptions.

3. Students' locus of control appeared to be reflected in their ability self-perceptions and outcome expectations (Covington, Eccles, Adler, Futterman, Kaczala, Meece & Midgley; Harter & Connell, both cited in Meece, 1994). Those students who
had an internal locus of control, held higher self-perceptions of ability and performance expectations than the student with an external locus of control.

Subsidiary Question 1B: When Studying the Economic Framework Unit, What Student Perceptions are Held About the Course Content, Instructional Practices and Task Value?

4. Previous literature claimed that Economics is perceived by students as somewhat dull and abstract, lacking variation, interest and active student involvement (Norris & Lewis, 1996; Carlson & Schodt, 1995; Lee, Burgess & Kniest, 1996). There were similarities between student perceptions of the learning of Economics in this study and the literature on the learning of Economics.

5. Regardless of goal orientation, more interesting and varied learning activities would have led to greater enjoyment in the Economic Framework unit.

6. Students who believed that the most frequently used learning activities were effective, generally had higher levels of self-efficacy.

Subsidiary Question 2: When studying the Economic Framework unit, what are the possible associations of these student perceptions with the individual's adoption and activation of particular achievement goal orientations in Year 11 Economics?

7. The data in this study on student perceptions and goal orientations support previous literature on achievement goal orientations (Meece, 1994; Wentzel, 1991; Pintrich & Garcia, 1991; Nicholls, 1992), in that:

Students had multiple goal orientations (in the case of Joanna, who possessed high levels of both ego and task goal orientation).
Student perceptions appeared to be associated with their achievement goal orientation. These perceptions affected the degree of task orientation adopted or activated during a course of study (in the case of Bardia, his perceptions led to the weakening of his task orientation).

There was an association between a student’s self-evaluation of performance and their achievement goal orientation. Students with high ego orientation were more likely to be competitive and desire to demonstrate superior ability, than students who were predominantly task-oriented. Task-oriented students were more likely to base self-evaluation of performance primarily on self-referenced standards, than ego-oriented students.

8. Reviews of research on motivation have shown that individuals who hold positive perceptions of their abilities, report greater interest in learning for intrinsic reasons (Covington, Eccles, Adler, Futterman, Kaczala, Meece & Midgley; Harter & Connell; both cited in Meece, 1994). The findings in this study varied with this research. Higher ability perceptions were not necessarily linked with greater levels of task orientation during the Economic Framework unit.

Subsidiary Question 3: What are the possible associations of these student perceptions and achievement goal orientations with their cognitive engagement, in the Economic Framework unit?

9. Students who were task-oriented were more likely to seek challenging and interesting activities rather than good grades (Joanna and Bardia). Students who pursued ego goals were more likely to seek good grades rather than challenging tasks.
Work-avoidant students were more likely to engage in activities that were less likely to result in failure and required less effort (Michael).

10. The findings in the case studies support past findings of Pintrich and De Groot (1990), showing a positive association between task value and ego goal orientation. A high level of either ego orientation or task orientation was linked with high levels of task value. A lack of ego orientation was associated with lower levels of task value. The class data reflected and confirmed this association, showing a positive and significant correlation between task value and ego goal orientation.

11. The findings in this study support research which have found a consistent, positive association between students achievement goal orientations and their cognitive engagement in achievement situations (Pintrich & Schrauben, 1992). Findings partially support research, which postulates that intrinsic motivation (task orientation) is highly correlated with cognitive engagement (Pintrich, 1985, 1986, 1987, 1989, cited in Pintrich & Schrauben, 1992; Pintrich & Garcia, 1991), in that:

   Generally, the higher, the task orientation, the higher the cognitive engagement levels (Joanna), and the lower the task orientation, the lower the cognitive engagement (Michael). However, this association between task orientation and cognitive engagement varied according to the combination of the student’s goal orientations. For example, reduced or low task orientation did not result in lower levels of motivation and cognitive engagement for a student high in ego orientation (Dallin). For a student who was high in task orientation, but not high in ego orientation, reduced task orientation reduced his overall motivation and cognitive engagement (Bardia).

not significantly correlated with effort regulation. Therefore, the findings in this study conflict with these research findings. The data in this study showed a positive association between ego orientation and effort regulation. This was particularly evident in the case study of Dallin.

13. Students who were high in self-efficacy were more likely to report high effort regulation, than those students with lower self-efficacy. Bardia was high in self-efficacy, but did not display high effort regulation because he did not value the tasks. Joanna had moderate self-efficacy, but invested high levels of effort because she attributed success and failure to effort, and pursued task goals.

