Leading quality teaching: an exploratory case study of two improving Australian schools

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Declaration of Originality

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Statement of Ethical Conduct

The research associated with this thesis abides by the international and Australian codes on human and animal experimentation, the guidelines by the Australian Government's Office of the Gene Technology Regulator and the rulings of the Safety, Ethics and Institutional Biosafety Committees of the University.

Emma Margaret Burgess

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‘An invisible thread connects those who are destined to meet regardless of time, place or circumstance. The red thread may stretch or tangle, but it will never break’ (Ancient Chinese Proverb).

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Abstract

This research examined the current challenge faced by Australian school leaders in developing high quality teaching within their schools.

There is considerable research and literature examining leadership and quality teaching, including various models, frames and typologies. Despite some notable Australian contribution (Caldwell & Harris, 2008; Silins & Mulford, 2002), there remains a paucity of Australian educational leadership research for Australian educators and scholars. In particular, the current study was unable to locate relevant Australian based case study which examined how successful school leadership influenced emerging conceptions of quality teaching (where quality teaching is viewed as teacher professionalism comprising various teacher capacity domains) in Australian schools. The current study extended Australian research to an exploration of how leadership influenced quality teaching and, in so doing, offered an original and significant contribution.

Two school sites, one in Tasmania and one in Queensland, were used for comparison in an exploratory case study. These were taken as purposive samples which are in the vanguard of improvement. Using this base, three aims were undertaken. First, the work sought to describe how quality teaching was understood within the Australian school setting. Second, the study examined how successful school leadership influenced quality teaching across the school. Third, the research retrospectively documented the process by which successful school leadership enacted these influences for improving quality teaching through a focus on perceived experiences over a period of five years. The main research question addressed was how successful school leadership in two improving Australian secondary schools is understood and enacted in ways which influence quality teaching.

A large data set was gathered from 30 participants including principals, school leaders, teachers, parents and key personnel. Using a backwards mapping design (Elmore, 1979), the data were examined and synthesised using inductive analysis (Moustakis, 1990; Patton, 1990). By juxtaposing findings with extant literature,

the case study confirmed, extended and, in some cases, proposed new interpretations and views. Three key theoretical propositions were given.

First, quality teaching was associated with a collective phenomenon of teacher professionalism across the whole school. This was described as comprising four teacher capacities: individual, decisional, social and innovative.

Second, successful school leadership was related to four broad categories of influence which were:

- challenge,
- culture,
- professional investment (professional learning, professional pathways, professional collaboration and professional innovation); and,
- review, recognition and reward.

Third, and finally, by examining how the two schools improved over a period of five years through retrospective interviews, three elements became clear:

> One: Successful school leadership enacted a continuous cyclical and differentiated process of improvement and innovation to influence quality teaching.
>
> Two: Leadership influence was contingent on the culture, level of engagement and teacher need within the school.
>
> Three: There were varying levels of perceived success in improving quality teaching with a leadership belief that the majority of staff were functioning at a high performing level.

In exploring the perceived leadership practices which influence quality teaching in an Australian secondary school context, the case study offered several salient insights for further inquiry, policy and educational practice.

Glossary of Acronyms, Concepts and Key Terms

AITSL	Australian Institute for Teaching and School Leadership
Capital	Both material and symbolic products and actions within a cultural field (in this case school) that may have value or use (Bourdieu, 1977 as cited in Ferfolja, 2008)
CORS	Centre on Organisation and Restructuring of Schools, University of Wisconsin-Madison (1990-1996)
ERIC	Education Resources Information Centre, a bibliographic database of citations of education topics from 1966
Improving	Sustained, significant, and widespread gains in student learning outcomes (Mourshed, Chijioke & Barber, 2010)
ISSPP	International Successful School Principalship Project, University of Nottingham, United Kingdom (2004-2010)
Key Personnel	Participants within the study, being those other than teachers or leaders within the school, or those who no longer work at the school and partook in retrospective interviews
Leader(s)	Primarily work through and with other people to create shared purpose and direction and fulfil goals. For educational leaders this is increasingly focused on improving student learning outcomes (Leithwood & Riehl, 2003)
Leadership	Key concept used throughout the thesis involving a function more than a role. It is the process of leadership. Leadership provides direction and exercises influence. It encompasses a set of functions that may be performed by different people in different roles throughout a school (Leithwood & Riehl, 2003)
Management	Management relates to *structures and processes* by which organizations meet their goals and purposes (Retallick & Fink, 2002)
NAPLAN	National Assessment Program of Literacy and Numeracy (Australia)

NCSL	National College for School Leadership (became National College for Leadership and Teaching) (UK)
OECD	Organisation for Economic Cooperation and Development
PISA	Program for International Student Assessment
PIRLS	Progress in International Reading and Literacy Study
Principal(s)	Participants in the exploratory case study, with the position and responsibility as Head of School
Principal-ship	Concept denoting a structural position (that is, Head of School) which carries responsibilities and accountabilities (Christie & Lingard, 2001)
ProQuest	Multidisciplinary portal providing access to a number of databases of research from 1971
QSRLS	Queensland School Reform Longitudinal Study (Australia)
School Capacity	Internal or improvement related school capacities to engage teachers and students in continuous learning. Comprising three capacities (teacher, social, and structural and external) (Stoll, Bolam, McMahan, Wallace & Thomas, 2006)
School Leader(s)	Participants in the exploratory case study, with a specific role including Deputy Principals, Assistant Principals, Deans, Heads of Faculty or Department
Student Learning Outcomes	Knowledge, skills, abilities and attitudes students have gained from learning experiences
Successful School Leaders	Concept used throughout the thesis involving people who work through and with others in the school to create shared purpose and direction to increase student learning
Successful School Leadership	Concept used throughout the thesis. It is defined here as the process or function by which school leaders influence others to accomplish common goals for improved student learning outcomes, including academic, social and emotional outcomes (Day et al., 2010; Leithwood, Day, Sammons, Harris & Hopkins, 2006a; Mulford, 2011)

Teacher(s)	Used within the thesis as both a concept related to those who teach students, and to identify participants in the study
Teacher Capacity	A complex blend of motivation, skills, learning, knowledge and ability contained within teachers. These teacher capacities can be grouped according to various domains including individual, social, decisional, or others.
Teacher Capital	In teaching, highly complex and interrelated knowledge, skills and behaviours which require teachers to be effective in their roles (Ferfolja, 2008)
Teacher Professional Capital	Combined capacity, effectiveness and work of the teaching profession (Hargreaves & Fullan, 2012). Investment in high-quality teachers and teaching lifts the teacher professional capital across the school (Hargreaves & Fullan, 2012)
Teacher Professionalism	Understood in this circumstance as a collective or new professionalism which improves the quality of service (or teaching) (Evans, 2008)
Teacher Quality	The act of teaching which has a positive influence on student learning outcomes (Cooper & Alvarado, 2006)
TIMSS	Trends in International Mathematics and Science Study
UK	United Kingdom
Within School Variation	Variation within schools, rather than between schools; either variation between teachers, or variation between students from different backgrounds (Reynolds, 2007)

A weaving metaphor

Reflective of the process of weaving a tapestry, the dissertation used a weaving metaphor to both structure and anchor the work. The weaving metaphor denotes the underlying structure upon which something is built, in this case quality and equitable education.

In understanding how successful school leadership influences quality teaching through professional learning and development over time, the weft of leadership was woven with the warp of teaching and learning. The two threads or fields of educational leadership and teacher effectiveness were entwined to develop an understanding of successful school leadership's practice, as they relate to improving teacher quality across two Australian secondary schools.

Prestine and Nelson note,

> For all its complexity, schooling, in point of fact, revolves around two deceptively simple yet central functions-teaching and learning and organising for teaching and learning…while there have been some instances of overlap between the two, for the most part these have remained separate and discrete domains with little interface (2003, p. 2).

The two strands of leadership and quality teaching are fundamental to the study and together the critical interfaces between leadership and teaching and learning were examined, with an interweaving of the two fields. One of the major contributions of the study is the drawing together of most recent conceptions of quality teaching (Hargreaves & Fullan, 2012) with contemporary models of successful school leadership, exploring these in the context of improving Australian secondary school settings.

Chapter One: Background and Context

Introduction

Education finds itself in an era of unparalleled change where schooling structures and practices of the past are no longer relevant and adequate for the needs of students in the future (Barber, Donnelly & Rizvi, 2012; Robinson, 2009). It is now demanded that schools provide all students, regardless of background, the opportunity to achieve high quality and equitable learning that prepares them for participation in today's globalized knowledge and information society (Barber & Mourshed, 2007; Schleicher, 2012). This requires educational improvements alongside innovation (Barber et al., 2012).

Successful school leadership and quality teaching is seen as a major contributor to meeting these expectations (Firestone & Riehl, 2005; Organisation for Economic Cooperation and Development (OECD), 2011; Stewart, 2011). Indeed, in the presence of societal changes and proliferations in national and international accountability measures, policy makers, the public and various educators have all increased the expectations placed on leaders and teachers. They are expected now to lift student achievement levels and lower the gap between higher and lower socioeconomic groups (Mourshed, Chijioke & Barber, 2010; Robinson, Lloyd & Rowe, 2008).

This is largely attributed to recent assertions that the quality of education cannot exceed the quality of its teachers (Barber, 2011; Barber & Mourshed, 2007; Caldwell & Harris, 2008). In an international analysis and comparison of high performing and improving schools (*The McKinsey Report*), Barber and Mourshed (2007) concluded that regardless of culture, context, politics or governance, the

quality of teaching is what matters most. More specifically they argued three guiding principles for ensuring effective reform, namely:

1. The quality of an education system cannot exceed the quality of its teachers;
2. The only way to improve outcomes is to improve instruction; and,
3. Achieving universal high outcomes is only possible by putting in place mechanisms to ensure that schools deliver high-quality instruction to every child (Barber & Mourshed, 2007, p. 40).

There has been widespread and continuing evidence to support this assertion, indicating the quality of teachers (classroom and teacher effects) has a significant impact on the equity and quality of student learning and is the major in-school influence on student achievement (Caldwell, 2008; Dinham, 2008; Hattie, 2003). Accordingly, improving the quality of individual teaching and learning within a classroom contributes to improved student learning and is likely to yield substantial dividends for students into the future (Chetty, Friedman & Rockoff, 2011; Ladwig & Gore, 2005).

More specifically, it has been argued, teacher instruction and classroom environments have the strongest effect on student learning outcomes (Louis, Leithwood, Wahlstrom & Anderson, 2010). Teacher characteristics such as training, experience and certification have a smaller impact, usually experienced through indirect effects on instruction (Louis, Leithwood, et al., 2010; Wahlstrom & Louis, 2008). Some studies have demonstrated that quality teaching practice typically improves during the first years of teaching, but often plateaus after 3-5 years (Kukla-Acevedo, 2009, as cited in Coe, 2013).

Whilst every school has good teacher practice, often evidenced in the occasional classroom, few achieve it consistently within and throughout the organization (National College for School Leadership (NCSL), 2004). This is described as within-school variation, where "…the variation in the attainment of pupils in any one school, after individual factors, such as socio-economic background, has been corrected for" (NCSL, 2004, p. 2). Given that not every teacher performs at a high level, it is compelling to examine how successful school leaders support and develop quality teaching across Australian school contexts to ensure *all* teachers are providing high quality instruction to their students.

A growing assumption is made that successful school leadership is best positioned to make significant impact on student learning outcomes through its influence on quality teaching across the school (Firestone & Reihl, 2005; Leithwood, Patten & Jantzi, 2010; Louis, Dretzke, & Wahlstrom, 2010). Subsequently educational policy, community expectations and globalised accountability environments have brought to the fore the influence successful school leadership has on quality teaching in Australian school settings.

1.1 Understanding how successful school leadership influences quality teaching in Australian school settings

Whilst the quality of teaching is the major within-school variable, other variables such as the social, contextual and familial factors have a stronger impact on student learning outcomes (Hattie, 2009). Consequently, some scholars suggest that, for improving student learning, the challenge of understanding how leaders influence familial, social and contextual variables (for improving student learning) is of equal import (Leithwood, Patten, et al., 2010).

For example, the Australian *Leadership for Organisational Learning and Student Learning Outcomes* (LOLSO) study demonstrated that school size (less than 900 students), socioeconomic status and especially students' home educational environment made a positive or negative difference to students' academic self-concept, students' participation in school and students' perception of teachers' work (Silins & Mulford, 2002).

