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A primary school internship model: Graduate teacher performance as perceived by employing principals

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A Primary School Internship Model: Graduate Teacher Performance as Perceived by Employing Principals

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This thesis is presented in partial fulfilment of the requirements for the degree of Master of Education

Faculty of Education and the Arts
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Abstract

Achieving an effective balance between the theoretical and practical components of pre-service teacher education has been a long debated issue. The quality of pre-service teacher practicum experiences vary, and are dependent on numerous variables, such as the duration of the practicum and the quality of the mentoring and provision of feedback.

This study reports on an Internship Model, which began in 2009, and its perceived impact on the quality of graduate teachers in Western Australia. As an 'Intern Teacher', pre-service teachers spend their final academic year working at a selected primary school, paired with a trained mentor and receive ongoing standards-based feedback. Throughout the year they participate in weekly professional development sessions.

In 2014 there are over 50 'Intern Graduates' working in Western Australia who have qualified through the Internship Model and two partnering Western Australian universities. This mixed-methods study invited all principals with an Intern Graduate in their school to compare the work of Intern Graduates and non-Intern Graduates via a survey, based on the Australian Professional Standards for Teachers. The quantitative data analysis included a binomial analysis, looking at the proportion of principals who perceive their Intern Graduate to perform at a higher or significantly higher level than one they expect from traditionally educated graduate teachers. The qualitative component of the study includes analysis from interviews with four principals in order to identify key areas of significance in relation to principals' perceptions of graduate performance.

This thesis makes recommendations based on the study's key findings, which show that principal participants believe Intern Graduates perform at a higher level than non-Intern Graduates. Recommendations may be of interest to the Department of Education, school leaders and tertiary institutions, and are particularly relevant in the current national climate of improving teacher quality and addressing the problems of graduate teacher retention.

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The direction in which education starts a man will determine his future in life.

- *Plato*

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Definition of Terms

TERM	DEFINITION
Internship Model	The pre-service teacher education model about which this study focuses, where pre-service teachers spend their final year working at a school.
Norfolk Primary School	The school in which Intern Teachers work and receive additional professional learning during their final year of tertiary study. This name is a pseudonym.
Intern Teacher	A pre-service teacher completing their final year of university whilst working at Norfolk Primary School.
Intern Graduate	A graduate teacher who completed the Internship Model and was an Intern Teacher at Norfolk Primary School in their final year of pre-service teacher education.
non-Intern Graduate	A graduate teacher who qualified to teach by completing any pre-service teacher education model that was not the Internship Model that features in this study.
Mentor Teacher	A teacher who works alongside a pre-service teacher and is responsible for assessing their professional experience, providing feedback and creating opportunities for professional learning in their classroom.

Common Acronyms

AITSL	Australian Institute for Teaching and School Leadership
DoE	Department of Education (Western Australia, unless otherwise stated)
MCEEDYA	Ministerial Council for Education, Early Childhood Development and Youth Affairs
TRB	Teacher Registration Board
WACOT	Western Australian College of Teaching (replaced by the TRB)
WA	Western Australia

CHAPTER ONE
Introduction

This thesis discusses an Internship Model for pre-service teachers that began in 2009, with the opening of Norfolk Primary School, a new Independent Public School (IPS) in Western Australia. Final year Bachelor of Education students from four campuses, across two different universities, could apply to spend their final year of study working 'on site' at Norfolk Primary School. This study investigated the performance of the graduate teachers who completed the Internship Model in relation to the Australian Professional Standards for Teachers (Australian Institute for Teaching and School Leadership, 2014), as perceived by the principals who employed them after they had finished their degree. Perceptions about the strengths and weaknesses of both Intern Graduates and the Internship Model were also gathered in interviews with four participating principals.

Background

Despite much reform in the field of pre-service teacher education in recent decades, there still exist multiple challenges in the teaching profession relating to graduate teacher quality, and graduate teacher attrition and retention (Boylan & Society for the Provision of Education in Rural Australia, 2005; Green & Reid, 2004; Manuel & Ewing, 2005; Trinidad, Sharplin, Lock, Ledger, Boyd, & Terry, 2011), particularly in rural areas. Large scale studies indicate that there is a causal relationship between the effectiveness of the pre-service teacher education program and the challenges that face the profession (Darling-Hammond & Bransford, 2005; Levine, 2006; Ramsey, 2000; Standing Committee on Education and Vocational Training, 2007; Twomey, 2007). In Western Australia (WA), the practicum component of a pre-service teacher education degree has attracted particular attention since the publication of The Twomey Report in 2007, which found that "The more effective the practicum

component of the pre-service program, the greater the likelihood of retaining new graduates in the profession" (Twomey, 2007, p. 63). Twomey's findings, as well as the Western Australia Department of Education's (DoE) Improving Teacher Quality initiative, contribute to the ongoing debate surrounding the discussion about balancing theory and practice within pre-service teacher education degrees. If the practicum component is a significant predictor of later retention for graduate teachers, as Twomey's (2007) discussion suggests, then the nature of the practicum in Western Australia warrants further scrutiny so that excellent practice can be understood and sought by tertiary education providers and their school partners. The Internship Model offered an alternative approach to pre-service teacher education because it was the first 21st century model in Western Australia that offered a year-long internship to undergraduates, supported by the DoE, and it provided supplementary mentoring and professional development to conventional practicum models. A summary of the Internship Model's unique features is outlined in Appendix A and the researcher can be contacted should further information be needed.

As Figure 1 on page 6 shows, there are seven key stakeholders who either contributed to the implementation of the Internship Model or who were affected by the outcomes of the Internship Model. Each stakeholder's background and involvement will be discussed in the subsequent paragraphs.

The DoE endorsed the Internship Model, signing a Memorandum of Agreement in 2008 (Appendix B). It awarded 'country teaching scholarships' to Intern Teachers. Interns received fortnightly payments totalling $15,000 during their final year whilst working at Norfolk Primary School. A rural stipend was also awarded to Intern Teachers who relocated 80 kilometres or more from their home which was approximately $135, also paid fortnightly throughout the final academic year. Intern Teachers, upon successful completion of the year, were guaranteed a position in a country teaching program school (Department of Education, n.d.) and/or a difficult to staff (Department of Education, n.d.) public school in Western Australia, as decided by the DoE, and they agreed to remain there for a minimum of one year. A $30,000 scholarship was available if Intern Teachers agreed to spend a minimum of three years in a school of the DoE's

choosing, although this larger amount of money was discontinued in 2012. In 2012, five Intern Teachers accepted positions at Norfolk Primary School and opted not to receive a scholarship, meaning they could apply to work in any school and were not guaranteed a job. They were still eligible for the rural stipend payments, in addition to any Youth Allowance or Centrelink payments for which they were eligible. This study is of interest to the DoE because provision of scholarships and stipends is costly, and, therefore, the evidence needs to show a positive impact to justify a continued endorsement.

The Internship Model initially began with a partnership with two campuses of one university. The university endorsed the model by signing the same Memorandum of Agreement (Appendix B) with the DoE and establishing verbal agreements with Norfolk Primary School's foundation principal, who had initiated the discussions for piloting an internship model at the school when it opened in 2009. In 2012, a second university joined the partnership. The universities did not receive funding to support their involvement in the Internship Model, and since the aforementioned memorandum of agreement expired, there has been no written policy guiding universities regarding their rights or responsibilities in relation to the model. However, the advantages to university partners have been that they have the opportunity to strengthen links with a public school, and their practicum or workplace learning department does not have to find alternative practicum venues for their final year students who are participating in the model – the task of finding enough schools able to accept a final year student has been acknowledged as a challenging one (Sim, 2011; Ure, Gough, & Newton, 2009), and that challenge is only made more difficult if universities seek to ensure 'good mentors' are being sought by school leaders, another heavily debated topic in the field of pre-service teacher education (Beijaard, Verloop, & Rajuan, 2007).

The schools that employ Intern Teachers, once they have graduated, are obviously key stakeholders in the model. Since April 2012, all WA.school leaders have been given more autonomy to select their staff through the creation of selection 'pools' to which applicants upload their curricula vitae to a system accessible to school leaders. Independent Public Schools (IPS) have

always been able to conduct their own merit selection process and they have maintained the option to run a separate process. As teacher quality has been shown to have the largest influence on student outcomes (Hattie, 2011) it is certainly in school leaders' best interests to seek to employ the best quality staff members. Rural and remote schools are rarely inundated with applications when a vacancy is advertised, meaning graduate teachers often make up the overwhelming majority of a rural or remote school's staff. Given the poor retention rates of graduate teachers in non-metropolitan areas of WA (Trinidad, et al., 2011), as well as the DoE's emphasis on Improving Teacher Quality (Department of Education Employment and Workplace Relations, 2013), principals need to know whether it is in their interests to appoint Intern Graduates.

School communities can be considered a stakeholder in the Internship Model and are pluralised in Figure 1 because the community surrounding Norfolk Primary School is affected, as is (potentially) the school community associated with an Intern Graduate's place of employment. To pass their final practicum, intern teachers must demonstrate engagement with parents and the wider school community. Given that Norfolk Primary School had a minimum of nine Intern Teachers each year (except 2014), the quantity of school-community links and/or events would be noticeably increased. Intern Graduates may also have a positive or negative impact on their school community, depending on their performance. The results pertaining to standard seven, which encompasses school community work, (Australian Institute for Teaching and School Leadership, 2014) and Intern Graduates' teaching effectiveness will indicate if principals perceive their school community to be affected.

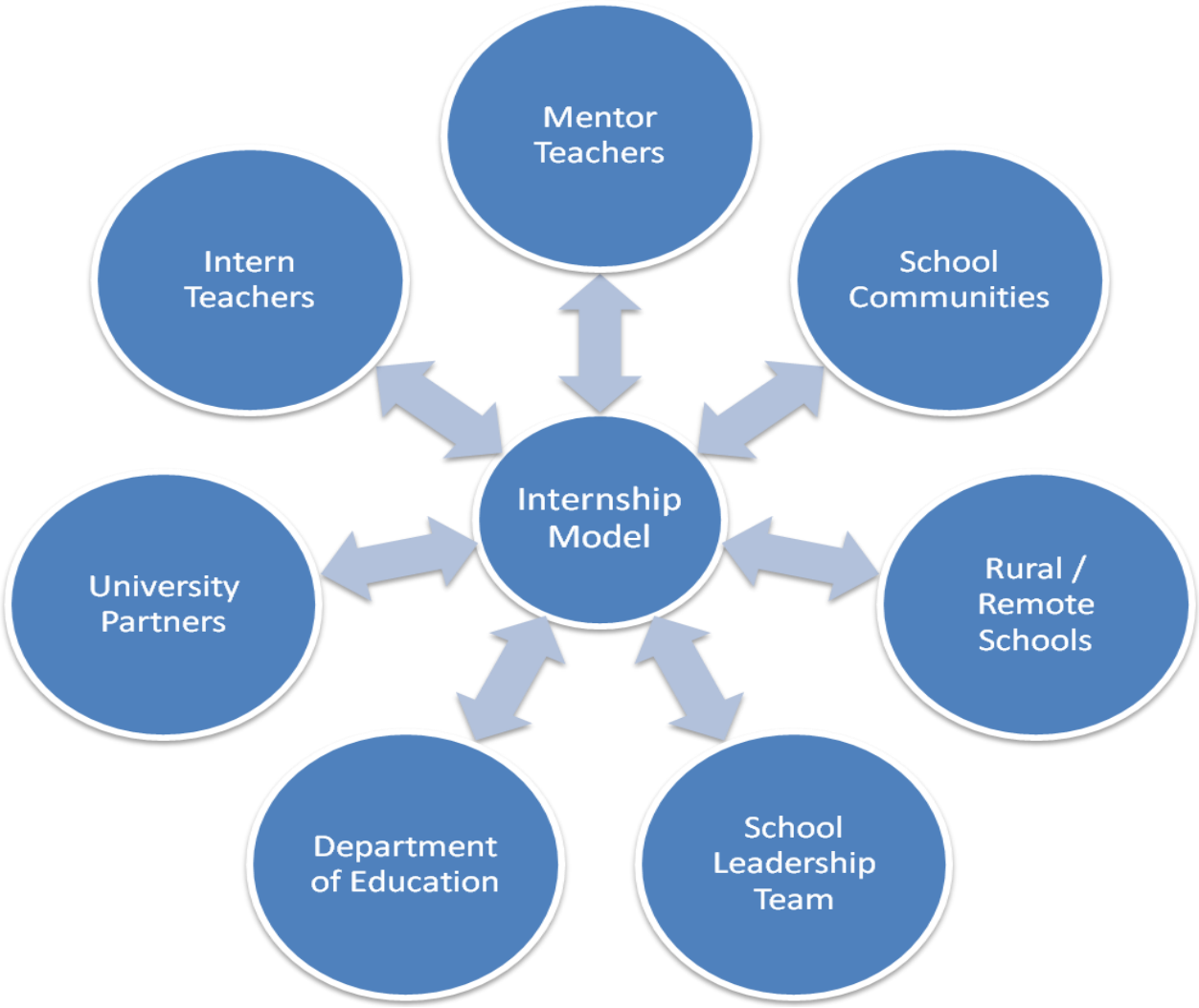
The three remaining stakeholders are those who work within the operational parameters of the Internship Model: they are all staff members at Norfolk Primary School – the Mentor Teachers, the Intern Teachers and the school's leadership team. Mentors are expected to dedicate a large amount of time to the practice of mentoring – what impact does this have on their own teaching and the dynamics in their classrooms? The pre-service teachers apply to participate in the model, knowing that there will be an increased workload

compared to completing the conventional, shorter practicum, but may underestimate the magnitude of this increase. The school's leadership team also has an increased workload of managing a larger staff, and finding the money in the school's one-line budget to support the model. The advantages of having surplus teachers in the school is an attractive idea to school leaders (see the structure and features of the model explained in Appendix A) and possibly the school students' parents and wider community, but it is difficult to measure if there is any impact on student outcomes. In fact, creating effectively smaller class sizes, (which Norfolk Primary School could choose to do using its Intern Teachers) necessitates a change in teaching pedagogy for positive effects to be accrued (Hattie, 2005), which presents another professional development related challenge to the school's staff.

Relevance of the Study

This research is relevant because it may help stakeholders (see Figure 1) decide if their involvement in future internship models can be justified. The study's findings may also offer helpful information to policy makers when shaping the development of future extended practicum models and to school leaders when coordinating support for pre-service teachers in their schools.

Figure 1: The Stakeholders in the Internship Model



This study is unique in that it is the only research that has focused solely on this Internship Model and how its Intern Graduates are perceived by employers. This study is also original in that it is investigating an extended practicum model for undergraduate teachers, when most extended practicum models previously researched in Australia involve only postgraduate pre-service teachers.

Australia's *Top of the Class* report identified a relationship between pre-service teacher education and the quality of graduate teachers, "...a good measure of the effectiveness of teacher education courses is the quality of the graduates teaching in real school settings" (Standing Committee on Education and Vocational Training 2007, p. xxii). Intern Teachers, participating in the Internship

Model, follow the same course structure as their peers for the first three years of their degree; it is only in the fourth year when differences occur. Given that teacher quality is the most influential variable when predicting student outcomes (Hattie, 2011), it is important to understand any difference in the performance of graduate teachers who completed the Internship Model and those who did not. The perceptions of the employing principals are highly valuable in determining what differences are identifiable, and the study adds to a 'community of understanding' surrounding pre-service teacher education and the Internship Model in particular. Between 2009 and 2013, 55 pre-service teachers commenced their final undergraduate year as Intern Teachers at Norfolk Primary School, yet until now there has been no specific information available about their performance or perceived value as a graduate teacher. This study allows reliable and valid data to be shared with education providers and the Western Australian Department of Education (DoE) so that evidence-based views can be formed about future directions for schools, university students and Department of Education policy.

Aims

The primary aim of this study is to answer the two research questions with methods that yield valid and reliable data, from which can be derived relevant conclusions.

Secondary aims centre on the implications of any statistically significant results that emerge, and the necessary discussion that follows, such as the nature and impact of any performance differences between Intern Graduates and non-Intern Graduates: for example, principals' perceptions about the strengths and weaknesses of the Internship Model may indicate key features of pre-service teacher education that warrant review, either by the school implementing the practicum component, the tertiary education provider, or the policy making bodies that influence university guidelines, such as the Ministerial Council for Education, Early Childhood Development and Youth Affairs (MCEECDYA) or the Australian Institute for Teaching and School Leadership (AITSL). A third aim

is to highlight if further research on the Internship Model would be a useful addition to the body of knowledge in the field of pre-service teacher education.

Research Questions

This study aims to investigate the perceptions of principals who employ the Intern Graduates after they leave Norfolk Primary School. It will aim to answer the following two questions to ascertain what participating principals think about this alternative approach to pre-service teacher education.

1. What are principals' perceptions of the performance of graduate teachers who have completed the Internship Model in relation to the Australian Professional Standards for Teachers?

2. What are the perceived strengths and weaknesses of the Internship Model in assisting to develop pre-service teachers?

These questions will be discussed in more detail in Chapter Four.

Identity and Position of the Researcher

The researcher, a Level Three classroom teacher, became aware of the Internship Model when she was employed at Norfolk Primary School and trained as a mentor teacher. The researcher took on a coordinator role in the school and gained knowledge of the operational components of the model, such as the school-developed 'Internship Framework' and 'Internship Handbook' documents that were created to ensure consistency of experience and standards for Intern and Mentor teachers. This led to an interest in the area, but the researcher had no experience of pre-service teacher education in Western Australia, having qualified overseas. There were similarities between the Internship Model and the Graduate Teacher Program (GTP) and School Centred Initial Teacher Training (SCITT) in the UK, and having experienced those extended practicum models the researcher wanted to investigate if there

were similar benefits to the Western Australian education system resulting from the Internship Model.

The researcher's involvement in the on-site operations of the Internship Model at the school have been made transparent to the reader, although it is believed that the researcher's position has not interfered with either the reliability or the validity of the study for the following reasons. Firstly, no data were gathered from Norfolk Primary School's staff, Intern Teachers, or Intern Graduates who may have altered their responses due to the researcher's position. Secondly, no personal or professional relationship existed between the researcher and the participants because the latter group worked at other schools in different education districts. Thirdly, the study's methodology included checks and balances for validity and reliability (see Chapter Four for further details) to ensure there would be value in the study's findings.

Structure of Thesis

This thesis comprises seven chapters, beginning with the introductory chapter followed by a literature review in Chapter Two that discusses the current reforms in pre-service teacher education internationally, as well as domestically. Key concepts are examined, such as the importance of the practicum, the importance of mentoring, and the development of the Australian National Professional Standards for Teachers, published by AITSL. Chapter Three discusses how these standards have been integrated with the study's conceptual and theoretical frameworks. The methodology is discussed in detail in Chapter Four, so that data collection methods and analyses approaches can be clarified and justified. The reliability and validity of the chosen instruments are discussed, which outline and support the associated benefits of the data collection methods. The potential limitations of the study's design are also reviewed. Chapters Five and Six discuss the quantitative and qualitative findings that have resulted from data analysis. This leads into the final concluding chapter which contains a summary of findings, as well as the study's implications and resulting recommendations.

CHAPTER TWO
Literature Review

Introduction

Chapter One discussed the relevance of this study, and the value of the contributions that will be made by answering its two research questions. This chapter examines literature relating to pre-service teacher education from international and domestic perspectives, and identifies key concepts that are relevant to studies conducted within the field.

There is no doubt that it is in a country's best interest to produce high quality teachers (Toh, Ho, Riley, & Hoh, 2006). However, approaches to achieving this goal are far from consistent and unlike other professions, individuals can enter the teaching profession in a variety of ways. The structure of courses is also diverse and varies from country to country (Justin, 2011; Keown & McPherson, 2004; Wendy, 2006). Generally, in Australia, most traditional courses are still coordinated by universities and offer an undergraduate or postgraduate degree, whilst working with schools who will offer "practicum experience" to participants (Sim, 2006, pp. 2-4). However, the variables existing within this conventional structure provide topics of ongoing debate, such as course length, theoretical study topics and practicum assessment criteria. This chapter will highlight the emerging implications and elements of pre-service teacher education that current literature reveals as most important. Distinctive variations arise such as course structure and requirements for course entry, with, for example, countries such as Finland demanding the same achievements as those accepted into medicine (Alberici, 2012), whilst recent reform in England and Wales allows people with no teaching qualifications to be employed in primary or secondary public schools (Mulholland, 2012).

This chapter begins with a brief summary of pre-service teacher education reform in England and Wales, New Zealand and the United States (US) before focusing on Australia and, specifically, Western Australia. In particular, the models offering extended practicums or school-based training will be discussed. Despite such a variety in policies regarding pre-service teacher education, the review of the literature may help the reader develop a contextual understanding about how the Internship Model aligns with current reforms and trends in pre-service teacher education across the globe.

Pre-Service Teacher Education Reform

England and Wales

The establishment of formal teaching colleges in the early 20th century enabled training courses to be organised with some uniformity and a structure that is familiar to modern day times; there was a balance of theory and practice and those training to be a teacher studied educational theory and pedagogy and were 'placed' in a school for supervised on site experience. Before this structure evolved, teachers were immersed in the profession through a Victorian 'apprenticeship' type model. There is evidence to suggest that partnerships between schools and teacher training colleges were strong, with mutual collaboration in the provision of education to the trainees,

> In England, Board of Education requirements for supervision of students' classroom practice allowed various arrangements (they might be supervised either by college or school staff, for example), but in either case required ''arrangements for consultation'' be made between the college and the school (Board of Education, 1916, p. 6). Commonly, committees of college staff and senior staff from practicing and demonstration schools were formed to discuss the organisation, conduct and assessment of teaching practice. (Vick, 2006, p. 186)

In 1972, teaching in England and Wales became an all-graduate profession after the introduction of a four year Bachelor of Education (BEd) degree. This

marked the beginning of greater government involvement and in the last forty years there has been renewed interest in a model of pre-service teacher education that placed greater emphasis on an apprenticeship, in-school training approach, and less on the theoretical component at university,

> Reformed models of training include an increasingly prescriptive approach, with the introduction of a mandatory national curriculum for trainees and a standards-driven model of assessment for the final award of qualified teacher status, monitored and reviewed by various new government agencies including the Teacher Development Agency (TDA), and the Office for Standards in Education (OFSTED). What was perceived by the government as overly theoretical approaches to teacher training, which once dominated university and college-based courses, have now been replaced with greater emphasis on relevant practical classroom skills and techniques, and more recently professional values. (Wendy, 2006, p. 24)

Alternative routes into teacher training were created, such as the Graduate Teacher Program (GTP), the School Centred Initial Teacher Training (SCITT) model and the Teach First model. These entry routes had a very small number of weeks (if any) in a university setting, and qualifications were gained through working in a school every working day for at least one year. However, regardless of one's pathway to Qualified Teacher Status (QTS), at the end of the pre-service teacher education course, whether it was alternative or conventional, trainees had to meet the same standards-based criteria and teach from the same National Curriculum, arguably allowing for some consistency of expectations and quality control despite the variation in course structures that were rapidly emerging around the two countries.

In the last few years, with the proliferation of independently run academies and free schools in England (UK Department of Education, 2013a), the government has withdrawn some of its own autonomy, as well as withdrawing control from Local Education Authorities (LEAs) and is enabling head-teachers and school governors with decision making powers regarding teacher salary, school

curriculum and teacher qualification: for example, schools are no longer mandated to employ a graduate from a pre-service teacher education course.

The latest route into teaching, created in 2012, is *School Direct*, a funded initiative aimed at graduates considering a career change into teaching. This model requires no time studying in university lecture halls and is entirely school based, and may or may not include a teaching degree as part of the course (UK Department of Education, 2013b).

This overview of pre-service teacher education reform in England and Wales shows how policy has changed from in-school training approaches in the 1800s, to university-centred approaches for most of the 20th century, and in recent times offering both, with a renewed focus on increasing practical experience in schools. What is unclear is the incentive for such policy change: is it ideological, political, or as a reaction to evolving social and economic pressures?

As yet, there have been no studies examining the effectiveness of untrained teachers in free schools due to the policy changes being so recent. Free schools are those which are all-ability state funded public schools, but are self-governed and do not have to follow external guidelines or regulations (UK Department for Education, n.d.). Without data one cannot extrapolate the impact of pre-service teacher education on teacher quality in relation to this specific issue. However, in the context of this study's research questions there are some data that examine pre-service teacher education models, or 'initial teacher training' models (ITT) that reveal some noteworthy findings.

Firstly, in a six year longitudinal study investigating the perceptions of pre-service teachers, different experiences were reported depending on their ITT (Hobson, Malderez, Tracey, Homer, Ashby, Mitchell, & McIntyre, 2009). During their pre-service teacher education, those who qualified through an in-school training model, as opposed to a university-based model, reported higher levels of "feeling supported" (p. 35).

Secondly, the perception of efficacy of different ITT routes, from recruiting head-teachers, can be inferred by examining the employment statistics. The report by Hobson et al. (2009) showed that 68% of primary school trainees who completed a SCITT route secured a permanent position in their first year, compared with only 47% of the university-based Bachelor of Education (BEd) graduates (2009, p. 84). This raises the issue of principals' perceptions on newly qualified teacher performance and why more in-school experience is perceived as favourable, and what elements of ITT influence their decision making when employing new teaching staff.

Thirdly, although perceptions and experiences may imply that school-based ITT are advantageous, the evidence for what sort of ITT produces the highest quality teachers remains mixed. In their *Becoming a Teacher* report, Hobson et al. conclude that ""We are not able to make any reliable claims about the relative capability or effectiveness of beginner teachers trained via different ITT routes" (2009, p. 248). After inspecting a range of ITT, the Office for Standards in Education, Children's Services and Skills (OFSTED) found that, "There was more outstanding initial teacher education delivered by higher education-led partnerships than by school-centred initial teacher training partnerships and employment-based routes" (Ofsted, 2010, p. 75). However, OFSTED's inspection was based on watching the ITT providers in action in tertiary institutions, rather than watching the pre-service teachers in schools. This raises an important question: if the quality of the training course is inferior, what is it about newly qualified teachers from school-based training models that set them apart from other graduates, according to the head-teachers who choose to employ them over university-trained graduates?

New Zealand

Major educational reform occurred in New Zealand following a government change in 1983. The nature of pre-service teacher education changed as control was centralised in an effort to reduce inequity and increase teacher quality, "...the concept of an educational market where competition was said to lead to increased quality was central to the reform process, and has changed

the nature of teacher education in New Zealand" (Keown & McPherson, 2004, p. 164).

Subsequent governments between 1990 and 2010 have authorised more than 20 formal reviews evaluating pre-service teacher education and investigating concerns surrounding its impact on teacher quality and student outcomes,

> Essentially, these reviews have highlighted issues associated with the quality of beginning teachers, and of their preparation for teaching. Ongoing concerns about teacher education programmes have produced a number of policy reactions including the push to locate teacher preparation in universities, the introduction of a moratorium on new teaching qualifications, and giving the New Zealand Teachers Council (NZTC) statutory control of teacher education under the Education Standards Act (2001). (Grudnoff & Williams, 2010, p. 33)

The number of pre-service teacher education providers consequently increased in this time, rising from six teaching colleges to at least 16 institutions, as well as including three distance-learning options and a wide choice of study locations (Keown & McPherson, 2004). Therefore, it became more difficult to find enough school placements for the practicum component for pre-service teachers undertaking a conventional three year undergraduate BEd.

One project sought to overcome this challenge by reforming the practicum structure during the final year of the degree by reallocating roles between university and school staff, and redefining traditional school-university partnerships. Teachers within schools were recognised as 'adjunct lecturers' and pre-service teachers were allocated in a group to a school, with a member of staff in the school coordinating their workplace experiences, and liaising with a designated member of the university faculty. The findings were shared in the paper *Pushing Boundaries: Reworking School-University Practicum Relationships* (Grudnoff & Williams, 2010). The perceptions of the principals were considered noteworthy, and despite an increase in school personnel's

workload, the feedback was overwhelmingly positive. The following quotes demonstrate this well and were included in the study's findings on page 37,

> A chance to bring the best of school and the best of university together in a way that's collaborative and co-constructed. For once, it's a joint thing as opposed to the university over there, and the school over there, and the student flitting between the two. I think there's more cohesiveness about what's needed, what everybody wants for the students, so they're not sitting wondering whose tune to play to. (Principal, School D)

and

> It does align the school more with the faculty and it does provide those relationships. The communication we have can only make it better for the school because you have this connection and the conversations and the clarity [about] what's happening. (Principal, School B)

Although the practicum was not extended, the benefits to the school, as implied by the principals' comments, were supported by teachers. It is clear they felt valued as the university acknowledged their input by using their work as recognition of prior learning for further study. The opportunity for the creation of professional learning communities due to the project's increase in discussion and collaboration was evident. This topic emerges in many 'teacher quality' discussions in current literature. Comments from 'adjunct lecturers' were also very positive,

> We have these discussions. It's about how do we co-construct effective practice together. And it's about everyone's input being important, everyone's input being valued. (Adjunct Lecturer, School D) (Grudnoff & Williams, 2010, p. 38)

> Because of this pilot, they [the university] have offered study and so I've taken that opportunity and now I'm working towards my Masters, which I

> would never have considered, had this not fallen into place. (Adjunct Lecturer, School C)
>
> (Grudnoff & Williams, 2010, p. 39)

> When you hear other people talking, like we discuss the students and possible…things you might overlook because you're in your own little world and you hear others talking and…that makes me think as well. So, I think like that whole discussion we had about how much do we step in and how much we back off is important. I think we've benefitted as a team. (Adjunct Lecturer, School D)
>
> (Grudnoff & Williams, 2010, p. 39)

Interestingly, this case study from New Zealand reveals a different viewpoint on the concept of the practicum within pre-service teacher education. Whilst many researchers advocate extended practicum models (Gestny & Stanley, 2005; Hagger & McIntyre, 2006; M. Levine, 2002), there are some researchers working in the field who are more cautious about this 'more the merrier' approach to in-school practice. In both Haigh and Ward's work (2004) and Russell's work (as cited in Hoban, 2005 pp. 135-152) caution is expressed as a result of exploring the complexities of the practicum and the dependence on good relationships being established. Russell asserts that the quality of the practicum is more important than the quantity of practicum experienced, and the New Zealand project discussed above appears to support that notion.

The practicum and its importance, both in terms of measurable impact and the perceptions surrounding it, continue to emerge as a key concept when researching pre-service teacher education.

The United States of America

The United States of America (the U.S.) has been experimenting with a variety of non-traditional pre-service teacher education models for longer than New Zealand. Those wishing to train to teach in the US have different options depending on their state of residence: for example, classed under an

‘innovations in teaching’ banner there are, at the time of writing, six isolated ‘alternative’ routes to certification, located in Florida, Texas, Georgia, New York, California, and Kansas (U.S. Department of Education, 2013). These opportunities address local point-of-need issues such as teacher shortages. On the whole, they have a ‘learn on the job’ type structure with minimal coursework that candidates complete concurrently with their full time teaching load, for which they receive funding or a regular teacher salary. There are also specific national schemes available for those willing to teach in high-poverty areas or those wishing to enter teaching after a career in the military (U.S. Department of Education, 2013), which again, offer an accelerated entry route into the profession.