14. Students with a task orientation were more likely to value and use deep cognitive strategies, such as elaboration, organisation and critical thinking. However, if an ego-oriented student perceived deep learning cognitive strategies and high effort levels as prerequisites for obtaining a top grade, he or she was likely to use deep learning strategies.

   An exception to this general finding, was when a student possessed a low ego orientation and a high task orientation that was not activated during the course of study (Bardia), that resulted in a low use of deep cognitive strategies.

15. This study has revealed the great complexity of the association between student perceptions, motivational orientations and cognitive engagement. While the original concerns have remained valid it is clear that many motivational and cognitive variables impinge on student learning in a course of study, such as the Economic Framework unit.
Implications

Student Self-perceptions

Internal attributions for success and high ability perceptions were associated with high expectations for success in the Economic Framework unit. Higher expectations for success were associated with higher self-efficacy. Higher self-efficacy was associated with enhanced motivation and cognitive engagement.

Thus, teachers need to encourage internal attributions for success and positive ability perceptions. This may allow students to feel more efficacious in learning, which in turn may ameliorate motivational problems.

Teachers need to encourage students to adopt internal locus of control. If students feel that they have more control over their performance, it is likely that they will have a greater belief in their ability to achieve. Students who have higher performance expectations are more likely to have higher levels of cognitive engagement.

Although encouraging these attributions and greater control over learning involves many variables, all of which cannot be addressed in this thesis, there are important implications for teachers. It is desirable for students to have a balanced perception of the importance of both ability and effort as causes of academic success. If students believe that their academic outcomes occur as a result of their behaviour, they are more likely to choose to become cognitively engaged in learning activities. However, encouraging healthy attribution patterns and greater control over learning may have limited benefits, if the classroom environment discourages task orientation (Meece, 1994).
Student Perceptions of Learning Activities

Findings in this study provided further evidence of the existence of dissatisfaction with learning activities in Economics. Note-taking was generally perceived by students as overused, boring and less effective in facilitating meaningful learning. Additionally, students voiced the desire for more group work, which was viewed as enjoyable, worthwhile and thought stimulating. These student perceptions of learning activities were associated with their self-perceptions, motivational orientations and cognitive engagement. Therefore, these perceptions have a number of salient implications for teachers of the Economic Framework unit.

Students who believed that the most frequently used learning activities were effective in facilitating learning, generally had higher levels of self-efficacy. To cater to the needs of a greater number of varied student perceptions of learning activities, teachers need to provide a wider variety and choice of learning activities. Emphasis needs to be placed on developing meaningful learning. It is likely that greater cooperative learning and less note-taking and summarising, would result in improved ability perceptions (Nicholls, 1983) and self-efficacy. Additionally, higher self-efficacy could foster motivation and cognition.

Moreover, teachers need to be aware of, and take into account, the perceptions which students hold about the learning activities most frequently used in the learning environment. A strategy proposed by Biggs and Moore (1993) suggests that teachers conclude learning activities with a debriefing and a reflection and assessment of the effectiveness of the learning activity. This may provide teachers with greater insight into student perceptions of learning activities.
Research suggests that instructional practices that emphasise the simple transmission and recall of facts, are not conducive to the development of task goals and self-regulated learning (Ames, 1992, Meece, 1994). On the other hand, cooperative learning activities have been found to increase student involvement, thinking and promote task orientation (Ames, 1992, Meece, 1994). It is possible that the perceived overuse of note-taking and summarising has led to reduced task orientation, as shown in the case study of Bardia. If teachers of Economics wish to foster task orientation, they need to use more challenging, thought stimulating and student centred learning activities. In turn, increased task orientation may lead to a greater use of deep cognitive strategies (Biggs & Moore, 1993).

Achievement Goal Orientations

In this study, ego orientation and task orientation were positively associated with task value. Although both extrinsic and intrinsic motives appear to be effective in increasing task value, they foster different attitudes and approaches toward learning (Biggs & Moore, 1993). The implications of these findings for teachers are embedded in the link between goal orientations and the approach toward learning that these goal orientations encourage.