More specifically, the research found that family educational environment and culture was a strong predictor in how students perceived teacher instruction (Silins & Mulford, 2002). The implication follows that a focus on improving home educational environments may have a positive impact on student learning outcomes (Mulford, 2008). Indeed, while improving instruction is necessary and important "…this claim, by itself, ignores all of the powerful variables… dismiss(ing) the family-related factors accounting for as much as 50% of the variation in student achievement across schools" (Leithwood, Patten et al., 2010, p. 681). These variables and focus, however, were not the purview of this current study which chose to attend to leadership's influence on quality teaching.

Acknowledging teacher quality as the largest within-school influence on student learning outcomes underlines that of all the school leadership issues, the pathways by which leaders influence the collective quality of teaching within their schools is "…perhaps the most important issue we face and one the research community must address" (Southworth, 2008, as cited in Mulford, 2008, p.v).

The evidence for leadership alone achieving this goal is equivocal at best (Leithwood, Day, Sammons, Harris & Hopkins, 2006b; Marzano, Waters & McNulty, 2005; Robinson et al., 2008; Witziers, Bosker & Kruger, 2003).

Successful school leadership can contribute a significant role in reform and improving student learning outcomes (Leithwood et al., 2006b), yet the exact measure of this influence is often open to conjecture (Hallinger & Heck, 1996).

Studies have consistently demonstrated, however, that educational leadership which focuses on facilitating teaching and learning through factors such as capacity building, dispersal of leadership and mediating external factors, has an indirect yet significant impact on student learning (Hallinger & Heck, 1996; Leithwood, 2003; Leithwood & Jantzi, 2006). Moreover, the impact of school leadership on student learning outcomes is considered most effective when focused on promoting high quality teaching and learning within the school (Robinson et al., 2008).

Focusing leadership on improving whole school quality teaching, as the within-school factor which has the greatest impact on student learning outcomes, would therefore seem prudent (Hattie, 2009). Indeed, understanding how successful school leadership identifies, raises and maintains quality teaching across the Australian school is timely and of utmost importance.

Increasingly, understandings of successful school leadership have moved from labels, models or forms which delineate what effective leadership does within schools, to an exploration of the leadership practices that have the most impact on whole school teacher quality (Honig & Louis, 2007; Louis, Leithwood et al., 2010; Mulford, 2008; Robinson, 2006). Early examination has revealed dimensions or categories of leadership practice most effective in affecting instruction (Leithwood et al., 2006b; Louis, Leithwood et al., 2010; Marzano et al., 2005; Robinson et al., 2008), yet a small number of studies have directly

examined how leadership influences the improvement of teacher quality in an Australian school setting (e.g. Lingard et al., 2001; Silins & Mulford, 2002).

The few Australian studies which have focused on successful school leadership for improved quality teaching have concentrated on the following aspects: the nature of successful school leadership (Gurr, Drysdale & Mulford, 2006; Mulford & Edmunds, 2009); conditions for improving pedagogy (Lingard et al., 2001; Silins & Mulford, 2002); and, organisational learning (Silins & Mulford, 2002). Together these studies have identified:

- the nature of Australian successful school leadership in a Victorian and Tasmanian context (Gurr et al., 2006; Mulford & Edmunds, 2009);
- leadership practices that support organisational learning including establishing a trusting and collaborative environment, shared and monitored mission, and taking initiatives and risks which are supported by challenging professional development (Silins, Mulford & Zarins, 2002); and,
- how leaders can assist the development and utilization of productive pedagogies through concentrated capacity building, using dispersal of leadership, supportive social relationships, hands on knowledge, a focus on pedagogy, a culture of care and a focus on supportive structures and strategies (Hayes, Christie, Mills & Lingard, 2004).

In each case the findings relating to leadership's influence on quality teaching were incidental to the main focus of the study. Consequently, whilst these studies provided early indications that collaborative learning cultures which promote professional learning and risk taking, will support and influence quality teaching

to reduce variation in Australian school settings, they did not offer conclusive or in-depth explanation for *how* leadership enacted this influence.

In addition, Australian studies which focused on secondary school environments (Silins & Mulford, 2002), did not explicitly examine schools that had evidence of sustained improvement in student learning outcomes over a number of years. The studies did not explore how leadership enacted changes to the culture, environment and professional learning for teachers within secondary schools over time during a period of say, five years of school improvement.

Furthermore, Australian studies (Silins & Mulford, 2002), along with much of the international literature, have focused on school level factors which foster opportunities for individual teacher's professional development and capacity, without explicit qualitative exploration of the possible variety of teacher capacities (for example, individual, social, decisional or others) which may support the improvement of high quality teaching.

This is where teacher capacities may be understood as various domains with a number of possible elements. These could be described as, but not limited to:

- Individual teaching capacity (classroom instruction, assessment, curriculum, beliefs, values),
- Social teaching capacity (collaboration, shared teaching practice, collective professional learning, collective teacher efficacy), or,
- Decisional teaching capacity (capacity for judicious professional judgements) (Hargreaves & Fullan, 2012).

The emphasis on individual and social teacher capacities has been common amongst international (Leana & Pil, 2006; Newmann & Wehlage, 1996; Stoll et al., 2006) and national (Lingard et al., 2001) research when examining the challenge of improving teaching and learning. These two capacities (or domains) can also be identified in case studies examining the characteristics of quality teachers across Australian schools settings (Dinham, 2002).

Another Australian example is the LOLSO study. This study developed a comprehensive causal explanation of key school factors pertaining to leadership and organisational learning for improved teaching and learning using large scale quantitative research (Silins & Mulford, 2002). Yet as Silins, Mulford & Zarins (2002) explain, "Analysis of the data was restricted at the outset to the school level because information that would allow complete nesting of the student data within teachers, and teachers within schools, was not available" p. 630.

The LOLSO research addressed school factors and identified several constructs including Teachers' Work. Teachers' work addressed teacher capacity using student perceptions via survey, within the schools. The Teachers' Work construct entailed the way teachers teach, the use of a variety of activities, the frequency of discussion with students, being well organised and maintaining high expectations and constant challenge (Mulford, Silins & Leithwood, 2004). This can be assembled as an individual teacher capacity domain.

Similarly, the constructs of Organisational Learning and Teacher Leadership reflected a social teacher capacity domain. That is, the capacity for teachers to work together collaboratively for improved teaching and learning.

The LOLSO study did not explicitly explore other teacher capacity domains through qualitative research. Whilst many elements within the various constructs of the LOLSO study echo those contained within individual, social and perhaps decisional teacher capacity domains, a direct exploration of these emerging conceptions did not occur. As such, the study was not nuanced towards understanding how Australian leaders influenced teacher quality by purposefully nesting exploration in various teacher capacity domains. Likewise, other Australian studies have not been nuanced towards this exploration.

This subtle difference is of key interest in the current study, which seeks to explore whether various teacher capacity domains beyond individual and social exist within Australian schools, and if so, how does Australian leadership influence these?

The perception that all teachers within a school may contain various teacher capacities (or capitals) has emerged in response to attempts to reduce variation of teaching and learning within schools. Recent views of quality teaching have moved from isolated study of effective teaching within classrooms, to more whole school conceptions of teacher professionalism, comprising several teaching qualities or capacities (here referred to as teaching capitals), including *individual*, *social* and *decisional* (Hargreaves & Fullan, 2012).

Underlying this notion of teacher professionalism are international studies which indicate that high levels of social teacher capital (capacity) when combined with individual teacher capital (capacity) lift the quality of teaching or teacher professionalism across the whole school (Caldwell & Harris, 2008; Leana & Pil, 2006; Leana, 2010). The postulation follows that successful school leadership

most effectively influences the quality of teaching across the whole school through investing in various teaching capitals (or capacities) (Hargreaves & Fullan, 2012).

Reviews of initial studies reflecting these new conceptions of teacher professionalism have identified what leadership does to improve quality teaching across the school, including creating collaborative cultures and communities of professional learners working to build a strong, capable teaching profession. This is so also with the provision of exceptional professional learning (Hargreaves & Fullan, 2012).

Whilst these findings resonate with the conditions and leadership practice described in earlier Australian studies (Hayes et al., 2004; Silins & Mulford, 2002), no Australian study was found which directly examined leadership as it influenced these emerging conceptions of quality teaching. This is where the notion of quality teaching is viewed as teacher professionalism comprising various teaching capacity domains including individual, social, decisional and possibly others. In particular, no Australian study had explored this in an in-depth manner through targeted qualitative study.

Furthermore, to date this current study has been unable to find Australian qualitative or quantitative studies which have examined how this collective conception of quality teaching is understood or perceived by principals, school leaders, teachers, parents and key personnel within Australian schools. Indeed, how leadership influences this model of quality teaching (with various capacities, or capitals) over a retrospective of a period of up to five years remains relatively unknown.

This has resulted in an opportunity for further exploration of the new notions of quality teaching within Australian schools. This is particularly so when considering how leadership influences quality teaching to reduce within-school variation within their Australian school contexts. Providing insight into this was at the heart of the study, and formed the significant contribution to the field. Therefore, it seemed appropriate to build on and expand previous Australian (see Hayes et al., 2004; Lingard et al., 2001; Silins & Mulford, 2002) and international research through a detailed, in-depth exploratory case study of two improving secondary schools in Australia.

Purpose and aim

The purpose of this study was to examine the current challenge and direction within Australia for school leadership to develop and influence quality teaching within their schools. Utilising two improving schools operating at the forefront of educational transformation and improvement from Queensland and Tasmania as case studies, the study undertook three main aims.

First, the work sought to describe how quality teaching was understood within the Australian secondary school setting. Second, the study examined how successful school leadership influenced the culture, environment and opportunities for teacher learning and practice to lift the quality of teaching within the school. Third, the research retrospectively documented the process by which successful school leadership enacted these influences for improving teacher quality through a focus on perceived changes over a period of five years. More specifically, the aims are delineated as follows:

1. Describe how quality teaching was understood within two improving Australian secondary schools;
2. Explore how successful school leadership influenced the quality of teaching within the two improving schools; and,
3. Retrospectively document the process by which successful school leadership enacts these influences for improving teacher quality, through a focus on perceived changes over a period of five years.

Together, the three undertakings answered the main research question, 'How is successful school leadership, as it influences quality teaching, understood and enacted within two improving Australian secondary schools?'

Each aim was explored sequentially through three subsidiary questions, namely:

1. How is quality teaching understood within two improving Australian secondary schools;
2. How does successful school leadership influence quality teaching within two improving Australian secondary schools; and,
3. How are these influences enacted over a period of five years of school improvement?

Beginning with the first aim and subsidiary question and progressing through to the third, the research wove the two threads of Australian leadership practice and quality teaching as the relevant and significant yarns for study and exploration. These aims and subsidiary questions order and structure the research.

In this manner the research began by grounding itself in evidence of effective or quality teaching (Lingard et al., 2001; Luke, 2010; Robinson, 2006). This enabled

the research to first examine the teaching capacities or qualities that will make the most difference to reducing within-school variation across all teachers within the school. Then, using this as the foundation, the source of leadership influence became those indicators (or teaching capacities or qualities) that matter most in improving quality teaching within the school, rather than exploring "… various theories of leader-follower relations" (Robinson, 2006, p. 669). This is depicted pictorially, through concentric circles showing a backwards mapping design, where the focus of each nested circle is explored sequentially through subsidiary questions as shown in Figure 1.1.

Figure 1.1 Conceptual frame of the study, a backwards mapping design

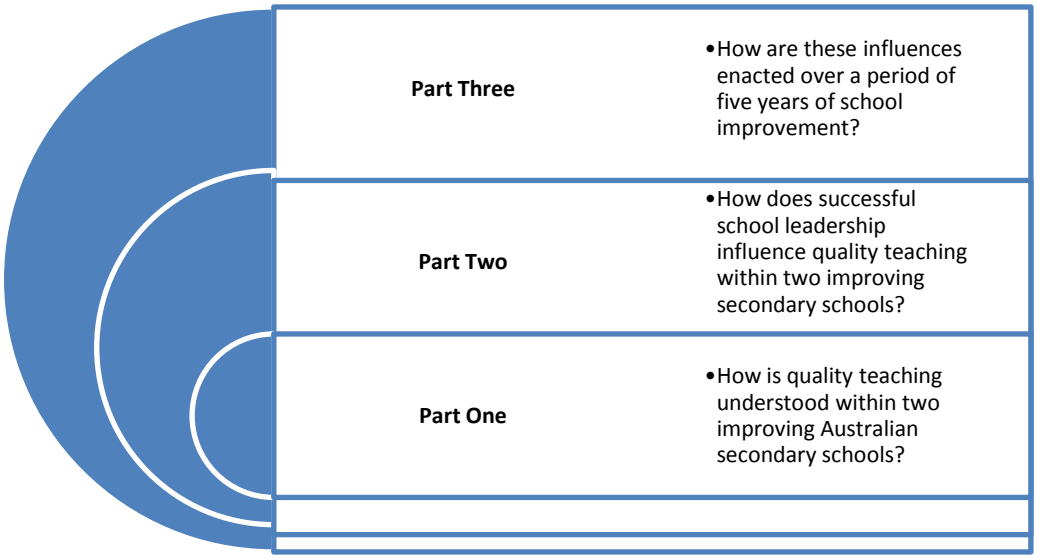

Figure 1.1 Backwards mapping design depicting the conceptual frame of study. Each part and corresponding question denotes the sequence of the study.