Most universities offer a four year teaching degree, leading to full teacher certification, with the completion of several theoretical units combined with school practicum opportunities staggered over the duration of the course. In several states, however, there is a modified approach called Professional Development Schools (PDS), which has been operating since the 1990s. This developed from Goodlad’s *Better Teachers for the Nation* (Goodlad, 1991) and was shaped under advice from a report entitled *Tomorrow’s Teachers: A Report of the Holmes Group* (The Holmes Group, 1986), whose authors comprised “...a consortium of education deans and chief academic officers from the major research universities in each of the fifty states” (p. 3). This pre-service teacher education model emphasises closer links between schools and universities, and teachers have the opportunity to take a greater role in the training of the pre-service teacher, as piloted by the New Zealand project in the late 2000s (Grudnoff & Williams, 2010). Pre-service teachers accepted into a PDS spend their final year working as an ‘intern teacher’ in a school and complete professional development opportunities alongside the mentor and classroom teachers employed at the school. The leadership team from Norfolk Primary School travelled to the US and the PDS Conference held in 2009 to gather ideas and strategies for the Internship Model. Consequently, many of the features outlined in Appendix A developed from professional networks established with PDS personnel.

Further scrutiny of the PDS model is helpful for this literature review because the model has been long established and there are more rich data available than from the very recent reforms or projects in England and New Zealand. The Professional Development School movement was also designed around the idea of increasing practicum length,

> Creating a system built around programs centered on clinical practice also holds promise for advancing shared responsibility for teacher preparation; supporting the development of complex teaching skills; and ensuring that all teachers know how to work closely with colleagues, students, and community. (National Council for Accreditation of Teacher Education, 2011, p. 10)

The operational mechanisms of a PDS in the US are summarised below:

> In a typical PDS setting, pre-service teachers work side by side with P—12 faculty all day, every day, for at least a full semester. During this time the pre-service teachers plan and deliver instruction, design curriculum, assess student progress, manage classrooms, attend professional development functions and faculty meetings, and participate in the myriad other activities that characterize the work of a classroom teacher. This activity is all accomplished under the supervision of cooperating teachers and administrators and takes place prior to the semester in which candidates complete their student teaching requirement. Teaching candidates thus enter their 1st year of teaching having already experienced the day-to-day professional requirements placed upon a teacher, with the added advantage of having been mentored by professionals. (Watson, Miller, Johnston, & Rutledge, 2006, p. 78)

Levine (2002) reviewed several quantitative studies that examined the performance of teachers, who had been both educated conventionally and educated in PDS in the US, finding, “On all measures, the professional development school candidates outperformed the traditionally prepared candidates” (2002, p. 78). This finding was based on a Texas study referenced

in Foster's *Research on Professional Development Schools* (1999, p. 512). The pre-service teachers from PDS scored higher in tests that the state of Texas used to assess knowledge of pre-service teachers, as well as through observations of teaching practice, using recognised indicators of effective teaching.

Watson et al. (2006) supported this finding when they interviewed and surveyed principals in a mixed-methods study to gather data on their perceptions of graduate teachers who had been trained in PDS versus those who had not. Watson et al.'s (2006) study found that principals in the US rated PDS graduates more highly than non-PDS graduates,

> The results of this study are supportive of the view that teachers who are trained through PDS programs are judged by principals to be more capable than graduates of similar programs that do not include a PDS experience. Differences in ratings of knowledge, skills, and behaviors on 19 comparisons between PDS and non-PDS graduates were all statistically significant. Of the 19, 3 were judged to have large effect sizes and 14 were judged to have medium effect sizes. This finding represents a difference in perception that is difficult to ignore. (Watson, et al., 2006, p. 84)

This finding mirrors the perceptions displayed by English head-teachers, who prefer to employ school-based trained teachers rather than university-based trained teachers (Hobson, et al., 2009). Considering the relatively high attrition rate for teachers in England, Wales, New Zealand, the US and Australia, a concept that warrants attention is whether this preference exhibited by school principals has any correlation to not only the performance of the teacher, but the teacher's likelihood of remaining in the profession.

In the case of the US, it has been shown that pre-service teachers educated through the PDS model have a much lower attrition rate than their conventionally-trained peers, both in a longitudinal study (Latham & Vogt, 2007) with a sample size of 1000 pre-service teachers and in a study conducted by

Fleener (1999), which found the attrition rate of approximately 1000 PDS-trained teachers was one third of the attrition rate of approximately 1000 conventionally-trained teachers.

This discrepancy indicates a possible connection between the structure of a pre-service teacher education model and the level of preparedness imparted to graduating teachers. It follows that the less prepared teachers are for the challenges of the profession, the more likely they are to leave.

The literature from the US that shows the benefits of extended practicum models is not limited to undergraduate courses (Vaishali, 2008). An evaluation conducted by The Evaluation Center of the University of Colorado Denver's School of Education and Human Development showed that students who were taught by teachers who were trained through a year-long post-graduate 'residency' model (the Colorado Boettcher Teacher Residency Model) achieved significantly higher student outcomes than those taught by conventionally trained teachers,

> Reading test score gains for students of Boettcher teachers were approximately 70% higher than the reading scores of students taught by non-Boettcher trained new teachers in similar schools, representing a statistically significant difference....Students of Boettcher teachers showed gains across all other tested subjects, although only reading gains were statistically significant....Schools with high concentrations of Boettcher teachers showed greater gains than the state median in at least two subjects. For 2009, all five training site schools showed rates of student growth that exceeded the state median. (Barrett, Hovde, Hahn, & Rosqueta, 2011, p. 14)

In this model, pre-service teachers worked for a year in a school with a mentor teacher and completed Masters-level coursework in their own time. The report also found there was a 66%-84% improvement in attrition rates (Barrett, et al., 2011, p. 11).

In the US, although the field of pre-service teacher education is still very much different from state to state, pressures are slowly mounting to establish nationalised standards, as evidenced by funded institutions such as *The Common Core State Standards Initiative* (www.corestandards.org). The PDS have a thriving network and hold annual conferences for sharing research and presentations. As yet, there are no signs that this model will be rolled out across all national universities. States continue to create alternative entry pathways into teaching to respond to local point-of-need issues, such as low socio-economic school teacher shortages.

Australia

The PDS model, underpinned by an extended practicum component as well as a strong emphasis on collaborative partnerships, has been recognised as one that succeeds in creating high quality graduate teachers (Kelly, 1997; Kenneth, 1999; M. Levine, 2002; Mule, 2005; Ross, 2001; Sudeck, Doolittle, & Rattigan, 2008; Vaughn, Didelot, & Frampton, 2003; Watson, et al., 2006). In 1995 Deer and Williams suggested that much could be learnt from the PDS in the US, a model they thought had the potential to benefit education quality in Australia (1995). Their paper asserts that experienced teachers in Australia could have a positive impact on undergraduate students provided that a collaborative and less hierarchical leadership structure is adopted by the school and the education system (Deer & Williams, 1995). These ideas consider the concepts of mentoring, professional learning communities, and again, the importance of the practicum in pre-service teacher education, all of which will be discussed later in this chapter and have influenced this study's research questions and design.

Education in Australia, for over 100 years, has ensured that qualified primary school teacher status is not granted without the successful completion of at least one mandatory practicum; that is, time spent in a classroom observing teaching practice and experiencing teaching (Vick, 2006). Similar to England and Wales, trends in teacher education have swung from an apprenticeship model in the mid 19th century, in which schools were the key players, to teaching colleges and universities taking over pre-service teacher education

programs. Currently, Australia is in an era of trying to establish an effective balance between university-based programs that are dominated by subject knowledge and pedagogical content knowledge, and strengthening its university-school partnerships by experimenting with a return to more school-based learning models (Aspland, 2006).

Australian universities are currently tasked with updating their teaching degrees so that they adhere to new guidelines, set by the Ministerial Council for Education, Early Childhood Development and Youth Affairs (Ministerial Council for Education and Early Childhood Development and Youth Affairs, 2011), which state that over four years pre-service teaching undergraduates need to be in schools for at least 80 days. This equals to 16 weeks out of a possible 160 school weeks, and the number of days required for post graduate pre-service teachers is 60 days in a school(s). Currently the time pre-service teachers spend in a school varies according to each university with final year practicums typically ranging from six to 10 weeks, for example, University of Western Australia Master of Teaching postgraduate students complete a six week practicum (University of Western Australia, 2014) and Curtin University Bachelor of Education undergraduate students complete a 10 week practicum (Curtin University, 2014).

There is much debate about whether the government's recommended minimum ratio of 1:9 school: university attendance is an effective balance. Compare this to course structures experienced by nursing or doctoral undergraduates (University of Western Australia, n.d.) in which the balance is much closer to 50:50 (or weighted in favour of more onsite professional experience) and it becomes clear why there is so much discussion surrounding the practical preparation of pre-service teachers and the need for a more clinical approach.

Many researchers have outlined arguments to support extended practicums, practicum reform and broader systematic reform of teacher education similar to the models this chapter has summarised from other countries (Evans & Abbott, 1997; Fogarty & Yarrow; Gestny & Stanley, 2005; Grudnoff, 2011; Le Cornu, 2008; Mule, 2005; Spalding, Klecka, Odell, Lin, & Wang, 2010), and they

believe this needs to influence Australian policy. Darling-Hammond (2006) examined seven exemplary teacher education programs and found that one of their commonalities was an extended supervised practicum component of at least 30 weeks (p. 305). The review went on to specifically outline what Australian pre-service teacher education reform should look like,

> Three critical components of such programs include tight coherence and integration among courses and between course work and clinical work in schools, extensive and intensely supervised clinical work integrated with course work using pedagogies that link theory and practice, and closer, proactive relationships with schools that serve diverse learners effectively and develop and model good teaching. The article also urges that schools of education should resist pressures to water down preparation, which ultimately undermine the preparation of entering teachers, the reputation of schools of education, and the strength of the profession.(Darling-Hammond, 2006, p. 300)

In Australia, there have been three state specific major reviews recommending significant reform to pre-service teacher education, which had similar recommendations to Darling-Hammond's (2006) report. The recommendations made by the New South Wales, Western Australian and Victorian reports (Ramsey, 2000, p. 59 Policy Direction 22; Twomey, 2007, p. 65 Recommendation 8.4; Ure, et al., 2009, p. 81 Recommendation 8.1) support reform in which the university requirements and in-school training requirements are closely aligned in an effort to improve the structure of tertiary courses.

At a national level, initiatives to tackle the identified challenges facing Australian pre-service teacher education have been resourced through the *Smarter Schools National Partnerships*, of which there are three: The National Partnership for Low Socio-economic Status School Communities (running until 2014-15), the National Partnership for Literacy and Numeracy (this ran from 2011-12) and the National Partnership for Improving Teacher Quality (running from 2012-14). The funding is significant, with the Australian Government investing approximately $1.5 billion, $540 million and $550 million into the three

respective partnerships (Council of Australian Government, 2013). Many Australian universities have been granted funding (Department of Education Employment and Workplace Relations, 2010) so that they can adapt pre-service teacher education courses to include options with extended practicums as a way of embracing the latter partnership.

The majority of grants have been at the postgraduate level for extended practicum models in Australia rather than for undergraduate pre-service teacher education models. The exception to this is in Western Australia, where there were two undergraduate alternative models to one alternative postgraduate model, all of which will be reviewed in the next section of this chapter.

A leading example of how this funding has been utilised is a pre-service teacher education model for postgraduate candidates called *Teach for Australia* (TFA), which works in partnership with the University of Melbourne's Graduate School of Education, and offers graduates a new Postgraduate Diploma in Teaching achieved over two years. Pre-service teachers complete theoretical components of the course during intensive programs, often in school holidays, and have an 80% teaching workload during the school term as well as completing coursework by correspondence at the same time (Teach for Australia, n.d.). The Teach for Australia model places pre-service teachers, or associates, in secondary schools of disadvantage, and in return, those accepted to the course are paid a salary of approximately $47,000 plus superannuation (Teach for Australia, n.d.). The model is not available for those wishing to qualify as primary school teachers, or those wishing to qualify as secondary-school teachers in low-need areas. In 2012, there were 40 candidates accepted in the Teach for Australia model, with this rising to 50 in 2013. Teach for Australia's Annual Report states that the program is highly selective, with less than 10% of applicants being successful (Weldon, McKenzie, Kleinhenz, & Reid, 2012, p. 14). Placements are spread across Victoria, the Northern Territory and the Australian Capital Territory.

There have been three independent reports commissioned by the Australian Government Department of Education, Department and Workplace Relations

(DEEWR) undertaken by the Australian Council for Educational Research (ACER) regarding the Teach for Australia approach. One report was published in April 2012 and celebrated many successes. Once again, the perceptions of teachers and school leaders was sought, with Teach for Australia candidates seen as outperforming those graduate teachers trained by other means, "...they were favourably compared to other beginning teachers" (Weldon, et al., 2012, p. 56). However, the report also acknowledged that the impact the associates had on student outcomes could not be measured in a non-anecdotal way, and that it was noteworthy that the TFA Pathway was very selective in accepting academic and resilient people,

> The TFA Pathway selection process recruits graduates with academic achievement substantially above that required by many secondary teacher education courses. In addition, the selection criteria include demonstrable ability to communicate confidently, to show resilience, tenacity and optimism, effective organisation, problem solving and openness to learning.... Further, the TFA Pathway requires Associates to teach in potentially difficult classrooms with virtually no supervised experience. The first few weeks are extremely challenging and highly stressful. As such, the Pathway necessarily requires resilient, tenacious people. It is not for everyone who wants to teach. (Weldon, et al., 2012, p. 57)

Despite its noted successes, it is suggested that without broad, systemic reform, addressing issues such as the minimum Australian Tertiary Admission Rank (ATAR) entry score requirements for pre-service teachers (Ingvarson, 2012, June), it is reasonable to deduce that the TFA Pathway would not be an appropriate model to 'roll out' to all pre-service teacher education institutions, given its strict selection criteria and history of accepting less than 10% of applicants in order to achieve the successes that have been reported thus far.

In Queensland, the Department of Education has used the Smarter Schools National Partnership funding to set up five Teacher Education Centres for Excellence where high calibre pre-service teachers can receive additional in-

school experience (Queensland Education Department, 2011). There are opportunities for undergraduate and postgraduate pre-service teachers to apply to the merit select process, and each centre has its own focus, from working with Indigenous students, working in a rural or remote region, improving the science, technology, engineering, and mathematics (STEM) teacher shortage and working in special educational needs (Queensland Education Department, 2011). In a fact sheet produced by the Queensland Education Department, the initiative is summarised as follows,

> In Queensland state schools, five Teacher Education Centres of Excellence (TECE) enable sustained partnerships to be fostered between schools and higher education providers to embed a clinical approach to pre-service teacher education and to provide pre-service teachers with extended experiences in school environments. Each centre explores a different model for supporting participating teachers and aspiring teachers. (Queensland Department of Education and Training, 2013)

On closer examination of the TECEs, the literature reveals that there is not a uniform structure that has developed to support all pre-service teachers. Instead, the funding has been used to address specific areas of need identified within the state, and clusters of willing schools, universities and colleges have agreed to collaborate so that pre-service teachers may experience more time in schools. The accepted candidates come from different institutions, attend different schools for different periods of time, and complete their practicums at different stages in their degree. This approach by the Queensland government was in direct response to Caldwell and Sutton's (2010) recommendations for pre-service teacher reform, made in *the Review of Teacher Education and School Induction* to specifically target the foci that the TECEs adopted. The recommendations emphasised closer links between universities and schools, so that participating schools resembled what a 'teaching hospital' offers to pre-service doctors, and that a more clinical approach to mentoring was adopted. Although the Queensland government did not commit to adhering to recommendations such as decreasing teacher or mentor workload, there has

been a national response to the need for consistent guidelines regarding teaching standards, namely the Australian Professional Standards for Teachers (AITSL, 2014). The funding that supported the development of Queensland's TECEs also supported the development of these standards, which all universities must now take into account when designing and structuring their pre-service teacher education courses. The introduction of nationalised standards, as seen in England and Wales, is a key concept in the area of pre-service teacher education as it allows for a shared professional language to be adopted both within the university and school settings. The Australian Professional Standards provide an excellent framework within which researchers can pose questions, and this study takes advantage of the identified themes and domains of teaching that are now nationally recognised as minimum expectations within the teaching profession in Australia.

In South Australia, Professor John Halsey pioneered an extended rural practicum for a small number of Flinders University pre-service teacher education students called the Flinders University Extended Rural Professional Placement (ERPP). This was promoted based on the 2000 Human Rights and Equal Opportunity National Inquiry into Rural and Remote Education recommendation that,

> All teacher training institutions should require undergraduates to study a module on teaching in rural and remote communities, offer all students an option to undertake a fully-funded practical placement (teaching experience) in a rural or remote school and assist rural communities in the direct recruitment of new graduates to their schools. (Human Rights Equal Opportunity Commission, 2000, p. 44)

The ERPP pilot program was implemented for one semester in 2011 and although the perceived benefits and profile of the idea were broadcast in an ABC television documentary *Finishing School* on the 11th September 2011, it has struggled to attract necessary funding to guarantee its sustainability.

Following this, in 2012, the 'Teacher Quality' division of South Australia's Department for Education and Workforce Development investigated alternative approaches to pre-service teacher education models that they perceived as transferrable to their setting. In 2012, a leadership team from Norfolk Primary School presented to a consultancy group in Adelaide to share how implementation problems had been overcome and shared the experiences of staff and pre-service teachers. Consequently, in 2013, a South Australian Department of Education project manager and leadership team visited Norfolk Primary School in Western Australia for further discussions and to see the Internship Model in operation. As a result, a South Australian University has partnered with a suburban College and a final year internship model is beginning in 2014 with 10-15 final year undergraduate pre-service teachers, with an accountability structure based on the Internship Framework and Internship Handbook shared by Norfolk Primary School (Mutton R, Personal Communication 26th August 2013).

A model being sought by a university in South Australia was not necessarily one that could be offered by isolated institutions, or in response to local area point-of-need issues, but more an approach that would improve teacher quality by reforming pre-service teacher education on a broader scale. The lack of financial dependence on external funding showcased by the Internship Model was an attractive feature, as demonstrated by Intern Teachers who chose not to receive a DoE scholarship. However, the Internship Model is not the only alternative pre-service teacher education model offered by institutions in Western Australia, as all three models discussed in the next section offer a potential revision for course structures that may be sustainable and transferrable for pre-service teacher education contexts, regardless of their setting or participants.

Western Australia

The Internship Model at Norfolk Primary School began in 2009, and launched the Western Australian Department of Education's exploration into the development of 'training schools', as reported in the Smarter Schools Initiative

webpage that provides supplementary information about specific programs in Western Australia (Department of Education Employment and Workplace Relations, 2009). A video was also published by the Australian government on YouTube that promoted the launch of the model (2009). The Internship Model has taken a new cohort of final year pre-service teachers each academic year since 2009 when Norfolk Primary School opened, although in 2014 the cohort has dropped in numbers due to one of the university partnerships being discontinued. The Internship Model utilises a selection process where interested pre-service teachers submit a written application to Norfolk Primary School and are interviewed by the school's leadership team and representatives from the partnering university.

In 2010 the Smarter Schools Initiative expanded the idea of 'training schools' and supported the commencement of a University Teacher Residency Program (TRP) which offered an extended practicum in two different schools (two days a week, plus one full time four or seven week practicum, dependent on the university course) aimed at postgraduate students completing a one year Graduate Diploma of Education (Grad Dip Ed). The TRP continued to take new cohorts of pre-service teachers until 2014 when the course returned to being delivered in an on-campus mode only. Since this time, Norfolk Primary School's original Internship Model became financially sustainable (the school covered the onsite costs of running the Internship Model) with the Department of Education providing Intern Teachers with a rural teaching scholarship and stipend. Meanwhile, funding given to the TRP and its partner schools was used to pay for site directors (school based coordinators) and additional running costs.

In 2012-2013, the Department of Education, still using the funding provided by the Improving Teacher Quality division of the Australian Government's Smarter Schools Initiative, supported the launch of the Western Australian Combined University Training Schools model (WACUTS). This program offered final year students from three different universities an extended practicum. In this model, mentor teachers were paid throughout the year (not just the conventional payment for supervising the full time one term practicum) and some schools received money for appointing an onsite coordinator. Participants who agreed to

go to one of the rural schools were eligible for the same rural scholarship and stipend as participants in the Internship Model. The funding for the WACUTS project did not, however, continue at its original levels, and the university faculty leading the project identified funding as a limiting issue for practicum projects in general, "The funding for school experience has not increased since 1992, so the ability of Schools of Education have been limited to the development of cost neutral partnership designs" (Broadley, Sharplin, Ledger, 2013).

There has been limited literature written about these three models. The pilot year of the Internship Model resulted in an Evaluation Report (Fetherston, 2009), as discussed in the next paragraph. The TRP underwent an independent review that investigated the project's effectiveness during 2010-2011, which were the first two years of its operation (Hall, 2012). The Nexus Network has recently provided a report based on the most comprehensive dataset available, which will also be discussed later in this section. The Nexus Network was commissioned by the Department of Education to report on all three WA extended practicum models (the TRP, the WACUTS, and the Internship Models), by surveying graduates, mentors, coordinators and school leaders, as well as interviewing university personnel. All three models were presented at the National Symposium for Initial Teacher Education on Tuesday 29th 2012 in Melbourne (Department of Education and Early Childhood Development, 2012). The presenters were university faculty members, with the exception of the Internship Model which was presented by the principal of Norfolk Primary School.

Fetherston's (2009) and Hall's (2012) reports expressed similar findings in regard to the professional growth of pre-service teachers. Fetherston stated that Intern Teachers were "more confident", "felt well able to commence their own class next year" and were "significantly more professional" (2009, p. 2). Hall stated in the independent review that the TRP was a "resounding success" and that the participants who completed the course "outperformed" their on-campus peers (2012, p. 5). Hall's (2012) report deemed participants to be more "school-ready" (p. 42) and had a greater sense of "teacher identity" (p. 42). There were very few negative findings reported about the TRP, although the difficulty in

transferring the model to regional settings was discussed due to the practical challenges that accompany online distant learning. It was also noted that explicit guidelines for selecting appropriate mentor teachers and university colleagues needed attention, particularly for the four regional pre-service teachers recruited for the 2012 cohort (pp. 43-44). Finally, mentor teachers reported feeling “unsupported” by the university and “out of the loop” (p. 44); a dissatisfaction Hall (2012) recommended warranted further investigation.

The scope of Fetherston’s (2009) report did not track the intern teachers beyond their final term at Norfolk Primary School, but key negative findings were that the “ATP [the assessable final practicum] was seen as a meaningless hurdle in the internship context” (2009, p. 4), that effective mentoring was a “huge workload” (2009, p. 4) and that “there were no other significant differences between interns and university students in regard to teaching ability” (Fetherston, 2009, p. 4). This third finding is surprising, given that the reports from overseas show extended practicum students outperform their peers, and one that the results from this study may dispute. On closer inspection, it is possible that the data sample size in Fetherston’s evaluation of participants may have influenced findings. The two research assistants observing classroom practice measured improvement in teaching ability by comparing observations from the second semester to the first semester, but in the second semester not all Intern Teachers were observed (Fetherston, 2009, p. 33). Whilst both research assistants visited Norfolk Primary School, only one observer was able to attend observations of the non-Intern pre-service teachers at other schools, and these data were based on observing six teachers each deliver two lessons.

The methods used in the two reports to assess teaching ability are very different. Whilst Fetherston’s (2009) findings were dependant on a small number of classroom observations, Hall (2012) did not use classroom observation to assess the teaching ability of the pre-service teachers. In her report, Hall made a comparison with a larger sample size: all participating ‘intern teachers’ compared to all ‘non-Intern teachers’ who completed the conventional on-campus course mode. She compared their abilities using the grade awarded by the mentor teachers in collaboration with the appointed

university colleague (Hall, 2012, p. 48). The criteria for assessing the practicum grade in the TRP was based on the Australian Professional Standards for Teachers (and the preceding Western Australian equivalent) and allowed judgments to be based on the mentor teacher's daily observations and interactions, whilst the criteria used by the classroom observers in Fetherston's study (2009) was adapted from an instrument developed by Ingvarson (2005) and required them to grade 42 different components of one lesson (Fetherston, 2009) during their 20 to 60 minute lesson observation.

Regardless of methodologies, the findings from both reports should be perceived as preliminary findings based on the first year or two years of alternative programs that were constantly refining their processes and structures. However, when all three models are taken into account, an immediate observation emerges relating to attrition and retention. The Department of Education, Workforce Policy and Coordination noted in a letter that,

> A preliminary review of Department employment data indicates a significant difference in attrition rates for beginning teachers who participated in internship models of pre-service teacher training when compared to graduates from traditional courses. Tracking of graduates from 2010 cohorts of internship programs indicates an attrition rate of 10-12% as opposed to 41% for their on campus peers (C. Porter, personal communication, 24th June 2013).

The above observations of attrition rate do not indicate any reliable relationship of cause and effect, but a correlation could explain the attention that these extended practicum models have attracted. The concept of attrition and retention, once again, is recognised to be potentially linked to the way in which a graduate teacher has been trained. This study does not pose research questions specifically focusing on attrition and retention, but it is a concept that should not be left undiscussed due to the need for government to understand the cost effectiveness of different pre-service teacher education models, and

the Department of Education of Western Australia is a recognised stakeholder in the Internship Model.

Consequently, the Western Australian government is pursuing two initiatives that may influence the future of pre-service teacher education in Western Australia. Firstly, the Department of Education commissioned the Nexus Network to undertake an independent review of the entire Training Schools Project, including the Internship Model. Their summative report was written in March 2014 and shared with universities in May 2014. The surveys used in the project were based on the Australian Professional Standards for Teachers and gathered perceptions of intern teachers, mentor teachers, principals and site directors. They investigated the perceived successes and benefits of the Internship Model, the TRP, and the WACUTS models, as well as seeking areas of improvement using a mixed-methods approach, including interviews with school staff members and university personnel. Norfolk Primary School was acknowledged as being "used to inform the subsequent development of programs under the Department's Training Schools Project" (Sclanders, Saggers, & Stuart, 2014, p. 3), but the evaluation rarely referenced individual pre-service teacher education models in its findings or recommendations. Instead, the authors have combined the data together and deidentified participants, making generalised comments that pertain to all three models, such as:

> There was almost universal agreement from participants in the evaluation that internship/residency programs made a significant contribution to the quality of teaching demonstrated by interns/residents during their Assistant Teacher Program (ATP) and, more importantly, during their first year of teaching. (Sclanders, et al., 2014, p. ii)

Consequently, it is unclear which of the pre-service teacher education models attracted positive comments such as:

> The main differences – interns can build relationships over a year. They have time to build their skills to be ready to take on their own class. They

> have a huge advantage in the classroom in terms of readiness – you really only learn to be a teacher in the classroom. Builds their resilience. Two interns from (one school) where they have C.M.S. training went to Kununurra and survived and are still there. Other graduates don't stay there. (Sclanders, et al., 2014, p. 82)

Or which of the models attracted negative comments such as,

> No support was given even after my intern failed a number of aspects. I was also led to believe that she was an outstanding prac teacher as only the best were chosen for the internship. This was definitely not the case." (Sclanders, et al., 2014, p. 45)

The quantitative results have been combined and so it is impossible to ascertain if there were statistically significant differences between the participants' responses and the pre-service teacher education model to which they referred.

The Nexus Network's (2014) report makes 29 recommendations, many of them supporting similar recommendations made in Australian pre-service teacher education literature (Ramsey, 2000; Twomey, 2007; Ure, et al., 2009), emphasising the importance of improved school-university-department partnerships (recommendations 3, 6, 12,16, 18, 25, 26 and 28) and quality mentoring (recommendations 2, 8, 9, 10, 17, 19, 20, 21 and 27). Recommendation 24 specifies the features of a good internship model, and presents them in an itemised list consisting of the following six features,

- Clear and negotiated goals;
- Compatibility between Interns/Residents and their mentor teachers;
- Training schools operating as a community of practice/learning community;
- Availability of professional development during and after the internship;

- Strong partnerships between universities and employing authorities/schools; and
- Maintenance of a professional development portfolio by Interns/Residents. (Sclanders, et al., 2014, p. vii)

The Nexus Network's (2014) report recommends the continuation of extended practicum models in W.A, "[it recommends] that the Department of Education work with the universities to build the numbers of Internship/Residencies with a view that Internships may become the preferred pathway to teaching" (Sclanders, et al., 2014, p. 36), and directly states the need for the Department of Education to clarify its future direction and work with schools and universities collaboratively to develop and reform pre-service teacher education policy (Sclanders, et al., 2014, p. 127). This highlights the need to comprehensively understand the strengths and weaknesses of the individual pre-service teacher education models on which it reported, particularly as perceived by school principals who have first-hand experience of graduate teachers from various pre-service teacher education models. This study addresses part of that knowledge gap by exploring in more detail the Internship Model and reveals important data, which pertains to the pre-service teacher education model implemented at Norfolk Primary School.

The second initiative being pursued by the Department of Education is the reallocation of its funding in 2014. It has concentrated its efforts on developing The Training School Project so that it focuses on secondary school learning area shortages (such as Mathematics and Physics) in rural areas. This means redefining university-school-department collaborations and a new memorandum of agreement is under negotiation at the time of writing. The future for WA extended practicum models and their school partners, such as the Internship Model and Norfolk Primary School, particularly in the current climate of financial cuts, remains uncertain.

In April 2014, a Ministerial Advisory Group released an Issues Paper, inviting interested individuals or organisations to contribute to the consultation process initiated by Minister for Education, the Honourable Christopher Pyne MP

(Australian Ministerial Advisory Group, 2014). In the National Overview section (p. 3-4), the extended practicum models in Western Australia were not referenced, despite the advisory group seeking to answer questions like, “What level of integration should there be between initial teacher education providers and schools?” (p. 5) and, “What other methods, or combination of these methods, could achieve better outcomes than the current approach to professional experience?” (p. 9). Extended practicum models in some other states and territories were acknowledged.

This national focus on pre-service teacher education highlights again the significance of this research, and what this study’s findings can contribute to the community of knowledge in this field. The Issues Paper (Australian Ministerial Advisory Group, 2014) goes on to pose questions, amongst other aspects, about mentoring, the features of the professional experience component of pre-service teacher education, and teacher quality; all of which have been identified in this chapter as important concepts that require review and consideration.

Emerging Concepts

The international approaches to pre-service teacher education models that have been discussed in this chapter have highlighted concepts that emerge as having strong connections with models offering an extended practicum component. This next part of the chapter will discuss these concepts in greater detail.

Firstly, the pivotal role the practicum plays in a pre-service teacher’s educational experience needs to be acknowledged. Current literature (Edwin, 2003; Rakow, Reynolds, & Ross, 2002; Vaishali, 2008) strongly supports extended practicum models and the reasons for this help reveal the educational journey from which the Internship Model’s Intern Teachers emerge. This study’s participants have an awareness of what additional experiences the Intern Graduates have acquired from spending an academic year in a school. The components required for an effective practicum have been shown by the literature (Hagger & McIntyre, 2006; Sudeck, et al., 2008) to include issues such

as effective mentoring and the need for professional learning communities. Understanding these aspects of potential pre-service teacher education models is important because of the triangular relationship between teacher quality, teacher attrition and retention rates and the effectiveness of the practicum experience.