Task orientations are self-maintaining and involve a personal commitment to learning. Task-oriented students are generally more willing to invest effort, self-regulate and reflect metacognitively (Biggs & Moore, 1993; Meece, 1994). Alternately, ego-orientation encourages competitive attitudes toward learning and the desire to show superior ability. It promotes the product of the task rather than the process (McInerney & McInerney, 1994). Ego orientation can lead to a greater use of surface strategies,
unless deep learning strategies are perceived to be necessary to achieve the desired mark or grade (Biggs and Moore, 1993). The caution for teachers who rely on, or promote ego orientation is that ego-oriented students can be so preoccupied with rewards that they may not pay as much attention to learning or may not appreciate the value of learning (Good & Brophy, 1997). This was evident in the case study of Dallin who displayed a high use of deep cognitive strategies, because he felt that these strategies were necessary to do well on assessments. He wanted to read widely during the Economic Framework unit, not out of interest or curiosity, but because he thought it might help him achieve higher results in assessments.

Another shortcoming associated with ego goal orientation is that external rewards are not likely to foster a desire for life long learning (Good & Brophy, 1997). When the extrinsic rewards are removed, how will this influence students’ desires to learn about Economics?

The goal of the Year 11 Economics syllabus is to provide students with an understanding of the economic structure of our society. To gain real understanding and to promote a self-maintaining desire to learn about Economics, teachers need to encourage task orientation. This is more likely to facilitate deep approaches toward learning, which are ideally what schools should aim for (Biggs & Moore, 1993).

A further implication for teachers of Economics in school and in higher learning, is the need to acknowledge and address these negative student perceptions of learning activities. Failure to adapt and better tailor curriculum to cater to student needs may result in a continued decline of the number of students choosing Economics at high school and university.
An overall implication of this study is that teachers need to recognise the associations previously discussed, and view student performance as an outcome of complex cognitive and motivational variables, rather than just a matter of learning the course content.

**Limitations of the Study**

This case study approach has targeted a small number of sample students analysed in one particular context. The justification of the use of case studies lies in the possible depth of the information gathered and the benefits of retaining meaningful characteristics of real life events (Burns, 1995). In the field of research on achievement strivings and motivation, the lack of generalisability in the nature of the domain-specific content can be seen as a major shortcoming (Weiner, 1990). Thus, further research with a larger sample is required to validate findings which may or may not be typical of the general population.

This study used a purposive sample to attain a range of motivational behaviours. The findings which have emerged from this study are representative of the range of motivational orientations for the classroom analysed. In other classroom contexts, a purposive sample may result in higher or lower average motivational orientations.

Time was a limitation of this study. Data collection occurred over a nine week period. Conducting the study over a longer period of time may have allowed the monitoring of student perceptions, goal orientations and cognitive engagement over more than one unit of Year 11 Economics. This may have provided more information about the permanence of findings in study. Additionally, time limited the number of variables that were explored. For example, student knowledge of cognitive strategies
and metacognitive strategies was not assessed or considered, but potentially influences strategy use (Biggs & Moore, 1993). The social dimension of school, including the teacher, parents and peers, was not considered in detail, but does have a dramatic influence on goals for learning, and therefore, motivation (Ames, 1984; Blumenfeld, 1992).

The Strategies for Learning Questionnaire was conducted after the students had completed the Economic Framework unit. This was purposely done, to investigate the learning strategies that had been used by the students during unit. The questionnaire was completed after all the interviews had been conducted, which did not allow the researcher to probe student responses on the SLQ. It would have been beneficial to have focused some questions in Interview three on cognitive strategies used during the unit, or to have conducted another interview after the SLQ.

**Recommendations for Future Research**

Although the findings in this study suggest some important implications for the teachers of Economics, this study highlights areas which would benefit from further research.

To the researcher’s knowledge, this research is the first to investigate the associations between student perceptions, motivation and cognitive engagement in the Economic Framework unit in Western Australia. Further study needs occur in a different context to confirm or disconfirm findings in this study. One area of importance which has emerged from this study is the salience of student perceptions of learning activities, and their association with self-efficacy, student motivation and cognitive engagement. Comparing the difference between a teacher who utilises mainly
note-taking with a teacher who uses more varied learning activities, may reveal further
evidence in this area.

Achievement was not a focal aspect of this study however, it may be worthwhile
investigating the impact of student achievement in the Economic Framework unit, on
students’ future self-perceptions, motivation and cognitive engagement in Economics.

In general there should also be more studies in various subject areas, exploring
possible associations between the components of the conceptual model used in this
thesis. More attention should be given to the academic achievement component. In this
way the complexity of academic achievement, as a product of student perceptions, goal
orientations and cognitive engagement may be more fully appreciated.
REFERENCES
REFERENCES


Pintrich, P.R., & Schrauben, B. (1992). Students' motivational beliefs and their cognitive engagement in classroom academic tasks. In D. Schunk & J. Meece (Eds.), *Student perceptions in the classroom* (pp. 149-180). New Jersey: Lawrence Erlbaum.