Here the inner circle with its focus on quality teaching became the substance upon which the research is built, moving outwards to the understanding of how leadership influences quality teaching over time. The conceptual frame or loom upon which the dissertation wove the two threads was reflected throughout the

exploratory case study in the presentation of the literature review, methodology, findings, and discussion and conclusion.

What motivates and justifies the study

Three main dynamics motivate and justify the importance of the research including:

1. the current polity within Australia as it aspires to raise both the equity and quality of student learning outcomes within the global community through the improvement of quality teaching;
2. the need to expand research which examines how successful school leadership influences quality teaching, at a school level, within an Australian school context; and,
3. the imperative for Australian educators to have access to Australian studies which reflect the complexities of successful school leadership, as it influences and improves quality teaching within their school settings.

Each motivating factor is outlined in the following section.

1.2 The current polity within Australia as it aspires to raise the quality of student learning outcomes within the global community through the improvement of quality teaching

1.2.1 Current environment surrounding quality teaching

Quality teaching as a concept is gaining momentum throughout Australia in response to contemporary accountability environments demanding high quality education for all children (Jensen & Reichl, 2011). National frameworks for Quality Teaching and state based initiatives highlight this. The *NSW Quality*

Teaching Framework and *Queensland Productive Pedagogies* are programs which are based on improving teacher effectiveness in Australian schools.

Various mainstream and social media emphasise the confused manner in which leadership and quality teaching are perceived or considered. Conflicting arguments between journalists, educators and politicians saturate the senses as each presents their understanding and stance on the issue. Parts of the discussion include: outstanding and fondly remembered individual teachers; criticism on the introduction of performance based pay for Australian schools; the adoption of Australian frameworks, standards and charters to raise professional standing amongst educators; increasing entry levels at university; improving remuneration of the profession and other accountability based drivers. All of these are raised with varying levels of debate.

Researchers from the field of educational leadership counter with accumulated evidence indicating that measures such as performance based pay and increased remuneration serve to motivate only a few teachers (Hargreaves & Fullan, 2012), and increase competition amongst staff. At worst, such interventions can lead to teaching to the test, alienation and prejudice, or spending time constructing portfolios for financial rewards (Ingvarson, Kleinhenz & Wilkinson, 2007).

Teachers and educators responded to the debate with reports of increased levels of stress, a sense of devaluing of the profession and pressure to perform (Williamson & MyHill, 2008). Queries are raised as to the equity and validity of quality teaching measurements. Certainly there exists a lack of clarity as to how quality teaching is defined (Hargreaves & Fullan, 2012). Indeed, it is argued, the

persisting effect of such increased accountability is often to diminish teachers' autonomy and challenge their identities (Day & Smethem, 2009).

Similarly, school leaders frequently report raised levels of stress in the context of current expectations of increased student learning outcomes within the confines of Australian contexts (Watson, 2005). Rather than support the improvement of quality teaching, such top-down controls and quick fix solutions may be seen to erode it (Mulford, 2011).

Beyond the heated debate lie federal policy directions aimed at improving quality teaching in an effort to raise Australia's declining ranking in the OECD Programme for International Student Assessment (PISA) and other international benchmarking tests: the aim is to be ranked fifth in 2025. This comes in response to the more recent construction of a global society through technology, communication and transport which has, in turn, globalised education.

1.2.2 Globalisation of education

The introduction in 2000 of the Organization for Economic Cooperation and Development (OECD) annual review, *Education at a Glance*, along with its Programme for International Student Assessment (PISA) (testing 15 year old competence in mathematics, literacy and science) has caused a shift in the manner in which the world considers education. This, along with other rigorous international benchmarked testing over the past 15 years has resulted in a globalisation of education where national trends are comparable and transparent.

These trends have been compared, analysed and interpreted by politicians, the educational community and general public alike. The cascading effects have

resulted in political, societal and community pressure on educational leadership to provide an expected high quality equitable learning for all students to a world class standard. Australia is no exception to the effects of these global trends, with increasing pressure on educators.

In Australia there is a wide array of schools, both effective and ineffective. Close analysis of the OECD 2001 PISA report involving testing of 32 nations, revealed that whilst Australian students performed well, disparities among students were wider than in most nations, favouring girls, urban areas, high socio economic backgrounds and non-indigenous students (Caldwell, 2003b). Today, Australia has shown stagnating results and is ranked at ninth, fifteenth and tenth (respectively in reading, mathematics and science) at 2010 in PISA testing (Fullan, 2011). Australian schooling was ranked as high quality, yet low equity. Furthermore, the gap between the high and low performing students remains among the widest in OECD (Thomson & Bortoli, 2009).

Concerns with equity and quality of student learning outcomes are further driven by national testing and school review. The conflict between present realities and the desirability for improvement and, indeed, profound change and transformation, presents a major challenge at all levels of governance within Australia (Mulford, 2008). Thus, following these influences of a new globalisation of education and Australia's educational positioning in the world, Australia has launched its ambitious reform agenda to raise its international performance and to be ranked as overall number five by 2025.

Numerous international studies examining high performing and improving school systems (Caldwell & Harris, 2008; Hopkins & Higham, 2007; Mourshed et al.,

2010) have informed Australian efforts at school improvement. To understand the keys to improvement, there have been attempts to compare the success of other nations, identify the factors contributing to that success and explore how countries moderate the effects of social background (Schleicher, 2012). A synthesis of findings from high performing and improving systems in relation to leadership and quality teaching is outlined below.

1.2.3 Studies examining high performing and improving school systems

High performing and improving educational systems successfully transform their schooling through an unrelenting focus on improving teacher quality which is supported by a deep commitment to school improvement and high expectations for teacher and student learning (Barber & Mourshed, 2007; Caldwell & Harris, 2008; Hopkins, Harris, Stoll & Mackay, 2011; Jensen, Hunter, Sonneman & Burns, 2012; Luke, 2011; Mourshed et al., 2010). Findings are depicted in Table 1.1 (see page 19).

Evaluation of these studies highlighted two discrepancies for Australian school leadership: they are systems, not school based studies and the research is predominantly in nations other than Australia. There is the exception of a small sample in Barber & Mourshed (2007) and Caldwell & Harris (2008). System-wide studies are concerned with and designed for the system (Mulford, 2011). They give little explanation for how to enact improvement within schools, particularly how to obtain sustainable improvement at an Australian school level.

The systems based studies were often characterised by lists or frameworks of what should be done and how to assess evaluate and improve standards, providing principles for improvement. Importantly, the failure to consider the contexts,

Table 1.1

High performing and improving systems based studies

Common theme	Leaders' practice	Systems	Source
Strong commitment to school improvement with high expectations, core beliefs and values	• Strong core beliefs and values which underpinned practice • High expectations for improvement • Strong vision for school improvement • High moral purpose	8 transforming systems (including Victoria, Australia) 20 educational systems (not Australia); UK	(Barber & Mourshed, 2007; Caldwell & Harris, 2008; Higham & Hopkins, 2007; Higham et al., 2011; Mourshed et al., 2010).
Student learning monitored through data and supported through personalised learning	• Successful system leaders maintained and monitored robust data sets of student achievement and needs to inform future planning and improvement efforts • Underperformance identified quickly with appropriate support given when needed	8 transforming systems (including Victoria, Australia) 20 educational systems (not Australia) UK	(Caldwell & Harris, 2008; Higham & Hopkins, 2007; Mourshed et al., 2010).
System performance and improvement classified according to student achievement at differing stages	• Diagnosis of school performance based on strong data sets and classified according to improvement or performance stage • Selection and action of relevant interventions and measures for improvement in teacher quality according to context and diagnosis	20 systems (Australia included) 20 systems- not Australian British systems	(Day et al., 2010; Hallinger & Heck, 2010; Higham & Hopkins, 2008; Mourshed et al., 2010)
System leaders using a core repertoire of leadership practices, chosen according to improvement phase, enacted according to context	System level interventions typically involved: • curricula and standards; • remuneration and rewards; • assessment; • data systems; • improvement policy documents; and other pedagogical reforms.	20 systems (not Australia) UK	(Day, Hopkins, Harris, Leithwood, Gu, Brown, Ahtaridou & Kington, 2009; Mourshed et al., 2010)
Common patterns of educational change adopting cyclical, iterative patterns of improvement	• Unrelenting focus on improving teacher quality • Compelling vision informing strategic plan for improvement • Building foundations of collaboration and supportive climate • Diagnosis of school performance based on strong data sets • Selection and action of relevant interventions	20 systems UK Singapore	(Higham et al., 2011; Hopkins & Higham, 2007; Hogan & Dimmock, 2011; Mourshed et al., 2010).

environments, support and realities faced by Australian educators is to be questioned. Worse still, piecemeal attempts to replicate reforms (some of which have been less than successful) from other nations or systems, where there are major cultural and historical differences, is perhaps placing Australia in the unenviable position of pursuing the wrong drivers for reform. This may inadvertently result in decreases in student learning rather than increases (Fullan, 2011).

The differences in culture, environment and conditions which facilitate or perpetuate improvement in high performing and improving systems is often misrepresented in the public and political debate. For example, Finland, which boasts only five percent performance variation among its schools (Schleicher, 2012), possesses a large social, child welfare and societal support network around education which taken alongside educational measures, improves socio-economic and background factors impacting on student learning (Hargreaves, 2009; Sahlberg, 2009). As a nation Finland's wealth is more evenly distributed, taxes are high to support child welfare and education, gender equity is strong, students have access to the Pupil Welfare Team when in school and the educational system has neither public nor private schools. Indeed all students, regardless of socio-economic background have access to high quality education (Sahlberg, 2009).

Thus, whilst system-wide studies assist in identifying basic building blocks for improving teacher quality, they are perhaps culturally or organisationally relevant to other nations. They do little to explain what happens at a school level in creating the culture, environment and professional learning opportunities appropriate to identifying, lifting and fostering quality teaching across the whole

school. Local school based studies are of utmost import for leadership within Australian schools.

Therefore, in considering the current debate and policy direction to improve teacher quality within Australian schools, it is timely for Australian research to supplement the emerging body of international knowledge with studies from the best within our nation, from our own schools. Indeed, developing our understanding of how successful school leaders influence quality teaching within the Australian school profession itself may be both prudent and advantageous in raising Australia's international performance and standing. As Masters (2012) stated recently in the Australian newspaper, the *Sydney Morning Herald*, "It's about the quality of teaching; it's about the quality of leadership (and) the question is how we build that across the country in all our schools".

1.3 The gap in literature examining how successful school leadership influences quality teaching, at a school level, within an Australian context

The second motivating factor behind the research is the need to build on the understanding within the literatures which have examined how successful school leadership in improving Australian secondary schools is understood and enacted in ways which influence quality teaching.

1.3.1 Two threads or fields which have examined successful school leadership and quality teaching

Two fields of educational research have been devoted to the improvement of student learning through examining leadership and teacher quality, namely; school effectiveness and improvement, and educational psychology. School effectiveness and improvement research has focused on effective schooling,

teacher effectiveness and leadership to ensure and enhance optimal environments for learning; educational psychology has examined the nature of teaching and learning to ensure quality learning environments. The two threads with their domain of study are synthesised in Table 1.2 (see below).

Table 1.2
Two fields examining successful school leadership and quality teaching

Thread One: Successful school leadership	**Thread Two: Quality teaching**
Field: School Effectiveness and Improvement	**Field: School Effectiveness (teacher effectiveness)**
Strands: school effects research • examining effects, differential effects, continuity of effects from various factors on student learning school effectiveness research • concerned with processes of effective schooling such as effective classrooms, leadership, teaching school improvement research • examining processes by which schools can be changed beyond application of school effectiveness knowledge	*Strands:* school effects research • examining effects, differential effects, continuity of effects from teacher factors on student learning school effectiveness research • concerned with processes of effective teaching such as effective classrooms, teaching, teacher effectiveness, models of quality teaching school improvement research • examining processes by which teacher effectiveness can be changed including use quality teaching models
	Field: Educational Psychology
	Explores the nature and practice of effective teaching and learning
	Strands: • Empirical (behaviourist) • Rationalist (cognitive) • pragmatic-sociohistoric (situative) The viewpoints influence the core of teaching and learning, namely; pedagogy, assessment, and curriculum. Correspondingly, the core of teaching and learning (curriculum, assessment and teaching strategies) reflect our perception of learning

Note. Adapted from Greeno, Collins & Resnick, 1996; Lingard et al., 2001; Teddlie & Reynolds, 2001; Townsend, 2001; Woolfolk & Margetts, 2007).