The literature also reveals a definite need for a shared understanding of the demands and responsibilities of the teaching profession (Ramsey, 2000). The development of recognised national standards has a significant bearing on this study's research questions because it presents a common vocabulary within which teaching performance can be reviewed and discussed. The concept of improving teacher quality can consequently be redefined within the parameters of these standards.

The Importance of the Practicum and Its Key Components

Before the Internship Model was launched, full year internship models were not offered in Australia, but have been ongoing in Germany, France, Luxembourg, Belgium and Chinese Taipei (Howe, 2006, p. 239). The practicum component, or 'professional experience' component (Skilbeck & Connell, 2004), of teacher education has long been acknowledged as vitally important for teacher development (Beck & Kosnik, 2002; Grudnoff, 2011; Segall, 2002; Wyckoff, Grossman, Boyd, Lankford, & Loeb, 2009).

Bridging the gap between theory and practice has been an ongoing challenge for tertiary institutions and the stakes are high, with pre-service teachers experiencing a steep learning curve whilst based in a school, "The teacher-education program, particularly its clinical or practical component, continues to play a significant role in changing student teachers' beliefs in a positive way" (deLeon-Carillo, 2007, p. 37).

The Twomey Report, commissioned by the then Western Australia's Minister for Education, Mark McGowan MP, entitled Education Workforce Initiatives Report: *If You Think Education Is Expensive* (Twomey, 2007) came to the conclusion

that a return to longer practicums would be a good idea. A key recommendation, 8.5, regarding the practicum element of teacher education places the focus on tertiary education providers developing stronger partnerships with selected schools so that pre-service teachers can access more practical experience:

> 8.5 Select primary and secondary schools, in partnership with a university, be given a larger role in the final year education/training process for some pre-service teachers, allowing them much greater, direct exposure and experience in the classroom (closely monitored by appropriate staff) as a major component of the fourth year of their teacher training course. (Twomey, 2007, p. 65)

The recommendations made in The Twomey Report (2007) in reference to pre-service teacher education are not isolated in the changes they advocate. There are similar policy directions made in a previously published report commissioned by the New South Wales Education Department (Ramsey, 2000), which asserts that “the final pre-service professional experience be substantial” (p. 64). Soon after the Department of Education (DoE) released the Twomey Report, the Australian Learning and Teaching Council commissioned a study in Victoria (Ure, et al., 2009) to explore how to improve the practical elements of teacher education. Once again, as well as emphasising the importance of university-school relationships, the pre-service teachers interviewed found shorter practicums more problematic:

> The study confirms that the experience of pre-service teachers in placements varies considerably, and that their personal attributes and those of the supervising teachers contribute to these differences. The length of the placement, the quality of integration with the academic subjects and the quality of preparation of the pre-service teachers and their supervisors also strongly influence the quality of professional learning on placements. These effects appear to be stronger when the placement is short and not well integrated with the academic elements of the program. (Ure, et al., 2009, p. 34)

However, it would be over simplifying matters if one were to assert that simply by extending a practicum's length the issues of teacher quality and teacher retention would be solved. The effectiveness of the practicum is not necessarily directly proportional to its length – there are other factors to consider (Haigh & Ward, 2004).

Grudnoff's research (2011) highlights the importance of collegiate relationships whilst on practicum, "When you are a student teacher you feel that you are on the outer. When you are on the staff, you belong. You are not the outsider who is just there for a little time" (p. 227). This finding is supported by the conclusions of a Canadian study (Beck & Kosnik, 2002) that investigated the components of a successful practicum according to the student teachers. The quality of relationships and provision of emotional support that often goes unreported was found to be highly valued by pre-service teachers (Beck & Kosnik, 2002). Interestingly, this supports the English study conducted by Hobson et al. (2009) who discovered perceptions of school-based pre-service teacher education models were found to be more supportive.

Quality mentoring, trusting relationships and a sense of belonging are emerging defining features of effective Professional Learning Communities (Power, Zbar, Marshall, & Australian Council for Educational, 2007; Yeomans, Southworth, & Nias, 1989) and the capacity of schools to provide the environment that adequately caters for a positive practicum experience must be examined. Australia's new accreditation guidelines (Ministerial Council for Education and Early Childhood Development and Youth Affairs, 2011) specify that mentor teachers, or supervising teachers, have "expertise and be supported in coaching and mentoring, and in making judgements about whether students have met the Graduate Teacher Standards" (Ministerial Council for Education and Early Childhood Development and Youth Affairs, 2011).

These guidelines may act as a catalyst for showcasing the potential dangers of an extended practicum: for example, new expectations may be problematic for some university departments who already struggle to find sufficient number of

schools to host pre-service teacher students, as recognised by Sim (2006) in her overview of Australian teacher education, “One critical element is the need for many more teachers to be involved in working alongside student teachers in the schools” (p. 4). Similarly, the financial implications for university departments to pay mentor teachers do not make extended practicums viable in the current economic climate and would require education reform on a large scale.

There is also a need to avoid the assumption that a good teacher makes a good mentor, as allowing a classroom to be run in a different way and for students to be managed by someone else is not an experience welcomed by all classroom teachers. The funding challenges extend beyond how universities can afford to support a greater off-campus cohort to how schools can cope with the costs of additional staff members (for example, photocopying, printing, professional learning). In the case of the TRP and the WACUTS models in Western Australia, the former has been discontinued, and the latter does not exist in its original form due to funding changes in the Smarter Schools initiative. Norfolk Primary School no longer has large cohorts of intern teachers due to changes in school and university partnership arrangements. At the time of writing, It is unknown if the recent cessation and changes of these three models is temporary or permanent.

The ‘on the job’ teacher education approach also attracts criticism by those who believe it prevents the development of pedagogical content knowledge and engagement in reflective practice,

> Indenturing a trainee teacher to one ‘master’ in one context may produce a range of skills pertinent to the particular class in question relative to the strengths and weaknesses of the master teacher but, on its own, it would do little to prepare the teacher for the complex array of differences that characterise the various contexts of learning and the many and varied dimensions of learning to be found within them. (Lovat & McLeod, 2006, p. 295)

With these potential dangers in mind, it must be remembered that working in a school, whether on a practicum or through employment, is not solely about the application and observation of teaching practice. It is about the relationships developed amongst staff, students and the school community and it is about the support structures that are put into place and the mentoring approaches (Beijaard, et al., 2007; Graves, 2010; Moore, 2001; Roehrig, Bohn, Turner, & Pressley, 2008). Unfortunately, these factors vary from school to school and teacher to teacher because unlike other professions (for example, accountancy or medicine), there is not yet an established accreditation process in Australian education for certifying a teacher to be capable of performing at an exemplary level and being able to mentor a pre-service teacher. This was addressed by AITSL which, in 2013, began developing an accreditation process for Lead Teachers, with implementation being operated by individual state and territories (AITSL, n.d.). Previous to the introduction of national standards, South Australia, Western Australia and the Northern Territory had enacted their own processes (for example, the Level Three Classroom Teacher in Western Australia) and encouraged teachers with Level Three status to be given mentoring duties, but not enough teachers applied nor had been awarded with the recognition (Ingvarson, 2010). Therefore, it is impossible for practicum experiences to be 'instantly improved' by ensuring all pre-service teachers are matched with recognised lead or exemplary teachers. A deeper understanding of the components of the practicum must be developed if pre-service teacher education programs are going to create solutions and pioneer effective change. These problems were also identified in the Nexus Network's report (2014) which recommended the development of criteria for appropriate mentor selection.

Quality mentoring is regularly identified as a practicum component that can have a significant influence on the pre-service teacher (Razska, Kutzner, & Van Zant, 2001; Roehrig, et al., 2008; Wyckoff, et al., 2009) and the studies suggest that the frequency and transparency with which feedback is communicated is important. Currently, mentor teachers receive written guidelines from universities that request written feedback be given regularly. Mentor teachers must then complete a report about the pre-service teacher, usually one half way through their practicum and one at the end which indicates the grade they have

chosen to award. Some universities provide rubrics to assist mentor teachers in making judgements, others do not. Studies that collect data from pre-service teachers indicate the 'lottery' effect of being matched with a mentor (Edwin, 2003; Evans & Abbott, 1997; C. Sim, 2011), and how the low levels of accountability mean that mentors' input and contributions to the pre-service teachers' professional development vary to an unacceptable degree: for example, some pre-service teachers feel their practicum has limited value, "My cooperating teacher was so rigid... It was simply her way or the highway" (Ralph, 2000, p. 1), whereas other studies have shown that particular mentoring styles can have excellent outcomes for participants and students: "This study adds support to the notion that pre-service teacher efficacy can be further developed during the student teaching experience, and highlights the importance of the cooperating [mentor] teacher's role of supportive and caring mentor" (Hrncir, 2007, p. 88).

The relationships that pre-service teachers develop with colleagues (aside from their mentor teacher), are also important in enhancing the practicum experience. Often classrooms are lonely places and efforts to promote collaborative practices are dependent on individual school leadership and existing staff (Patrick, 2012). Feelings of isolation amongst pre-service teachers are common, and despite the arguments advocating the benefits of a pre-service teacher network and the development of a professional learning community (Sudeck, et al., 2008), many final year practicums are completed in a school with no other pre-service teachers.

Professional learning communities are pivotal in encouraging reflective practice and vicarious learning opportunities, which in turn have been shown to be excellent forms of professional learning (Voulalas & Sharpe, 2005). It follows that pre-service teachers will benefit from the opportunity to observe other teachers at work and network with as many colleagues as they can. Frameworks for reflective feedback are aplenty in education (for example, Growth Coaching Australia or AITSL's Australian Teacher Performance and Development Framework), but in the context of a practicum pre-service teachers may feel they are 'always being assessed' and their willingness to try

something new may be hindered by their desire to showcase their best (safest) practice in the short amount of time that they have to do so (Fogarty & Yarrow, 1994). This makes for an artificial, unrealistic culture of professional learning because qualified classroom teachers are not ‘perfect practitioners’ and there needs to be scope for pre-service teachers to feel able to make mistakes and learn from them to experience the benefits of lifelong learning.

Such a finding highlights the need for pre-service teachers to experience professional learning opportunities that are non-evaluative in nature, just as qualified teachers access courses and professional development on a regular basis. Opportunities are given to teachers in the form of moderating for reports, or collaborative planning meetings – whole school procedures that pre-service teachers often miss out on due to being at the school for a short period of time. This is a more realistic approach to developing a culture of professional learning, not one where professional growth is achieved solely through having someone come in and assess the pre-serivce teacher's teaching by watching a finite number of lessons and giving feedback. Joyce and Showers (1981) have shown the retention and application of knowledge happens most effectively through coaching over an extended period of time. Needless to say, this would only be possible for pre-service teachers on an extended practicum in a school that had the capacity to provide for this style of professional support.

Teacher Retention, Quality and Standards

Despite government efforts to ensure that there are more applicants who are accepted into pre-service teacher programs, the attrition rate of early career teachers has also increased (Ramsey, 2000; Skilbeck & Connell, 2003). Are more teachers leaving the profession because it was the wrong career choice for them, and if this is the case, are pre-service teachers not given adequate opportunity to come to this conclusion during their tertiary education? Or, are teachers leaving not because they can’t cope with the professional demands of the job, but because of other aspects such as pay, working conditions, or lack of support?

Many researchers have sought to find answers to these questions (Frid, Smith, Sparrow, & Trinidad, 2008; Karin Müller, Alliata, & Benninghoff, 2009; Manuel & Ewing, 2005; O'Brien, Goddard, & Keeffe; Schwartz, Wurtzel, & Olson, 2007; Skilbeck & Connell, 2003; Trinidad, et al., 2011; Twomey, 2007), in an effort to discover strategies that may support the teaching profession. Despite a very active research field, all are united in recognising that teacher quality is paramount. This is good news for principals who seek high quality teachers, due to teacher quality being the largest controllable factor in predicting student achievement (Hattie, 2011). Australia also has the challenge of attracting and retaining teachers to rural and remote locations that are geographically isolated from commercial facilities and conveniences (Lock, Reid, Green, Hastings, Cooper, & White, 2009). A 2005 report by the Organisation for Economic Cooperation and Development (OECD) recommended that countries have, "...processes used to allocate beginning teachers <and> should ensure that they are not concentrated in the more difficult and unpopular locations" (OECD, 2005, p. 205). This recommendation is easier for smaller developed countries to action; it may be impossible for Australian states and territories not to send graduate teachers to isolated areas and so for Australia to focus on ensuring they are as 'classroom-ready' as possible may be a more practical response.

In 2003 the Australian Commonwealth presented a report to the OECD in which two causes for retention issues were identified. First to be acknowledged were commonly referred to issues such as: "salaries; conditions of service; career restructuring; overall job satisfaction; and opportunities for continuing, fulfilling professional learning" (Skilbeck & Connell, 2003, p. 73). However, the second issue was more specific and less commonly recognised as a causal factor for attrition:

> ...The quality and relevance of pre-service education. A stream of (often mild) criticism underlies discussions of pre-service education. In response, several major innovative programmes have been put in place, and elsewhere many additions and adjustments made, to address these concerns. Teacher employer authorities, and bodies such as institutes of teaching, play a role in this regard, working with providers of teacher

> education to establish curriculum requirements and arrangements for the integration of practical and theoretical components of teacher education. (Skilbeck & Connell, 2003, p. 73)

The high attrition rate of Australian graduate teachers (Manuel & Ewing, 2005) is similar to the US and the United Kingdom, but other developed countries (such as Germany, France, Hong Kong and Portugal) have attrition rates below 5% or have rates that are insignificant (Cooper & Alvarado, 2006). The high attrition rate seen in Australia might suggest that pre-service teacher education programs are not adequately preparing pre-service teachers for the workload and/or associated challenges and responsibilities of being a qualified teacher. Upon further investigation it seems that pre-service teachers can be 'put off' teaching, or 'inspired' to teach, depending on the experiences they accrue when in schools (Patrick, 2012). It is beyond anyone's control if a teacher leaves the profession because they have the skills and disposition, but want to work in a different profession; the pay and working conditions for teachers are not going to dramatically change. Efforts have been made to retain effective teachers since the 1990s, but they have not altered the attrition rate trends (L. Ingvarson, 2010). What can be controlled, however, is the structure of pre-service teacher education programs and the strategies that they adopt in preparing effective graduate teachers to the workforce: "The more effective the practicum component of the pre-service program, the greater the likelihood of retaining new graduates in the profession" (Twomey, 2007, p. 63).

In order for the practicum to become more effective, there needs to be an approach to quality control that encourages consistency, so pre-service teachers and their ability to teach is assessed in a valid and reliable way, and that there is less of the 'lottery' effect that has been reported by pre-service teachers. One way of approaching this problem is to adopt the more 'clinical' approach and provide more training in giving effective feedback. The report *How the World's Best Performing School Systems Come Out on Top* (Braun, 2008) makes international comparisons and finds that the best performing education systems use four techniques: building practical skills during initial training (i.e. real classroom experience), placing coaches in schools to support

teachers, selecting and developing effective instructional leaders, and enabling teachers to learn from each other.

The four recommendations are arguably unachievable without the adoption of a standards-based approach that allows for objective communication amongst teachers and a common language that underpins the diverse nature of the job (Ramsey, 2000). Twomey's report (2007) highlights the importance of teacher education being able to impart a realistic understanding of the broader responsibilities that accompany a classroom teacher's role. The responsibilities of a classroom teacher are now summarised by the Australian Professional Standards for Teachers (Australian Institute for Teaching and School Leadership, 2011) and consist of seven overarching standards with 37 sub-standards covering aspects of the job from knowing how students learn to engaging with parents and the school community. This follows the international trend of adopting a standards-based approach demonstrated in England and Wales (Hobson et al. 2009), to some extent in the US (National Governors Association, n.d.) and most recently in New Zealand following a ministerial taskforce report that acknowledged the need for a "consistent quality of graduating teachers" (New Zealand Education Workforce Advisory Group, 2010). In Australia, there are now existing expectations that universities must ensure their graduates can perform at a level equivalent to the standards that correspond to the 'graduate descriptor' in AITSL's standards document (Australian Institute for Teaching and School Leadership, 2014). This provides an opportunity for school-university partnerships to work in closer alignment to moderate what this standard 'looks like' in the context of the practicum, and to pioneer effective change in pre-service teacher education.

In the current education climate of nationalised curriculum, nationalised teacher education accreditation and nationalised teaching and leadership standards, this is an ideal time to consult with school leaders who have an insight into the Internship Model, to gather their perceptions in regard to the performance of Intern Graduates and learn what changes they believe should and should not be embraced in similar extended practicum approaches.

Conclusion

The review of the literature shows that not only are the perceptions of school leaders, principals and head teachers highly sought after by researchers, but without exception show that as an employer, they exhibit a strong preference to recruit graduate teachers who have participated in a school-based, school-centred, or extended practicum model of pre-service teacher education (Grudnoff, 2011; Hobson, et al., 2009; Watson, et al., 2006). The DoE in WA has found, by commissioning the Nexus Network to evaluate the three extended practicum models in WA, that overall perceptions of these models are largely positive, with the report recommending that an internship or residency be incorporated into WA university's education degrees (Sclanders, et al., 2014).

In order to incorporate an extended practicum component, the literature has shown (Power, et al., 2007, p. 91; Yeomans, et al., 1989, p. 72) that there are key features of a practicum that influence its value and success. Pre-service teachers need to have the opportunity to belong to a professional learning community, perhaps as part of a cohort of pre-service teachers, and the quality and professional learning of both the pre-service teacher and the mentor need to be considered, as well as factors such as collegiate relationships and standards-based feedback.

Teacher quality and retention are concepts commonly discussed in pre-service teacher education debates. Twomey (2007) predicted that the likelihood of retaining a graduate teacher would be directly proportional to the quality of practicum that they experienced (p. 63), which demonstrates a strong relationship between the emerging concepts discussed in this chapter and the importance of these components being acknowledged when designing pre-service teacher education approaches.

As a consequence of conducting this literature review, a conceptual framework was developed and will be presented in Chapter Three. The conceptual framework underpins the research aims and questions of this study, which was the first to investigate the perceptions of principals in relation to the

performance of teachers from the Internship Model. To do this, it is important that a common understanding of performance values is achieved and the response by AITSL and the Australian Government to develop national standards for teachers provide excellent parameters within which to frame the research questions. Allowing principals to use these standards as a benchmark to compare the performance of Intern Graduates to non-Intern Graduates will provide the audience with an immediate answer as to whether the Internship Model is producing favourable employees.

The emerging concepts discussed in this chapter will be revisited in the results and conclusion chapters. The reasons and explanations that underpin the participants' responses will be discussed in these chapters to reveal which concepts hold most relevance and influence in regard to the Internship Model and the performance of its Intern Graduates.

CHAPTER THREE
Conceptual and Theoretical Frameworks

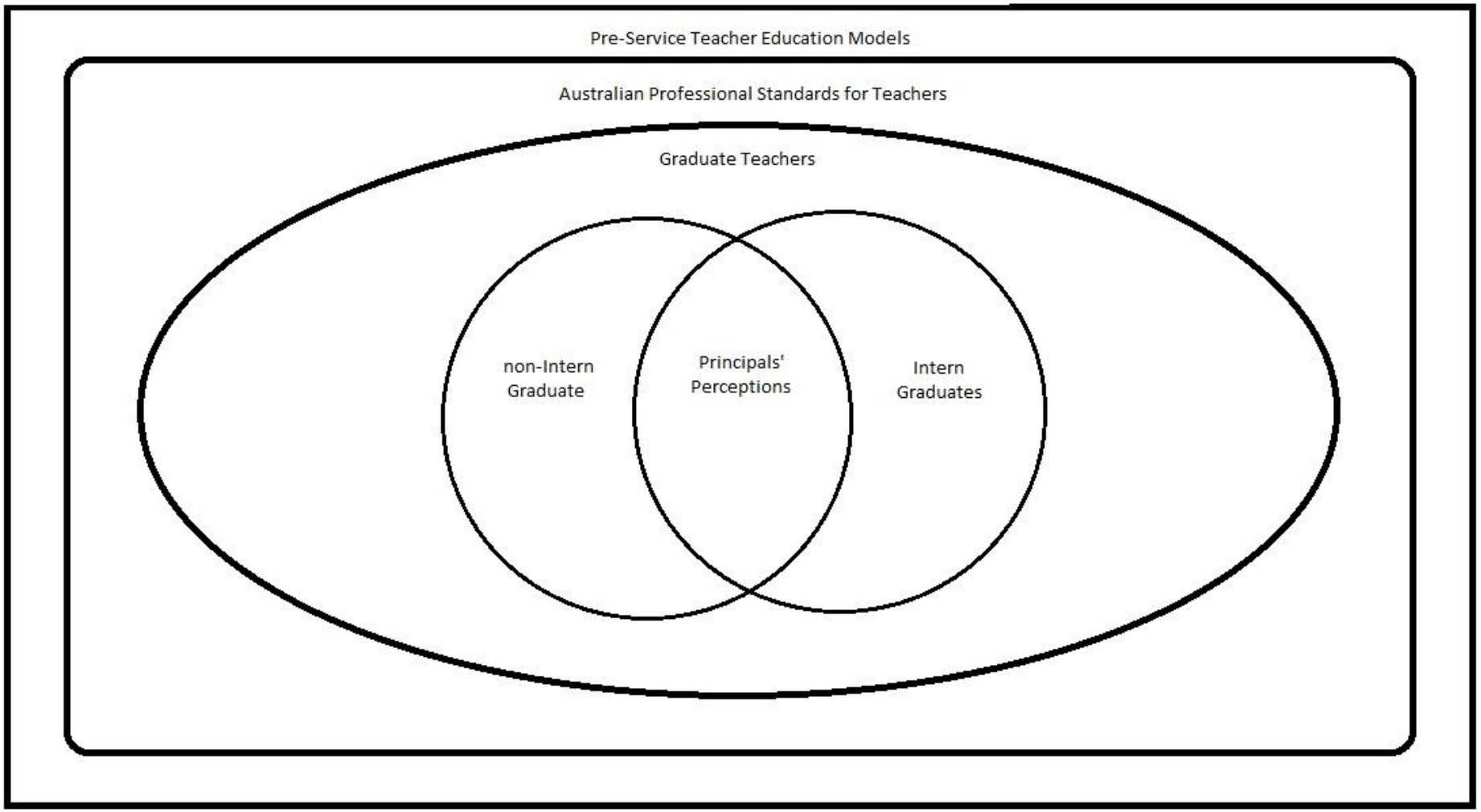
Introduction

This chapter presents the conceptual and theoretical frameworks underpinning this study. In research, the terms 'conceptual framework' and 'theoretical framework' can be misunderstood, or misused, "the two terms are often erroneously interchanged" (Dyer, Haase-Witler, & Washburn, 2003, p. 64). To avoid any misunderstanding of how pre-service teacher education theory and research concepts link together, this chapter will explain and summarise the purpose and context of both frameworks used in this study, and link them to the concepts revealed through the review of literature in Chapter Two.

Conceptual Framework

Miles and Huberman describe a conceptual framework as, "the current version of the researcher's map of the territory being investigated" (1984, p. 33). Figure 2 presents this 'map' and represents how this study has been conducted within the field of pre-service teacher education, and investigates how principals perceive a subset of graduate teachers: Intern Graduates.

Figure 2: Conceptual Framework



It was necessary to employ conceptual parameters that encompassed all aspects of graduate teacher performance so that comprehensive data could be gathered. Chapter Two's review of the literature showed the importance of overarching standards in the teaching profession, and their development in Australia began after the strong recommendation reoccurred in multiple reports and studies (Darling-Hammond, 2006; Ramsey, 2000; Standing Committee on Education and Vocational Training, 2007; Twomey, 2007; Ure, et al., 2009). The seven standards developed by AITSL, included in this thesis in Appendix C, provided appropriate parameters within which principals' perceptions could be themed, analysed and reported on because they represent a set of expectations concerning teachers' performance, "The Australian Professional Standards for Teachers comprise seven Standards which outline what teachers should know and be able to do. The Standards are interconnected, interdependent and overlapping" (Australian Institute for Teaching and School Leadership, 2014, n.p.).

The conceptual framework clarifies the context of the study and recognises the AITSL standards' provision of a common vocabulary concerning teacher quality; a logical choice for the *a priori* themes used in this study's data analysis. The themes are elaborated on in Chapter Four, and supported by the literature. Lesham and Trafford (2007) recommend that "in deductive theory-testing research conceptual frameworks are normally determined by theoretical perspectives (the literature) and therefore precede the Research Design chapter" (p. 100).

The literature has shown that principals in other countries seek to employ graduates who have completed an extended practicum above those who have not (Grudnoff, 2011; Hobson, et al., 2009; Watson, et al., 2006). It will be important to see if this study's results have similar findings and if the principals perceive Intern Graduates to perform at a higher level than non-Intern Graduates.

Theoretical Framework

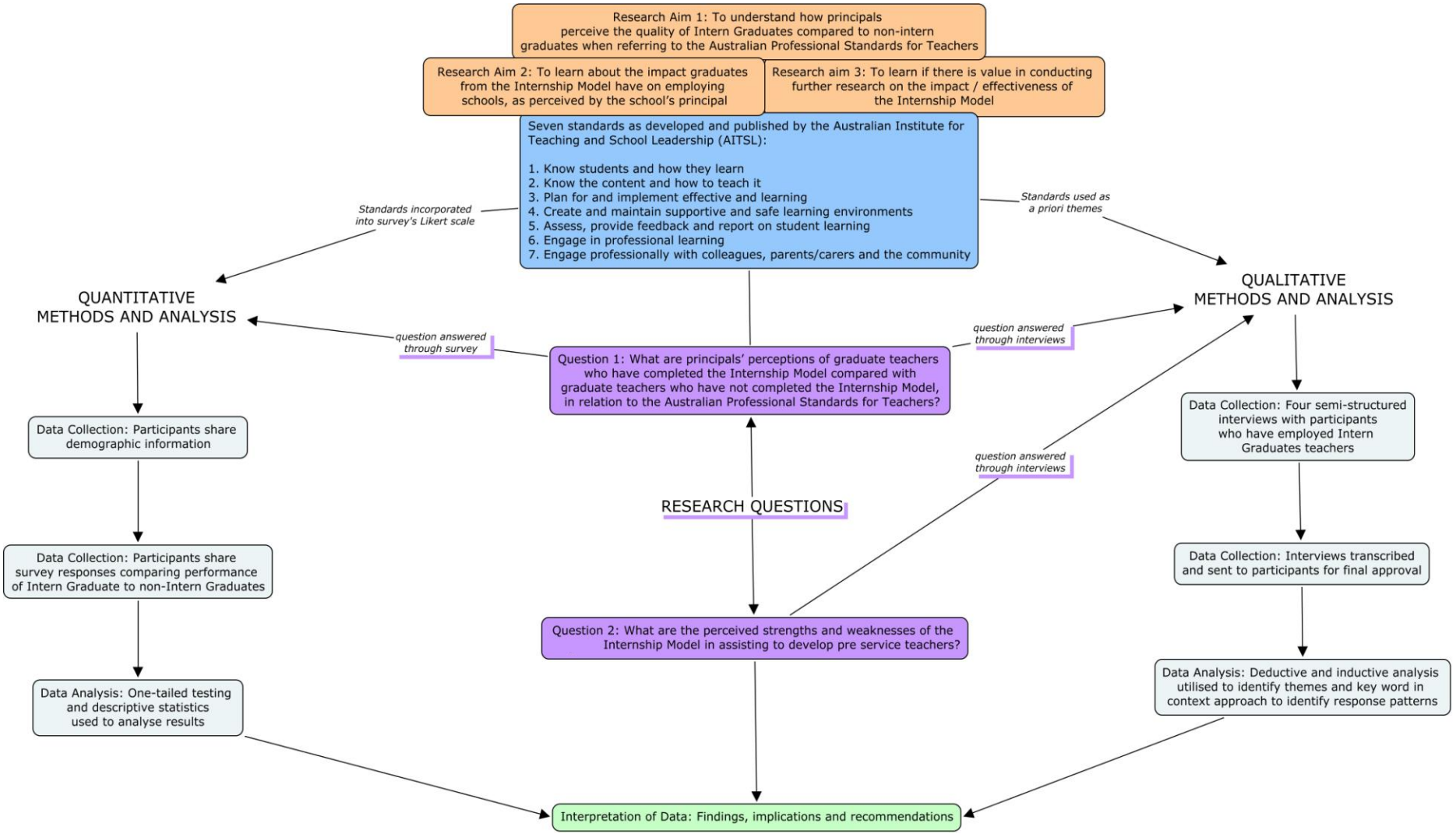
The purpose of a theoretical framework is to provide the researcher with a lens to view the world (Marriam, 2001), or the phenomena being studied. It was essential that this study utilised a theoretical framework that conceptualised the areas featured in Figure 2. The researcher developed a theoretical framework that linked key concepts with the study's approach to answering the research questions, so that the study's methodology was supported by a strong theoretical foundation, and common problems, such as those discussed by Camp (2001), were avoided:

> In general, a major stumbling block for many researchers in conceptualizing research is the development of an adequate theoretical framework for a study. Equally daunting is the problem of verbalizing the theoretical framework for the purposes of publication in the research literature. (Camp, 2001, p. 5)

A flowchart representing the theoretical framework of this study is presented in Figure 3. It illustrates how the first research question needs to be answered through a mixed methods approach. The second research question offers participants the opportunity, through an interview process, to explain their responses to the Likert scale questions on the survey that they would have previously completed and returned.

The Likert scale questions ask principals to assess the performance of Intern Graduates compared to non-Intern Graduates in relation to the Australian Professional Standards for Teachers (Appendix C). The standards constitute a key concept in this study due to the importance of a shared understanding of quality and terminology being revealed by the literature reviewed in Chapter Two.

Figure 3: Theoretical Framework



Conclusion

The conceptual framework, presented in Figure 2, provides a ‘map’ that demonstrate the areas within the field of pre-service teacher education upon which this study focuses. The theoretical framework, presented in Figure 3, links these concepts with the research questions discussed in Chapter One and the literature reviewed in Chapter Two. The theoretical framework demonstrates support for a mixed-methods approach to answering this study’s research questions. The theoretical framework enabled the development of the qualitative and quantitative processes utilised in this study, which will be discussed and explained further in Chapter Four.

CHAPTER FOUR

Methodology

Introduction

The need to evaluate the effectiveness of pre-service teacher education has been widely discussed in Chapter Two. Judging a pre-service teacher education model by the student outcomes achieved in the classrooms led by graduate teachers is problematic, as discovered by Weldon when reporting on the Teach for Australia model (Weldon, et al., 2012). However, this approach is still often used as an evaluative tool, such as in Levine's study (2002). Simply looking at students' results in national testing does not consider demographic variables, nor does it take into account that an effective teacher does more than enable students to achieve high scores on standardised tests.

Chapter Two highlighted the value of school leaders' perceptions of graduate teachers and their performance. In other countries, research has shown that school leaders prefer to employ teachers with extended practicum experience over graduate teachers who have completed a traditional university-based course (Grudnoff, 2011; Hobson, et al., 2009; Watson, et al., 2006). It is currently unclear if graduate teachers from the Internship Model are perceived in the same way. The methodology for this study gathers school leaders' perceptions so that the performance of Intern Graduates compared with non-Intern Graduates can be compared and explained in a way that yields valid and reliable data.

This chapter outlines the research aims and questions, and discusses the overall design and structure of the study.