APPENDICES
Appendix A

Motivation and Strategies for Learning Questionnaire
### Strategies for Learning Questionnaire

The following statements relate to the learning strategies and study skills that you use in the Economic Framework unit. There are no right or wrong answers for any of the items. You should answer each item in terms of what you actually do when you are studying, not what you think you should do.

For each item, cross one of the numbers 1 to 7 according to how true that item is of you. If the statement is not at all true of you, cross 7; if the statement is very true of you cross 1. If the statement is somewhere in between, cross the number between 1 and 7 that best describes you.

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1. When I study the readings for the Economic Framework unit, I make an outline of the material to help me organise my thoughts.
   - 1 2 3 4 5 6 7

2. During class time I often miss important points because I'm thinking of other things.
   - 1 2 3 4 5 6 7

3. When studying for the Economic Framework unit, I often try to explain the material to someone else, such as another student, or a friend.
   - 1 2 3 4 5 6 7

4. I usually study in a place where I can concentrate on my work.
   - 1 2 3 4 5 6 7

5. When reading for the Economic Framework unit, I make up questions to help me focus my reading.
   - 1 2 3 4 5 6 7

6. When I study for this unit I often feel so lazy or bored that I stop before I finish what I had planned to do.
   - 1 2 3 4 5 6 7

7. I often find myself questioning things I hear or read about in this unit so that I can decide if I find them convincing.
   - 1 2 3 4 5 6 7

8. When I study for the Economic Framework unit, I practise saying the material to myself over and over again.
   - 1 2 3 4 5 6 7

9. Even if I have trouble learning the material in the Economic Framework unit, I try to do the work on my own, without getting help from anyone else.
   - 1 2 3 4 5 6 7

10. When I become confused about something I'm reading for the Economic Framework unit, I go back over it and try to work it out.
    - 1 2 3 4 5 6 7

11. When I study for this unit, I go through the readings and my class notes in order to work out what are the most important ideas.
    - 1 2 3 4 5 6 7

12. I make good use of my study time for the Economic Framework unit.
    - 1 2 3 4 5 6 7

13. If any of the Economic Framework unit readings are difficult to understand, I change the way I read that material.
14. When I am doing the set work for this unit, I try to collaborate with other students.

15. When studying for this unit, I read my class notes and the unit readings over and over again.

16. When a theory interpretation or conclusion is presented in class or in the readings, I try to decide if there is good evidence that supports it.

17. Even if I don't like what we are doing in the Economic Framework unit, I work hard in order to do well.

18. I make simple charts, diagrams, or tables to help me organise unit material.

19. When studying for this unit, I often set aside time to discuss unit material with some other students.

20. I treat the unit material as a starting point and then try to develop my own ideas about it.

21. I find it hard to stick to a study schedule.

22. When I study for this unit, I pull together information from different sources, such as lectures, readings, and discussions.

23. Before I study new unit material thoroughly, I skim through it to see how it is organised.

24. I ask myself questions to make sure I understand the material I have been studying in the Economic Framework unit.

25. I try to change the way I study in order to fit the Economic Framework unit requirements and the lecturer's teaching style.

26. I often find that I read material for the Economic Framework unit but don't know what it was about.

27. I ask the lecturer or tutor to clarify ideas I don't understand.

28. I memorise key words to remind me of important ideas in the Economic Framework unit.

29. When the work in the Economic Framework unit is difficult, I either give up on it or only study the easy parts.

30. When I am studying for the Economic Framework unit, I try to think through a topic and decide what I am supposed to learn from it, rather than just work on it generally.

31. Whenever possible, I try to relate ideas in the Economic Framework unit to those in other units.

32. When I study for the Economic Framework unit, I go over my class notes and make an outline of important ideas.

33. When reading for this class, I try to relate the material to what I already know.

34. I have a regular place set aside for studying.
35. I try to play around with ideas or my own that are related to the material that I am learning in the Economic Framework unit.

36. When I study for this unit, I write brief summaries of the main ideas from the readings and my class notes.

37. When I can't understand the material in the Economic Framework unit, I ask another student for help.

38. I try to understand the material in the Economic Framework unit by making connections between the homework and the ideas from the lessons.

39. I make sure that I keep up to date with the homework and other requirements of the Economic Framework unit.

40. Whenever I read or hear an assumption or conclusion in the Economic Framework unit, I think about possible alternatives that might apply.