Considerable research has examined the two strands of successful school leadership and quality teaching for the provision of high quality, equitable education. Until recently the two domains have mostly operated in isolation, developing a strong knowledge base of the nature, practice and outcomes of successful school leadership (Day et al., 2010; Leithwood et al., 2006a) and quality teaching (Hattie, 2009; Newmann & Wehlage, 1996) for equitable and high quality educational outcomes.

There is notable Australian contribution to understanding successful school leadership in Australian settings: within secondary schools (Silins & Mulford, 2002), or a combination of both primary and secondary across a variety of states (see Hayes et al., 2004; Mulford & Edmunds, 2009; Mulford & Silins, 2011). Likewise, there is a robust body of Australian research which has examined the constructs of teacher quality within Australian school (and in some cases, university) settings (e.g. Ayres, Sawyer & Dinham, 2004; Dinham, 2002; Lingard et al., 2001; Scott & Bergin, 2002).

Recent reviews of studies regarding teacher effectiveness or quality teaching have moved from isolated study of individual classrooms (or individual capacity domains) to more whole-school conceptualisations reflecting the need for the teaching profession to be functioning at a high standard (Hargreaves & Fullan, 2012). Whilst initial reviews have identified dimensions of whole school quality teaching as comprising various teacher capacities (or domains), further research is necessary to expand upon, clarify and explore the enactment and understanding of these within an Australian school setting, particularly how successful school leadership influences quality teaching.

We have a growing understanding of how leadership shapes the conditions for teaching and learning (Leithwood et al., 2006b) and a fairly robust appreciation of what leadership does to influence the quality of teaching within classrooms (Leithwood & Jantzi, 2006; Louis et al., 2010). Yet several scholars have noted that less is understood about *how* the leadership practice, behaviours and attitudes change the way in which teachers, whether individual or group, teach or indeed how these are influenced by others in the school setting (Day et al., 2009; Hallinger & Heck, 2010). This is particularly so in Australian school settings.

Indeed, much is known of what successful school leadership does to influence quality teaching in Australian schools, including cultivating strong values and vision, promoting a collaborative learning culture, organising for professional learning and promoting opportunities for professional learning and development within the school (Caldwell & Harris, 2008; Mulford & Silins, 2011; Silins & Mulford, 2002). Mulford (2011) suggests that we know successful school leadership creates collaborative school cultures, develops strong structures and organisation, and displays inspirational strategy supported by robust professional development.

In this context, however, a literature search was unable to find any Australian based studies which linked emerging whole school understandings of quality teaching or professionalism (Hargreaves & Fullan, 2012) to leadership's practice in Australian school settings. This is where teaching capacities are understood as broad groups or domains including, but not limited to individual, social, decisional (Hargreaves & Fullan, 2012). Nor was the study able to locate school based studies which explored this retrospectively, over a period such as five years

of school improvement. Hence, it can be argued, an incomplete picture exists for understanding how leadership influences quality teaching in Australian school settings to reduce variation amongst teaching performance.

Furthermore, few studies have explored how principals, school leaders, teachers, key personnel and parents experience, respond to and perceive these influences through qualitative research within the socially embedded contexts of Australian schools. Whilst Australian studies have examined successful school leadership from varying perspectives (Caldwell & Harris, 2008; Gurr et al., 2006; Mulford & Edmunds, 2009) these voices have not been used directly to examine leadership influence on these new notions of quality teaching (as understood with its various teacher capacities or capitals).

Therefore, synthesis of these fields for Australian based study supports the second motivating factor, where there is little or no direct evidence for Australian educators, including:

1. how quality teaching is described or understood in Australian school settings;
2. how successful school leadership influences this; and,
3. how they influence quality teaching within the whole school over time.

Consequently, addressing these ‘missing links’ becomes another motivating factor for the study.

1.4 The need for Australian educators to have access to Australian studies reflecting complexities of successful school leadership as it influences and improves quality teaching within their school settings.

The third and final motivating factor for this study is the need for further Australian school based studies relevant to and reflective of Australian culture, context and environments.

1.4.1 Australian based school studies of leadership and quality teaching

There is burgeoning international literature on successful school leadership and its impacts on student learning outcomes and teacher effectiveness, along with a comprehensive body of Australian work from Mulford and Silins (refer to Mulford & Silins, 2011; Silins & Mulford, 2002; Silins & Mulford, 2004; Silins, Mulford & Zarins, 2002). Yet, despite this, Mulford (2008, 2011) argues that there remains a paucity of Australian based quality research addressing successful school leadership. Much of the present educational research is based on nations other than Australia and as such lacks some generalizability across countries. This is because educational approaches such as principals' roles, privatisation, deregulation and choice, evaluation and testing may vary (Gurr et al., 2003).

Many large scale studies of successful school leadership emanating from Australia have been in conjunction with international work including the *International Successful School Principalship Project* (ISSPP) (Mulford & Edmunds, 2009), the *International Project to Frame the Transformation of Schools* (Caldwell & Harris, 2008), or meta-analysis studies (Robinson et al., 2008). These studies have sought core leadership practices applicable to all nations, looking for commonalities, rather than particularities in the Australian setting.

The body of research specific to Australian contexts which has examined the links between leadership, teaching and student learning outcomes is largely quantitative in nature (e.g. Lingard et al., 2001; Silins & Mulford, 2002).

The *Queensland School Reform Longitudinal Study* (QSRLS) explored the relationship between school based management and enhanced student learning outcomes, both social and academic between 1998 and 2000 in Queensland, Australia. The multi- method study examined 24 schools, 11 of which were primary. Findings indicated no strong link between school-based management approaches and enhanced school outcomes, but did verify that some leaders, teachers and approaches can make a significant difference in the quality of student learning outcomes (Lingard et al., 2001). Specific models of productive pedagogy for improved student learning outcomes were outlined as were productive leadership practices which appeared to promote quality teaching (Lingard et al., 2001).

Four case studies of leadership were included in the QSRLS to consider how educational leaders can support teacher effects, in particular how leaders can assist in the development and utilization of productive pedagogies. These studies suggested the leadership exercised in the case study schools concentrated on capacity building through dispersal of leadership, supportive social relationships, hands on knowledge, a focus on pedagogy, a culture of care and a focus on supportive structures and strategies (Hayes et al., 2004).

These features resonate with both individual (productive pedagogies for teacher effects) and social capacity domains (often typified by professional learning communities and learning organisations) within schools. Yet, as a body of

research, the QSRLS study did not examine the leadership practices which influenced various teacher capacities beyond social and individual. Nor did the study examine how leadership processes, structures and practices lead to organizational learning.

The LOLSO project specifically focused on school characteristics and leadership practices which promote and support organizational learning and the influence these factors had on teachers' and students' learning (Silins & Mulford, 2002). Findings indicated that leadership which supported organizational learning (thus indirectly influencing student learning outcomes) was both position based (principal and transformational) and distributive (administrative team and teachers) (Silins & Mulford, 2002).

Analysis of the quantitative survey evidence drawn from 96 secondary schools in South Australia and Tasmania identified four dimensions that characterize high schools as learning organizations, namely: trusting and collaborative climate, taking initiatives and risks, shared and monitored mission and relevant, challenging and ongoing professional development (Silins & Mulford, 2002). Again, these characteristics resonate with building social capacity (or organisational learning) to improve individual capacity (teacher instruction).

The research did not examine how Australian leadership influenced the more recent conceptions of teacher professionalism (Hargreaves & Fullan, 2012) within the school.

Moreover, these studies cover little more than two Australian states. The relevance of these models for other Australian settings such as high poverty

schools and rural settings have been questioned by researchers (Mulford, 2005), as has its practical application for school leaders (Leithwood, Patten et al., 2010). Louis et al., (2010) argue that,

> "…quantitative evidence cannot, by itself, provide the guidance for policy and practice that many educators and policy makers now expect of it. For example, the 'grain size' of this evidence is almost always impractically large- that is, the leadership practices this sort of evidence test are measured at a level of abstraction not directly implementable by real leaders in real organisational contexts" p. 67.

As this largely quantitative evidence was taken from Australian secondary (Silins & Mulford, 2002) and a combination of primary and secondary schools (Lingard et al., 2001), it now seems appropriate to build on this research. Using qualitative inquiry the current study will explore Australian leadership's influence on these emerging conceptions of quality teaching within secondary school settings.

In particular, using the narrative of those involved within the secondary school setting, a qualitative study would explore how quality teaching is constructed and whether it is identified via various teacher capacity domains. If so, how are these domains understood? Next, how does leadership influence this? Finally, how does leadership enact this influence over time, say, for a period of five years?

Whilst the research into how leadership improves these emerging notions of teaching within and throughout the school (with individual, social, decisional and perhaps other capacity domains) remains largely based in high performing and improving nations and systems other than Australia, its relevance and

applicability to Australian schools remains unknown. Rather than relying on evidence regarding these emerging conceptions of quality teaching from nations other than Australia, it is imperative to consider learning from the best within our own nation, in our own contexts.

Consequently, further detailed, best-practice Australian based case studies examining how leadership influences quality teaching across schools would be of great relevance to educators in the Australian context.

In addition, Hallinger & Heck (2010) comment that studies which have explored successful school leadership and quality teaching have predominantly followed a top down or leader to teacher paradigm examining leadership effects and impacts with little reference to reciprocal or mutual influences. This is particularly so in Australian studies (see for example Douglas & Harris, 2008). Those Australian projects that have examined reciprocal effects have been large scale quantitative studies (Silins & Mulford, 2002).

Through a focus on the reciprocal and mutual influences between leaders and teachers within two improving schools across two states within Australia the current qualitative study will begin to address missing links, discrepancies or similarities in the evidence base of Australian secondary schools.

Not offered as a set of generalisations as such but a particularisation, the study begins to fill gaps in understanding, offering insights which may assist in the development of learning programmes for current leaders within Australian schools. Furthermore, through examining those leadership practices which will

genuinely influence and improve teaching and learning, students themselves may benefit.

Thus, the motivating factors, rationale and significance of the study are clear. First, accountability environments have placed increasing expectations on successful school leadership to ensure quality teaching occurs within their school. Second, a gap exists within Australian educational research examining how successful school leadership influences this. Third, Australian educators require access to high quality Australian studies relevant to their needs and contexts. This dissertation offered new insights by examining how successful school leadership in two improving Australian secondary schools was understood and enacted in ways which influence quality teaching.

Biases underlying the study

Any qualitative study is ideologically driven and not value or bias free in design or interpretation (Janesick, 2001). Accordingly, biases, assumptions and the unexamined ideology need to be articulated early in the study (Stromquist, 2000). Three personal biases for the study are declared. The first is the belief that current Australian educational policy must be informed and evaluated by quality Australian based educational research and evidence.

Second, the researcher believes successful school leadership can have a positive influence on quality teaching within its school, particularly when raising the collective quality of teaching across the whole school. Yet, it is acknowledged that contrary opinions are held where some believe great leaders are welcome in schooling, but not necessary.

Third, whilst the quality of teaching is the major within-school variable, the researcher acknowledges other variables such as social, contextual and familial factors have a stronger impact on student learning outcomes (Hattie, 2009). Consequently, some scholars suggest the challenge of understanding how leadership influences familial, social and contextual variables for improving student learning is of equal import (Leithwood, Patten, et al., 2010; Silins & Mulford, 2002). These variables and focus, however, were not the purview of the study which chose rather to attend to leadership's influence on quality teaching.

These personal biases were kept in mind and challenged throughout the study in order to maintain the integrity of the research. Consultation with three critical colleagues ensured alternative explanations and suggestions, thus reducing the likelihood of bias impacting on the validity of the study (Yin, 2003).

The research design

Given the purpose, aims, and motivating factors behind the study, a qualitative exploratory case study (Merriam, 2009; Yin, 2003), utilising a backwards mapping conceptual frame (shown in Figure 1.1) was designed (Lingard et al., 2001; Newmann & Wehlage, 1996). The research utilised a nested or backwards mapping design for three reasons: it was the most effective strategy for answering the research question; it reflected and extended other studies which had examined how leadership influenced teacher effectiveness; and, it was a particularly useful strategy when analysing Australian policy influences.