Research Aims

It is important to understand principals' perceptions of Intern Graduates at this time of change in pre-service teacher education in Australia. In WA, it has been recommended that internship/residency pre-service teacher education models be further developed and continue to be available to pre-service teachers (Sclanders, et al., 2014). Therefore, the findings of this study are highly relevant as they may contribute to the decision making surrounding how extended practicum models are supported and operated in future. Three general areas of interest will be addressed by the data collected in response to the research questions. These areas of interest constitute the overarching aims of the study:

1. To understand how principals perceive the quality of Intern Graduate teachers when referring to the Australian Professional Standards for Teachers.

2. To learn about the impact graduates from the Internship Model have on other schools, as perceived by the school's principal.

3. To learn if there is value in conducting further research on the impact or effectiveness of the Internship Model.

This third aim acknowledges potential scope for future studies that may focus more on other emerging concepts discussed in Chapter Two instead of the focus concept of this study – understanding principals' perceptions of Intern Graduate performances. However, if principals perceive Intern Graduates to be of similar or lesser quality than non-Intern Graduates then it may render future research futile, because the alternative approach offered specifically by the Internship Model may not offer sufficient benefit to the education system and the Improving Teacher Quality government agenda. A larger scale study would be helpful in verifying such findings and further informing policymakers' decision making process.

Research Questions

Two research questions were used to formulate the design and methodology of this study:

1. What are principals' perceptions of the performance of graduate teachers who have completed the Internship Model in relation to the Australian Professional Standards for Teachers?

2. What are the perceived strengths and weaknesses of the Internship Model in assisting to develop pre-service teachers?

Principals were mailed the rubrics for each of the seven AITSL Professional Standards, in order to re-familiarise themselves with the document before communicating their professional judgements regarding the quality of their Intern Graduate teachers. The Western Australian Department of Education policy on performance management expects line managers to refer to the standards when conducting biannual performance management meetings (Department of Education, 2013), which supports the idea that school leaders should already be familiar with the document.

Research Paradigm

The research questions and aims were the driving force in determining an appropriate methodology which would support the theoretical framework for this research. In the field of Education, it has been noted that personal preferences for one paradigm over another may highlight an author's tendency to ascertain subjective viewpoints (Coll & Chapman, 2000). It was, therefore, vital that the research design underpinning this study ensured the researcher's position or own perceptions in the field did not influence the decisions surrounding methodology selection, "'People who write about methodology often forget that it is a matter of strategy, not of morals" (Miles & Huberman, 1994. p. 2). The fact that participants were principals of schools to which the researcher had not

previously visited, or worked in, was helpful as there were no existing professional or personal relationships between the researcher and the participants that may have influenced the likelihood of participants' responses being influenced by the identity of the researcher.

Reviewing the research questions was necessary for the purposes of methodological scrutiny: the first question is related to graduate teacher performance, the second question seeks opinions about the strengths and weaknesses of a particular pre-service teacher education model and these data would clearly be richer if participants were given the opportunity to qualify their perceptions. However, without quantifying any of the responses the study loses the opportunity to uncover potentially statistical significances in relation to specific domains of teaching, namely the three key areas of the profession as defined by the Australian Professional Standards for Teachers (Appendix C).

Interviews have been shown to provide an effective way to collect qualitative data (Bell, 2010, p. 161) and in order to answer the questions and achieve the aims of this research, it became clear that a qualitative component was essential. A constructivist paradigm emerged as the obvious choice for dealing with the knowledge derived from individual perceptions and responses. All results derived from the data uncovered in this study were based on individual perceptions and although constructivists tend to rely on qualitative data, upon close examination of the research questions, it emerged that a mixed-methods approach was optimum for a study of this kind, as acknowledged by Mackenzie and Knipe,

> The constructivist researcher is most likely to rely on qualitative data collection methods and analysis or a combination of both qualitative and quantitative methods (mixed methods). Quantitative data may be utilised in a way, which supports or expands upon qualitative data and effectively deepens the description. (2006, p. 3)

A phenomenological method of analysis was adopted to identify emerging features and themes in the qualitative data of this study, "the phenomenological

method as understood by these researchers is geared towards collecting and analysing data in ways that do not prejudice their subjective character" (Crotty, 1998, p. 83).

To perceive the term 'phenomenology' according to one definition is limiting to a researcher because there are so many definitions, methodologies and interpretations that refer to phenomenology (Patton, 2002, p. 104). Broadly speaking, the advantage of using a phenomenological method of analysis in this research was that objectivity was maintained; the researcher was able to distinguish between what principals said and what the interviewer possibly expected them to say, "What is important is the experience as it is presented, not what anyone thinks or says about it" (Streubert & Carpenter, 1999, p. 56).

"There is a definite need for researchers to make explicit the methods they use to facilitate the management of large amounts of qualitative data" (Cormack, 1991, p. 295). The methods used to identify themes were not labour intensive due to the small scale of the study, but the data analysis did follow a sequential framework that combines an *a priori* approach and an inductive approach, as shown in Figure 3 in Chapter Three. These themes were pre-determined by the choice to use the seven Australian Professional Standards for Teachers (Australian Institute for Teaching and School Leadership, 2011), "*A priori* themes come from the characteristics of the phenomenon being studied; from already agreed on professional definitions" (Bernard & Ryan, 2003, p. 88).

The mixed methods approach supports both the adoption of the constructivist paradigm and the phenomenological method of analysis selected for this study, because of the nature of the research questions and their focus on investigating perceptions; the first research question could be tackled quantitatively and qualitatively, using the parameters and standards provided by the Australian Institute for Teaching and School Leadership to support school leaders in assessing teacher performance. The second research question needs a qualitative approach to draw meaningful conclusions from the participants' extended verbal responses.

Qualitative and quantitative purists alike can be critical of mixed-methods research, assuming there must be a perception of methodological hierarchy that the researcher is concealing: for example, Denzin and Lincoln argue, “Mixed-methods designs are direct descendants of classical experimentalism. They presume a methodological hierarchy in which quantitative methods are at the top and qualitative methods are relegated” (Denzin & Lincoln, 2008, p. 12). However, the researcher acknowledges a growing movement which supports a mixed-methods approach, “By utilizing quantitative and qualitative techniques within the same framework, mixed-methods research can incorporate the strengths of both methodologies” (Johnson & Onwuegbuzie, 2004, p. 23).

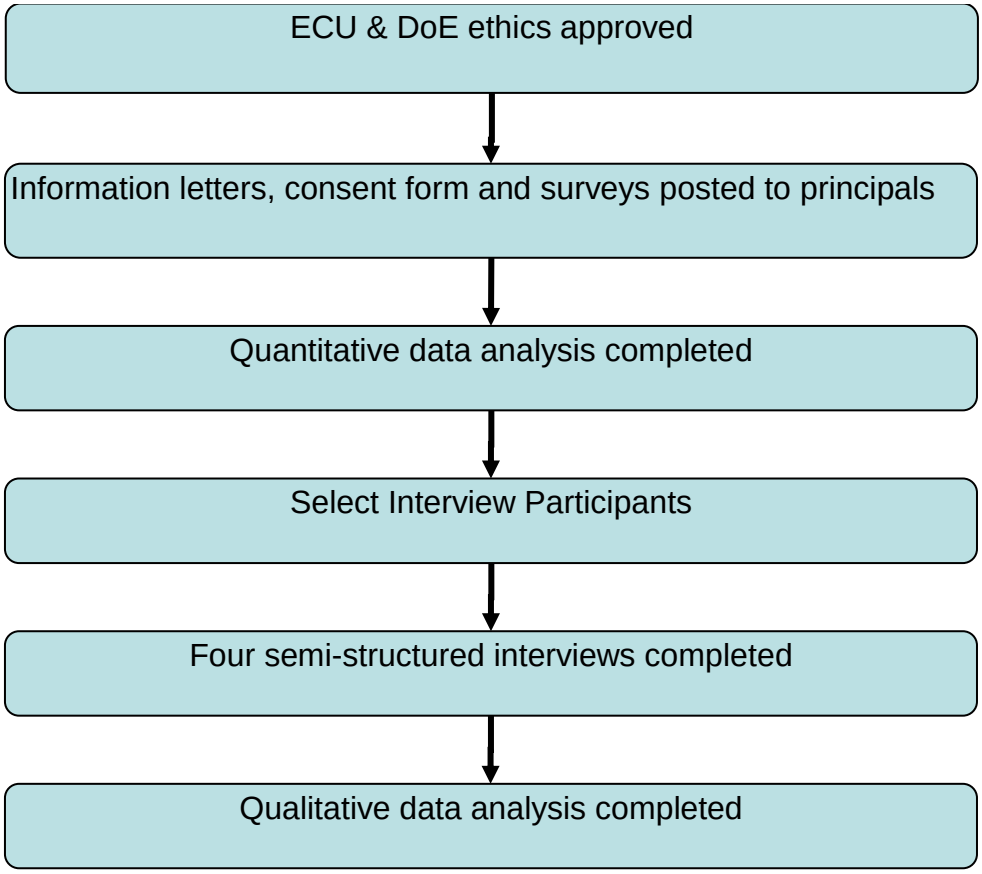
The lens through which this study’s data are interpreted and presented would not benefit from being confined by solely a quantitative or qualitative method for data collection. Instead, the study adopts Johnson and Onwuegbuzie’s (2004) view by embracing the strengths of each. The particular strengths of the qualitative data processes in this study were “the ‘inherent flexibility’ which allows a researcher to adjust data collection as a project progresses, and hence allow greater confidence that understanding has been achieved” and “the fact that data are collected within an environment, close to a specific situation, so they possess ‘local groundedness' (Miles & Huberman, 1994). Understanding the social context of the participants is a way in which the qualitative data in this study ensures inaccuracies are avoided, “...researchers who do not know how specific words and actions are understood in the sociocultural contexts of their research domain may ask the wrong questions or misinterpret the respondents’ answers in questionnaires” (Kelle, 2006, p. 296). For this study, when conducting interviews the researcher was able to guide the conversation and ask follow up questions for purposes of clarification, and to ensure the participant had expressed their views in relation to all of the seven standards. Without possessing ‘local groundedness’ and familiarity with the social (educational) context, such comprehensive data may not have been sought or collected.

To complement the strengths of the qualitative data collection methods, the particular strengths of the quantitative processes in this study were the

incorporation of a one-tailed test analysis to uncover statistical significances in relation to how participants perceive the performance of graduates who have completed the Internship Model compared to graduates who have not. Power calculations ascertaining the predicted reliability of the sample size of participants supported the use of a one-tailed test, in addition to the viewpoint that a one-tailed test, should significant results be yielded, is stronger than the alternative, “The one-tailed test is a stronger test than the two-tailed test as it makes assumptions about the population and the direction of the outcome.... and hence, if supported, is more powerful than a two-tailed test” (Cohen, Manion, & Morrison, 2007, p. 504). The quantitative analysis allowed variability in the way the results are presented, and can also rule in or out any associative relationships between the results and the demographic information that was collected on page one of the surveys (Appendix D), information such as the number of graduate teachers a participating principal has employed.

Addressing the research questions in a way that would maximise the probability of achieving the study’s aims, in an accurate and objective way, again supported a mixed-methods design. The quantitative component ensured all potential participants were invited to participate through a survey that would provide some “crude statistics” (Cohen, et al., 2007, p. 234), whilst the qualitative component sought to understand the rationales behind the quantified responses given in the initial survey’s Likert scale (Appendix D). Figure 4 summarises the research design sequence.

Figure 4: Research Design Sequence



Ethical Approvals and Considerations

The proposal for this study was initially presented in December 2011 to academic staff of the School of Education at Edith Cowan University (ECU). There were some recommended changes which were made and then the proposal was resubmitted early in 2012. Key changes were the selection process for participants in the interview stage of the project and improved protocols for ensuring anonymity of Intern Graduates to whom participants would refer. The ECU ethics committee granted ethics approval on 9th May 2012 (Appendix E) and the Western Australian Department of Education granted ethics approval on 10th May 2012 (Appendix F).

All stages of the study required comprehensive ethical considerations. At the design stage, it was important to ensure the researcher's position had no

influence over participants' responses. This meant that participants needed to be those who did not work at Norfolk Primary School and, therefore, not colleagues of the researcher. The ethics review panel recognised the principals who employed the Intern Graduates after they had finished their internship year were well positioned to be participants and make a professional judgment about the Intern Graduates' performance as beginning teachers.

Initially, an information letter and consent form outlining the process (Appendices G and H) were sent to all principals of government schools in Western Australia who had employed an Intern Graduate. Participants were able to choose if they wanted to participate, and whether they wanted to be involved in the survey only or were willing to be interviewed as well as completing a survey.

At the data collection stage, participants were provided with pre-paid envelopes with which to return their survey and consent form. Participants involved in the interview process were able to determine the venue and time of the interview to minimise inconvenience. An audio recording of the interview was made and transcribed, with all vocabulary that risked identifying individuals omitted. This transcript was then emailed to interview participants for their approval and they were given the opportunity to add or delete any of their comments.

Finally, participants will be notified when the study is complete, and will receive a summary of findings with the opportunity to access the thesis.

In semester one of 2012, there were 22 principals in Western Australia who had employed an Intern Graduate. All were sent a survey, information letter and consent form (Appendices D, G, & H) via Australia Post in April 2012. They were asked to return the forms, if they wished to be involved, by June 22nd 2012. The participating principals led a diverse range of schools, mostly in the Kimberley, Goldfields and Pilbara regions, with a minority in the Wheatbelt, Metropolitan and South-West regions.

The total number of surveys sent out was 34 and 19 were returned to the researcher in the appropriate time period. This response rate of 56% allowed the researcher to meet both the primary and secondary criteria, outlined below, for selecting interview participants.

During the second semester of 2012, four semi-structured interviews took place. An audio transcript was completed for each interview and shared with the participant for their approval. Participants had the option of adding or retracting any comments. Interviews took place at either Edith Cowan University or at a venue nominated by the participant. Transcripts were deidentified and the interview process was complete by the end of December 2012.

Selection of Participants

The researcher was careful that participants were not individually selected, to avoid selection bias. The mixed methods approach ensured this was achieved as all principals in Western Australia (who had employed an Intern Graduate) were invited to participate in the initial survey.

Once all surveys were returned, the researcher reviewed the results so that interview participants with a balance of negative and positive responses could be interviewed. The other crucial criteria for interviewees was that the participant was one who had employed more than one Intern Graduate at their school and could, therefore, give a view that was not based solely on the performance of one individual graduate teacher. Secondary criteria for interviewee selection involved having a collection of mixed gender participants from varying school types and regions.

Quantitative Data Procedures

The quantitative part of the study was organised through a survey with a Likert scale (see Figure 5). Participants were asked to compare the performance of their Intern Graduate to the performance they associated with traditionally

trained graduates, and make seven judgements, one for each of the Australian Professional Standards for Teachers. Participants could indicate that their Intern Graduate's performance was 'significantly lower', 'lower', 'similar', 'higher', or 'significantly higher' (see Figure 5). For the purposes of the survey, the word 'significant' in this case refers to the principal's own interpretation of what performance differences they would classify as significant. Any statistical significance will be clearly explained by the researcher in Chapter Five.

Figure 5: Likert Scale from Participant Survey

	Intern Graduates Performance Compared to a Non-Intern Graduate Teacher				
Area of Performance	Sig* lower 1	Lower 2	Similar 3	Higher 4	Sig* higher 5
Know students and how they learn					
Know the content and how to teach it					
Plan for and implement effective teaching and learning					
Create and maintain supportive and safe learning environments					
Assess, provide feedback and report on student learning					
Engage in professional learning					
Engage professionally with colleagues, parents/carers and the community					
*sig = significantly					

This instrument ensures that the categories of responses were discrete and allowed participants to express a more thoughtful response than a survey filled with only dichotomous questions. The advantages of using a reliable Likert scale such as this one are summarised as follows, "These are very useful devices for the researcher, as they build in a degree of sensitivity and differentiation of response while still generating numbers" (Cohen, et al., 2007, p. 325).

Demographic information was also collected, which asked principals to share details of their age, gender, years of experience, and experience in employing graduate teachers, such as how many they had employed and how many typically came to their school each year. They were also asked how many Intern

Graduates they had employed. These data were collected for two reasons: firstly to assist the researcher in adhering to the selection criteria for the interview stage of the project, and secondly so that when the quantitative data were being analysed patterns and other significant factors may be uncovered.

Qualitative Data Procedures

The qualitative data were designed to be organised and analysed according to a-priori themes, in the form of the Australian Professional Standards for Teachers, see Figure 6. The researcher investigated inductive themes, either being integrated with one of the *a priori* themes, or as an independent concept, that would warrant discussion in Chapters Six and Seven.

Figure 6: Australian Professional Standards for Teachers

Domains of teaching	Standards	Focus areas and Descriptors
Professional Knowledge	1. Know students and how they learn 2. Know the content and how to teach it	Refer to the Standard at each career stage
Professional Practice	3. Plan for and implement effective teaching and learning 4. Create and maintain supportive and safe learning environments 5. Assess, provide feedback and report on student learning	
Professional Engagement	6. Engage in professional learning 7. Engage professionally with colleagues, parents/ carers and the community	

Image snapshot from the AITSL webpage (AITSL, 2014).

These seven standards, in effect, can be viewed as a summarising 'job description' for teachers, and teacher abilities are divided into four levels: 'graduate', 'proficient', 'highly proficient' and 'lead'. Since 2013, all universities involved with the Internship Model have incorporated these standards into their practicum guidelines and final evaluation reports that mentor teachers are

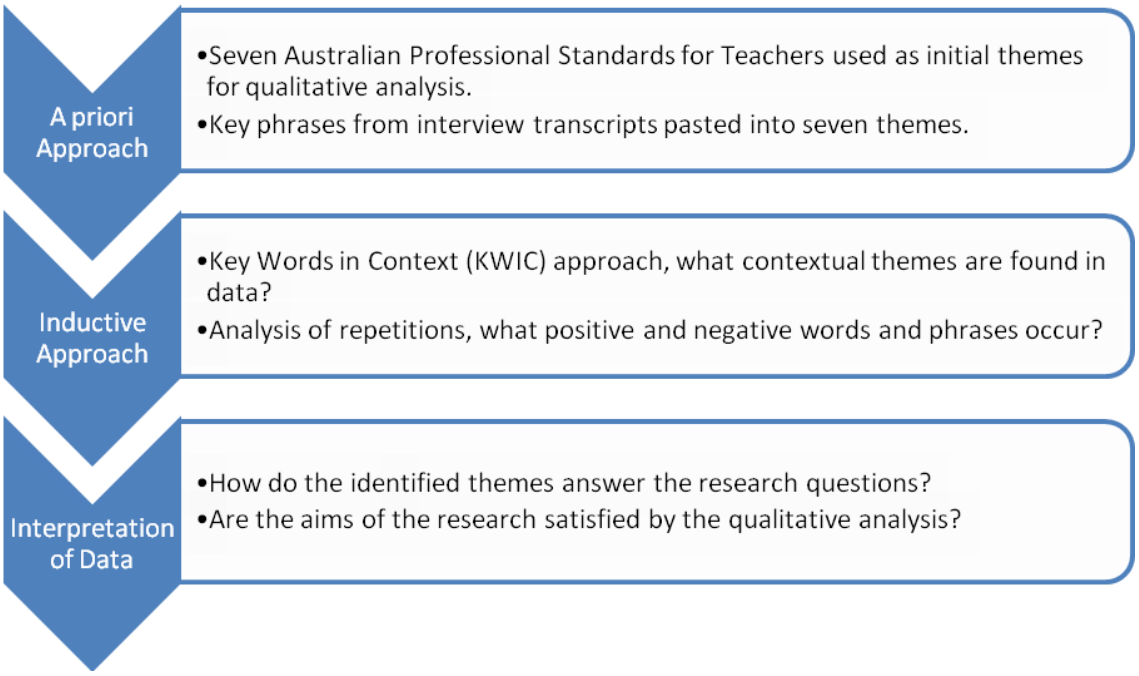
asked to complete. As the use of the standards widens in response to the latest MCEECDYA guidelines (Ministerial Council for Education and Early Childhood Development and Youth Affairs, 2011), schools are incorporating the four standard levels into performance management processes. Furthermore, in April 2013 an application process for teachers to be accredited with 'Lead Teacher' status was formalised and published in WA, with a national accreditation process being implemented at different times throughout 2013 by the other states and territories (AITSL, 2012).

This study made the theoretical assumption that principals are in a position to make a fair and accurate judgment about the performance of the graduate teachers they employ in their school. Evidence to support this assumption is found in the Employee Performance Policy, written by DoE (Department of Education, 2013) which defines 'Performance Management' as "the formal and informal continuous process of evaluating and supporting an employee's performance in the workplace" (p. 12).

The policy elaborates by instructing leadership teams that "all line managers will conduct and document performance management with staff" (Department of Education, 2013, p. 5), by defining a Performance Management Plan as "a document developed by the employee and line manager identifying outcomes, priorities, and support, within a performance management process" (p.12). Although sometimes deputy principals assume the position as line manager for some graduate teachers, this study makes the secondary assumption that principals would consult with deputy principals, if necessary, to make an informed judgment. Given that principals are required as part of their job to ensure performance management processes take place, this study assumes participants have adhered to this departmental policy effectively.

The sequence of qualitative data procedures is represented in Figure 7. Further details about the analysis procedures of quantitative and qualitative data will be discussed in Chapters Five and Six.

Figure 7: Qualitative Data Procedures



Interview Questions and Reliability

Due to the nature of the constructivist paradigm underpinning this study, interviews needed to give participants enough flexibility to communicate and clarify the full range of their perceptions. A fully structured interview, giving the researcher little scope to seek such clarification, would inevitably have resulted in a less valid database, “Semi-structured...are well suited for the exploration of the perceptions and opinions of respondents regarding complex and sometimes sensitive issues and enable probing for more information and clarification of answers” (Barriball & While, 1994, p. 330).

In Barriball and While’s (1994) discussion paper entitled *Collecting Data Using Semi-Structured Interviews: A Discussion Paper* the authors highlight the key factor in ensuring researchers acquire reliable data by quoting from The Research Act: A Theoretical Introduction to Sociological Methods, “Clearly, in this type of interview, validity and reliability depend, not upon the repeated use of the same words in each question, but upon conveying equivalence of meaning” (Denzin, 1989). Barriball and While qualify their interpretation of this quote by explaining, ”it is this equivalence of meaning which helps to

standardize the semi-structured interview and facilitate comparability" (Barriball & While, 1994, p. 330).

Barriball and While's observations about validity are pertinent to this study because of the correlation they observe between participants' willingness to volunteer their time, and their ability to be "good informants" (Barriball & While, 1994, p. 334) as they have volunteered to share their perceptions in their context of their position as a school leader. This would mean that in the analysis stage there would be no reason to doubt the validity of comparative perceptions amongst the participants. Maximum validity would, therefore, be achieved with thorough and rigorous analysis.

Once a venue and time had been arranged, participants were provided with the interview questions below. The interview was semi-structured around these questions, although additional questions were asked if the participant had not commented on their thoughts relating to one or more of the teaching standards. These additional questions were used only to ensure that a more complete data set was acquired to improve the validity of the final qualitative database.

Interview Question One: What are your perceptions of graduate teachers in general?

Interview Question Two: What are your perceptions of graduate teachers who have completed the Internship Model in relation to the Australian Professional Standards for Teachers?

Interview Question Three: What are the perceived strengths and weaknesses of the Internship Model in assisting to develop pre-service teachers?

Interview questions two and three are essentially the research questions in their original form. However, rather than beginning an interview by commencing immediately with the key questions, it was recommended in the study's proposal review that the first interview question was added as a way of establishing the conversation at the beginning of the interview and to allow

participants to clarify their thinking in regard to the general concept of graduate teachers and their performance. In effect, this supplementary 'starter' question was included to give participants some 'warm up' time and to hopefully feel more comfortable in an interview environment.

Research Design Limitations

The scale of the study is arguably a limitation, with only four participants interviewed and, therefore, restricting the qualitative data collected. The criteria outlined in the research design section were met in relation to the interviewees, but a research design that collects more qualitative data may be helpful in future, particularly if investigating other independent variables.

The limitations for the quantitative part of the study revolved around the predicted true probability of participants returning a positive result, and the necessity for a sufficient sample size. These calculations are available in Chapter Five. Although this could be regarded as a weakness in the study's design, the statistics that emerged show that the validity of the data and results were not compromised, due to a sufficient response rate from participants.

The timing of the study is worth considering as a possible limitation. The quantitative data were collected in 2012, with 22 principals invited to be participants and 34 surveys sent out in total. This represented three cohorts of Intern Graduates; those who were Intern Teachers in 2009, 2010 and 2011. If the researcher had delayed data collection until 2013, due to many staff changes in schools, there would have been between 35-40 principals invited to participate and approximately 50 surveys sent out. The optimum time for researching the effectiveness of new practice is rarely clear due to the frequency of policy changes (Akiba, 2013, p. xxi), because if there is found to be a negative impact resulting from a policy change then the waste of resources associated with the practice needs to be curtailed as soon as possible. In this case, if principals' perceptions showed that the quality of Intern Graduates was similar or worse to non-Intern Graduates then there would be a strong argument

for the Department of Education to discontinue this component of its Training Schools project, or cease efforts to make similar models sustainable.

Conclusion

The advantage of collecting and analysing qualitative and quantitative data became evident upon this chapter's scrutiny of the research questions: solely quantitative data would prevent the researcher from understanding the reasons for participant responses, whilst solely qualitative data would not be statistically scalable. The theoretical framework, discussed in Chapter Three, supported a constructivist paradigm along with a phenomenological method of analysis, considering the data gathered were perception-based. The Australian Professional Standards for Teachers were understood to be vital in providing common terminology and measures of teacher quality in both aspects of the mixed-methods design, as well as having the advantage of principals being familiar with their use as performance indicators.

In regard to the limitations of the study, more data would always be welcomed, both qualitative and quantitative. Fortunately, the quantitative analyses produced multiple statistically significant findings, and the selection criteria for interview participants in the qualitative part of the study were met on all counts. Although the scale of the study can be considered a limitation this has not prevented important findings being uncovered, as well as revealing the value and potential for future research projects with the resources for a wider scope.

CHAPTER FIVE

Quantitative Data Analysis

This chapter presents the results of the data analysis derived from the participant surveys using tables, figures and text. At the data collection stage, there were 34 surveys sent to principals and 19 were returned, giving a response rate of 56 per cent. Each participant completed one survey for each Intern Graduate they had employed, and rated their performance compared to graduate teachers who had not completed the Internship Model. A simple Likert scale was used (as shown in Figure 5, Chapter Four) in which the Intern Graduate's performance was judged by the participant to be 'significantly higher', 'higher', 'similar', 'lower', or 'significantly lower'. Their performance was assessed in seven areas to correspond with AITSL's (2014) Australian Professional Standards for Teachers:

1. Know students and how they learn
2. Know the content and how to teach it
3. Plan for and implement effective teaching and learning
4. Create and maintain supportive and safe learning environments
5. Assess, provide feedback and report on student learning
6. Engage in professional learning
7. Engage professionally with colleagues, parents/carers and the community.

The software used for the quantitative analysis was Microsoft Excel and 'R', the latter being free, open source statistical analysis software (R-Project, n.d.)

Reliability

The internal consistency of the Likert scale component of the survey instrument was tested by obtaining the alpha coefficient of reliability (0.906) using a Microsoft Excel Calculator (see Figure 8).

Figure 8: Reliability Test Scores

Cronbach's Alpha	0.90635838
Split-Half (odd-even) Correlation	0.93744938
Spearman-Brown Prophecy	0.96771496
Mean for Test	29.2105263
Standard Deviation for Test	3.79166603
KR21	8.68786127
KR20	8.73089274

Formula for Cronbach's Alpha: $\frac{k}{k-1}\left(\frac{\sum_{i\neq j}^{k} cov(x_i, x_j)}{var(x_0)}\right) = \frac{k}{k-1}\left(1 - \frac{\sum_{j=1}^{k} var(x_j)}{var(x_0)}\right)$

Questions	Subjects
7	19

	Question 1	Question 2	Question 3	Question 4	Question 5	Question 6	Question 7
Subject1	4	4	4	4	4	4	4
Subject2	5	5	5	5	5	5	5
Subject3	4	4	4	4	4	4	4
Subject4	4	4	4	4	4	4	4
Subject5	3	3	3	3	3	3	2
Subject6	5	5	5	5	5	5	5
Subject7	5	5	5	5	5	5	5
Subject8	5	5	5	5	5	5	5
Subject9	4	4	4	4	4	3	3
Subject10	4	4	4	4	5	5	5
Subject11	4	4	4	5	5	3	3
Subject12	5	5	5	5	5	3	3
Subject13	5	5	5	5	5	3	3
Subject14	4	3	4	5	5	3	3
Subject15	4	4	4	4	4	3	3
Subject16	4	4	4	4	4	4	4
Subject17	4	4	4	4	4	3	3
Subject18	4	4	4	5	4	4	3
Subject19	4	4	5	5	4	4	3

The implications of this result show that the dataset yielded from the survey places it in the category of “very highly reliable” (Cohen, et al., 2007, p. 506), but it is not unusually high (>0.95) which might cast doubt over the validity of the questions being asked, as it may suggest that the items were “overly redundant and the construct measured too specific” (Briggs & Cheek, 1986, p. 114). Due to the survey’s strong inter-item correlations the researcher did not have to remove any items in the quantitative analysis process.

Survey Results

There are two distinct parts to the survey responses: the answers to the demographic questions and the answers to the Likert scale part of the survey, which focuses on comparing Intern Graduate performance to non-Intern Graduate teacher performance.

Participants were randomly assigned an identification code (P1-19) and their responses were recorded for each question (see Table 1), in which ‘SQ’ refers to ‘survey question’ and the demographic questions, whilst ‘S’ refers to

'standard' and the professional standard being used for principals to share their perception of an Intern Graduate's performance. The data shown in columns below the 'SQ' and 'S' headings indicate the participants' demographic information (numbers one to six with a blue background) and their responses to the Intern Graduate's performance part of the survey (numbers one to five with a red background).

Table 1: Survey Results (Deidentified)

		Responses to demographic questions part of survey								Responses to the Likert scale part of survey						
Intern	Principal	SQ1*	SQ2*	SQ3*	SQ4*	SQ5*	SQ6*	SQ7*	SQ8*	S1*	S2*	S3*	S4*	S5*	S6*	S7*
1	P8	1	4	5	1	6	4	1	3	4	4	4	4	4	4	4
2	P8	1	4	5	1	6	4	1	3	5	5	5	5	5	5	5
3	P8	1	4	5	1	6	4	1	3	4	4	4	4	4	4	4
4	P5	1	3	3	1	5	5	2	2	4	4	4	4	4	4	4
5	P4	1	4	5	3	6	2	1	1	3	3	3	3	3	3	2
6	P11	2	3	1	1	2	4	3	5	5	5	5	5	5	5	5
7	P11	2	3	1	1	2	4	3	5	5	5	5	5	5	5	5
8	P11	2	3	1	1	2	4	3	5	5	5	5	5	5	5	5
9	P10	1	4	4	2	6	5	3	1	4	4	4	4	4	3	3
10	P3	1	4	5	1	2	1	3	1	4	4	4	4	5	5	5
11	P9	1	2	1	1	2	3	2	5	4	4	4	5	5	3	3
12	P9	1	2	1	1	2	3	2	5	5	5	5	5	5	3	3
13	P9	1	2	1	1	2	3	2	5	5	5	5	5	5	3	3
14	P9	1	2	1	1	2	3	2	5	4	3	4	5	5	3	3
15	P9	1	2	1	1	2	3	2	5	4	4	4	4	4	3	3
16	P2	1	5	6	5	4	1	2	1	4	4	4	4	4	4	4
17	P6	2	4	1	1	1	2	3	1	4	4	4	4	4	3	3
18	P1	2	2	1	1	2	3	3	2	4	4	4	5	4	4	3
19	P1	2	2	1	1	2	3	3	2	4	4	5	5	4	4	3

*SQ = survey question (demographic information)

*S = standard (performance related information)

Appendix I displays all responses from the entire survey for each individual question. The regions of Bunbury, the Kimberley, the Goldfields, the Pilbara and the Metropolitan area are represented by the principal participants, but are not presented in the results graphs as this may increase the risk of participants being identified.