41. I make lists of important items for the Economic Framework unit and memorise these lists.

42. I attend classes in the Economic Framework unit regularly.

43. Even when unit materials are dull and uninteresting, I manage to keep working until I finish.

44. I try to identify students in this class whom I can ask for help if I need it.

45. When studying for the Economic Framework unit I try to determine which ideas I don't understand properly.

46. I often find that I don't spend very much time on the Economic Framework unit because of other activities.

47. When I study for the Economic Framework unit, I set goals for myself that will direct my study activities.

48. If I get confused taking notes in class, I make sure I sort it out afterwards.

49. I rarely find time to review my notes or readings before an exam.

50. I try to apply ideas from the Economic Framework unit in other class activities, such as lectures and discussions.
Motivation for Learning Questionnaire

The following statements relate to the learning strategies and study skills that you use in the Economic Framework unit. There are no right or wrong answers for any of the items. You should answer each item in terms of what you actually do when you are studying, not what you think you should do.

For each item, cross one of the numbers 1 to 7 according to how true that item is of you. If the statement is not at all true of you, cross 7; if the statement is very true of you cross 1. If the statement is somewhere in between, cross the number between 1 and 7 that best describes you.

1 very true of me 2 3 4 5 6 7 not very true of me

1. In the Economic Framework unit, I prefer material that really challenges me so I can learn new things.
2. If I study in appropriate ways, then I will be able to learn material in the Economic Framework unit.
3. When I take a test I think about how poorly I am doing compared with other students.
4. I think I will be able to use what I learn in the Economic Framework unit in other subjects.
5. I believe I will receive an excellent grade in the Economic Framework unit.
6. I am certain I can understand the most difficult material presented in the Economic Framework unit.
7. Getting a good grade in the Economic Framework unit is the most satisfying thing for me right now.
8. When I take a test I think about items on other parts of the test I can't answer.
9. It is my own fault if I don't learn the material in the Economic Framework unit.
10. It is important for me to learn the course material in the Economic Framework unit.
11. The most important thing for me right now is improving my average, so my main concern in the Economic Framework unit is getting a good grade.
12. I'm confident I can learn the basic concepts taught in the Economic Framework unit.
13. If I can, I want to get better grades in this class than most of the other students.
14. When I take tests I think of the consequences of failing.
15. I'm confident I can understand the most complex material presented to me by the teacher in the Economic Framework unit.

16. In a class like the Economic Framework unit, I prefer course material that arouses my curiosity, even if it is difficult to learn.

17. I am very interested in the content area of the Economic Framework unit.

18. If I try hard enough, then I will understand the course material in the Economic Framework unit.

19. I have an uneasy, upset feeling when I take an exam.

20. I'm confident I can do an excellent job on the assignments and tests in the Economic Framework unit.


22. The most satisfying thing for me in the Economic Framework unit is trying to understand the content as thoroughly as possible.

23. I think the course material in the Economic Framework unit is easy for me to learn.

24. If I had the opportunity in the Economic Framework unit, I would choose assignments that I can learn from, even if they don't guarantee a good grade.

25. If I don't understand the course material, it's because I didn't try hard enough.


27. Understanding the subject matter of the Economic Framework unit is very important to me.

28. I feel my heart beating fast when I take an exam.

29. I'm certain I can master the skills being taught in the Economic Framework unit.

30. I want to do well in the Economic Framework unit because it is important to show my ability to my family, friends, employer, or others.

31. Considering the difficulty of the Economic Framework unit, the teacher, and my skills, I think I will do well in this class.
Appendix B

Cover Letters
16 July 1997

Dear xxxxxxx (Principal)

I am seeking your approval to undertake research for my Honours Thesis about student perceptions of Economics and the Economic Framework unit in Year 11, xxxxxxx School.

This research study is aimed at gaining a greater understanding into how students feel about Economics and why they hold these attitudes. The purpose of the research is to improve the teaching of Economics using student feedback.

All students in the class will be asked to fill in a questionnaire and four students will be selected, depending upon their responses, for the research study. Normal lesson formats and times will not changed and student learning will not be disrupted. I will be a silent observer in three classes and will then conduct four interviews with each of the four students, on four separate occasions.

The responses of the four students will be recorded, documented and analysed, in the context of my research. I can assure you that any information will be completely confidential and students and the school will be given fictitious names in my thesis document.

Your cooperation in this matter is much appreciated.

Yours sincerely

Miss Leah Gransden
Economics Teacher
xxxxxx School

I give my approval for Leah Gransden to conduct the research described above. I understand that the research data gathered for this study may be published, although the school and participants will not be revealed.

Signature: ________________________________

Date: ________________________________
Dear xxxxxxx (classroom teacher)

I am seeking your approval to undertake research in your class, for my Honours Thesis about student perceptions of Economics and the Economic Framework unit in Year 11.