Several studies including the *Centre on Organisation and Restructuring of Schools* (CORS, 1996) and *Australian based Queensland School Reform Longitudinal Study* (QSRLS, 2001) have utilised nested or backwards mapping

designs when examining educational leaderships' influence on student learning outcomes through the indirect influence on teacher effectiveness (Lingard et al., 2001; Newmann & Wehlage,1996; Robinson, 2006). Here both qualitative and quantitative research introduced the notion of grounding of theories of educational leadership within our best evidence of effective teaching (Prestine & Nelson, 2005; Robinson, 2006). These studies, however, have focused on individual classroom practice, not quality teaching across the whole school.

Backwards mapping (as opposed to forwards mapping), is a particularly useful strategy when analysing the effects of policy implementation (Elmore, 1979). In this case it is an appropriate strategy for exploring Australian national efforts at school improvement. Elmore (1979) described forward mapping as a strategy used by policy makers. It is a top down process, begins with the intent, and proceeds through a series or sequential steps to define and instigate what is expected of those implementing the change.

In contrast, the backwards mapping approach enables analysis to begin with those implementing the change, and more specifically the behaviour desired (that is, improved teacher quality for subsequent student learning outcomes). The emphasis is not on the policy maker, leader or other influencers; rather it is on the one with the most power to implement the desired effect, that is, those enacting the change (Elmore, 1979).

Thus, the research design progressed in the following manner:

1. Data collection and analysis began with the desired change and described effects or outcomes that result from those behaviours (how quality teaching is understood within Australian secondary schools);
2. Having established this target, analysis moved to the structure, organisation, resources and process most likely to affect or influence the desired behaviour (how leadership influences this within two Australian secondary improving schools); and finally,
3. Analysis focused on how these influences were most likely to sustainably improve over time (retrospectively examines how leaders influence quality teaching over five years of school improvement) (Elmore, 1979).

Figure 1.2 represents the research design for the study, demonstrating the nested or backwards manner in which the research moves; from the inner concentric circle, to the outer.

Figure 1.2 The research design explained using a backwards mapping design

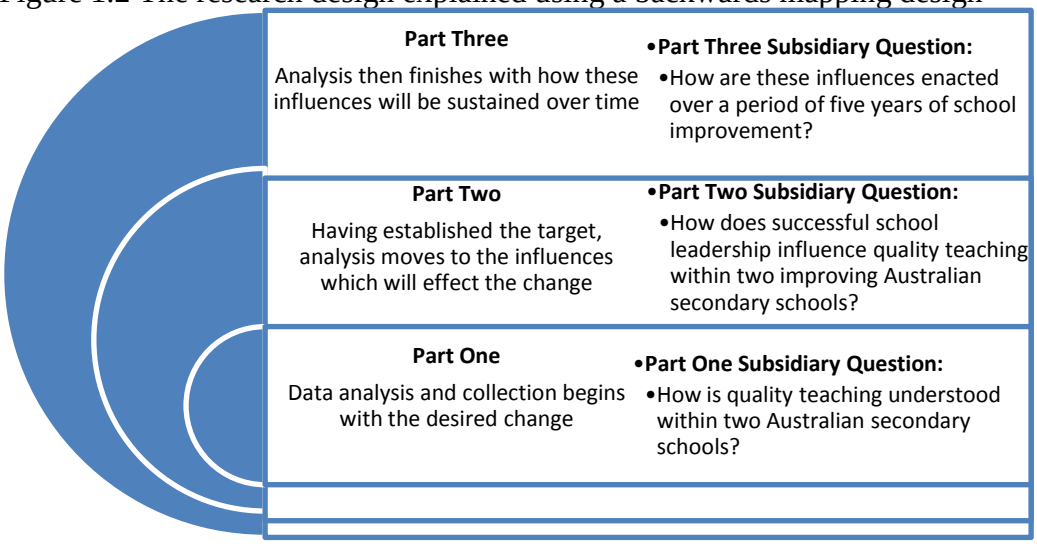

Figure 1.2 Denotes the backwards mapping research approach utilised by the study. The left hand column represents the sequence of the data collection and analysis; the right hand column gives the corresponding research question for each part.

The exploratory case study explored these three concentric circles or wheels, with their aims and subsidiary questions, through the analysis of principals, school leaders, teachers, key personnel and parent perceptions and experience in two improving Australian secondary schools, one in Queensland and one in Tasmania. An extensive database emerged from multiple sources of data. Over thirty, hour long interviews with principals, school leaders, teachers, key personnel, and parents; focus group observations; field notes; documents including research papers; conference papers and transcripts; external reviews and surveys were gathered and coded according to themes until the analysis of data reached saturation point (Yin, 2003).

Preliminary findings and interpretations from the study were formed through inductive analysis, with the desire to enable policy makers, Australian researchers and educators to direct resources, influence and support to that which will have the strongest impact on improving quality teaching. This in turn may reduce variation amongst school staff and subsequently enhance student learning outcomes in Australian schools (Elmore, 1979).

Outline of the dissertation

The dissertation was divided into five parts, each informed by the backwards mapping conceptual frame of the study.

- Chapter One provides the background and context of the study;
- Chapter Two presents the literature review entwining current understandings of successful school leadership with quality teaching to reveal the incomplete nature of contemporary literature for Australian school settings;

- Chapter Three outlines the method for weaving the work, using a backwards mapping conceptual framework in preparation for data collection and analysis;
- Chapter Four presents the pertinent findings; and,
- Chapter Five concludes the work by linking findings with extant literature and reflecting on implications for research, policy and educators.

Drawing the threads together in preparation for the weaving of the dissertation: a conclusion to the introduction

This chapter presented three motivating factors contributing to the study of how successful school leadership influences quality teaching across Australian schools. It outlined the key threads in the study as successful school leadership and quality teaching; gave a background to the two fields examining those threads, namely school effectiveness and improvement and educational psychology; and, identified emerging and relevant issues and trends within the Australian educational landscape. Taken together with the introductory outline of the research approach, a platform for the case study was prepared.

The research now turns to a review of the literature, identifying the nature of educational leadership research in understanding how successful school leadership influences quality teaching within two improving Australian secondary schools.

Chapter Two: Literature Review

Introduction

Chapter Two turns to contemporary theories of leadership and quality teaching as they relate to how quality teaching is influenced within improving Australian secondary schools. The two threads of successful school leadership and quality teaching are interwoven across the review of literature relevant to the study.

This interweaving is examined in three parts:

Part one provides a definition of terms from the literature.

Part two examines the empirical research which has explored how leadership influences quality teaching within improving schools. This is addressed sequentially through three questions, following the backwards mapping design:

1. How quality teaching is understood within improving Australian secondary schools;
2. How successful school leadership influences quality teaching within improving Australian secondary schools; and,
3. How these influences are enacted sustainably over a period, as for example, five years of school improvement?

Part three concludes that the current educational leadership literature alone gives an incomplete explanation for how, in improving Australian secondary schools, successful school leadership is understood and enacted in ways which influence quality teaching. This incompleteness indicated that further study was necessary to expand on current understandings for Australian educators.

The review first searched documents from the internet, educational databases such as ProQuest and ERIC and relevant articles from reference lists and reports. In addition, pertinent books, newspaper articles and Australian websites were considered in so far as they examined the two threads of successful school leadership and quality teaching. From these, various theoretical and empirical studies were analysed to illuminate current understandings as they relate to each subsidiary research question.

Part One: Definition of terms

A definition of terms from the extant literature is given to clarify meaning and inform the exploratory case study. These are terms reflecting current and significant research about successful school leadership, quality teaching and improving schools.

2.1 Successful school leadership

Successful school leadership is the process or function by which school leaders influence others to accomplish common goals for improved student learning outcomes (Day et al., 2010; Leithwood et al., 2006b). They include academic, social and emotional outcomes (Mulford, 2008).

Successful school leaders are the ones who lead the process; it is both positional (principals) and distributed (shared amongst school leaders) (Dinham, 2005; Mulford & Silins, 2011). Caution needs to be applied, however, to generic application. For example, in disadvantaged schools, effective leadership was found to be less distributed and more directive (Harris & Chapman, 2002a). As student learning improves, successful school leadership has been shown in some studies to *become more* distributed (Day et al., 2009).

Successful school leadership has been expressed in many different ways, often according to the authors' persuasions (Witziers et al., 2003). The field has been dominated by various lists of leader characteristics, or models for understanding which reflect singular aspects of the role (e.g. instructional, transformational and distributed). Along with these, more complex conceptualisations of leadership are found. All this makes an agreed definition elusive and comparison of empirical study difficult (Hallinger & Heck, 1996; Witziers et al., 2003).

Increasingly, successful school leadership is defined and measured by the effects leaders have on student learning outcomes (Firestone & Riehl, 2005; Mulford et al., 2007). This reflects the Australian political and societal expectation for high academic achievement results. This trend follows the globalisation of education. The focus on academic achievement levels is often contested, however, as narrowing the wider view of a public and moral purpose of education (Luke, 2003, 2010; McWilliam, 2009).

Furthermore, Hallinger & Heck (2010) emphasise that holding leaders accountable for student learning outcomes is based on inadequate empirical data where direct links are difficult to ascertain. The presence of successful school leadership, however, is generally acknowledged as pivotal to improving student learning outcomes within schools. This occurs largely through its indirect influence (Louis, Leithwood et al., 2010).

At the centre of most conceptualisations of successful school leadership are two functions, namely providing direction and exercising influence (Leithwood & Riehl, 2003). An influence for good, with a strong moral purpose, is also advocated (Caldwell & Harris, 2008).

The term ‘successful school leadership’ gained most currency in *The International Successful School Principalship Project* (ISSPP) (2004-2009). In an effort to understand internationally the characteristics, processes and effects of successful school leadership on student learning outcomes, successful school leaders were selected against three criteria: namely, a positive external school review; increasing student learning outcomes and achievement scores (as measured by league tables of tests and examination results); and peer recognition (Gurr et al., 2003). This present study mirrored these selection criteria in its effort to extend current understandings of the nature and process of successful school leadership in relation to its influence on teacher quality in Australian secondary schools.

2.2 Quality teaching

In a similar manner to successful school leadership’s having student learning outcomes at its heart, quality teaching increasingly is defined by measuring its positive influence on student learning outcomes (Cooper & Alvarado, 2006). Value added studies, measuring student achievement levels matched with individual teachers over a number of years, have suggested that differences in teacher effectiveness for improving student learning does exist (Nye, Konstantopoulos & Hedges, 2004; Sanders & Rivers, 1996). The evidence for this, however, is not unanimous (Baker et al., 2010).

Effective or quality teaching and indeed ineffective teaching too, is proposed to be residual, additive and cumulative (Sanders & Rivers, 1996). Measuring such causal claims with value-added studies has been shown to be inconclusive, where causal arguments and validity may be questioned (Coe, 2013).The definition of

teacher effectiveness, however, remains consistent, being judged according to achievement levels of students over a number of years.

How those achievement levels are measured and understood, and by inference how quality teaching is identified, is more obscure. This is because quality teaching as a concept lacks clarity, in that quality itself is stakeholder relative (Henard & Leprince-Ringuet, 2008). For example, students, teachers, parents, leaders and the wider community all may have differing perceptions of quality teaching (Rowe, 2003). In addition, definitions can vary from excellence in teaching, value for public purse (Kristof, 2012), attaining a particular purpose or simply its transformative power (Henard & Leprince-Ringuet, 2008).

Despite this, quality teaching is understood as student centred and its purpose is for high quality student learning outcomes (both social and academic) (Henard & Leprince-Ringuet, 2008). Using these studies and measures, teacher effectiveness is not marked by a set of criteria or teaching standards, but measured or judged according to achievement levels in students over a number of years (Smith & Gillespie, 2007).

2.3 Improving schools

This current research utilises the definition of improving schools given by Day et al., (2009) in their study of successful school leadership: that is, those schools in which there is demonstrated and sustained student achievement gains over a number of years. Longevity of improved student learning gains suggests there is an embedding of improvement practice within the school.

Following this definition of terms, part two analyses the extant literature addressing the main research question: how successful school leadership in two improving Australian secondary schools is understood and enacted in ways which influence quality teaching. This is achieved through three parts, each focusing on the aims and subsidiary research questions of the study.

Part Two: An analysis of subsidiary research questions

2.4 Subsidiary research question one: how quality teaching is understood in two improving Australian secondary schools

2.4.1 Teacher impact on student learning outcomes

There is now widespread evidence indicating that the quality of teachers (classroom and teacher effects) has a significant impact on the equity and quality of student learning (see Hattie, 2003; Lingard et al., 2001). The quality of teaching is confirmed to be the major in-school influence on student achievement (Hattie, 2003; Hattie, 2009). Consistently teacher characteristics account for a higher proportion of variation in student achievement than all other aspects of a school combined (Luyten, 2003; Marzano, 2003).