Figures 15 to 22, presented in Appendix I, show the results from the demographic questions that constituted page one of the survey questions (see Appendix D). Figures 23 to 29 show the results of the seven point Likert scale ratings for each of the Australian Professional Standards for Teachers that were used to help principals rate the performance of their Intern Graduate. The next six paragraphs describe and summarise the survey results.

The participants comprised 13 males and 6 females. One of the participants was over 61 years old, with all other participants ranging in age from 31 to 60 years. The length of time participants had been in a principal role varied, with 11 participants having been a principal for less than five years and the other participants having at least ten years experience. The vast majority of participants had been at their current school for five years or less, with only three participants having been in their current position for six years or more.

Eleven participants had employed six to nine graduate teachers since becoming a principal, although five participants had employed 31 graduate teachers or more, showing that the participants of the survey were very experienced in working with graduate teachers.

The responses to Survey Question Six indicate that teacher turnover in many of the participants' schools is quite high, with 13 participants employing, on average, between three and six new graduate teachers each year. Participants had employed Intern Graduates from different cohorts of the Internship Model, with four, seven, and eight participants employing Intern Graduates from the years 2010, 2011, and 2012, respectively. One participant had employed five or more Intern Graduates, six participants had employed two or three Intern

Graduates and five participants had employed only one Intern Graduate, which meant that those five participants did not meet the study's selection criteria to be interviewed. Principals who had employed more than one Intern Teacher did not give any negative performance ratings of Intern Teachers in their survey responses.

In relation to standard one, all but one of the principal participants rated Intern Graduates to be performing at a 'higher' or 'significantly higher' level than non-Intern Graduates. The remaining participant rated the performances as 'similar'. For standards two, three, four and five there was also only one participant who did not rate their Intern Graduates(s) to be performing at a 'higher' or 'significantly higher' level than non-Intern Graduates. Therefore, for standards one to five there were no participants who felt their Intern Graduate performed at a lower level than non-Intern Graduates, and all but one participant in each standard believed Intern Graduates' performances were better.

In contrast, although no participants felt Intern Graduates' performances were lower in the areas pertaining to standard six, there were eight participants who felt their ability to "engage in professional learning" (Australian Institute for Teaching and School Leadership, 2014) was 'similar' to non-Intern Graduates. The remaining participants opined that Intern Graduates performed at a 'higher' or 'significantly higher' level.

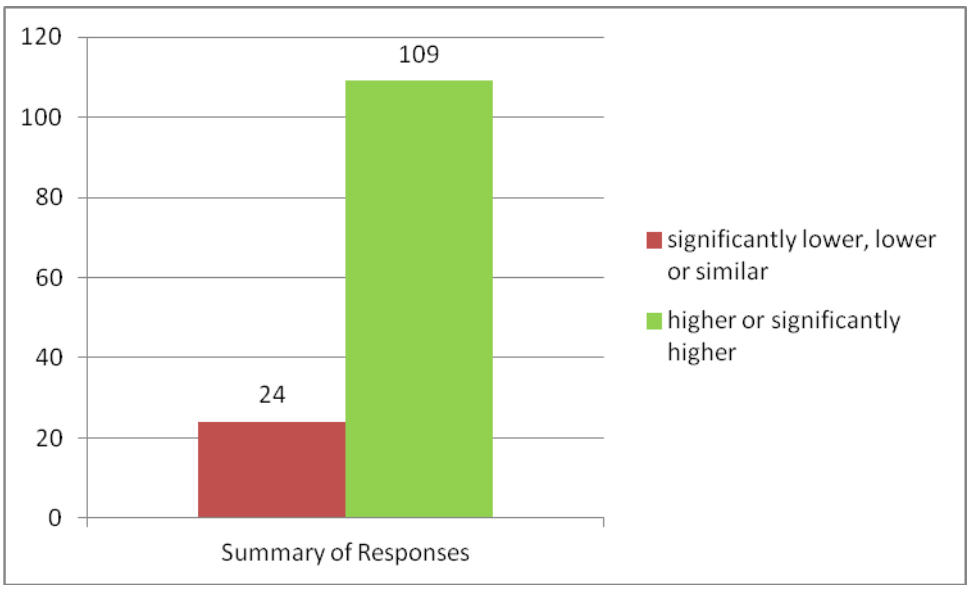
Standard seven attracted the only response out of 133 responses that rated Intern Graduates' performance as 'lower' than non-Intern Graduates' performance. Nine responses gave a 'similar' rating and nine gave a 'higher' or 'significantly higher' rating.

Testing for Statistical Significance Using a One-Tailed Test

The Likert scale in the participants' survey allowed principals to perceive the performance of Intern Graduates compared to non-Intern Graduates as 'significantly lower', 'lower', 'similar', 'higher' and 'significantly higher.' Numeric values were then assigned to these responses (see Table 1), but for the purposes of achieving the research aims, the responses were categorised into two groups. The first group included the 'significantly lower', 'lower' and 'similar' responses, the second group included the 'higher' and 'significantly higher' responses. The proportion of these two groups could then be tested to find out if the results were statistically significant.

The groupings were chosen because the research needs to ascertain if there is value in further study associated with the Internship Model (as discussed in the Research Aims section of Chapter One), consequently the researcher needed to ensure that any conclusions drawn from the quantitative data were based on significant findings.

Figure 9: Summary of Responses from Survey Participants



When conducting power calculations (a statistical methodology to determine minimum sample size) at the research design stage, the researcher estimated that between 20 and 25 surveys would be received back from participants.

There were 22 principals invited to participate in the study, with 34 surveys being sent out in total. This sample size was not large enough for two-tailed testing of binomial proportions, but it was large enough to establish statistically significant findings on a one-tailed analysis. This was entirely appropriate for this research project because the Internship Model is only a viable alternative to pre-service teacher education if the findings show it is an improvement on traditional methods. If the findings showed that there was an insignificant difference in quality of graduate teachers, or that Intern Graduates' performance was lower, then further analysis to address the third aim of this research project will be of no benefit to the models' stakeholders because there would be no educational value in continuing the Internship Model, the assumption being that change to pre-service teacher education should only be sought if it is shown to improve teacher quality in its graduates. Therefore, the researcher had no need to employ a two-tailed test and could focus on the power calculations that were necessary to ensure a one-tailed test had a good chance of yielding a significant result.

The following calculations were completed: if the true probability of principals returning a positive response is 0.8 (a 'higher' or 'significantly higher' rating), and there is a sample size of 25 surveys, this will give a 90% power (chance of detecting a statistically significant result), see Figure 10: R Output 1.

Figure 10: R Output 1

```
nsims <- 100000
n <- 25
p.true <- 0.8
p.null <- 0.5
pVec <- rep(NA,nsims)
for(i in 1:nsims){
  # simulate random binomial data
  temp <- rbinom(n,size=1,prob=p.true)
  pVec[i] <- binom.test(sum(temp),n,p=p.null,alternative="greater")$p.value
}

sum(pVec<0.05)/nsims # 0.89034 => ~90% power, very good
```

This changes to an 80% power if there are 20 surveys, as shown in Figure 11: R Output 2.

Figure 11: R Output 2

```
nsims <- 100000
n <- 20
p.true <- 0.8
p.null <- 0.5
pVec <- rep(NA,nsims)
for(i in 1:nsims){
  # simulate random binomial data
  temp <- rbinom(n,size=1,prob=p.true)
  pVec[i] <- binom.test(sum(temp),n,p=p.null,alternative="greater")$p.value
}

sum(pVec<0.05)/nsims # 0.80349 => ~90% power, good
```

However, if the true probability of principals returning a positive response is 0.6 (and the researcher still has 25 surveys) then only a 15% power will be achieved, see Figure 12: R Output 3. The implications of these scenarios is explained overleaf, and informed the researcher about the sample size, and response type, necessary to achieve statistically significant results.

Figure 12: R Output 3

```
nsims <- 100000
n <- 25
p.true <- 0.6
p.null <- 0.5
pVec <- rep(NA,nsims)
for(i in 1:nsims){
  # simulate random binomial data
  temp <- rbinom(n,size=1,prob=p.true)
  pVec[i] <- binom.test(sum(temp),n,p=p.null,alternative="greater")$p.value
}

sum(pVec<0.05)/nsims # 0.15395 => ~15% power, not good enough
```

If there are 20 surveys returned it will be a 13% power, as shown in Figure 13: R Output 4.

Figure 13: R Output 4

```
nsims <- 100000
n <- 20
p.true <- 0.6
p.null <- 0.5
pVec <- rep(NA,nsims)
for(i in 1:nsims){
  # simulate random binomial data
  temp <- rbinom(n,size=1,prob=p.true)
  pVec[i] <- binom.test(sum(temp),n,p=p.null,alternative="greater")$p.value
}

sum(pVec<0.05)/nsims # 0.12665 => ~13% power, not good enough
```

The lower the true probability of principals' responses being in the second group, the lower the power became, and the chances of achieving a statistically significant result varied from 15% to 90%. When designing the study, the researcher, therefore, had to hope for a high response rate of surveys, as well as the results to be especially positive to increase the chances of significant findings being revealed.

The survey results, revealed in Table 1 on page 75, show the performance of Intern Graduates resided largely in the second group and consequently were especially positive.

The statistical test to analyse the proportion of positive assessments (as previously illustrated in Figures 15 to 22 in Appendix I) is the 'exact binomial test', which was undertaken in R. A positive response is defined as a principal rating the Intern Graduate's performance as 'higher' or 'significantly higher' than a non-Intern Graduate's performance, as indicated by a 4 and 5 numerical value respectively in Table 1. A negative response is defined as a performance being rated 'significantly lower' or 'lower' (a one or two value in Table 1) and a 'neutral' response is defined as a performance being rated as 'similar' (a rating shown by a three value in Table 1). Seven binomial tests were carried out, one for each of the standards-related questions on the survey. For the results to be significant, a p-value of less than 0.05 is required, as illustrated in Table 2 on page 82.

Table 2: Table of p-values for Likert Scale component of survey

Standard Question	Number of negative or neutral responses	Number of positive responses	p-value
1	1	18	0.00003815*
2	2	17	0.0003643*
3	1	18	0.00003815*
4	1	18	0.00003815*
5	1	18	0.00003815*
6	8	11	0.3238
7	10	9	0.6762
*statistically significant result			

Interpretation of Quantitative Results

Standards One to Five

As the p-values for the exact binomial tests for these five standards were less than 0.05 (see Table 2) the null hypothesis can be rejected. In these tests the null hypothesis is: that the probability of Intern Graduates being rated positively is equal to the probability of being rated negatively or neutrally.

The observed success probabilities from this study's sample are reassuringly high, and this positive result is further reinforced by even the lowest range of the 95% confidence intervals (Clopper & Pearson, 1934) staying above 66% (see Table 3). As an example, an elaboration on Table 3's information is as follows: on standards one, three, four and five Table 1 showed 18 out of 19 surveys indicated a four or five rating (a positive response), so the estimated probability of scoring a four or five on these standards is 18/19, or 94.7%. A 95% confidence interval for this estimate is (74.0%, 99.9%).

Table 3: Table of confidence intervals for standards 1-5

Standard	p-value	Observed Success Probability (%)	95% Confidence Interval (%)
1	0.00003815	94.7	(74.0%, 99.9%)
2	0.0003643	89.4	(66.9%, 98.7%)
3	0.00003815	94.7	(74.0%, 99.9%)
4	0.00003815	94.7	(74.0%, 99.9%)
5	0.00003815	94.7	(74.0%, 99.9%)

With such a positive response to these standards, it was important to understand the reasons and discuss the explanations for these responses from principals. This analysis takes place in Chapter Six when the results from the qualitative data are reported and discussed.

Standards Six and Seven

In contrast to Table 3, the results for standards six and seven (see Table 4) prove that the researcher must accept the null hypothesis for these standards.

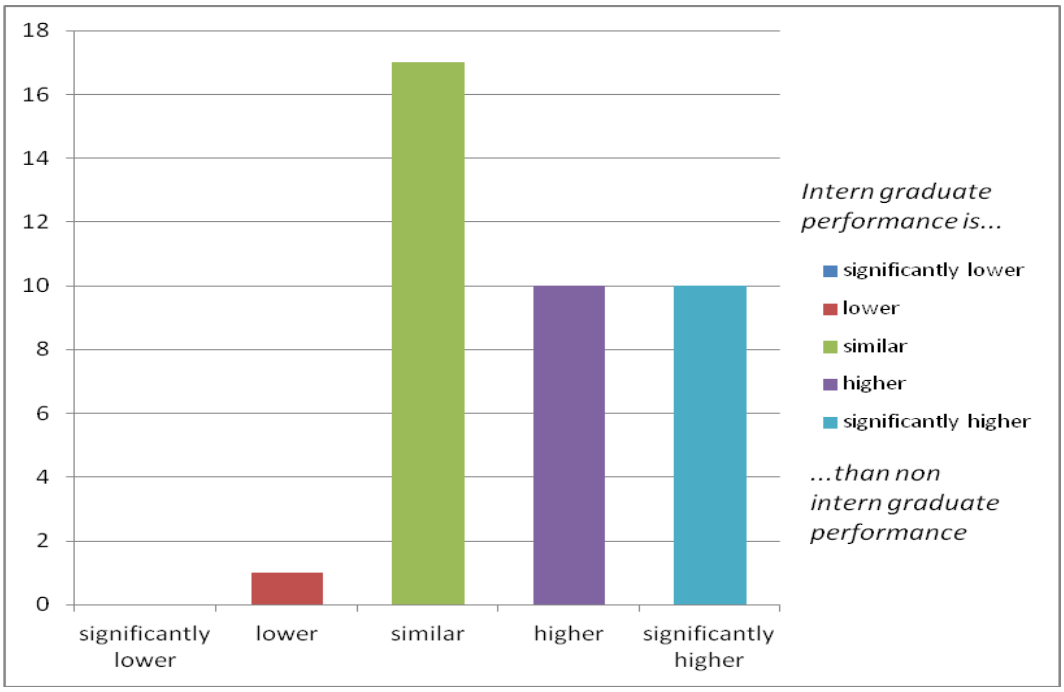
Table 4: Table of confidence intervals for standards 6 & 7 combined

Standard	p-value	Observed Success Probability (%)	95% Confidence Interval (%)
6	0.3238	57.9	(33.5%, 79.7%)
7	0.6762	47.3	(24.4%, 71.1%)

When comparing Table 1 with Table 4, it is clear that the observed success probabilities for standards six and seven were significantly lower than the other standards due to the conservative definition of a ‘positive response’ used in this study. This is because of the way in which a ‘similar’ rating (number value 3 in Table 1) was included as part of a negative response. The results from the demographic information (see the following section) show that the results for these standards would have been significant, if it were not for this design feature of the study.

In standard six, eight out of 19 responses were given a ‘similar’ rating (see Figure 21, Appendix I) and in standard seven, nine out of 19 responses were ‘similar’. This means that out of a possible 38 responses from these two standards, only one response shared a perception that an Intern Graduate’s performance was lower than a non-Intern Graduate’s performance (see Figure 14: Response for Standards 6 and 7 Combined).

Figure 14: Response for Standards 6 and 7 Combined



If the ‘neutral’ or ‘similar’ rating was not included, and the binomial test analysed the proportions between the one and two ratings in Table 1 and the four and five ratings in Table 1, then the p-value would be smaller than 0.05 and the results from these standards would also be significantly positive.

Demographic Information (Survey Questions 1-8)

To investigate whether there is any statistical effect made by participants’ demographic variables (survey questions 1-8, illustrated by Figures 15-22, Appendix I), a series of multinomial log-linear models were employed. This was not intended to test between ‘positive’ scores (four and five values seen in

Table 1) versus ‘negative’ or neutral scores (one, two and three values seen in Table 1) and so the response is the original score given from one to five, without combining scores into groups. As there are insufficient data to fit a full model that simultaneously includes all demographic variables, instead a separate model was used for each demographic variable and each standard-related question (as seen in Figures 15-22, Appendix I), to determine if this demographic variable was significant for this standard. With 7 standards and 10 demographic variables, this resulted in 70 separate models. Note that for the variable ‘Principal’, responses that were a ‘1’ or a ‘2’ were omitted (i.e. for testing whether there was a significant effect of which Principal on scores, principals who had only employed one or two Intern Graduates were not included). Table 5 presents the raw p-values for these 70 tests and includes an additional category for the different educational districts (the row labelled ‘region’), of Western Australia, in which the participants were working. These regions have not been reported in this chapter or elsewhere to prevent participants being identifiable.

Table 5: Raw p-values for Survey Questions 1-8

Survey Question	Standard 1	Standard 2	Standard 3	Standard 4	Standard 5	Standard 6	Standard 7
Principal	0.0998	0.2151	0.0998	0.1308	0.1308	0.00079	0.00079
1	0.3898	0.0499	0.1568	0.1491	0.6759	0.1918	0.138
2	0.3469	0.442	0.3510	0.0831	0.4999	0.0424	0.0098
3	0.6373	0.7793	0.5118	0.1251	0.4514	0.3785	0.0409
4	0.1435	0.3037	0.1263	0.0769	0.0929	0.4244	0.1923
5	0.6373	0.7794	0.5119	0.1251	0.2383	0.4657	0.1348
6	0.1529	0.1977	0.1548	0.0368	0.2619	0.0126	0.0037
7	0.4824	0.6307	0.3916	0.3925	0.4311	0.1035	0.0080
8	0.0784	0.0707	0.1933	0.0308	0.0369	0.0087	0.1369
Region	0.3423	0.4629	0.2559	0.0494	0.1615	0.2816	0.0286

There are 15 p-values less than 0.05, most notably for demographic variable "Principal" for standards six and seven, suggesting that there is a significant effect of some demographic variables on the scores. However, with multiple testing, the chance of a false positive result increases with the number of tests completed. To allow for this, it is usual to adjust the p-values accordingly. This was done using Holm's method (Holm, 1979), and the adjusted p-values are presented in Table 6.

Table 6: p-values adjusted by Holm's method to account for multiple comparisons

Survey Question	Standard 1	Standard 2	Standard 3	Standard 4	Standard 5	Standard 6	Standard 7
Principal	1	1	1	1	1	0.0556	0.0556
1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	0.6353
3	1	1	1	1	1	1	1
4	1	1	1	1	1	1	1
5	1	1	1	1	1	1	1
6	1	1	1	1	1	0.8046	0.2504
7	1	1	1	1	1	1	0.5372
8	1	1	1	1	1	0.5853	1
Region	1	1	1	1	1	1	1

There are now only two instances where the p-value is borderline significant (close to 0.05) - demographic variable "Principal" for standards 6 and 7. Referring back to the original data in Table 1, it can be seen that the principal coded ‘P9’ gave five Intern Graduates a score of three for both standard six and standard seven. This differs from the other two principals who had employed three or more Intern Graduates, who scored fours and fives for these standards. Once principals with only one or two Intern Graduates are omitted, the individual principal with the most Intern Graduates (five) scoring them all the same (three or ‘similar’), has a significant effect when investigating this demographic variable.

This analysis of the demographic information highlights how these variables relate to the previous analysis, which showed that standards six and seven were the only standards not to show significant benefit in Intern Graduates, because a score of three (a neutral, or 'similar' rating in the survey) in this analysis is grouped with the negative scores.

Conclusion

The findings from these analyses allow the researcher to reject the null hypothesis for standards one to five, but not for standards six and seven. Specifically, this means there is strong evidence to show that Intern Graduates perform better than non-Intern Graduates in the first five areas, but no evidence to show that they perform better in the areas of standards six and seven.

Due to the results not being statistically significant in the cases of standards six and seven, caution should be taken when discussing the results. However, it is important to consider the conservative nature of the binomial tests. The proportions of positive responses were not analysed in relation to just negative responses, but in relation to negative and neutral responses combined, thereby strengthening the statistically significant results that have been reported.

Analysis of the demographic variables show that other than the effect of 'Principal' (as demonstrated in Table 6) for standards six and seven, the analysis shows no significant demographic variables in terms of their impact on the quantitative data.

The relationship between the variable 'Principal' and the insignificant findings from the exact binomial tests for standards six and seven will be specifically revisited in Chapter Six as there are qualitative data that provides explanatory information concerning this result. Similarly, the positive perceptions shared about the Internship Model, which correspond to standards one to five, will be examined so that complementary relationships between chapters Four and Five can be revealed and explained, supported by the evidence that has been presented in this chapter.

CHAPTER SIX

Qualitative Data Analysis

Introduction: The Interviews

This chapter presents the results of the data analysis derived from the participant interviews. Once surveys had been returned, participants were selected according to the criteria outlined in Chapter Four; namely that interviewees were those who had expressed both negative and positive perceptions and had employed more than one Intern Graduate.

As shown in Chapter Five, out of 133 responses from the surveys returned, only one response indicated that the principal participant thought their Intern Graduate performed at a lower standard than non-Intern Graduates. This participant had only employed one Intern Graduate (which made him/her ineligible for interview selection) and regardless, had not consented to be interviewed. The four participants who were interviewed (participants P1, P8, P9 and P13) all had employed more than one Intern Graduate, were from different geographic regions, and were of different genders with different levels of leadership experience. In other words, the balance of responses and diversity of participants was as wide as possible.

Interviews were semi-structured and all included the following three core questions:

Interview Question One:
What are your perceptions of graduate teachers in general?

Interview Question Two:
What are your perceptions of graduate teachers who have completed the Internship Model in relation to the Australian Professional Standards for Teachers?

Interview Question Three:
What are the perceived strengths and weaknesses of the Internship Model in assisting to develop pre-service teachers?

If participants gave a verbal response to question two that did not address all of the seven professional standards either directly or indirectly, then the researcher asked a follow up question: for example, if a participant had not mentioned anything about professional learning, the researcher would ask 'what can you tell me about your Intern Graduate's engagement in professional learning?' This ensured there would be data that related to standard six.

Please note that the four in-text references referring to the interview data in this thesis have been abbreviated for the sake of reader fluency (see Table 7).

Table 7: Abbreviated In-Text References

Full Length In-Text Reference	Abbreviated In-Text Reference
(P1 interview, personal communication, conducted on 26th November 2012)	(P1)
(P8 interview, personal communication, conducted on 3rd December 2012)	(P8)
(P9 interview, personal communication, conducted on 25th October 2012)	(P9)
(P13 interview, personal communication, conducted on 11th December 2012)	(P13)

Identifying Themes

Using the data analysis software *NVivo10*, passages of transcribed text were grouped according to the seven Australian Professional Standards for Teachers (see Appendix C). These standards were used as deductive nodes in the software, or *a priori* themes, so that when participants elaborated on their quantified perceptions (as discussed in the previous chapter) in their interviews, their explanations and reasons could be understood from within the same professional context as the survey they had already completed. Statements sometimes were coded within multiple themes if their content was relevant for more than one standard: for example, a comment would be coded within standards two and three (see Appendix C) if a participant spoke of an Intern Graduate's use of the curriculum to provide learning goals to students.

Once all perceptions expressed by participants had been categorised according to an *a priori* theme, or multiple *a priori* themes, an inductive approach commenced to identify other unexpected themes in order to understand their relationship and links with the professional standards and the findings from the quantitative data analysis. This coding process allowed the researcher to be comprehensive about the depth of understanding reached, whilst respecting the overarching aim of coding as a means of interpreting qualitative data:

> The overriding aim of coding is to facilitate developing a detailed understanding of the phenomena which the data are seen as representing. This may involve gaining an insight into the underlying meaning respondents attribute to a social situation or particular experience, identifying patterns in attitudes, or investigating processes of social interaction. Employing a systematic coding strategy will allow you to revisit significant instances and to produce further insights. (Lewins & Silver, 2007, p. 83)

This two-step process of deductive analysis, followed by inductive analysis, is well supported and recognised in the literature (Bernard & Ryan, 2003). It aligns with the literature's definition and rationale for using *a priori* themes in

qualitative analysis, “Themes come both from the data (an inductive approach) and from the investigator’s prior theoretical understanding of the phenomenon under study (an *a priori* approach). *A priori* themes come from the characteristics of the phenomenon being studied” (Bernard & Ryan, 2003, p. 88).

This chapter will discuss the results from the *a priori* themes as well as demonstrate the emergent issues and unexpected themes that arose as a result of the qualitative data procedures explained in Figure 7 on page 69. The inductive part of the process allowed the researcher to understand the participants’ perceptions that underpinned their responses and were the building blocks for the thoughts presented in the section *Interpretation of Data.*

A priori Themes: Results

The levels of accomplishment for all standards have been broken down by AITSL into four levels of professional capability: graduate, proficient, highly accomplished and lead (see Appendix C for the graduate descriptors). Each standard was used individually as part of the quantitative data analysis and Chapter Five showed there is strong evidence that principals perceive Intern Graduates to perform at a higher level than non-Intern Graduates in the areas covered by standards one to five. This perception does not continue into standards six and seven as the results were not statistically significant. Chapter Five partly explained how this was caused by the participants’ demographic characterisation, and the findings in this chapter will provide more information on this issue.

Standard One: Know students and how they learn

As each substandard in Appendix C shows, the content for this standard mainly covers strategies for inclusion of students and knowledge of learning theory research. When discussing this standard, principal participants focused on the

ability of teachers to form relationships with students (thereby addressing the 'know students' part of the standard). No participant commented on an Intern Graduate's knowledge base compared to a non-Intern Graduate's knowledge in the specific area of research or learning theory (substandard 1.2, Appendix C), but participants only expressed positive perceptions about Intern Graduates' knowledge base in general: "Certainly their knowledge base was far greater than normal graduate teachers" (P8) and this linked with participants' comments on Intern Graduates' abilities to differentiate and implement inclusive practice (substandards 1.1, 1.3, 1.4, 1.5, 1.6, Appendix C): for example, participant P9 stated that "Differentiation was another one: they really differentiate well. So that was a surprise. Most graduates can't differentiate well, but these guys certainly could" (P9) and this was supported by participant P1 who said:

> The interns that I've had have been very good with their SAER kids as well. So they've got kids on Individual Plans, generally for the lower end rather than the extension, but they do do some extension, which often graduates will struggle with initially as well, that they just want to provide one option as every kid has to work to that. Whilst I've found the [redacted] guys are quite good with adapting curriculum for different levels of ability. (P1)

When talking about graduate teachers in the context of standard one, participants focused on the ability to form relationships with students, steering away from theoretical knowledge about 'how they learn' and answered the question in a way that suggested they thought the standard was more about practical, interpersonal skills related to 'knowing students'. Whilst all principals commented on graduate teachers' willingness to 'have a go', their freshness and enthusiasm, the perceptions of participants were inconsistent in other ways: for example: participant P13 said, "Most graduates have wonderful relationships with students" (P13) whilst participant P8 said of standard one,

> That's probably the weakest one of the lot in that...again, it takes a skilled practitioner to identify students who can be addressed in a certain

> manner. A lot of graduate teachers tend to come out and want to be friends with the students... (P8)

However, these two participants were more consistent in their views of Intern Graduates demonstrating a superior performance, encapsulated in the following comments: “they understood that that was absolutely critical to have those really powerful relationships with children” (P13), and “Certainly their ability to have a look at the children, win them over, assess what was required and what needed to progress this – this was far better than what we’ve had in the past” (P8). These results align with the quantitative results with no negative comments being expressed about Intern Graduate performance relating to standard one.

Standard Two: Know the content and how to teach it

This standard largely concerns itself with curriculum knowledge and delivery (substandards 2.1 and 2.5, Appendix C), whilst encompassing learning sequences (2.2 and 2.3), cultural sensitivity (2.4), and the use of ICT, or Information and Communication Technology (2.6).

Only one participant chose to talk about ICT specifically and referred to the advantages Intern Graduates had from having a year’s practical experience of integrating ICT strategies in a classroom context, “The use of ICT was impressive, and certainly the use of the interactive whiteboard predominantly for the [redacted] I’ve got this year was a lot better than your regular graduate” (P9).

Three participants believed the strength of Intern Graduates was particularly apparent in this theme and talked in detail about ways in which their Intern Graduates performed at a higher level than their non-Intern Graduates, with numerous positive statements being made. The following quote from each of the three sources concisely illustrates this point: P1 said, “Just their general curriculum knowledge is really good – they haven’t needed additional assistance with the National Curriculum or First Steps” (P1), P9 said, “They

know how to plan a good series of lessons" (P9), and P13 said, "So the [redacted] that I've got – very high quality. [redacted] has gone on to be my core curriculum leader, leading the Australian Curriculum implementation at [redacted] Primary School" (P13).

Unlike the previous theme, there were no inconsistencies in participants' perceptions about this standard. Intern Graduates were seen to 'stand out' due to the perceived lack of knowledge observed by participants when reflecting on the performance of non-Intern Graduates, about which P9 said,

> Their planning tends not to be too crash hot, they can plan a good lesson, but they can't plan a good series of lessons and managing to maintain that level of work over the course of a year or even just a term, most of them find it pretty difficult (P9).

Overall, Intern Graduates were perceived to require less assistance at the beginning of the year and were perceived to have a greater ability to deliver the curriculum.

Standard Three: Plan for and implement effective teaching and learning

This standard addresses the use of learning goals (substandard 3.1, Appendix C), lesson planning (3.2), teaching strategies (3.3), as well as the use of resources (3.4), evaluative strategies (3.6), in-class communication skills (3.5), evaluative strategies (3.6) and parent engagement in their education programs (3.7).

Participants made only eight references to this standard, and many of their comments suited the context of other *a priori* themes more effectively: for example, standard seven includes the professional engagement of parents, and so when participants were talking about liaising with parents, they did so in the context of standard seven, rather than the context of standard three. Similarly, the ability to plan a series of lessons has already been addressed in the

analysis of standard two, when discussing if Intern Graduates knew how to teach the content. These examples of overlapping data not only explain the small dataset for this theme, but show how the *a priori* themes in this study are appropriately interrelated, as the implementation of the professional standards are designed to be: “The standards are interconnected, interdependent and overlapping” (Australian Institute for Teaching and School Leadership, 2011).

Two comments were made that directly addressed the substandards of this theme in isolation. Participant P13, when speaking of an individual Intern Graduate to highlight her point, said, “The teaching and learning program in that classroom is wonderful – really quite outstanding” (P13), and participant P9 agreed with these positive sentiments, and referred to a particular teaching strategy to highlight his point, “The use of technology when they were doing the I Do, We Do, You Do – oh! – That’s another thing, they’ve already got that structure in place, the explicit teaching model: they can come in and just use <it> straight away” (P9).

There were no negative data about Intern Graduates provided by participants pertaining to this standard.