This research study is aimed at gaining a greater understanding into how students feel about Economics and why they hold these attitudes. The purpose of the research is to improve the teaching of Economics using student feedback.

All students in the class will be asked to fill in a questionnaire and four students will be selected, depending upon their responses, for the research study. Normal lesson formats and times will not changed and student learning will not be disrupted. I will be a silent observer in three classes and will then conduct four interviews with each of the four students, on four separate occasions.

The responses of the four students will be recorded, documented, and analysed, in the context of my research. I can assure you that any information will be completely confidential and students and the school will be given fictitious names in my thesis document.

Your cooperation in this matter is much appreciated.

Yours sincerely

Miss Leah Gransden
Economics teacher
xxxxxxxxxxx School

I give my approval for Leah Gransden to conduct the research described above in my classroom. I understand that the research data gathered for this study may be published, although the school and participants will not be revealed.

Signature: 

Date: 

16 July 1997
Dear Parent

My name is Miss Leah Gransden and I am the Economics teacher xxxxxxxxxx School in xxxxxxxxxx. I am undertaking research for my Honours Thesis about student perceptions and motivation in the Economic Framework unit in Year 11.

This research study is aimed at gaining a greater understanding into how students feel about Economics and why they hold those perceptions. The purpose of the research is to improve the teaching of Economics using student feedback.

This study has the approval of xxxxxxxx, the Principal, and xxxxxxxxxx, the Economics teacher. All students in the class will be asked to fill in a questionnaire and four students will be selected, depending upon their responses, for the research of the study.

Normal lesson formats and times will not be changed and student learning will not be disrupted. I will be a silent observer in three classes and will then conduct four interviews with each of the four students, on four separate occasions.

The responses of the four students will be recorded, documented, and analysed, in the context of my research. I can assure you that any information will be completely confidential and students and the school will be given fictitious names in my thesis document. Only my university supervisor and myself will have access to information that may connect student names with their responses.

I am seeking your approval to include your son/daughter in the study, if they are chosen as one of four sample group students. There is no obligation for a student to remain in the study once it has commenced. They are free to withdraw at any time.

Please indicate whether or not your child may be included in the study on the form below, sign accordingly and return to xxxxxxxxx as soon as possible.

Your cooperation in this matter is much appreciated. If you have any questions or concerns, please do not hesitate to contact me at school on xxxxxxxxxx.

Yours sincerely

Miss Leah Gransden
Economics Teacher
xxxxxxxxxxx School
I/we agree for my/our son/daughter to participate in this study. I/we am/are aware that there is no obligation for my/our child to continue the study, if I/we do not want them to.

I/we agree that the research data gathered for this study may be published, realising that the identity of all participants will not be revealed.

Signature of parent/guardian: 
______________________________
Date: 
______________________________

Signature of student: 
______________________________
Date: 
______________________________
Appendix C

Interview Schedules
APPENDIX C

Interview Schedules

Schedule for Interview One

General Questions Relating to Student Entry Characteristics and Student Self-perceptions

Student entry characteristics

Why did you choose Year 11 Economics?

What was Year 10 Economics like for you?

How do you feel about these learning activities?

What were the main teaching methods used in Year 10 Economics?

How do you feel about these teaching methods?

How successful do you think you were in 10 Economics?

How has this influenced your attitude toward Year 11 Economics?

Student Self-perceptions

How would you describe ability?

How do you feel about your own ability in the Economic Framework unit?

How do you think your ability influences your achievement in the Economic Framework unit?
How confident do you feel with understanding the work so far in the Economic Framework unit?

How would you describe the amount of effort you put into the Economic Framework unit:

a. In class time?
b. When completing homework?
c. When preparing for assessments?

How do you think the amount of effort you put in influences your achievement?

How much responsibility do you feel for:

a. How much you learn?
b. How well you do in assessments?

What would you like to achieve this year for the Economic Framework unit?

How important is it to you to achieve this?

How well do you expect to do in this unit?

What value/importance do you think this unit will have for you:

a. If you choose Year 12 Economics?
b. After you leave school?
Schedule for Interviews Two and Three

General Questions Relating to Student Perceptions of the Course Content, Instructional Practices and Task Value, Achievement Goal Orientations and Cognitive Engagement

Instructional Practices

How do you feel about the teaching methods used in the Economic Framework?

What are three main types of lesson activities during a normal Economic Framework lesson?

Which type of lesson activity out of these do you enjoy the most? Why?