It is estimated that "…two to three times as much single year difference in students' academic achievement gains can be found at the teacher level" (Ross, Stringfield, Sanders & Wright, 2003, p. 74-75). Several studies have demonstrated that the presence of quality or effective teaching will have a major positive influence in student learning outcomes. This is more than ability grouping (Hattie, 2009; Slavin, 1990); class sizes (Hattie, 2009); or funding (Barber & Mourshed, 2007).

Classroom practices matter a great deal among school related effects, where teacher qualifications, pedagogy and quality of curriculum are linked to higher student learning outcomes (Barber & Mourshed, 2007; Lingard et al., 2001; Luke, 2010). Such findings support the suggestion that more can be done to improve student learning by improving teacher effectiveness (Wright, Horn & Sanders, 1997).

Two categories of studies have attempted to measure teacher effects: one, the effect of teacher factors on student learning outcomes compared to school, leadership, and student factors and, two, the effect of each teacher within the school. This applies where individual teacher effectiveness on subsequent student achievement levels can be categorised on a spectrum from ineffective to effective teaching. A synthesis of these studies highlights that whilst teacher effectiveness is consistently recognised as the major within-school influence in student learning, exact estimates of teacher effect are difficult to ascertain.

For instance, in measuring teacher variation between classrooms, studies often use prior achievement as a covariate in order to measure the variance in student achievement gain across classrooms (Nye et al., 2004). Prior achievement is used as it is believed to summarise effects of student background. Studies then measure variation in teacher effectiveness from year to year.

Analyses of these value-added estimates, however, have led scholars to question their accuracy (Baker et al., 2010). Instability of estimates can result from: students being assigned to varied teachers in a year; small samples of students; other influences on student learning; tests not matching curriculum covered or measuring the full extent of learning in the class (Baker et al., 2010). Here value-

added studies neglect relevant evidence and valid causal arguments to support their causal claims (Coe, 2013). Indeed, suggestions of teacher effect as additive, cumulative and residual (Sanders & Rivers, 1996), are difficult to validate as the interpretation of causal effect is problematic (Coe, 2013). Table 2.1 (see page 45), highlights the differences in estimates of teacher effect from key studies.

Despite the ambiguities in measuring impact, the teacher effect studies provide evidence for both the import and significance of teacher quality within schools. It follows that for all students to receive equitable and high quality learning, there is an imperative for *all teachers* to provide high quality teaching for *all students* within the school. Rather than continue to explore and ascertain exact measures of teacher effect, a more salient question would be to address how effective teaching is practised to ensure all students within a school have equal access to high quality teaching and learning (Hargreaves & Fullan, 2012).

More specifically, given that quality and equitable student learning outcomes is at the heart of effective teaching, it is a reasonable progression to argue for a deeper examination of the variation of teacher quality within schools and how to reduce this variation. Indeed, improving teacher quality contributes to individual student learning (Ladwig & Gore, 2005); improving collective teacher quality promotes improved student learning outcomes across the whole school.

A comprehensive longitudinal American study on teacher effectiveness within 24 schools found significant variation in teachers' use of authentic pedagogy within schools (Newmann & Wehlage, 1996). Similarly the Australian based QSRLS study demonstrated that an inconsistency between teachers' beliefs and use of

Table 2.1

Synthesis of teacher effect on student learning outcomes studies

Teacher Effect Category	Methodology	Study	Region	Teacher Effect
Teacher effect amongst and between teachers in a school	**Quantitative**	**Rivers & Sanders, 1996; Sanders & Horn, 1998**	**America**	Longitudinally merged database of over 5 million student achievement records, Rivers and Sanders (1996) developed a value added assessment system which linked student achievement data to teachers, schools and school systems. Initially limited to mathematics data, student achievement was linked to teachers, analysed in three-year average gains and accumulated over time. Teacher effectiveness was then categorised from ineffective to effective. Consistently teacher effectiveness was the major determinant of student academic progress, over race, socio-economic level, class size and classroom heterogeneity (Sanders & Horn, 1998).
		Chetty et al., 2011	**America**	Effective teaching has continuing impacts for students into adulthood, with higher educational, earning and standard of living outcomes reported as associated with students linked to high quality teachers using value added measures
Teacher effect compared to other factors within the school such as school leadership, and student factors		**Hill, 1998**	**Victoria, Australia**	The percentage of variance attributable to school effects on student learning was marginal (around 5-10%) but the percentage attributable to the classroom was quite substantial (around 40-55%) (Hill as cited in Townsend, 2001).
	Meta-analysis	**Hattie, 2003**	**International studies**	In a review of Hierarchical Linear Modelling studies, Hattie (2003) approximates 30% variance to the teacher level.
		Marzano ,2003	**International studies**	Estimates of the 20% of effect the school has on student learning. 67% of this is located at the teacher level, or, "…about 13% of the variance in student achievement in a given subject area is due to what the teacher does and about 7% is due to what the school does" (Marzano, 2003; p. 74)
	Review of studies	**Cuttance & Stokes, 2001**	**International studies**	Schools contribute 8-19% of the variation in student learning outcomes, with classrooms within schools contributing up to a further 55%. Thus, up to 60% of the difference in student learning outcomes lies between schools or between classrooms, leaving 40-50% of variation due to personal characteristics of students and random effects.

Note. Adapted from Cuttance and Stokes, 2001; Chetty et al., 2011; Hattie, 2003; Hill as cited in Townsend, 2001; Marzano, 2003; Nye et al., 2004; Rivers & Sanders, 1996; Sanders & Horn, 1998.

appropriate pedagogy exists (Lingard et al., 2001). It appeared that whilst Australian educators in the 24 schools were able to identify and describe productive and effective pedagogy, the evidence of teachers utilising it within the classroom was limited (Lingard et al., 2001).

Studies in the United Kingdom increasingly demonstrate that the majority of difference between schools lies in the classroom, and considerable variation within schools can be attributed across classrooms (Reynolds, 2007). Notably, within-school variation in the UK has been shown to "…dwarf the difference between schools in the UK by a factor of three or four times" (Hopkins, 2005, p. 4). Given the wide variation in effectiveness amongst teachers, efforts to improve teacher quality within schools would, by association, improve the quality and equity of schooling.

2.4.2 Models of quality teaching

Models of quality teaching linked to improved student learning outcomes emerged from several international and national studies which attempted to lift teacher quality across schools. Utilisation of these models from the USA (Newmann & Wehlage, 1996) and Australia (Lingard et al., 2001), provided evidence that when students from various social backgrounds were taught using effective pedagogies, overall achievement increased and some equity gaps lessened (Gore, 2001; Newmann & Wehlage, 1996). The models for quality or effective teaching are synthesised in Table 2.2 (see page 47, 48).

Table 2.2

Analysis and synthesis of models of quality teaching for improved student learning outcomes

Region of study	Key Research	Key findings	Teacher effective-ness within classrooms	Teaching capacities within schools
International	CORS (Newmann & Wehlage, 1996)	Authentic Pedagogy (18 dimensions), developed against background of American school reform, as criteria for identifying observable effective teaching standards and high quality student achievement	**X**	
	Wiske, 2005	Inquiry based instruction aimed at fostering deep understanding and learning	**X**	
	Reynolds, 2007	Four interrelated themes in reducing within-school variation: utilising data; strategies based on teacher learning (observation of practice); curriculum reform; development of middle leaders to share responsibility for improving teacher quality	**X**	
	Hattie, 2003, 2009	Meta-analysis of 800 meta-analyses of teaching practices to ascertain teaching practices and their impact on student learning outcomes: rated teaching practices 0.4 effect onwards were most effective strategies Devised Model: Visual Learning for Teachers based on study	**X**	
	Teacher professionalism (Hargreaves & Fullan, 2012)	A review of research Teacher professionalism comprised three teacher capitals: namely, individual, social and decisional capitals.		**X**
	Leana & Pil, 2006	Examined social capacity and individual capacity to ascertain how quality of teaching improved. Social capacity (trust, collegiality and sharing practice) was more important than individual capacity in lifting quality of teaching		**X**

Table 2.2

Analysis and synthesis of models of quality teaching for improved student learning outcomes

Region of study	Key Research	Key findings	Teacher effective-ness within classrooms	Teaching capacities within schools
International with Australian inclusion	International Project to Frame the Transformation of Schools (Caldwell & Harris, 2008).	30 improving secondary school systems in 6 countries (Australia included). By aligning 3 wheels: enriching capital, fostering supportive culture and maintaining moral purpose, school systems achieved transformation. 3 wheels aligned through investment in 4 school capitals	**X**	
Australian studies	(QSRLS) Lingard et al., 2001	Developed the construct, Productive Pedagogies (20 dimensions) to relate to Australian schools and to include both academic and social outcomes. Construct was unique in that, unlike other models for quality teaching, it developed a construct of high quality teaching aimed at increasing student learning outcomes within the context of systemic reform.	**X**	
	Ladwig & Gore, 2005	Using construct Productive Pedagogies (QSRLS, 2001), the authors developed Quality Teaching Model for NSW contexts, to varying levels of success.	**X**	
	Masters, 2009	Review	**X**	

Note. Key: X indicates the study did examine teacher effectiveness within schools, or teaching capacities within schools. Adapted from Caldwell & Harris, 2008; Hargreaves & Fullan, 2012; King & Newmann, 2001; Ladwig & Gore, 2005; Leana & Pil, 2006; Lingard et al., 2001; Newmann & Wehlage, 1996; Reynolds, 2007; Wiske, 2005.

Several models and conceptions of quality teaching exist within international and national literature, as evidenced in Table 2.2.

In applying these (Newmann & Wehlage, 1996) to Australian settings, the QSRLS developed the construct of Productive Pedagogies (and Productive Assessment). This construct was unique in that, unlike other models for quality teaching, it developed a construct of high quality teaching aimed at increasing student learning outcomes (both cognitive and social) within the context of emerging systemic school reform.

The model (of 20 pedagogies) was intended to provide both an analytical frame to examine teacher practice in Queensland classrooms and a pragmatic model for professional development of quality teaching in Queensland schools. Twenty four schools participated in the study including 11 primary schools, 1 P-10 school and 12 secondary schools. A variety of school sizes, locations and contexts were sampled and lessons were observed in Mathematics, English, Social Science and other key learning areas (Lingard et al., 2001).

Following the QSRLS research, various iterations of the model were developed and trialled in both Queensland and later New South Wales including the Quality Teaching Model for New South Wales (Ladwig & Gore, 2003). The challenge was to enable high quality teaching across all Australian classrooms and year levels.

Another Australian study of 25 (8 male, 17 female) effective Year 12 teachers analysed interviews and classroom observations across a variety of curriculum areas (Ayres, Sawyer & Dinham, 2004). Researchers found four major factors were attributed to teachers' success. These were relationships with students, classroom practices, students, and, faculty cooperation (Ayres et al., 2004). These

findings resonated with other Australian case studies of exceptional teachers who had been recognised through *Quality Teaching Awards* (Dinham, 2002).

Whilst these studies offer models for quality teaching within schools, they do little to explore how teaching and learning would be improved to utilise effective pedagogies, assessment and curriculum. Indeed, scholars involved in Australian studies suggested that, "…whilst these (Australian based) dimensions are readily defended on ideal grounds, there is no research basis for believing that (Australian) school systems have been overly successful in consistently providing high levels of them to large proportions of student populations" (Lingard, Mills & Hayes, 2000, p. 175).

In short, whilst many models for quality teaching exist, these do little to explain how to improve teaching so all teachers across the school utilise these pedagogies in their classrooms.

2.4.3 Teacher capacities (or domains)

Educational leadership literature has commonly organised the challenge of improving teacher quality according to two areas or capacity domains, namely, individual and social. This is so for international (see King & Newmann, 2001; Newmann & Wehlage, 1996; Stoll et al., 2006) and national (for example, Hayes et al., 2004) literature.

Here social teacher capacity can be understood as a domain containing several possible elements, including but not limited to, collaboration, dispersal of leadership, shared practice, professional learning communities, organisational learning and so on (Hayes et al., 2004; Silins & Mulford, 2002). Similarly,

individual teaching capacity may include classroom instruction, pedagogy, assessment, curriculum, values, beliefs, motives.

Following this, individual teacher capacity is said to be lifted and improved within and throughout schools by investing in social capacity (Leana & Pil, 2006). Capacity building in schools has been defined by creating the conditions, opportunities and experiences for collaboration and mutual learning (Harris, 2002b). Several international and Australian studies have examined this.