Standard Four: Create and maintain supportive and safe learning environments

This standard addresses inclusive practice (substandard 4.1, see Appendix C), safety practices (4.4, 4.5), and organisational skills (4.2). However, the majority of specific comments corresponding to this theme were in relation to challenging behaviour (substandard 4.3) as all participants shared a perception that graduate teachers in general struggled in this area: “Graduates in general – behaviour management would be a big one” (P1).

Participants’ comments about Intern Graduates were noticeably very distinct compared to the above comments about graduate teachers in general. When asked about the strengths of Intern Graduates, participant P8 said “their ability to set up a classroom with clear structures in place” and that they “actually

listened to the administration in our first two staff development and their induction about what our expectations were in relation to behaviour management and classroom management" (P8). Participant P9 agreed, "They didn't need assistance setting up their classrooms" and they had "good behaviour management" (P9). Participant P1 also supported this idea, "They quickly identified kids that were either going to be an issue behaviourally or academically and got on top of those issues really quite quickly" and speculated the cause of their superior performances was due to Intern Graduates undertaking Classroom Management Strategies (C.M.S.) training. This professional learning course is embedded in the Internship Model (see Appendix A), and the perceived benefits of the inclusion of C.M.S. in the pre-service teacher education program were made clear in interview, "[it's] because of the C.M.S. training that their behaviour management is really good" (P1). Finally, participant P13 also pinpointed C.M.S. training as an influential factor in this theme, and elaborated on some of the low key skills taught in the C.M.S. program that she had witnessed Intern Graduates demonstrate:

> ...they had done all that C.M.S., they've got relationship stuff. I didn't have to have the conversation that I have with lots of graduates, and lots of experienced teachers I get, about 'with-it-ness', about walking around the classroom, about being mobile, about greeting children at the door, about marking over the shoulder, as opposed to lining up at their desk. They've got that stuff – it's already embedded in their practice, it's great. (P13)

Participants made it clear that they thought Intern Graduates had benefited from professional development such as C.M.S., but although this concept has obvious connections with the 'engagement in professional learning' *a priori* theme (standard six), the same overwhelmingly positive perceptions did not transfer when the qualitative data for standard six were analysed. This will be explored in the interpretation of data section later in this chapter, as well as the Standard Six subsection.

Standard Five: Assess, provide feedback and report on student learning

Participant P9 did not mention his specific perceptions about assessment and reporting, but kept reiterating general comments expressing his views about Intern Graduates' performances being superior, overall, to non-Intern Graduates, "those results at our school speak for themselves" (P9). Similarly, participant P1 was only specific in this theme when reflecting on the performance of non-Intern Graduates: "They generally haven't seen the reporting to parents package from the department. And haven't been that familiar with the exemplars so needed to be stepped through that process" (P1).

Participants P13 and P8 shared different perceptions, with the latter saying, "they were more capable with assessment and reporting than what I'd expect from other graduate teachers" (P8), whilst participant P13 did not feel it was a significant area of development for any type of graduate teacher, "I find that that's not been a problem with my graduates that I've had over the last seven or eight years....they are quite willing to look at different ways of reporting" (P13) - although P13's survey indicated that when reflecting on this theme overall she perceived Intern Graduates to perform at a significantly higher level than non-Intern Graduates.

Standard Six: Engage in professional learning

The quantitative data suggested that there is less difference between the performances of Intern Graduates when compared to non-Intern Graduates, in the context of this theme. Eight out of nineteen responses indicated a perception that the performance levels were 'similar', with the remaining 11 responses being 'higher' or 'significantly higher'.

The qualitative data supported these results because participants interpreted the capabilities associated with this standard as being more attitude-related rather than experience related: for example, graduate teachers in general were

consistently perceived as having a 'willingness' to learn, and being 'fresh', which was seen as an important positive; participant P1 summarised this in the following way, "I find graduate teachers very motivated and usually very keen and hard working and open to feedback" (P1).

The quantity of professional learning Intern Teachers had completed at Norfolk Primary School was acknowledged, "they had an amazing array of professional learning and that really, they wanted to engage in other professional learning, they wanted to value add to what they were doing. They saw something that was critical about their craft" (P13) and although the perceived benefits were identified, such as the advanced behaviour management abilities discussed in standard four, these skill sets were clearly not as a big a factor in participants' decision making about overall performance levels as the *potential* to engage and gain such experience and skills.

One participant, in the survey, had given all Intern Graduates a 'similar' rating to non-Intern Graduates in this area, and as the results in Chapter Five showed, this meant that the results were statistically insignificant. In his interview, the participant agreed with the other principals about a good entry-level performance from non-Intern Graduates, "their engagement in professional learning is usually pretty good" (P9), but retracted his perception about Intern Graduates when questioned specifically on this theme: "Look, it's all changed since I've done that survey. Because everyone's engagement at the school has improved regardless of whether they're from [redacted] or just an experienced or a normal graduate – I can't fault it."

It was when discussing this theme that participants began voluntarily sharing information about their leadership practices and beliefs. These data have been analysed and reported in the *Inductive Themes: Results* section of this chapter.

Standard Seven: Engage professionally with colleagues, parents, carers and the community

Like standard six, the quantitative results were statistically insignificant, and gave no evidence that Intern Graduate performance was better than non-Intern Graduate performance in this area. Although participant P9 remarked that “it’s all changed since I’ve done the survey” (P9), and the quantitative data may be more positive were another survey to be readministered, the qualitative results remain interestingly contrasting in terms of the individual perceptions expressed by the different participants about Intern Graduates.

Unlike standard six, non-Intern Graduates’ performances were not perceived in a particularly positive way by any participant: for example, participant P1 said “they often feel a little bit anxious and lack confidence initially” (P1), whilst participant P8 felt “the parent communication is a critical one, and knowing when and what to say to parents is also critical, and that doesn’t come other than through experience” (P8).

Such perceptions may not explain, so far, why Intern Graduates were not given higher ratings. Participants were very positive about Intern Graduates’ performances in relation to the community and parents, but they attracted some negative comments when the issue of collaboration with colleagues arose. This may explain the lower scores in the survey for standard seven: for example, participant P1 said that Intern Graduates “were quickly establishing rapports with parents and just seemed to get into the flow of the year quite quickly” (P1), but participant P9 remarked that “they just thought they were a bit better ‘oh why should I have to do this’ ” and “they think they can be a bit superior at times, that’s one of their weaknesses” (P9). Standard seven places an importance on relationships with colleagues, and participant P13 implied a similar reluctance amongst Intern Graduate teachers where she felt their attitude was “’but this is what we do at [redacted]’ – and they couldn’t get over that.” (P13), referring to a perceived reliance on strategies Intern Graduates had learnt at Norfolk Primary School.

Inductive Themes: Results

A Key Word In Context (KWIC) approach was used to find commonalities between different principals' perceptions, and to analyse the remaining data that could not be included in the *a priori* theme analyses. This is a more effective method than just word counting,

> Concentrated data such as word lists and counts take words out of their original context. A KWIC approach addresses this problem. In this technique, researchers identify key words or phrases and then systematically search the corpus of text to find all instances of each key word or phrase. Each time they find an instance, they make a copy of it and its immediate context. Themes get identified by physically sorting the examples into piles of similar meaning. (Bernard & Ryan, 2003, p. 97)

This was supported by analysing repetitions on the combined set of qualitative data produced from the interviews and identifying themes by examining the "topics that occur and reoccur" (Bogdan & Taylor, 1975, p. 83). This process revealed three inductive themes that were not anticipated by the researcher, but included data from all interview participants regardless of their survey ratings or their demographic information. These themes are Leadership, Rural Teaching and Pre-Service Teacher Education Policy. It should be noted that none of the interview participants were working in the Metropolitan area at the time of interview.

Leadership

The interviews acted as a catalyst for reflective thinking and all participants mentioned, without direction, their reflections on their own leadership and school policies. Despite all participants repeatedly sharing perceptions that their Intern Graduates performed at a higher level than non-Intern Graduates, they felt there was still a need for themselves, as school leaders, to offer and provide support: "I think it still gets back to the support structures at the next school"

(P9) and “They’re highly competent but they’re still grads that still go through the same issues and need that same level of support” (P1). This particular comment came about after the participant shared his reflections of his own practice and how he would modify it in future:

> I feel like I’ve let them down a little bit because I’ve assumed too much knowledge. I almost haven’t treated them as graduates at the beginning of the year which I think is not a negative of the model, but if I got Interns again I would start the year a little differently. (P1).

Whilst participant P1 was self-critical, at an earlier stage in the interview he had clarified his perceptions of Intern Graduates “They’ve needed a little bit of reassurance that what they’re doing is okay but certainly haven’t needed the level of assistance that other graduates needed” (P1).

Examining the remaining data showed that whilst Intern Graduates were perceived to require less support in specific teaching and learning areas, such as parent liaisons and setting up a classroom, they still required support in the form of pastoral care and reassurance, “admin didn’t leave them alone, we still supported and helped them etcetera, but at the same time we were probably more reassuring them that they were going the right way, rather than telling them what they should be doing” (P8). The element of pastoral care and graduate teachers is referenced in further detail in the Rural Teaching theme.

Participants were reflective about their own role and relationship with graduate teachers, and the impact Intern Graduates had made on their views. Participant P1 perceived there to be a decreased workload for school leaders employing Intern Graduates: “If I compare my Intern Graduates to graduates who haven’t gone through the Internship Model they’re a class above, which has made having graduates a lot easier than what it would usually be like” (P1). Two participants explained how they had modified their practice (see quotes below), with participant P13 expressing strong views about the responsibility of leadership, and participant P9 explaining that he had decided to support the Internship Model at a whole school policy level by mimicking some of the whole

school approaches about which Intern Graduates knew, so that Intern Graduates experienced some familiarity. This meant that some of Norfolk Primary School's whole school policies were being implemented elsewhere due to an employing principal perceiving Intern Graduates had the skills to utilise them effectively.

> As a principal, you are a leader of learning, a leader of teaching and learning, and you have to be prepared to support your staff. And if that means modelling to them, that means modelling, y'know. So instead of whinging about graduates you actually need to roll your sleeves up and work with them and support them. (P13)

and

> And you've got to look at your attraction and retention. You need to put that support in place to back up the model they've been accustomed to. The model itself you can't fault, I think it's just what happens after they've been through that model. One intern is great, but to get five – I mean, those results at our school speak for themselves. (P9)

Participants all communicated with an enthusiastic tone and demonstrated a passion for their work in the way that they spoke. Employing Intern Graduates had contributed to this passion in a positive way due to the reflective thinking participants felt obliged to undertake. This is evidenced in comments such as "They came with the confidence to ask questions, they actually questioned us – which was good because it was an eye-opener to us" (P8) and "I've loved working with my Intern Graduates that I've had this year. [redacted] of them would possibly be the most outstanding teacher, and considering they're graduates, they're really like teachers in their fourth year" (P13).

The areas in which Intern Graduates were perceived to need equal levels of support to non-Intern Graduates were influenced by the context and location of the school, as discussed in the following theme.

Rural Teaching

With all four interviewees working outside the Metropolitan area, it became apparent in the interview process that participants shared a perception that rural or country schools faced unique challenges. They commented on these challenges from the context of a leadership point of view (difficulty in attraction and retention) and from the context of graduate teachers (for example, personal challenges, or living away from home).

Participant P1 shared, in detail, the range of difficulties he believed graduate teachers faced when coming to his school: “they often lack life experience having not been away from home.... and can lack a bit of resilience...they’ve got the professional challenges along with a lot of the personal challenges as well... particularly in the country where you’re seen as a teacher 24/7” (P1).

These difficulties were acknowledged by other participants, who also felt that Intern Graduates faced these same difficulties, but had an advantage because of their professional learning, P9 said, “but I feel getting your First Steps training in before you head out to the bush, gives you all those things you can use when you get there.”

In regard to Aboriginal Education, participant P13 was very positive about an Intern Graduate’s performance: “...is committed to that isolated community and has created some very strong links with both the community and the students...in particular the Aboriginal children” (P13), whilst participant P8 felt this was an area for improvement: “but having more awareness of Aboriginal Education would possibly be a beneficial <*sic*> for more graduate students coming out” (P8).

Participant P1, who made the most references to rural or country teaching issues, concluded his comments by reflecting on the Intern Graduates:

> The perceptions of them in the [redacted] region are that they’re top of the crop and everyone’s very keen to get Intern Grads. I’ve heard from other

> principals from the [redacted] region that they're the best teachers in the school despite the fact that they've got teachers there with more experience. (P1).

Pre-Service Teacher Education Policy

Participants were asked to share their perceptions about the Internship Model, and their comments were consistently positive, for example: "I just think that the actual model itself is fantastic" (P8), "awesome program" (P1) and "I think it's very strong" and "I think that the teachers they work with are clearly very strong" (P13).

As principal participants continued to speak, specific aspects of the Internship Model were mentioned by some, but all participants shared their ideas and beliefs about broader policy and what the future could or should hold for pre-service teacher education.

The selection process to become an Intern Teacher attracted some interesting comments, with one participant perceiving the process as a benefit to the wider profession: "There's a rigorous process to be a [redacted] Intern and I think that raises the profile of teaching" (P13), and one participant attributed this process as a causal factor in the effectiveness of Intern Graduates, "My hunch is that the people selected for the model are probably going to be the higher performers anyway" (P9). Participants seemed under the false impression that the Internship Model was highly selective and that the 'best' students were given Intern Teacher positions, when data provided by Norfolk Primary School shows that the Internship Model was not particularly selective because only 3% of applicants were rejected (see Selection of Intern Teachers, Appendix A). This poses the question, and opportunity for further research, relating to the disposition and/or abilities of the pre-service teachers who applied and successfully completed the Internship Model. The withdrawal or failure rate might also need to be considered.

Participant P8 felt the Internship Model was such a success that it would not be an isolated model for much longer,

> The strength of the model is that it's a ground-breaking model, I think it's going to gather momentum...it gives people the opportunity to work within a school, rather than having a 10 week block or a six week block, it allows them to develop it from the beginning of the year right through to the end. I think it's an excellent process and if we could do it more widely it would be fantastic, just because it gives them such better grounding. (P8).

Furthermore, this participant believed there may be some obstacles for policy change in pre-service teacher education due to universities not wanting the integrity of non-Internship-style models to be jeopardised,

> I think the only problem they might have (this is not a detriment to the [redacted] model) but I suppose it's the university pressure, in not being more flexible to allow this to happen more frequently and more regularly. Sometimes people build these empires around them and they feel that having Internship Models will decay or have detriment to what they're trying to do at the universities. (P8).

Participant P9 was also favourable about the Internship Model and the increase in school-based professional experience, "I just think it's a good way to go" (P9). He continued, asserting his belief that there was great educational value to schools and their students in sending Intern Graduates to the same school, so that a school had a cohort with whom to work, "If you get a group of people like that into a school it really lifts outcomes, but the trick is to get them to the same school" (P9).

Participant P1 also talked about cohorts or groups of Intern Graduates in the same region and felt there would be value adding two components to the Internship Model. Firstly that intern teachers received their graduate placement (the details of their first job) a year or two in advance so that they "know what the town's like" and that they've "got a sense of what they're coming to" (P1). As

well as a pre-graduation visit, or “maybe them doing a prac in the year prior” (P1), participant P1 also wanted to formalise the support networks amongst Intern Graduates in the same region “so they’ve got that support from people going through the same thing as themselves” (P1).

Participant P13 was also very supportive about the Internship Model itself, but highlighted the fact that Intern Graduates were used to the practices and policies of the school in which they had trained, and sometimes found the different ways in which their next school was run difficult to get used to. She suggested that resiliency may be a focus area,

> It was hard for them...you could almost, when they’re being trained, almost like a resiliency pep talk every now and then – ‘you know when you leave us, you’ll go to different schools, some will be highly functional, some won’t be. (P13)

Interpretation of Data

Deductive Themes

The semi-structured nature of the interviews allowed participants to speak freely when answering the three interview questions. The researcher asked a follow up question only if the participants’ comments did not pertain to one or more of the seven standards. In other words, the researcher ensured that there were some data from each participant that could be linked to every standard, but participants were not expected to remember or comment on each of the many substandards of which each standard is composed (see Appendix C). This approach meant that participants spoke about the standard ‘in general’ and they selected the aspects of the standards they thought most comment worthy.

The content of substandards, that went largely unmentioned by participants, ranged from those relating to research, learning theory and cultural sensitivity to

the use of learning goals and student safety. It is unclear if participants did not comment on certain aspects of the standards because they felt them less important, or simply did not have anything to say about them: for example, in standard one, despite substandard 1.2 expecting graduate teachers to "demonstrate knowledge and understanding of research into how students learn and the implications for learning" (Australian Institute for Teaching and School Leadership, 2014), all participants focused on the other aspects of the standard and commented on the skill with which Intern Graduates develop relationships with their students in order to meet the standard's criteria.

The concentration of comments pertaining to particular standards helped to highlight the qualities principals value and look for in graduate teachers. Intern Graduates were the subject of numerous, positive comments relating to behaviour management, confidence levels, curriculum knowledge, communicating with parents, professional learning and classroom readiness. The negative comments about Intern Graduates were limited, and were all attitude related: a perception of over-confidence, or over-reliance on strategies they had implemented at Norfolk Primary School in which they had spent their final year. This is interesting because although all principals were positive about the quality and quantity of professional learning already completed by Intern Graduates, they felt that non-Intern Graduates also performed well against Standard Six because the criteria in this standard is a willingness to 'engage in professional learning' and 'engage with colleagues'. Standard Six does not expect Graduate Teachers to already have a certain level of extra professional learning completed, and so although all participants mentioned the positive attributes of Intern Graduates having completed: for example, C.M.S. training, they also perceived non-Intern Graduates to perform well because of the positive attitude and enthusiasm demonstrated by most Graduate Teachers.

Standard Six also provided important data when a participant retracted his survey responses saying that "it's all changed since I've done that survey" (P9). He did not speculate how he would complete the survey were he to be given it again, but his interview responses did not contain any negative comments about Intern Graduate performance. His comments about the Intern Graduates

were extremely positive and his only negative comments were self-reflective, because employing Intern Graduates was a catalyst for him thinking about how he could improve his own leadership within the school.

The interview data were mostly consistent across all four participants, with strong agreements surrounding the positive perceptions of Intern Graduates when compared to non-Intern Graduates, particularly in Standards Two and Four, those concerned with curriculum and the learning environment. Standard Five, relating to all aspects of assessment and reporting, yielded some mixed responses, with three participants explicitly commenting on the superior performance of Intern Graduates, and one participant stating that she was satisfied with the entry level performance of all Graduate Teachers she had employed in the last seven or eight years. Nevertheless, the same participant's survey responses said she perceived her Intern Graduates to perform at a 'significantly higher' level than non-Intern Graduates.

Overall, the interview data elaborated on the statistically insignificant results relating to Standards Six and Seven from Chapter Five. Despite one participant retracting his rating of performances as 'similar' in his survey, there were a small number of comments made about Intern Graduates and their engagement with colleagues and the community being hindered due to their attitude of having had more experience than non-Intern Graduate Teachers. However, with comments such as "they had an amazing array of professional learning" (P13), "they're a class above" (P1), "the model itself you just can't fault" (P9) and "they're top of the crop" (P1), it was clear in every interview that Intern Graduates' performance was perceived favourably when compared to non-Intern Graduates.

Inductive Themes

Despite commenting on the favourable performances demonstrated by the Intern Graduates they had employed, it was clear participants still felt accountable for the mentoring and up skilling of all Graduate Teachers,

regardless of their pre-service teacher education. To witness a greater range of skill sets from Graduate Teachers had acted as a catalyst for some participants to implement policy changes and reflect on their own leadership style and support provision.

All participants were united in the perception that Graduate Teachers in rural locations face more challenges than those working in the metropolitan area who are not moving away from their home, families and friends. The extra pastoral care perceived to be required by rural Graduate Teachers was clearly a significant issue faced by the participants in their leadership experiences, and Intern Graduates were perceived to have an advantage because they were more classroom-ready and could focus on the personal challenges of adapting to their new living environment, “they didn’t come as graduate teachers, they came as a second or third year teacher really because of the experience they had in being in a school for 12 months” (P8).

When discussing pre-service teacher education the interview participants were passionate and enthused about sharing their thoughts and ideas. They had a great deal of combined experiences working with Graduate Teachers and were all in favour of Internship ‘style’ models. In Western Australia all Graduate Teachers must attend Graduate Modules organised by the Department of Education, yet one of the participants felt that the needs of Intern Graduates were not being met by these modules and suggested that an Intern Graduate support group could be set up to tackle issues experienced by Intern Graduates and their perceived different starting points to non-Intern Graduates.

Conclusion

The qualitative data elaborated upon and clarified the quantitative results discussed in Chapter Five. The results in this chapter are consistent with the findings discussed in Chapter Five and highlight possible reasons for Standards Six and Seven not having statistically significant results.

Although one participant said things had “changed” (for the positive) since he had completed the survey (P9), there were still a small number of comments made about Intern Graduates revealing a perception that they behaved as if they were “superior” and felt “a bit better” than non-Intern Graduates (P9). This view may have contributed to the quantitative results for Standards Six and Seven being less overwhelmingly positive, because their substandards feature the areas of “collaboration” and “working with colleagues” (Australian Institute for Teaching and School Leadership, 2014).

However, the resounding impression given by participants in all four interviews was how favourably they regarded the performance of their Intern Graduates, and the positive implications it had for their leadership, their school and their school’s results.

CHAPTER SEVEN

Conclusion

This chapter will revisit the conclusions derived from the qualitative and quantitative data and discuss the implications of the study's findings from the perspective of the pre-service teacher education community, as well as the Internship Model's stakeholders. Six recommendations will be made, linked to the literature reviewed in Chapter Two, including a discussion about prospects for further research. Finally, the researcher will summarise how the research questions have been answered and how the aims of the study have been achieved.

Implications

Before the study commenced, there were several challenges facing the Internship Model: for example, the workload faced by Intern and Mentor teachers, and the lack of clarity in school-university partnerships since the cessation of the Memorandum of Agreement at the end of 2009. Supporters of the Internship Model hoped the potential benefits would outweigh the negative aspects, as these perceived benefits revolved around the idea that an extended practicum, with additional mentoring and professional learning, might improve the performance of the mentee and the mentor. Many hoped it would improve the attrition rates of graduate teachers and have a positive effect on student outcomes in the schools that employ Intern Graduates.

The rural school principals interviewed for this study certainly believed that the model was beneficial, as shown in Chapters Five and Six that discussed the ways in which they perceived their Intern Graduates to perform at a higher level than their non-Intern Graduate teachers.

The impact of these findings on the study's participants and their schools is undoubtedly perceived as a positive one, with only one survey response out of 133 responses being negative about an Intern Graduate. The principal who submitted the one negative response declined to be interviewed, but would not have met the study's interview selection criteria as s/he had only employed one Intern Graduate. The impact on other stakeholders, such as the staff at Norfolk Primary School and the DoE remain speculative, but warrant discussion and potentially offer opportunities for future studies.

The DoE may be concerned with quantitative data, such as student performance in the schools in which Intern Graduates are working. This was referred to by one principal in interview who commented that he felt his school's performance had improved because of his Intern Graduates, but this is very difficult to measure without the sample size of other studies that used this methodology, such as the work by Levine (2002). The DoE may also be interested in the attrition rate of Intern Graduates, given that teaching has the highest percentage of early career attrition (Skilbeck & Connell, 2004). Unofficial numbers, provided by Norfolk Primary School, solely for this Internship Model are promising, with a 0% attrition rate from those who have successfully completed the Internship Model (55 graduate teachers in total), not including those on parental leave (1 Intern Graduate), working in private schools (2 Intern Graduates), or teaching interstate (1 Intern Graduate). Official numbers from the DoE indicate an attrition rate of 10-12% for this Internship Model, the TRP and WACUTS combined (these data were sourced from 2009-2012 cohorts), compared to a 41% attrition rate for Graduate Teachers who completed their pre-service teacher education through a conventional on-campus approach (C. Porter, personal communication, 24th June 2013). This study has shown that the principals interviewed would seek to employ more Intern Graduates if given the choice, and that they believe other school leaders also perceive Intern Graduates as valuable employees. Such preferences align similarly with the perceptions of principals in other countries who also prefer to employ graduate teachers who have qualified by completing a pre-service teacher education model that included an extended practicum (Hobson, et al., 2009). This is important information for the DoE when deciding how to support

the recruitment challenges faced by rural schools in Western Australia and if funding initiatives, such as scholarships, are worthwhile policies. What is especially noteworthy about the perceived high performances of Intern Graduates, is that 97% of pre-service teachers who applied for an Intern Teacher position at Norfolk Primary School were accepted (Appendix A), meaning that only one applicant was not given a position of Intern Teacher at Norfolk Primary School and had to continue with their on-campus degree and traditional final practicum. This lack of exclusivity is in direct contrast to other models, such as the TFA model which is much more selective. The perceived success of the Internship Model is promising, considering nearly all applicants were accepted; although one could argue, as one principal did in interview, whether Intern Teachers may have been a self-selected subset of pre-service teachers, in that they would be more likely to succeed because of their willingness to embrace the professional challenge of an internship experience.

This study's results uncover important information for the pre-service teacher community. For those beginning their journey towards becoming a qualified teacher, it is important to consider the approach that may yield a better chance of employment. Therefore, pre-service teachers may be advised to consider an Internship Model approach in order to be a more appealing employee to Western Australian principals, particularly in the current era where principals are being given more autonomy over staff selection.

The graduate teacher community is affected by what this study has revealed about the Internship Model, because Chapter Six showed that principals perceive that Intern Graduates' support needs are different to non-Intern Graduates' needs. One principal suggested that Intern Graduates have their own support network meetings, and two principals commented on a mildly arrogant attitude demonstrated by some Intern Graduates. This finding raises the question if different pre-service teacher education approaches have had a divisive effect on the graduate teacher community, when graduate teachers are working in the same schools and attending the same professional learning.

Other stakeholders, including the various staff members at Norfolk Primary School, may be interested in the findings from this study in the context of job satisfaction. They may find it rewarding to hear positive comments about pre-service teachers they had mentored, and with whom they had developed a professional relationship with over the course of an academic year. The qualitative results also highlight aspects of the Internship Model that principals perceived to have made a positive impact, which could influence the structure and professional learning content that could be delivered in future Internship Models.

The perceived success of the Internship Model has been made very clear by this study's results. To continue or transfer this perceived success, as recommended in a recent WA report (Sclanders, et al., 2014), the partnerships involved in future models need to take into account the unique structures and strategies implemented by the Internship Model: for example, the arrangement with the TRB that ensured Intern Teachers were granted a Limited Authority to Teach at Norfolk Primary School in the second semester, which enabled Intern Teachers to earn an income to support themselves, an aspect of the model that may be especially important if DoE scholarships are not going to be available. In 2012, five Intern Teachers completed the Internship Model without a scholarship, and it was only possible for them to relocate to Norfolk Primary School because they completed their official university practicum in term two and were able to carry out paid relief work in semester two. This required some flexibility on behalf of university partners and an effective school-university partnership may be crucial in future negotiations for what WA extended practicum models may look like in the future.

Recommendations

This study has shown that Intern Graduates' performances are perceived in a positive way by the principals who employ them. Chapter Six has also highlighted particular aspects of the Internship Model that principals felt have influenced the performance of Intern Graduates. The following recommendations are based on the results discussed in Chapters Five and Six

and are relevant for all stakeholders, from a school level context, as well as considerations for universities and DoE policy makers.

Principals were unanimous in their positive acknowledgements about the professional learning Intern Teachers completed at Norfolk Primary School that had been developed specifically for Intern Teachers, and those mentioned by name were the workshops for ‘First Steps’, ‘Australian Curriculum’, the ‘I Do We Do You Do Explicit Teach’ model (which were delivered by Norfolk Primary School staff members), and the C.M.S. training which was delivered by a C.M.S. consultant. This was supported in the qualitative results for standard six, and reflected throughout the quantitative results for standards one to five. This additional professional learning was perceived to have a positive impact on the skills of Intern Graduates and consequently made it easier for principals to provide them with support. Upon request, the C.M.S. Principal Consultant explained that the C.M.S. program Intern Teachers completed was a specific, intensive program by sharing the following statement,

> The Department of Education WA Classroom Management Strategies (C.M.S.) Foundation Program is a four day professional learning program consisting of 24 hours of training, with an additional four hours of in class coaching based on direct observation and feedback. This is only available to Department schools. The Interns and their Mentors at Norfolk Primary School complete this program as part of their training. (Andrew Higginbottom, Principal Consultant C.M.S., Personal Communication, 8th September 2014).

Therefore**,** recommendation one for future Internship Models is that they should include the same course of C.M.S. Training, which included one-on-one coaching with a qualified C.M.S. consultant. Recommendation two is that future schools involved in Internship partnerships need to ensure that there is sufficient staff expertise and willingness to provide a wide range of curriculum and pedagogical professional learning opportunities.

Chapter Two highlighted the importance of establishing professional learning communities and the opportunity to do so is enhanced if pre-service teachers are placed in a cohort, and indeed the impact on the school may be greater if Intern Graduates are also placed in a cohort. Recommendation three is that Intern Teachers and Intern Graduates experience a group placement and are not working in an environment with just one or two other Interns.

The negative perceptions, albeit very few, should also be actioned due to two principals identifying a problem with some Intern Graduates in regards to collegiality and willingness to collaborate; a problem supported by the quantitative results. Therefore, recommendation four is that the content for the DoE graduate modules is differentiated to cater for the needs of graduate teachers with widening ranges of professional experience.

One interviewee mentioned the perceived difficulty that might be encountered in the future, when universities seek to establish relationships with schools and the need for course flexibility. Recommendation five is that memoranda of agreements are signed by the DoE, the university and the partner school(s) with all roles, responsibilities and funding allocations detailed explicitly. This recommendation links closely with recommendations 12 and 28 made in The Nexus Networks' recent evaluation (Sclanders, et al., 2014).

The results from this study indicate such a positive perception of Intern Graduates that further research is warranted. The Nexus Network has investigated all the WA extended practicum models and has made helpful contributions to this field's knowledge base. However, future research could look at employment statistics, attrition rates, student performance and school performance over a longer duration of time. In the Internship Model, Norfolk Primary School maintained considerable operational responsibility (as shown in Appendix A), and their procedures and school-developed support strategies may have contributed to the success of the Intern Graduates' performances (as suggested by interviewees). Therefore, qualitative research to understand the experiences of Norfolk Primary School staff members, and how their own teaching practice was affected, would also be a worthwhile contribution to the

community of knowledge. It would also be useful to have a clearer understanding of any key differences existing between the Internship Model, the TRP, and the WACUTS models so that the future impact of graduate teachers can be monitored, examined and discussed. Recommendation six is that funding is made available to conduct further research into the impact of the Internship Model on WA schools, staff members, communities, students and graduate teachers.

Conclusion

The data obtained during this research has enabled responses to be made to the research questions. A high response rate of WA principals showed that they perceive their Intern Graduates to be performing at a higher level than non-Intern Graduates, and this feedback is statistically significant in the areas relating to the first five AITSL professional standards. Although there was only one negative response from 133 survey responses, the results for standards six and seven were statistically insignificant.