Which type of lesson activity out of these do you enjoy the least? Why?

Which type of lesson activity out of these do you think you learn the most from? Why?

Which type of lesson activity out of these do you learn the least from? Why?

Do you answer many questions during class discussion? Why/why not?

How confident do you feel with understanding the work for this particular topic?

When you get back an assessment, how do you decide whether you have done well or not?

Do you compare your results to other students in the class? Why/ why not?

Do the test results you get affect how hard you try on other assessments?

Course Content, Task Value and Achievement Goal Orientation

Do you find things you learn about in the Economic Framework interesting? Why?

Do you think the things you learn about in the Economic Framework are important to learn? Why?
Do you think that the things you learn about in the Economic Framework will be useful to you? How?

What have your favourite topics been? Why?

How challenging do you find the work in the Economic Framework?

When you are working on a task during a lesson, what are you thinking?

If you find a task interesting, how does it affect the way you go about completing the task?

How does it affect the amount of effort you put into completing the task?

Achievement Goal Orientation and Cognitive Engagement

In class, how do you decide which are the most important lesson activities?

How hard were you trying in the lesson activities today?

Was there any reason for this?

Is there anything that could have encouraged you to put more effort into the task?

If you experience difficulty with a task, what do you do?
Appendix D

Notes on Classroom Observation
Notes on classroom observation

Context: The lesson was a double period lesson. The first period was devoted to current economics. The second period, and thus the focus for this observation, was a lesson on inflation.

Notes on Joanna’s covert actions during the lessons were as follows:

Joanna was situated at the front of the classroom and was seated next to a friend. She appeared to pay close attention to teacher instructions throughout the lesson, and work on all learning activities. She did not talk to the student beside her very often.

9.20 - 9.30am Teacher explanation of the general topic of inflation and its application in the real world. Joanna appeared to be paying close attention the whole time.

9.30 - 9.35am Instructions on the calculation of the inflation rate using the Consumer Price Index. Two examples of the calculation were provided. Two questions were asked, from the teacher to the students. Students copied down the notes. Joanna appeared to be paying close attention the whole time and copied down the notes.

9.55 - 9.57am Teacher told students to complete questions in the workbook and gave out homework. Joanna appeared to be listening.

9.57 - 10.05am Student activity - calculating the inflation rate, answering questions in the revision book. Joanna worked continually, off task for 1 minute talking, then back on task of her own accord.

Notes on Bardia's covert actions during the lessons were as follows:

Bardia was seated in the back row of the classroom. He appeared to be listening to teacher instructions and to complete all set work. He was not seated next to a student and did not talk to other students throughout the lesson.

9.20 - 9.30am Teacher explanation of the general topic of inflation and its application in the real world. Bardia appeared to be paying attention the whole time.

9.30 - 9.35am Bardia appeared to be paying attention to instructions and examples and copied down the notes when required.


9.55 - 9.57am Teacher told students to complete questions in the workbook and gave out homework. Bardia appeared to be listening.

9.57 - 10.05am Student activity - calculating the inflation rate, answering questions in the revision book. On task for the entire ten minutes talking to the person next to him.
Notes on Dallin’s covert actions during the lessons were as follows:

Dallin was seated next to a friend in the second back row of the classroom. Most of the time he appeared to listen intently to teacher instructions and complete set learning tasks during the time provided. He chatted to his friend occasionally.

9.20 - 9.30am Teacher explanation of the general topic of inflation and its application in the real world. Dallin appeared to be listening closely the whole time.

9.30 - 9.35am Instructions and examples of the calculation of the inflation rate were provided. Students copied down the notes. Dallin appeared to be listening closely the whole time and copied down the notes.

9.35 - 9.55am Student activity - calculating the inflation rate, answering questions in the revision book. Dallin was off task for 2 minutes talking to the person beside him, but then worked continually of his own accord. He asked no questions.

9.55 - 9.57am Teacher told students to complete questions in the workbook and gave out homework. Dallin appeared to be listening.

9.57 - 10.05am Student activity - calculating the inflation rate, answering questions in the revision book. Off task for 1 minute talking to the person beside him, then on task for the following 9 minutes.

Notes on Michael’s covert actions during the lessons were as follows:

Michael was situated in the front of the classroom. He sat in a row of six boys who appeared to be friends and to work together on learning activities. Generally Michael
did not appear to be interested in the lesson and had to be continually reminded to stay on task.

9.20 - 9.30am Teacher explanation of the general topic of inflation and its application in the real world. Michael appeared to be listening closely the whole time.