In building individual capacity, positive teacher emotions (motivation, commitment, trust and morale) are essential and indeed, pre-cursors for improved quality teaching and student learning outcomes (Day, Stobart, Sammons, Hadfield & Kington, 2004; Leithwood & Beatty, 2008). Teachers' sense of self-efficacy appears to be the most important motivational factor for explaining teacher learning and practice (Thoonen, Sleegers, Oort, Peetsma, & Geijsel, 2011). Emotions direct cognition, influencing how individuals will respond to their environment (Oatley, Keltner & Jenkins, 2006).

More than individual capacity, scholars argued for the need of collective or social teacher capacity to improve the quality of student learning outcomes (Goddard, Hoy & Hoy, 2004). Collective teacher capacity as evidenced through teacher morale, self and collective efficacy, staff turnover and satisfaction will have a positive or negative impact on student learning outcomes (Goddard, et al., 2004). Moreover, Goddard et al. (2004) suggests positive collective teacher efficacy will have the strongest impact on student achievement.

The Australian LOLSO study indicated that:

- the higher the teacher ratings of the school on a collaborative and trusting work environment, a shared and monitored mission, shared decision making, taking risks and on-going challenging professional development (the dimensions that defined organisational learning), the more positively teachers' work is perceived in the classrooms by their students,
- organisational learning can influence the way in which teachers organise and conduct their instruction, their educational interactions with students and the challenges and expectations which teachers place on their students, and,
- teachers' work within a school operating as a learning organisation is a direct predictor of students' academic self-concept and engagement (Silins & Mulford, 2002).

In an American study of social and human (individual) capitals (or capacity domains) within schools, a trusting climate (part of social capital) was more important than teachers' level of education, certification or ability on student learning outcomes (Leana & Pil, 2006). Furthermore, peer conversation was the preferred mode for seeking advice (Leana & Pil, 2006).

High social capital (conversations with peers on instruction, trust and collegiality) and human capital (qualifications, experience and ability) appeared to combine to lift the performance of teachers within the school (Leana & Pil, 2006). It is therefore argued that the collective capacity of teachers or teaching profession brings about change and improvement in quality teaching across the school (Hargreaves & Fullan, 2012).

In examining transforming schools across several international educational systems, Caldwell and Harris (2008) confirm this, where social capital (or capacity) appeared to lift the quality of intellectual capital. In the Australian case studies examining four capitals (intellectual, social, financial and spiritual) within schools, the International Project undertook a study of six case study sites in Victorian schools (Douglas & Harris, 2008).

Within each school significant investment was made in intellectual capital (or capacity) through resources (time and money), developing new innovative teaching and learning initiatives, increased and targeted professional development, action research projects and performance management. Social capital (or capacity) was seen to maximise student learning and raise the intellectual capital of teachers where formal links were established with outside agencies to lift the quality of teaching in the Australian schools (Douglas & Harris, 2008).

These investments in teacher capacities resonate with Australian studies of school conditions or organisational learning (e.g. Silins & Mulford, 2002) or productive leadership (see Hayes et al., 2004). Here the argument was that schools which build their organisations to high functioning communities of professional learners and which provide learning opportunities that develop individual teacher capacity, are likely to reduce within-school variation (Hayes et al., 2004; Silins & Mulford, 2002). Yet, whilst these Australian studies have examined collective teacher capacity, less is known of understood regarding other *teacher capacity domains* such as decisional capacities.

2.4.4 Emerging conceptions of new teacher professionalism with various teaching capacities

Recent work examining various teacher capacities has framed high quality teaching across the school as teacher professionalism. The term teacher professionalism is not without difficulties where it is often used in an inconsistent manner (Evans, 2008). However, new teacher professionalism, set against the background of educational reform, has emerged as an instrument of change where improvement is towards the quality of service (or teaching) (Evans, 2008).

In this context of improving quality teaching, teacher professionalism is seen to comprise various teaching capacities or capitals (Hargreaves & Fullan, 2012). More than a collective of an individual quality teacher, or teaching within a classroom, teacher professional capital involved a combination of individual (human), social and decisional capitals (or capacities) which, when operating in concerted effort, were said to raise the performance of all teachers within the school (Hargreaves, & Fullan, 2012; Leana & Pil, 2006; Leana, 2010). Table 2.3 outlines the various teacher capacities or capitals of teacher professionalism.

With the desire to ensure all students receive high quality teaching day after day and year after year, Fullan (2011) argued for sustained, quality teaching to be understood and developed as a group quality, where school systems (and, by inference, schools) develop the entire teaching profession through an investment in the various teaching capitals (or capacities) outlined in Table 2.3 (see page 55). Citing Leana's (Leana & Pil, 2006) work as an example of the power of collective quality teaching, Fullan suggested high social capital (conversations with peers on instruction, trust and collegiality) and human capital (qualifications, experience

and ability) combine to lift the performance of teachers within the school (Fullan, 2011).

For example, to ensure quality teaching within and throughout the school, the argument would follow that successful school leaders build decisional capacity in their staff, perhaps through ongoing professional development for career pathways and mentoring. Yet, little is known of what, but more particularly how leaders develop and influence this expertise and ability for effective judgements within Australian secondary schools.

Table 2.3

High quality teaching or teacher professionalism

Whole school conception of quality teaching or teacher professionalism	
Teaching capitals (or capacity)	**Description**
Human capital (or capacity)	Individual teacher quality is characterised by committed, well prepared, professional learners who understand the nuances, technical difficulties and complexities involved in teaching and learning (Hargreaves & Fullan, 2012). Understood as "…having and developing the requisite knowledge and skills" for teaching and learning (Hargreaves & Fullan, 2012, p. 89).
Social capital (or capacity)	The relationships between teachers and how they worked together (Leana, 2011). The ability of people to work collaboratively for a common purpose is increased from networks, trust, reciprocity, resources and the norms within those relationships (Harris, 2008; Mulford, 2011).
Decisional capital (or capacity)	An accumulation of expertise and reflection from a number of years teaching practice (approximately eight years) which influences the effectiveness of teaching practice within the classroom (Hargreaves & Fullan, 2012). It is the "…ability to make discretionary judgements" (Hargreaves & Fullan, 2012, p. 93).

Note. Adapted from Fullan & Hargreaves, 2012; Harris, 2008; Leana, 2011; Mulford, 2011.

Australian scholars indicate mentoring, feedback, supportive leadership and targeted professional development supports the development of teaching expertise (Dinham, Ingarson & Kleinhenz, 2008). Furthermore, Dinham et al. (2008) indicated that expert teaching is not innate, but the result of learning, motivation and ongoing professional development.

There is some evidence within Australian studies which echo elements of decisional capacity. For instance, the LOLSO construct of Teacher Leadership contains elements of distributed leadership and shared decision making (Silins & Mulford, 2002). Or, Ayres et al., (2004) found 5 of the 25 Australian effective teachers reported mentoring and experience to be of value in their development and 3 reported mentoring to be a significant factor. Networking was also mentioned as an important influence. Furthermore, there was an even split between those who saw external professional development as valuable and those who didn't. Whilst a small sample, these elements of teaching expertise, mentoring and networking may be of interest for further study in improving Australian teaching.

It is important to note that professional development in this instance was not socially constructed in a collaborative learning environment. It can be argued, that equally influential is individual learning where teachers learn through their personal teaching activities and reflection, adjusting and modifying their practice in response to happenings within the classroom (Hodkinson & Hodkinson, 2005). Indeed, professional (teacher and leader) learning, often occurs in two settings, within the school and outside the school. The majority of literature examining teacher professional learning, however, concentrates on one site or one

perspective. Rarely are they considered together (Hodkinson, Biesta & James, 2008).

The current study will attend to varied settings and perspectives of teacher learning for improved quality teaching across the school. In exploring leaders' and teachers' day to day practice, their choices and performance, and how these are influenced by the choices and performance of others, the study will examine teacher learning from multiple views and perspectives (Honig, 2007).

Continuing with studies which have explored decisional capacity, several international systems based studies have examined the development of career pathways for expert teachers, managers and leaders (Jensen, 2012; Mourshed et al., 2010). There is some suggestion in international studies synthesised by Hargreaves and Fullan (2012) that leaders influence the various levels of teaching careers (early, mid and late career levels).

Similarly, in the extensive English study of leadership, Day et al., 2009 found improvements in teacher quality were developmental and increasing teachers' capacities for leadership was a powerful influence on student learning outcomes.

Yet, how decisional teacher capacity is understood and enacted in Australian secondary schools is unclear and requires further exploration. Also, it is possible that additional teacher capacity domains may exist within Australian secondary schools. An exploratory case study may elicit new Australian knowledge in this area.

In short, the current literature search was able to locate several Australian school-based studies which explored the individual and collective teaching capacity

domains of quality teaching within the school (see for example, Hayes et al., 2004; Lingard et al., 2001; Silins & Mulford, 2002). It was also able to find Australian commentary and elements of decisional capacity within Australian studies (Ayres et al., 2004; Dinham et al., 2008; Silins & Mulford, 2002).

Despite this, the current literature search was unable to locate any Australian school-based research which explored this emerging conception of quality teaching as defined by teaching capacity domains or capitals. Nor was it able to find qualitative studies which explored how Australian leaders and teachers invested in those teacher capacities for improved quality teaching.

Attention to these teacher capacities within the exploratory case study would therefore seem beneficial. Moreover, it would seem judicious to begin with the teacher capacities most likely to influence improved teacher quality, that is, the one with the power to affect the change.

By beginning the current study with an exploration of the nature of quality teaching (and teacher capacity domains) within two improving Australian secondary schools, the research may discover additional teacher capacity domains operating within the schools. Indeed, by assessing the phenomena of quality teaching in a new light, further knowledge for Australian educators may be discovered. This nuanced and subtle difference may elicit a greater understanding of how quality teaching is understood in two improving Australian secondary schools.

Therefore, a review of the literature demonstrated the strong within-school impact of teacher quality on student learning outcomes and the incomplete nature of

Australian empirical research which examines how quality teaching, particularly emerging conceptualisations with various teaching capacities, is understood within Australian improving school contexts.

To further understand quality teaching within schools, both international and Australian research examined the characteristics of improving schools.

2.4.4 Characteristics of quality teaching (for all students) within improving schools

Several quantitative, qualitative and large scale longitudinal studies examined the conditions of effective and improving schools (Harris, 2003; Hayes et al., 2004; Lingard et al., 2001; Newmann & Wehlage, 1996). This was to identify the enabling circumstances for effectual professional teacher development or learning. Effective professional learning or development was believed to then foster the use of quality teaching across the whole school. The underlying view was that an understanding of the conditions within improving schools would provide insight into the circumstances and interventions necessary to improve quality teaching.

Identifying (and then applying) characteristics of improving schools promised more effective teacher quality through an "…assumption that teachers working collaboratively together and reflecting on their own practice will ratchet up the overall quality of teaching and learning" (Prestine & Nelson, 2003, p. 25). Yet Leithwood (2008) notes that early studies highlighted that little empirical evidence had examined direct links between those involved with communal teacher learning, improved teacher quality and subsequent student learning outcomes.

Key themes emerged from studies of improving schools across various countries including England, New Zealand, Canada and USA, namely:

1. teachers' dispositions, knowledge and skills needed to be organised into a collective to increase the equity and quality of student learning outcomes (King & Newmann, 2001; Stoll et al., 2006);
2. the extent to which the school operated as a learning community with reflective dialogue, collaboration, shared practice and shared professional learning linked directly to the utilisation of productive teaching strategies (King & Newmann, 2001; Stoll et al., 2006; Timperley, 2011);
3. commitment to professional development and building self-sustaining communities with the aim to build capacity was common amongst improving schools (Harris, 2003); and,
4. leadership associated with placing higher pedagogical demands on teachers may result in greater use of productive pedagogies (Newmann & Wehlage, 1996).

Whilst the presence of schools that function as a learning community appeared to characterise improving schools, developing and maintaining learning communities was not a dilemma free process and could be intrinsically problematic (Fullan, 2001).

Many traditional teaching paradigms such as individualised classrooms, year groups and school structures act as obstacles to building communities of professional learners for improved quality teaching (Leadbeater, 2005; Mulford, 2008). Indeed, despite some studies linking improved teacher effectiveness and student learning with schools organised around professional learning communities

(Leithwood & Strauss, 2008), the reality of establishing collaborative teacher learning was complex (Louis, Dretzke et al., 2010) and not easily achieved.

Later studies focused on the importance of marrying the context of the school (i.e. cultural, improvement stage, socio-economic status and climate of school) to the building of a learning community for improved teacher learning (Day et al., 2009; Mourshed et al., 2010). Yet those studies which referenced contextual variables (including student background, community type, organizational structure, school culture, teacher experience and competence, fiscal resources, school size and bureaucratic and labour organization), were for the most part internationally based (Day et al., 2009; Hallinger & Heck, 2010; Mourshed et al., 2010) and not readily generalisable to Australia.