The perceived strengths of the Internship Model were revealed in interviews and centred on the successful preparation of pre-service teachers to be more 'classroom ready' than other graduate teachers, because of the range of experiences they had acquired from working at Norfolk Primary School for a year. The opportunities for professional learning, which Intern Teachers were able to access at Norfolk Primary School, meant that principals believed that their curriculum knowledge, behaviour management, liaisons with parents, confidence, and ability to build positive relationships with students all met a high standard of performance. All principals believed this gave Intern Graduates an advantage because they knew how to perform tasks such as setting up a classroom, liaising with parents, planning learning sequences and differentiated lesson plans, and implementing effective classroom management strategies, thereby being able to focus on the personal challenges of relocating to regional and rural areas.

Principals were keen to employ more Intern Graduates, and reported that the teaching skills demonstrated by Intern Graduates had resulted in them having a very positive reputation not just in their schools, but in their districts as well.

There were no complaints about the Internship Model made by participants, and few perceived weaknesses. One participant suggested the addition of professional learning relating to Aboriginal Education, whilst two principals felt that some Intern Graduates believed themselves to be better than other graduate teachers. This latter weakness is possibly a reflection on personalities

and would be difficult to change in the context of the Internship Model as a whole, but awareness of this issue may be helpful for future employers who might manage in-school collegiate or staff meetings, and those who facilitate professional development sessions, such as the DoE graduate teacher modules.

All primary and secondary aims of this study were achieved. The research questions were answered with methods that yielded valid and reliable data, and relevant conclusions have been derived in Chapters Five, Six, and Seven. The results align with international studies conducted on extended practicum models (Hobson, et al., 2009; A. Levine, 2006; Watson, et al., 2006) and show that principals perceive Intern Graduates to perform at a higher level than non-Intern Graduates. One principal commented further and felt that because he had a group of Intern Graduates that he could already notice an improvement in his school's student achievement data. The Internship Model meets Darling-Hammond's recommendation (Darling-Hammond & Bransford, 2005) of an extended practicum component, and its structure, support strategies and professional learning packages are perceived as particular strengths by the principals who were interviewed.

These results raise awareness of components of pre-service teacher education that could be reviewed and improved, and provide valuable data upon which schools and universities can rely when forming new partnerships. The third aim of highlighting areas for further research has been achieved and a recommendation has been made in the previous section. It would be wise to combine the knowledge gained from this study with the knowledge gained from the Nexus Network's (2014) findings before designing future research projects.

The rigorous analysis of the quantitative analysis in Chapter Six showed that, statistically, principals rate Intern Graduates as performing at a significantly higher level than non-Intern Graduates in relation to five of the Australian Professional Standards for Teachers (Australian Institute for Teaching and School Leadership, 2014). The qualitative data discussed in Chapter Six, showed that principal participants had strong opinions about Intern Graduates

and their performances, with perceptions such as “If I compare my Intern Graduates to graduates who haven’t gone through the Internship Model, they’re a class above...” (P1), demonstrating the importance of this study’s findings.

Overall, the richness of data presented provides a clear indication of the positive ways principals perceive Intern Graduates’ performance, as well as their enthusiastic views about the Internship Model. All participants were emphatic in their support of the Internship Model and in their praise of the Intern Graduates. Not only does this create opportunities for further research, but it reaffirms the effectiveness of the extended practicum, implemented through the Internship Model, for all its Western Australian stakeholders.

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APPENDIX A

Features of the Internship Model

This appendix summarises the defining features of the Internship Model that has been the subject of this study.

Selection of Intern Teachers

Pre-service teachers in their third year are invited to attend a presentation at their university where staff members from Norfolk Primary School and faculty from the University present information about the workload and implications of applying to be an Intern Teacher. Application packages are distributed and applicants are later interviewed by a panel of university and school staff members. Although this process has been perceived as rigorous and highly selective by participants, the researcher can confirm that this latter notion is a misconception. In fact, the success rate of applicants in being accepted as an Intern Teacher was extremely high - this study's participants had employed Intern Graduates from the years 2010 to 2012 (inclusive), in which there were 33 applications submitted and 32 Intern Teacher positions awarded, giving a 97% acceptance rate for the Internship Model during this time (Norfolk Primary School principal, personal communication, 17th March 2014).

Attendance

Intern Teachers were expected to attend school a minimum of three days a week in term one, full time in term two, four days a week in term three and full time in term four.

Structure

During Semester One Norfolk Primary School focused on the professional development of Intern Teachers. Additional Duties Other Than Teaching Time

(DOTT) was given to Mentor Teachers so that a weekly meeting could take place, in which Mentor Teachers and Intern Teachers would set a standard-based target and review the achievements of the previous week. Weekly Intern Discussion Forums were held, in which Intern Teachers developed a Professional Learning Community within their cohort and were able to request point-of-need professional learning to support them at a practical level for their teaching experiences, for example, Intern Teachers commonly accessed additional Interactive Whiteboard Training. Norfolk Primary School also held weekly after school sessions for Intern Teachers and interested classroom teachers to up skill themselves on First Steps and the Australian Curriculum; these sessions being run by Level Three teachers and subject area leaders within the school. Support for Mentor Teachers was provided in the form of twice termly Mentor Discussion Forums. Weekly Internship Memos were sent out to university and school staff so that expectations were transparent and progress was monitored rigorously. Intern Teachers also had weekly one on one meetings with the Internship Coordinator which were separate from their weekly meetings with their Mentor Teacher. The Internship Coordinator would meet regularly with the school's administration team. Intern Teachers completed their formally assessed practicum in term two, in accordance with university guidelines.

During semester two, Intern Teachers were awarded a Limited Authority to Teach from WACOT and/or the TRB, which allowed them to earn money for completing relief work at Norfolk Primary School. On days where they were not completing relief work they had time to complete university coursework, visit other classrooms or continue to work with their Mentor Teacher, delivering programs to the students with whom they were most familiar.

Paperwork

As with all practicums the universities provided the school and pre-service teachers with guidelines and report templates for Intern and Mentor Teachers to complete during the final practicum time period. In addition to conventional university paperwork, mentor and intern teachers were provided with two

documents, an Internship Handbook and an Internship Framework, both produced by Norfolk Primary School and shared with the other Internship Model stakeholders. The Handbook was an approximately 70 page book to support Intern Teachers' induction to Norfolk Primary School, as well as provide weekly reference and support material for Mentors and Interns. The Internship Framework was a folder in which Intern Teachers could record a professional learning diary, write a reflective journal and store their feedback from Mentor Teachers. Additional paperwork for Mentor and Intern Teachers to complete in their weekly meeting consisted of one A4 page where teams recorded information relating to five areas: issues discussed, comments for reflection, action points for Mentors and Interns, standard achieved, and target standard.

Expectations of Intern and Mentor Teachers

Below are the expectations copied from the Internship Framework and from page 27 of the Internship Handbook, provided to the researcher by Norfolk Primary School.

Expectation One: Set aside at least one hour each week to have a professional conversation.

Expectation Two: Use the Monitoring Tool to discuss professional progress and to record when the intern has demonstrated competency relating to a specific standard.

Expectation Three: Mentor to provide opportunities to enhance intern's professional development and to record weekly discussions using the Mentor/Intern Meeting template. This can be by hand or electronically.

Expectation Four: Intern to use an approved Lesson Plan template and to share with mentor more than twenty four hours before its delivery.

Expectation Five: Mentors to collaborate with interns when planning, preparing and assessing and to share classroom documentation on a regular basis. This means that unless an observation is being undertaken that intern and mentor have access to all plans and are familiar with the content of all lessons.

Expectation Six: Mentors to give positive and constructive written feedback using the reflective practice template ***once or twice a week.*** *Additional feedback may be written on lesson plans, where 'mentor feedback' is indicated.*

Mentors and interns are expected to target one of the seven standards each week in term one and find a way for the intern teacher to address it, using the school-developed monitoring tool. This could be accomplished by using a range of forms of evidence, varying from discussion, to shared notes, to submitting a lesson plan, to teaching observations, to attending professional development, etcetera. Mentor teachers participated in workshops facilitated by the internship coordinator and in earlier years by Growth Coaching Australia.

Further guidelines for establishing a Mentor-Intern relationship were provided as well as various co-teaching models that teams may have wanted to trial.

Additional Professional Learning

The Internship Model established a relationship with DoE's Classroom Management Strategies (C.M.S.) team, and Intern Teachers were able to access a five day workshop with an additional four one on one coaching sessions with a C.M.S. consultant. Intern Teachers accessed three weekly meetings: one with their Mentor Teacher, one with the Internship Coordinator and one with the Intern Teacher cohort. These meetings were part of an intensive professional learning package that also involved weekly after school workshops in First Steps and Australian Curriculum during semester one. Intern Teachers also attended staff meetings, collegiate meetings and met with their line manager as necessary. Intern Teachers were given point-of-need training so that they felt confident to organise community events, excursions, participate in parent meetings, run assemblies and implement whole school policies, such as the explicit teaching model and First Steps Maths and English.

APPENDIX B
Memorandum of Agreement

BETWEEN

THE STATE OF WESTERN AUSTRALIA THROUGH THE DEPARTMENT OF EDUCATION AND TRAINING

AND

[redacted] UNIVERSITY, [redacted]

CAMPUS, WESTERN AUSTRALIA

1. PURPOSE

1.1 This Memorandum of Agreement (MOA) is executed between the Department of Education and Training (the Department) and the School of Education, [redacted] University, [redacted] Campus ([redacted]), for the delivery of programs and services by [redacted] on behalf of the Department in relation to:

- implement a Collaborative Agreement with [redacted] Primary School, Bunbury to facilitate the operation of a pilot *Internship* program on behalf of the Department. The structure and operation of the proposed *Internship* program is outlined below.

2. THE INTERNSHIP PROGRAM

2.1 The initiative will offer ten education students from [redacted] entering fourth year in 2009, an *Internship* to complete their fourth year at [redacted] Primary school.

2.2 The Internship program will comprise a structured model that enables the integration of theory and practice and addresses all learning outcomes for the final year of a Bachelor of Education program. Theory components will be delivered by [redacted] and practical elements undertaken at [redacted] Primary school under the supervision of a high performing classroom teacher.

2.3 Interns will be supported by the university and school with appropriate coaching and mentoring in all facets of teaching.

3. SCOPE

3.1 This MOA covers the roles and responsibilities of each party that is a signatory to this Agreement and details agreed recoups for the delivery of the programs and services.

3.2 The MOA will operate as a pilot for a period of one year from February 2009 to December 2009, inclusive. A review of the arrangements will be undertaken by October 2009.

4. OPERATIONAL GUIDELINES

4.1 The Internship shall operate in the following manner:

- ten students currently enrolled in the Bachelor of Education program at [redacted] and entering their fourth year of study in 2009, shall be offered the opportunity to participate in the Internship. The participating students shall be merit selected;

- [redacted] Primary School shall be responsible for merit selecting 10 accomplished teachers to coach and mentor Interns and provide support for engaging in all facets of teaching, including reporting, use of SIS, planning, behaviour management, literacy and numeracy development;

- interns may commence undertaking teacher relief as early as Term 2, contingent on receiving a Limited Authority to Teach from the Western Australian College of Teaching (WACOT):

- interns will be eligible to apply for Department's final year scholarships and comply with their conditions;

- interns would be guaranteed employment with the Department upon successful completion of the Internship.

5. RESPONSIBILITIES OF THE PARTIES

5.1 [redacted] shall:

- in collaboration with [redacted] Primary School, merit select ten final year Bachelor of Education students to participate in the program as Interns;

- develop the Internship plan that remodels the fourth year syllabus with a program that integrates theory with practical lessons for the duration of the year;

- select lecturers who will provide a coaching, mentoring and support service to interns.

5.2 The Department shall:

- support [redacted] Primary school to merit select ten accomplished teachers to engage with interns, coach, mentor and support them through their practical experience during the program;

- meet the cost for allowing this support service through necessary relief provision as may be required;

- reimburse [redacted] for the additional cost of lecturers engaged to support Interns, as described in clause 5.1;

- offer interns the opportunity to apply for scholarships that may be available for final year students during the period of the Internship.

6. REVIEW OF PROGRAM DELIVERY

DET and [redacted] shall meet as required to discuss relevant issues pertaining to the delivery of the Internship program.

APPENDIX C

Australian Professional Standards for Graduate Teachers

Graduate teachers

Professional Knowledge

Standards	Focus area			
1 Know students and how they learn	**1.1 Physical, social and intellectual development and characteristics of students** Demonstrate knowledge and understanding of physical, social and intellectual development and characteristics of students and how these may affect learning.	**1.2 Understand how students learn** Demonstrate knowledge and understanding of research into how students learn and the implications for teaching.	**1.3 Students with diverse linguistic, cultural, religious and socioeconomic backgrounds** Demonstrate knowledge of teaching strategies that are responsive to the learning strengths and needs of students from diverse linguistic, cultural, religious and socioeconomic backgrounds.	**1.4 Strategies for teaching Aboriginal and Torres Strait Islander students** Demonstrate broad knowledge and understanding of the impact of culture, cultural identity and linguistic background on the education of students from Aboriginal and Torres Strait Islander backgrounds.
	1.5 Differentiate teaching to meet the specific learning needs of students across the full range of abilities Demonstrate knowledge and understanding of strategies for differentiating teaching to meet the specific learning needs of students across the full range of abilities.	**1.6 Strategies to support full participation of students with disability** Demonstrate broad knowledge and understanding of legislative requirements and teaching strategies that support participation and learning of students with disability.		

Australian Professional Standards for Teachers

2 Know the content and how to teach it

2.1 Content and teaching strategies of the teaching area

Demonstrate knowledge and understanding of the concepts, substance and structure of the content and teaching strategies of the teaching area.

2.2 Content selection and organisation

Organise content into an effective learning and teaching sequence.

2.3 Curriculum, assessment and reporting

Use curriculum, assessment and reporting knowledge to design learning sequences and lesson plans.

2.4 Understand and respect Aboriginal and Torres Strait Islander people to promote reconciliation between Indigenous and non-Indigenous Australians

Demonstrate broad knowledge of, understanding of and respect for Aboriginal and Torres Strait Islander histories, cultures and languages.

2.5 Literacy and numeracy strategies

Know and understand literacy and numeracy teaching strategies and their application in teaching areas.

2.6 Information and Communication Technology (ICT)

Implement teaching strategies for using ICT to expand curriculum learning opportunities for students.

aitsl Australian Institute for Teaching and School Leadership Limited

Professional Practice

Standards	Focus area			
3 Plan for and implement effective teaching and learning	**3.1 Establish challenging learning goals** Set learning goals that provide achievable challenges for students of varying abilities and characteristics.	**3.2 Plan, structure and sequence learning programs** Plan lesson sequences using knowledge of student learning, content and effective teaching strategies.	**3.3 Use teaching strategies** Include a range of teaching strategies.	**3.4 Select and use resources** Demonstrate knowledge of a range of resources, including ICT, that engage students in their learning.
	3.5 Use effective classroom communication Demonstrate a range of verbal and non-verbal communication strategies to support student engagement.	**3.6 Evaluate and improve teaching programs** Demonstrate broad knowledge of strategies that can be used to evaluate teaching programs to improve student learning.	**3.7 Engage parents/ carers in the educative process** Describe a broad range of strategies for involving parents/carers in the educative process.	

Australian Professional Standards for Teachers

4 Create and maintain supportive and safe learning environments

4.1 Support student participation	4.2 Manage classroom activities	4.3 Manage challenging behaviour	4.4 Maintain student safety
Identify strategies to support inclusive student participation and engagement in classroom activities.	Demonstrate the capacity to organise classroom activities and provide clear directions.	Demonstrate knowledge of practical approaches to manage challenging behaviour.	Describe strategies that support students' wellbeing and safety working within school and/or system, curriculum and legislative requirements.

4.5 Use ICT safely, responsibly and ethically
Demonstrate an understanding of the relevant issues and the strategies available to support the safe, responsible and ethical use of ICT in learning and teaching.

5 Assess, provide feedback and report on student learning

5.1 Assess student learning

Demonstrate understanding of assessment strategies, including informal and formal, diagnostic, formative and summative approaches to assess student learning.

5.2 Provide feedback to students on their learning

Demonstrate an understanding of the purpose of providing timely and appropriate feedback to students about their learning.

5.3 Make consistent and comparable judgements

Demonstrate understanding of assessment moderation and its application to support consistent and comparable judgements of student learning.

5.4 Interpret student data

Demonstrate the capacity to interpret student assessment data to evaluate student learning and modify teaching practice.

5.5 Report on student achievement

Demonstrate understanding of a range of strategies for reporting to students and parents/carers and the purpose of keeping accurate and reliable records of student achievement.

Professional Engagement

Standards	Focus area			
6 Engage in professional learning	**6.1 Identify and plan professional learning needs**	**6.2 Engage in professional learning and improve practice**	**6.3 Engage with colleagues and improve practice**	**6.4 Apply professional learning and improve student learning**
	Demonstrate an understanding of the role of the Australian Professional Standards for Teachers in identifying professional learning needs.	Understand the relevant and appropriate sources of professional learning for teachers.	Seek and apply constructive feedback from supervisors and teachers to improve teaching practices.	Demonstrate an understanding of the rationale for continued professional learning and the implications for improved student learning.

7 Engage professionally with colleagues, parents/carers and the community

7.1 Meet professional ethics and responsibilities

Understand and apply the key principles described in codes of ethics and conduct for the teaching profession.

7.2 Comply with legislative, administrative and organisational requirements

Understand the relevant legislative, administrative and organisational policies and processes required for teachers according to school stage.

7.3 Engage with the parents/carers

Understand strategies for working effectively, sensitively and confidentially with parents/carers.

7.4 Engage with professional teaching networks and broader communities

Understand the role of external professionals and community representatives in broadening teachers' professional knowledge and practice.

APPENDIX D

Participant Survey

Edith Cowan University
School of Education

AUSTRALIA ECU EDITH COWAN UNIVERSITY

Survey – Background Information

The [redacted] Internship Model:

An Alternative Approach to Pre-Service Teacher Training

Background Information

Before answering the survey questions, please answer the following questions about yourself by circling the appropriate response.

Please note, the term 'intern graduate' is used to refer to a graduate teacher who participated in the [redacted] Internship Model. The term 'graduate teacher' is used to refer to any teacher completing their first year of teaching since finishing their university degree. Please complete a survey for each intern teacher that you have employed at your current school.

1. **What is your gender?**
   Male Female

2. **What is your age?**
   21-30 31-40 41-50 51-60 61 or above

3. **How many years have you been a principal?**
   1-5 6-9 10-15 16-20 21-30 31 or more

4. **How many years have you been at your current school?**
   1-5 6-9 10-15 16-20 21-30 31 or more

5. **Since being a principal, how many graduate teachers have you employed?**
   1-5 6-9 10-15 16-20 21-30 31 or more

6. **On average, how many graduate teachers come to your school each year?**
   1 or less 1 or 2 3 or 4 4 or 5 6 or more

7. **In what year did you employ your first intern graduate teacher?**
   2010 2011 2012

8. **How many intern graduate teachers have you employed?**
   1 2 3 4 5 or more

School Education Email: education@ecu.edu.au Web: www.education.ecu.edu.au

Survey – Perceptions of an Intern Graduate Teacher

The [redacted] Internship Model:
An Alternative Approach to Pre-Service Teacher Training

Your Perceptions

Please fill out one survey for each intern graduate that has been employed at your school.
The survey uses the seven National Professional Standards for Teachers as a base for its questions. This document is available at http://www.teacherstandards.aitsl.edu.au. Your responses should indicate the performance level at which you perceive the intern graduate to operate. Please tick the box that best represents your professional judgement. I am enclosing the Standard rubrics for reference purposes.

The key to the scale is as follows:
1 = the intern graduate's performance is significantly lower than most graduate teachers with whom you have worked.
2 = the intern graduate's performance is lower than most graduate teachers with whom you have worked.
3 = the intern graduate's performance is similar to most graduate teachers with whom you have worked.
4 = the intern graduate's performance is higher than most graduate teachers with whom you have worked.
5 = the intern graduate's performance is significantly higher than most graduate teachers with whom you have worked.

	Intern Graduates Performance Compared to a Non-Intern Graduate Teacher				
Area of Performance	Sig* lower 1	Lower 2	Similar 3	Higher 4	Sig* higher 5
Know students and how they learn					
Know the content and how to teach it					
Plan for and implement effective teaching and learning					
Create and maintain supportive and safe learning environments					
Assess, provide feedback and report on student learning					
Engage in professional learning					
Engage professionally with colleagues, parents/carers and the community					
					*sig = significantly

APPENDIX E
ECU Ethics Approval

09 May 2012

Ms Gemma Foxall
9 Estuarine Court
LESCHENAULT WA 6233

Dear Ms Foxall

I am pleased to write on behalf of the Higher Degrees Committee to advise that your master's research proposal has been approved – **The [redacted] Internship Model: An Alternative Approach to Pre-Service Teacher Training.**

I also wish to confirm that your proposal complies with the provisions contained in the University's policy for the conduct of ethical research, and your application for ethics has been approved. Your ethics approval number is **7772** and the period of approval is: **4 May 2012 to 31 April 2014**

Approval is given for your supervisory team to consist of:

Principal Supervisor: Ms Christine Gray - ECU
Co Principal Supervisor: Dr Coral Pepper - ECU

The examination requirements on completion are laid down in *Part VI of The University (Admissions, Enrolment and Academic progress) Rules for Courses Requiring the Submission of Theses* available at: http://ww.ecu.edu.au/GPPS/legal_legis/uni_rules.html

Additional information and documentation relating to the examination process can be found at the Graduate Research School website: http://research.ecu.edu.au/grs/

Please note: the Research Students and Scholarship Committee has resolved to restrict Master by Research
(1 year) theses to a maximum of 40,000 words or a Master by Research (2 year) theses to a maximum of 60,000 words. Under special circumstances a candidate may seek approval from the Faculty Research and Higher Degrees Committee for an extension to the word length (RSSC 33/04).

I would like to take this opportunity to offer you our best wishes for your research and the development of your thesis.

Yours sincerely

Patricia Brown
Research Assessment Coordinator
Research Assessments- SSC

Principal Supervisor: Ms Christine Gray - ECU
Co Principal Supervisor: Dr Coral Pepper - ECU
HDR Sarah Kearn

APPENDIX F
Department of Education Ethics Approval

Government of **Western Australia**
Department of **Education**

Your ref :
Our ref : D12/0268713
Enquiries :

Ms Gemma Foxall
9 Estuarine Court
LESCHENAULT WA 6233

Dear Ms Foxall

Thank you for your completed application received 5 February 2012 to conduct research on Department of Education sites.

The focus and outcomes of your research project, *The* [redacted] *Internship Model: An Alternative Approach to Pre-Service Teacher Education*, are of interest to the Department. I give permission for you to approach site managers to invite their participation in the project as outlined in your application. It is a condition of approval, however, that upon conclusion the results of this study are forwarded to the Department at the email address below.

Consistent with Department policy, participation in your research project will be the decision of the schools invited to participate and individual staff members. A copy of this letter must be provided to site managers when requesting their participation in the research. Researchers are required to sign a confidential declaration upon arrival at the Department of Education site.

Responsibility for quality control of ethics and methodology of the proposed research resides with the institution supervising the research. DET approval is subject to the Department receiving a copy of the letter of ethical approval for your research protocol from the Murdoch University Human Research Ethics Committee.

Any proposed changes to the research project will need to be submitted for Department approval prior to implementation.

Please contact Ms Allison McLaren, A/Evaluation Officer, on (08) 9264 5512 or researchandpolicy@det.wa.edu.au if you have further enquiries.

Very best wishes for the successful completion of your project.

Yours sincerely

ALAN DODSON
DIRECTOR
EVALUATION AND ACCOUNTABILITY

3 May 2012

151 Royal Street, East Perth Western Australia 6004

APPENDIX G
Participation Information Letter

Edith Cowan University
School of Education

Information Letter

Dear Principal,

The [redacted] Internship Model:

An Alternative Approach to Pre-Service Teacher Training

My name is Gemma Foxall and I am writing to you because I am conducting a research project that aims to learn the perceptions of principals who have employed a graduate teacher who completed their pre-service teacher training as an intern at [redacted] Primary School. Graduate teachers spent a year at [redacted] Primary School participating in the [redacted] Internship model and I am researching whether principals who employed these teachers perceived any differences in their teaching performance compared to teachers who did not complete the Kingston Internship model. The project is being conducted as part of a Masters by Research and both myself and my supervisors are available to answer any questions you may have. My supervisors are Dr Coral Pepper (c.pepper@ecu.edu.au) and Ms Christina Gray (c.gray@ecu.edu.au).

It is my intention to survey each principal of a public school in Western Australia who has employed a [redacted] intern". I would be very grateful if you would take the time to complete the short survey and send it back to me, together with the consent form, in the pre-paid envelope supplied. You are one of 22 principals who are being approached to take part in this project.

What does participating in the research involve?
You are invited to participate in this research by completing the enclosed survey and posting it back, along with the consent form, in the pre-paid envelope. I would like to find four principals who would also be interested in taking part in the second stage of the research, which involves interviewing participants about their experiences of employing a [redacted] intern." Interviews will take place at the participating principal's school and last approximately 30 minutes. An audio recording would be made and a copy of the transcript would be sent to you.

Do I have to take part?
No. Participating in this research project is entirely voluntary. This decision should always be made completely freely. All decisions made will be respected by members of the research team without question.

What if I wanted to change my initial decision?
If you wish to participate, the decision will need to be made by June 22nd 2012 for your input to be included in the project. Once a decision is made to participate, you can change your mind at any time.

What will happen to the information I give, and is privacy and confidentiality assured?
Information that identifies anyone will be removed from the data collected. The data is then stored securely on a password protected personal laptop and can only be accessed by myself. Any data recorded on paper will be kept in a locked storage box at the researcher's home. The data will be stored for a minimum period of 5 years, after which it will be destroyed. This will be achieved by permanently deleting the relevant files.

I will treat all information with the strictest confidence. No person will be mentioned in my thesis by name or in such a way that they can be identified. The data will be used only for this project, and will not be used in any extended or future research without first obtaining explicit written consent from you.

It is intended that the findings of this study will be reported on in my thesis. A summary of the research findings will also be made available upon completion of the project. You will be given access to these findings via email and can expect to receive this information by early 2014.

Is this research approved?
The research has been approved by the ECU Human Ethics Committee and has met the policy requirements of the Department of Education.

Who do I contact if I wish to discuss the project further?
If you would like to discuss any aspect of this study with a member of the research team, please contact me on the number provided below. If you wish to speak with an independent person about how the project is being conducted or was conducted, please contact Kim Gifkins, ECU's Research Ethics Officer on 0863042170 or email research.ethics@ecu.edu.au. If you wish to contact my supervisors they are Dr. Coral Pepper (c.pepper@ecu.edu.au) and Ms Christina Gray (c.gray@ecu.edu.au).

How do I become involved?
If you have had all questions about the project answered to your satisfaction, and are willing to become involved, please complete the enclosed consent form and survey(s) and return them in the pre-paid envelope.

This information letter is for you to keep.

Mrs Gemma Foxall
Masters of Education Student
Edith Cowan University
g.foxall@our.ecu.edu.au / 0432311208

APPENDIX H

Consent Form

Edith Cowan University
School of Education

Consent Form
(School Principals)

The Kingston Internship Model:

An Alternative Approach to Pre-Service Teacher Training

Please read the statements below and sign at the specified location on the next page of this consent form if you are willing to participate in this study. Consent forms should be returned using the pre-paid envelope provided.

- I have read and understood the information letter about the project, or have had it explained to me in language I understand.
- I have taken up the invitation to ask any questions I may have had, and am satisfied with the answers I received.
- I understand that participation in the project is entirely voluntary.
- I understand that participation in the research involves either completing a survey, or completing a survey and being interviewed for approximately 30 minutes.
- I understand I am free to withdraw from the project at any time.
- I understand that surveys need to be received by the researcher by 22nd June 2012 for the data to be included in the study.
- I give permission for my contribution to this research to be used in a Masters by Research thesis.
- I understand that the information provided will be kept confidential and that the identity of participants will not be disclosed without consent.
- I understand that the information provided will only be used for the purposes of this research project.
- I understand that I can request a summary of findings once the research has been completed.

Please tick the relevant box for **one** of the statements below:

- I am willing to participate by completing the survey ☐
- I am willing to participate by completing the survey and being interviewed ☐
- If selected for interview, I give my consent for the interview to be recorded (audio only) ☐

Name of Participant (printed): _____

Date: / /

Signature of Participant: _____

APPENDIX I

Quantitative Results

The 'Y' axis in all figures in this appendix represents the number of participant responses: for example, Figure 15, below, shows that 13 surveys were completed by a male participant and six were completed by a female participant.

The analysis and interpretation of these data is discussed in Chapter Five.