9.30 - 9.35am While teacher instructions were given, Michael appeared to be listening closely the whole time. He copied the notes in the allocated time.

9.35 - 9.55am Student activity - calculating the inflation rate, answering questions in the revision book. Michael was initially throwing a calculator around and talking with friends for the first ten minutes, until the teacher walked over and asked the students to get back to the task. For the first two minutes following that Michael worked, and appeared to be asking the person sitting next to him how he did each question and the answer he got for each question. He then continued working on task for the last 8 minutes, asking other students in the class what their answers were after he answered each question.

9.55 - 9.57am Michael appeared to be listening during teacher instructions.

9.57 - 10.05am Student activity - calculating the inflation rate, answering questions in the revision book. Michael was off task for 4 minutes, just talking and mucking around, the teacher reminded Michael to get on task and as soon as the teacher left, Michael was off task and talking to the person next to him.
Appendix E

Teacher Checks
### APPENDIX E

Teacher Checks

**Table 7. Summary of Teacher Lesson Plans**

<table>
<thead>
<tr>
<th>Learning activity</th>
<th>Percentage of time spent on activity during the Economic Framework unit</th>
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<td>Teacher led explanation</td>
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<td>Text reading</td>
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<tr>
<td>Text summarising</td>
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</tr>
<tr>
<td>Taking down teacher notes</td>
<td>20%</td>
</tr>
<tr>
<td>Revision Booklet (based on text readings)</td>
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</tr>
<tr>
<td>Cartoons/Newspaper articles</td>
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<tr>
<td>Quizzes</td>
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**Table 8. Teacher Records Summarising Achievement**

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<th>Course mark</th>
<th>Grade</th>
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<td>62%</td>
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<tr>
<td>Bardia</td>
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<td>55%</td>
<td>C</td>
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<td>Dallin</td>
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<td>70%</td>
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<tr>
<td>Michael</td>
<td>36%</td>
<td>40%</td>
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Table 9. Teacher’s Perceptions of Student Effort Levels

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<th>Teacher perception</th>
<th>Class time</th>
<th>Homework</th>
<th>Assessments</th>
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Appendix F

Motivation and Strategies for Learning Questionnaire Results
### Table 10: Motivation for Learning Questionnaire results

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**Average**

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### Table 11. Strategies For Learning Questionnaire results

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**Average:** 4.08  2.92  3.58

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<td>Subject 1</td>
<td>5.5</td>
<td>Subject 11</td>
<td>5.5</td>
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<td>5.17</td>
</tr>
<tr>
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<td>Subject 2</td>
<td>5.75</td>
<td>Subject 1</td>
<td>6</td>
<td>Subject 2</td>
<td>5.5</td>
</tr>
</tbody>
</table>

**Average:** 3.26  3.2  3.2

**Notes:**
- Student 1: Bardia
- Student 8: Dallin
- Student 14: Michael
Appendix G

Researcher’s Personal Perspectives
APPENDIX G

Bracketed Personal Perspectives

Personal Perspectives

My beliefs are similar to those of social cognitive theory. I feel that learning should be student centred and tailored to the specific needs of students. Fostering self-worth in learning is essential.

Student interest and motivation are an integral component of effective learning.

Attitudes

Economics is a worthwhile and interesting subject. It can provide students with a sound understanding of the workings of the economic system. This knowledge provides relevance to government policies and changing economic environments.

I value student feedback as an important part of the plan-teach-evaluate model.

Preconceptions

The Economic Framework unit has a large amount of content for the allocated time. This can make it difficult to teach it in new, interesting and stimulating ways.

Students have often given informal feedback that they want more variation in activities and more practical and interesting activities.
There is a lack of resources available to Economics teachers, particularly for the Economic Framework unit. The videos that are available are extremely dull and outdated. There are some excursions that are quite interesting for other topics; however, few excursions are appropriate for the Economic Framework unit. It seems that students are not very motivated and I feel that Economics is usually a subject chosen by higher ability students, and they should be quite motivated.

I do not know what the answer is, but I strongly feel the need to investigate the problem. I think the most valuable way to do this is to ask the students themselves and listen to what they have to say.

On conducting a teacher questionnaire at an Economics seminar about what they thought the students felt about their lessons, it became apparent that some teachers were very protective of what conclusions may be drawn from student’s negative perceptions. I decided for that reason that it would be far more valuable to probe student perceptions rather than teacher perceptions of the Economic Framework unit. The questionnaire also revealed that predominantly used lesson activities included writing out notes from the textbook and little use of group work.

I also have a concern that the assessments test a lot of rote learning and do not reward understanding as much as they could.