Figure 15: Survey Question 1 Results

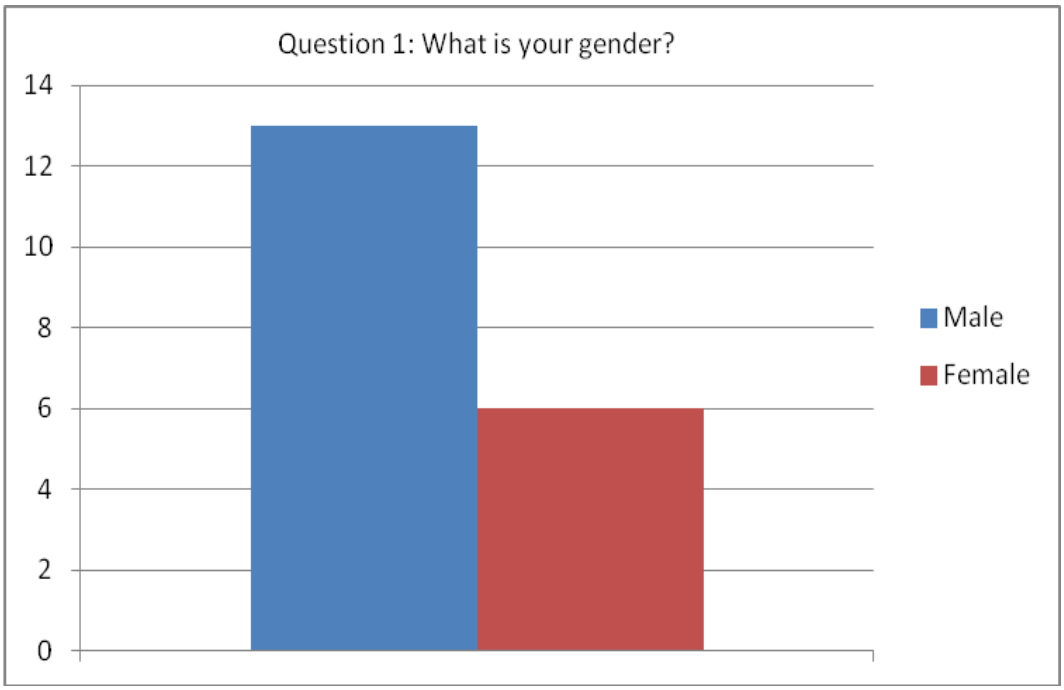

Figure 16: Survey Question 2 Results

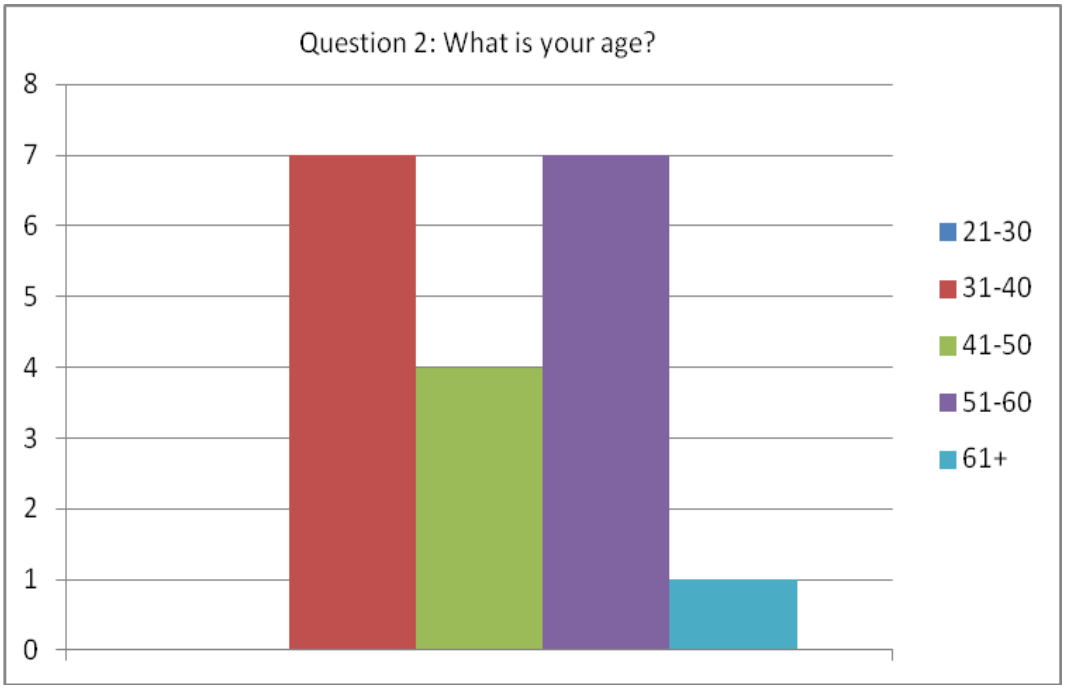

Figure 17: Survey Question 3 Results

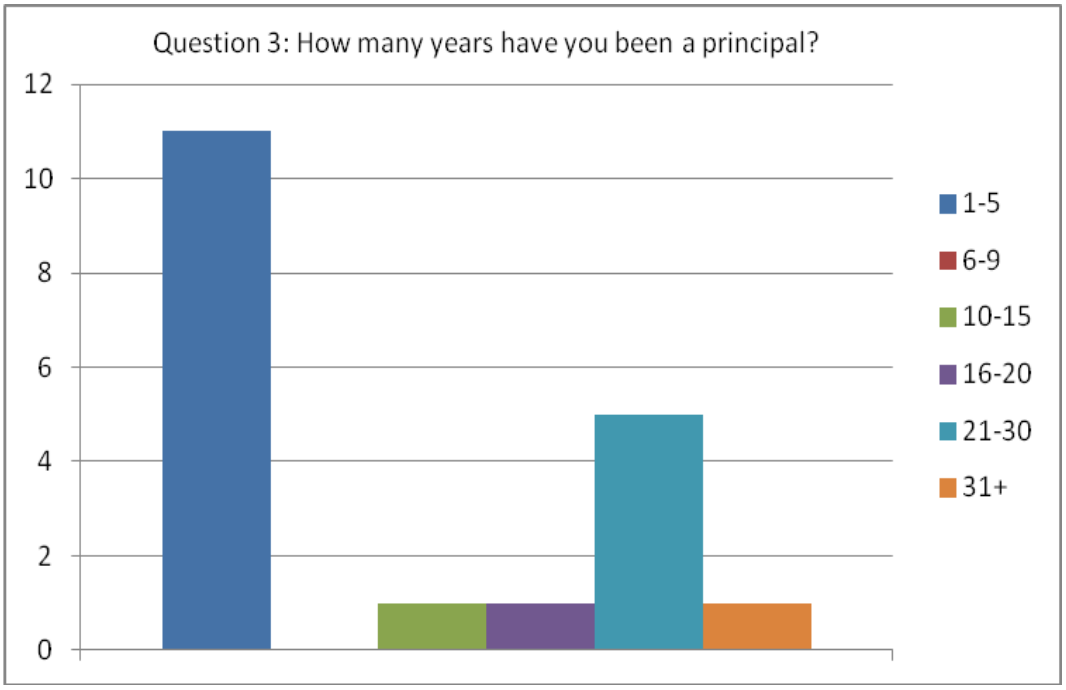

Figure 18: Survey Question 4 Results

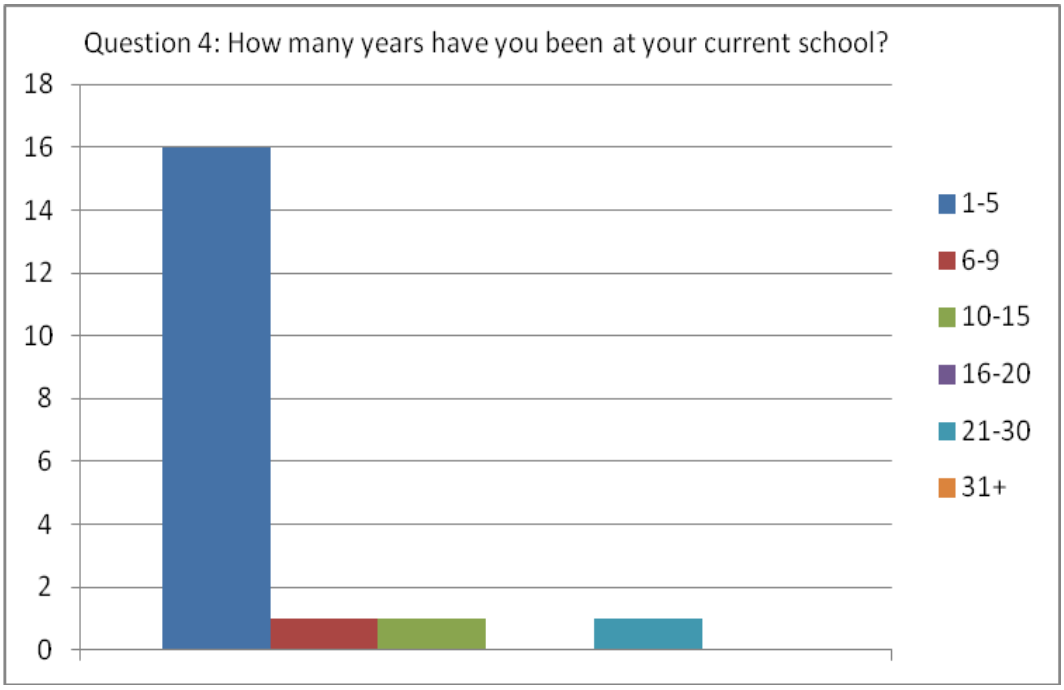

Figure 19: Survey Question 5 Results

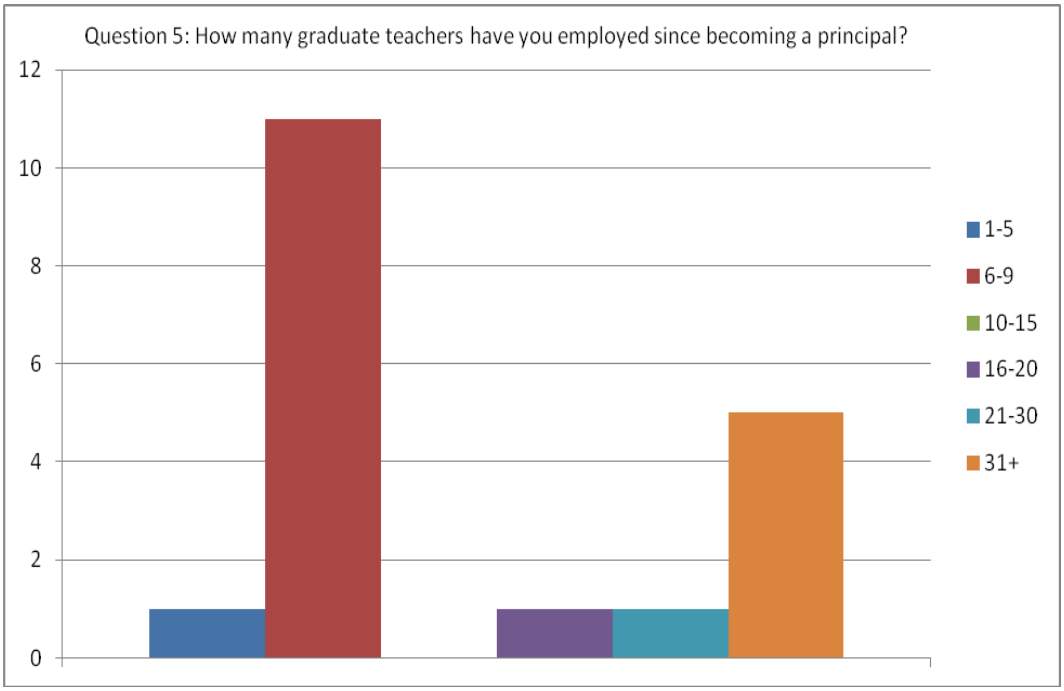

Figure 20: Survey Question 6 Results

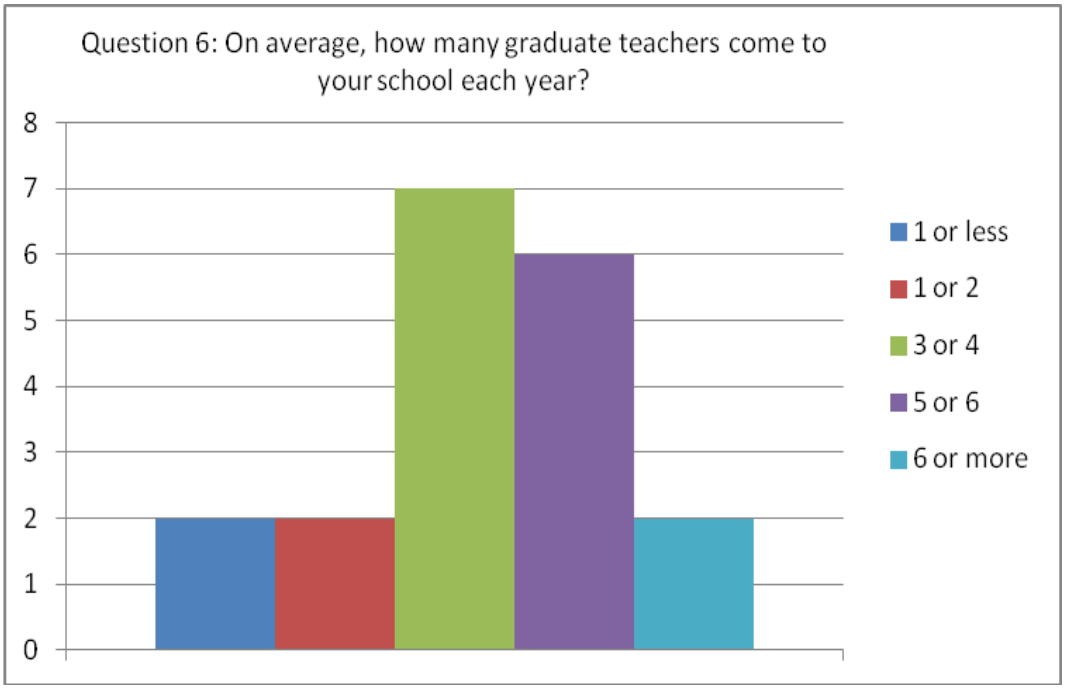

Figure 21: Survey Question 7 Results

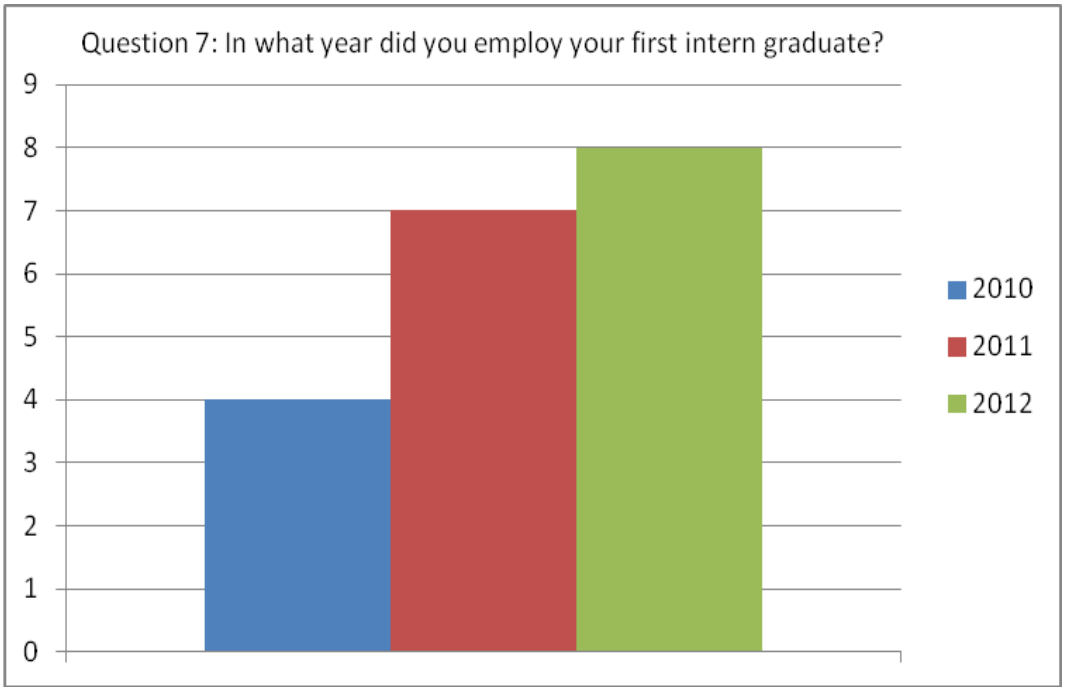

Figure 22: Survey Question 8 Results

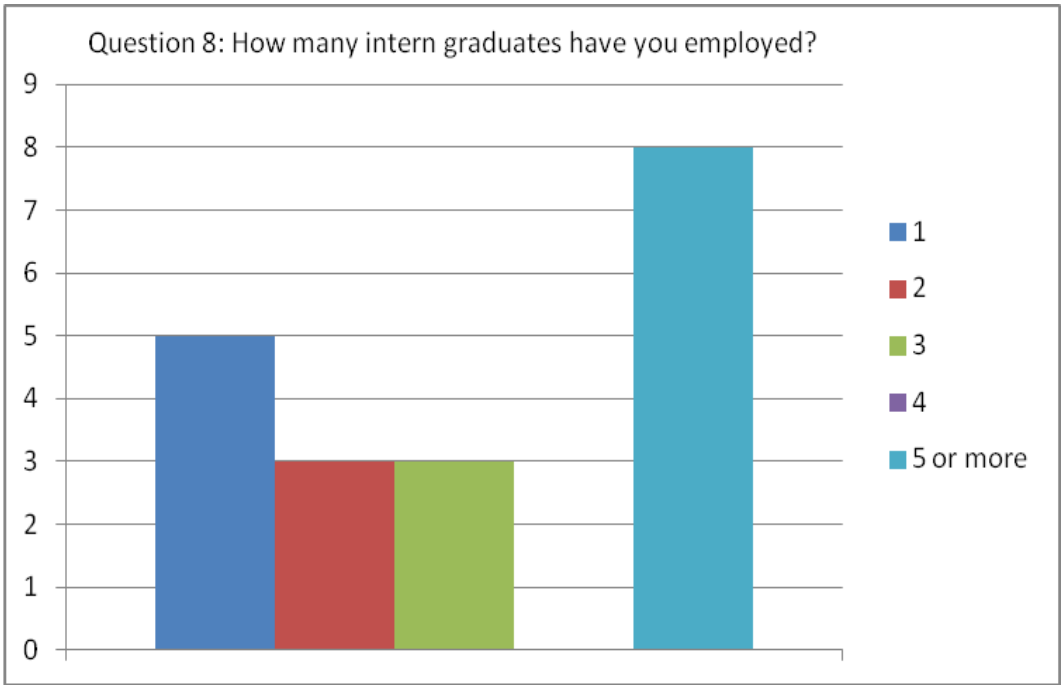

Figure 23: Survey Question 9 Results:

Standard 1 - Know Students and How They Learn

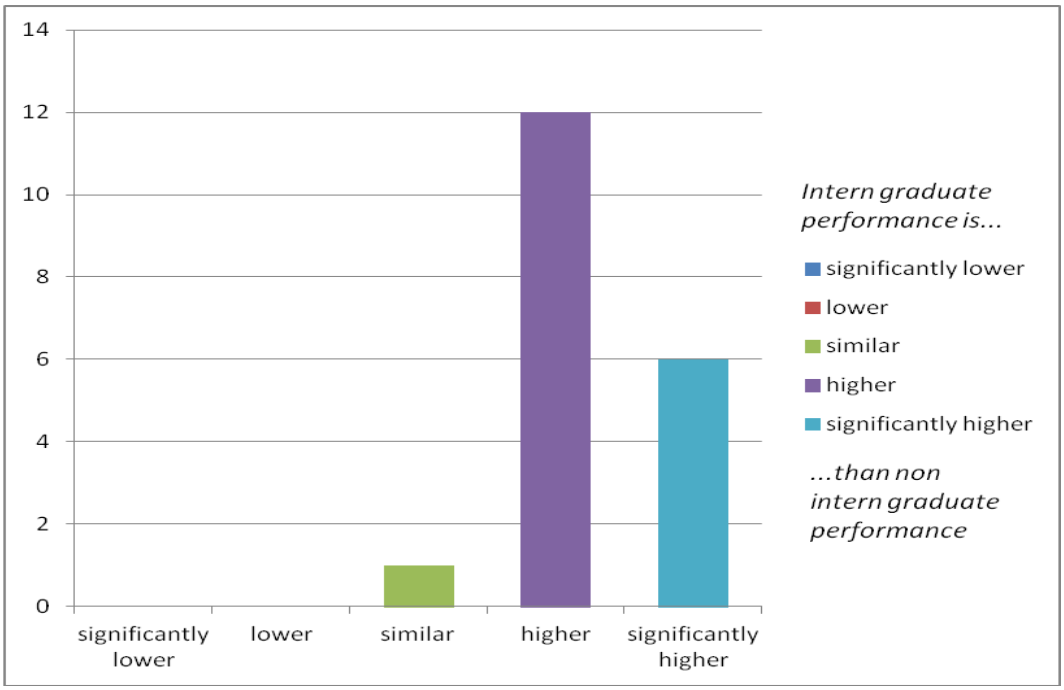

Figure 24: Survey Question 10 Results:

Standard 2 - Know the Content and How to Teach It

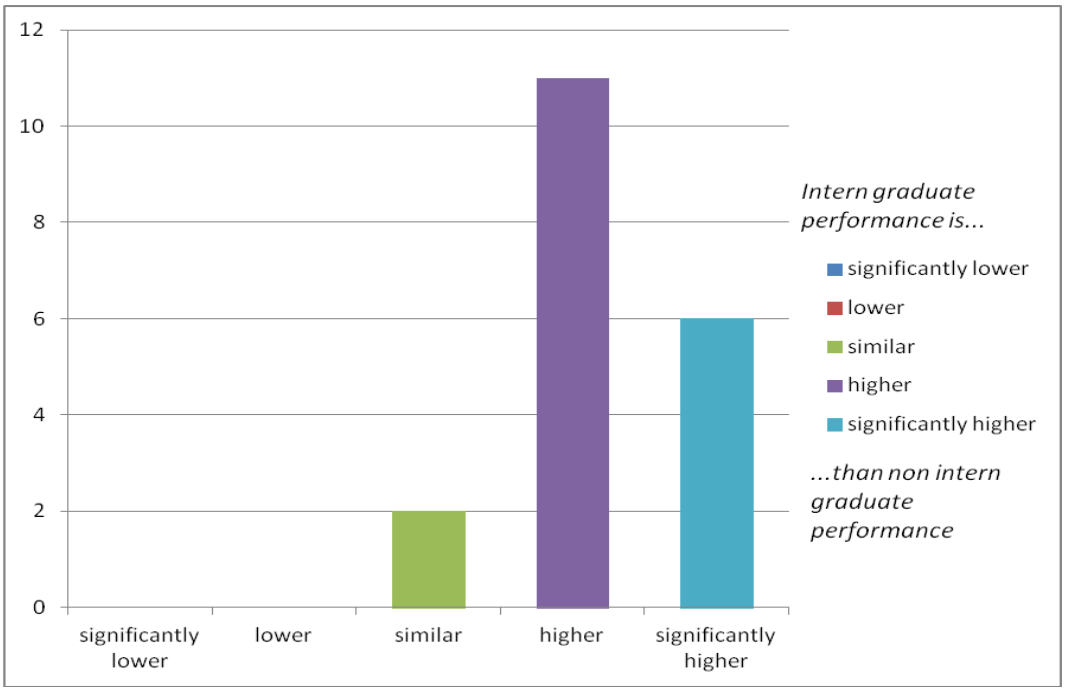

Figure 25: Survey Question 11 Results:

Standard 3 - Plan For and Implement Effective Teaching and Learning

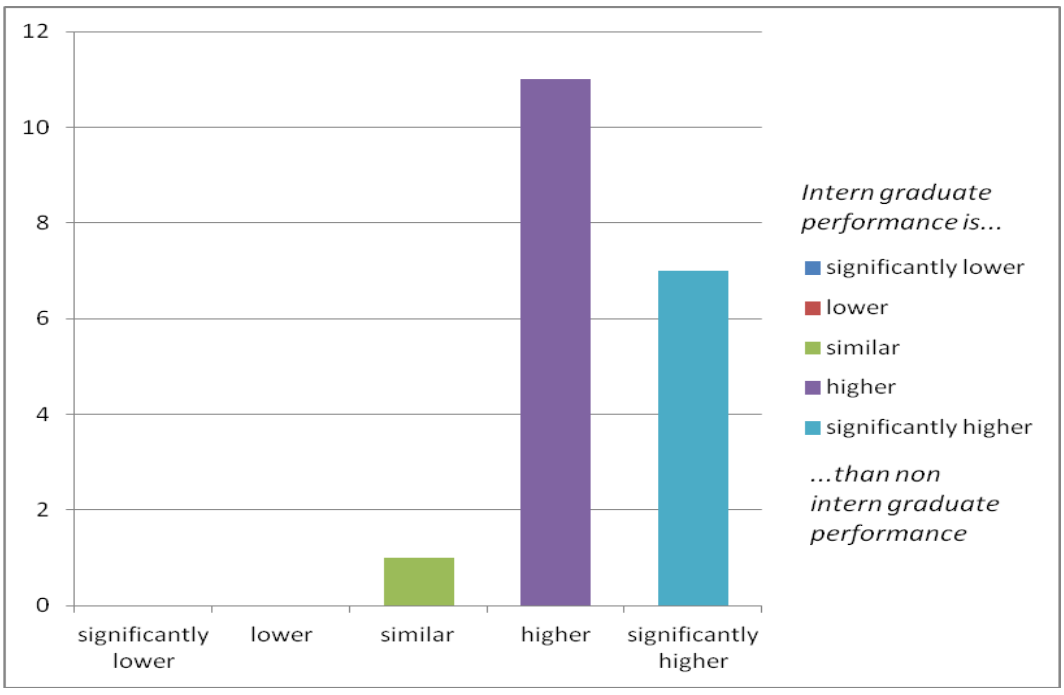

Figure 26: Survey Question 12 Results:

Standard 4 - Create and Maintain Supportive and Safe Learning Environments

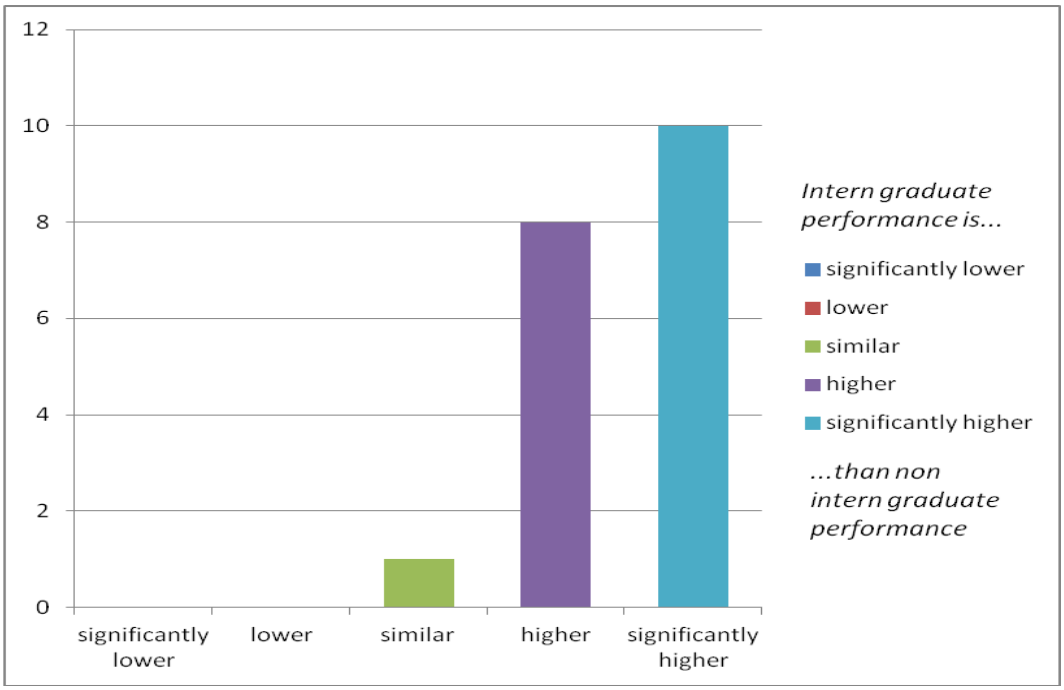

Figure 27: Survey Question 13 Results:

Standard 5 - Assess, Provide Feedback and Report on Student Learning

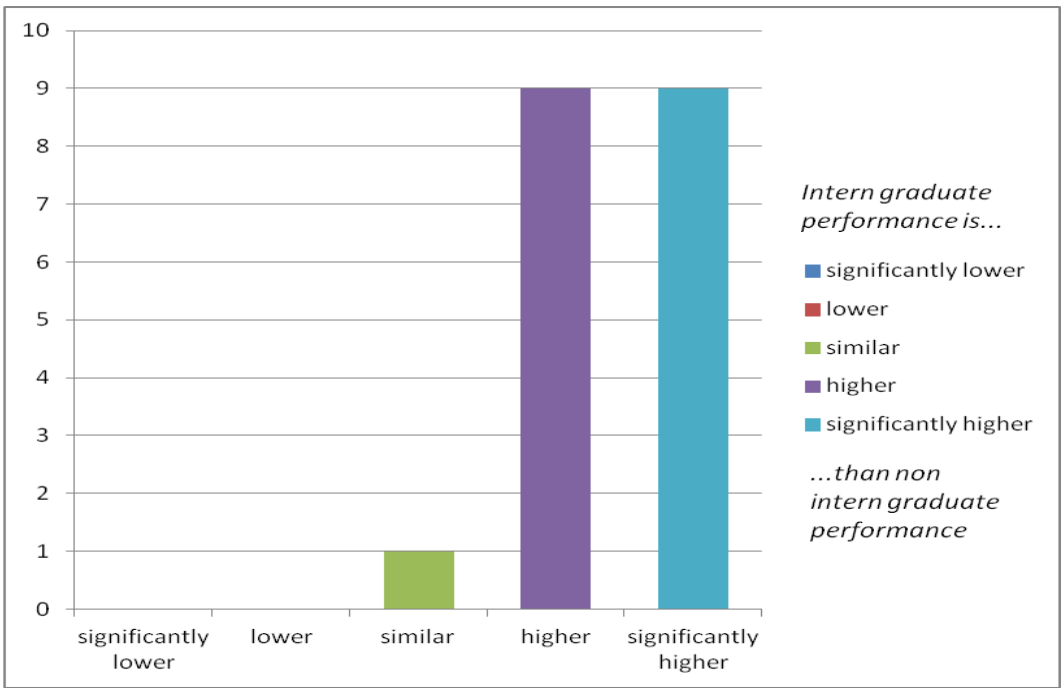

Figure 28: Survey Question 14 Results:

Standard 6 - Engage in Professional Learning

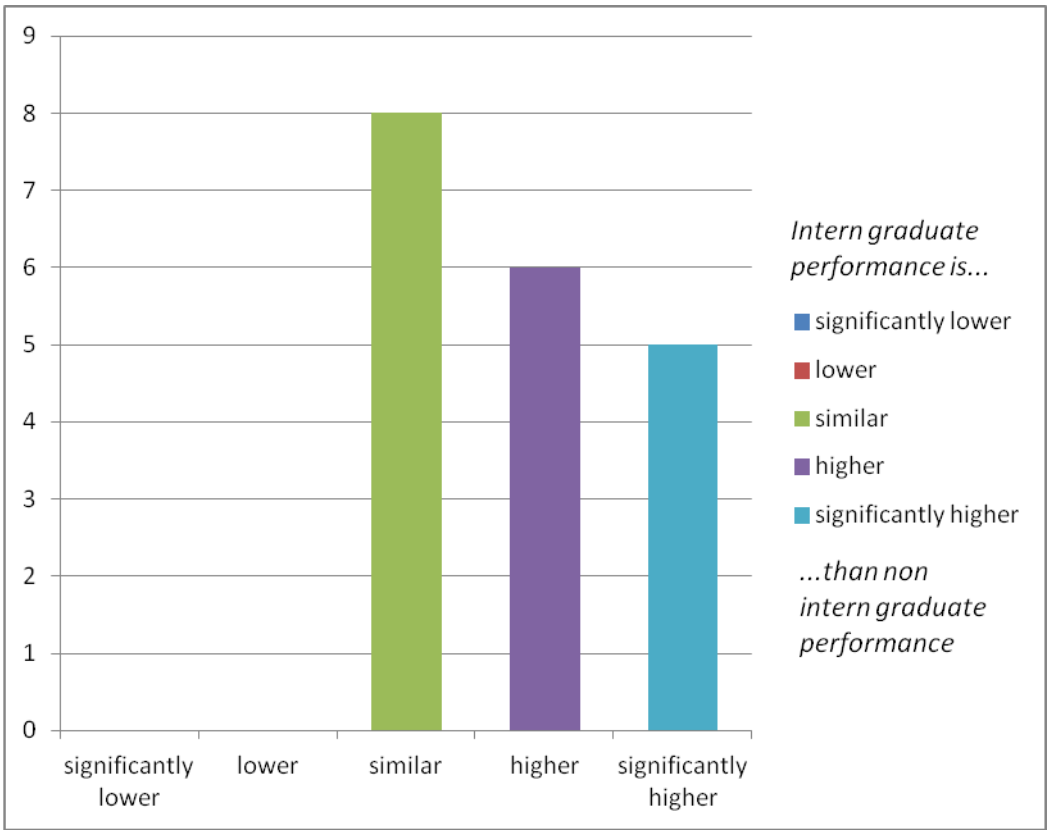

Figure 29: Survey Question 15 Results:

Standard 7 - Engage Professionally with Colleagues, Parents and the Community