Whilst research has identified possible conditions pertinent to improved teacher learning and development and, by association, improved quality teaching, further Australian research appeared necessary.

Australian studies of improving schools elicited common threads of individual and collaborative endeavour. The research found:

1. Specific models of instruction lifted student learning outcomes within Australian schools (Ladwig & Gore, 2003; Lingard et al., 2001; Luke et al., 2001);
2. Quality teaching existed within positive collaborative and collegial environments which promoted opportunities for professional development, risk taking and shared practice (Hayes et al., 2004; Silins & Mulford, 2002).

In this manner, the common characteristics of improving schools across both international and Australian based studies reflected generic features of individual and collaborative capacity. Again, these themes resonate with notion of successful school leaders building both social and individual teacher capacity to improve teacher quality and subsequent student learning outcomes as outlined in the Australian based studies such as QSRLS and LOLSO studies (Lingard et al., 2001; Silins & Mulford, 2002).

Furthermore, the Australian studies (Lingard et al., 2001; Silins & Mulford, 2002) have, for the most part, been quantitative in nature. They are nuanced towards understanding the school organisational factors which influence teacher instruction in schools, in the context of influencing and examining school reform (Lingard et al., 2001; Silins & Mulford, 2002).

Some Australian studies have examined school conditions for promoting teacher professional learning (Hayes et al., 2004; Lingard et al., 2001; Silins & Mulford, 2002), yet these have been limited to one or two states and focused only on state based, public schooling, rather than independent schools. The scholars acknowledge they are limited in scope and require further exploration across various Australian school contexts (see Mulford, 2007).

An examination of school conditions which influence quality teaching in two schools, both public and private would be beneficial. This would expand on, explore and clarify the contextual dimensions and interventions relevant to varied Australian school conditions. Indeed, as much of the research was based in countries other than Australia, it requires empirical analysis to examine which

strategies were relevant for whom (Lingard et al., 2001; Newmann & Wehlage, 1997).

Consequently, there is need to explore this issue further through an in-depth qualitative study. The review now turns to the second concentric wheel in the research design, namely: how leadership influences quality teaching within their schools.

2.5 Subsidiary research question two: how successful school leadership influences quality teaching within two improving Australian secondary schools

2.5.1 Leadership impact on student learning

Successful school leadership can have a significant and positive (indirect) effect on student learning outcomes (both social and academic) (Hallinger & Heck, 1996; Leithwood et al., 2006b; Marzano et al., 2005; Robinson et al., 2008). The indirect relationship between leadership and student learning outcomes "… is complex and not easily subject to empirical verification" (Hallinger & Heck, 1996, p. 6) as evidenced in the varying results depending on the research paradigm and methodology used (Hallinger & Heck, 1996; Leithwood, 2010; Robinson, 2006).

Three types of studies (quantitative, qualitative and large scale meta-analysis) have examined the impact of successful school leadership on student learning outcomes including: quantitative studies, qualitative studies, and large scale meta-analyses. A summary of findings on the effects of leadership student learning outcomes (via teaching quality) including the Australian large scale quantitative LOLSO research follows in Table 2.4 (see pages 64, 65).

Table 2.4

Impact of successful school leadership (the process of leading) on student learning outcomes

Research paradigm	Key theorists	Summary of study	Comments on reported leadership impact
Qualitative	Reynolds, Harris, Clarke, Harris & James , 2006; Leithwood & Strauss, 2008	Case studies	*Often effects are reported as large on both student and school conditions (Leithwood et al., 2006b). *Often leadership effects (and teacher effects) on student learning outcomes are considerably greater in schools in challenging circumstances (Reynolds et al., 2006). *Leadership effect is pivotal for turnaround success in underperforming schools where leader practices prompt change in engagement of teachers and improve the educational experience of students (Leithwood & Strauss, 2008).
Meta-analysis	Witziers, et al., 2003.	Meta-analysis of 37 international studies from 1986 to 1996 where the direct effect of educational leadership on student achievement was explicitly measured (Witziers et al., 2003).	*The results suggested leadership has a positive effect on student learning outcomes; but direct effect sizes were very small, in some cases negative (Witziers et al., 2003). *Direct effects were noticeable in primary schools; but in the secondary schools studied, there was no evidence of direct effects. *The studies examining direct effects, however, often used a single instrument which reflected leadership as a one-dimensional construct and did not take into account context, immediate factors, and the complexity of both direct and indirect impacts of leadership on student learning outcomes (Witziers et al., 2003).
Meta-analysis continued	Marzano et al., 2005	Meta-analysis of leadership effect on student learning outcomes from 1978 to 2001, 69 studies including 55 unpublished doctoral dissertations	*A list of 21 leadership practices statistically related to student learning, and estimated .25 impact on learning outcomes. *A list of leadership practices is not sufficient to know the descriptors and that effective leaders differentiate between 'what, when, why and how' to use the descriptors. It could be argued that a more effective approach to successful leadership, rather than selecting practice from a list of behaviours, would be to utilise those which have the highest impact on student learning (Hattie, 2012).

Table 2.4

Impact of successful school leadership (the process of leading) on student learning outcomes

Research paradigm	Key theorists	Summary of study	Comments on reported leadership impact
Review: multiple methods	Hallinger & Heck, 1996.	In 1996 Hallinger and Heck undertook a review of 40 (23 blind refereed journals, 8 papers presented at conferences and 6 dissertations) studies between 1980 and 1995 from the United States, Canada, Singapore, England, Netherlands, Marshall Islands, Israel and Hong Kong (Hallinger & Heck, 1996).	The accounted degree of leadership impact on student learning within the studies varied according to the paradigm used, where weak designs revealed poor links, but stronger, more robust research designs examining intervening and antecedent variables yielded more frequent and positive instances of leadership impact (Hallinger & Heck, 1996). More specifically the reviewed studies showed indirect leadership effects where the influence was aimed towards internal school processes directly linked to student learning including the practice of teachers (Hallinger & Heck, 1996).
	Leithwood et al., 2006.	Review	"While leadership explains only 5-7% of the variation in pupil learning across schools (not to be confused with the very large within-school effects that are likely), this is actually about one-quarter of the total across-school variation (12-20%) explained by all school-level variables, after controlling for pupil intake or background factors. The quantitative school effectiveness studies providing much of these data indicate that classroom factors explain more than a third of the variation in pupil achievement" (p. 13).
Quantitative	Silins & Mulford, 2002.	Analysis of survey data from 2503 teachers and their principals and approximately 5000 students (both 3508 Year 10 students and 1805 Year 12 students) in South Australia and Tasmania	The results suggested that both positional and distributive leadership was indirectly related to student learning (both academic and social) outcomes. Teachers' work had the strongest effect (p=0.63) on student engagement • Teachers' work and participation had the strongest effect (both p=0.32) on student academic self-concept • Home background was the strongest predictor of student participation, followed by teachers' work • Variables that directly influenced teachers' work included school size (less than 900 more positive perceptions), organisational learning (p=0.24) and leadership (significant and indirect influence through organisational learning)(i=0.19) • For Year 12 retention, teachers' work is a strong predictor of student engagement with school, influencing achievement through retention

Note. Adapted from Hallinger & Heck, 1996; Leithwood et al., 2006; Leithwood & Strauss, 2008; Marzano et al., 2005; Reynolds et al., 2006; Silins & Mulford, 2002; Witziers et al., 2003.

From the tabulated summary it is apparent that the exact amount of leadership impact on student learning outcomes remains under conjecture. The above Table 2.4 highlights some of the conflicting evidence where, according to study design, the measured effect size or the impact of leadership practice on student learning outcomes will differ. The majority of early studies in the field used a cross sectional, correlational design, where surveys or interviews were used mostly as the method of data collection (Hallinger & Heck, 1996). Hallinger and Heck (1996) argued that this non-experimental research is less equipped to make determinations of causation, than other research designs. In practice, however, experimental research is much more difficult to undertake when the school is the unit of analysis. Larger samples using sophisticated analysis techniques can in some measure compensate for this weakness (Hallinger & Heck, 1996).

Furthermore, it can be argued that empirical data which directly links leadership to improved student learning outcomes is based on relationships established at varying points in time (Hallinger & Heck, 2010). These relationships change over time, making it difficult to ascertain "…whether better leaders do indeed *influence* achievement outcomes positively or merely *select* school settings with stronger achievement" (Hallinger & Heck, 2010, p. 11).

Despite differences in reported effect and the difficulty to demonstrate direct influence, strong agreement exists that successful school leadership can have a significant *indirect* impact on student learning outcomes (both social and academic) (Hallinger & Heck, 1996; Hallinger & Heck, 2011; Leithwood et al., 2006b). How that indirect influence is best achieved was explored through various successful school leadership models.

2.5.2 Models of successful school leadership that influence quality teaching and subsequent student learning outcomes

Many recent studies have contended that the strongest direct effects of leadership are founded in the knowledge and skills of its teachers (Barber & Mourshed, 2007; Hattie, 2009; Leithwood, Patten et al., 2010; Robinson et al., 2008). Increasingly, authors' views of successful school leadership moved from labels encapsulating various styles (e.g. instructional, transformational), to models or forms which reflect the complex and highly contextual nature of leadership (Day et al., 2001). More recently studies have delineated what effective leadership does within schools with an exploration of the leadership practices that have the most impact on student learning, namely: quality teaching across the school (Honig & Louis, 2007; Louis, Leithwood et al., 2010; Robinson, 2006).

Australian studies reflected this trend, where more recent research examined leadership practices which influence teacher instruction (see for example, Hayes et al., 2004; Silins & Mulford, 2002). Given that the quality of teaching has the largest within-school impact on student learning and that leadership is second to teaching in its indirect yet significant impact, an assumption is often made that leadership which improves instruction will be the most successful in improving student learning.

Whilst there is some notable contribution from international research (Day et al., 2009; Louis, Dretzke et al., 2010; Louis et al., 2010) and Australian studies (Silins & Mulford, 2002), overall, there remains little empirical Australian evidence to specify exactly what or how principals improve instruction in their schools. This is particularly so for Australian qualitative studies which have

explored principal, leader, teacher, parent and key personnel perceptions in the socially embedded contexts in which they operate (May & Supovitz, 2011).

A plethora of conceptual models of leadership have emerged within the field of school effectiveness and improvement, mostly from an international research base. Each has its own typology or espoused approach for improving student learning. Numerous adjectival types of leadership are identified in the literature including: 'great man' (Christie & Lingard, 2001; Spillane, 2006); transactional (Hubar, 2004; Mulford, 2003); moral leadership (Fullan, 2002; Sergiovanni, 1992); participative or distributed leadership (Harris, 2010; Spillane & Zuberi, 2009); managerial leadership (Myers & Murphy; 1995); post-modern leadership (Keough & Tobin, 2001); interpersonal leadership (West-Burnham, 2001); parallel leadership (Crowther, Hann & McMaster, 2001); strategic leadership (Caldwell, 2003a); and, passionate leadership (Day, 2004).

It has been argued that the debate over approaches and models of successful school leadership is largely dominated by a tendency in the literature to distort the generic competencies of leaders through celebrating singular aspects or models of the role (Hopkins, 2006; Hopkins & Higham, 2007; Mulford, 2008). Whilst there is much to be gleaned from the various theories, in reality no single model or 'recipe' for successful school leadership exists (Day et al., 2010).

Furthermore, many of these models have been examples of researchers in educational management and leadership borrowing liberally from theories of business management and human relations which, when adopted, become fads and fashions, only to disappear after disappointing results in improved student learning outcomes (Peck & Reitzug, 2012).

Various theories or models of leadership can act instead as frames for thinking about and analysing leadership (Spillane, 2005). Moreover, successful school leadership appears to borrow from various theories and, in practice, chooses several core dimensions of leadership practice for effectiveness (Day et al., 2009; Leithwood & Sun, 2012). Principals are far from uniform in their leadership styles. In fact, the research suggests they require many styles depending on context and issue (Leithwood & Sun, 2012). Most effective leaders switch flexibly between styles as needed (Day et al., 2010; Hopkins, 2005). They undertake leadership through many roles including human resources, managerial, political, instructional, institutional and symbolic. Moreover, the effective leader "…will adjust the performance of this role to the needs, opportunities and constraints imposed by the school context" (Hallinger, 2003, p. 334).

Differing conceptions of successful school leadership have dominated the field, some too complex to replicate, others too simple or ill-defined to operationalise. Rather than search for an over-arching theory of successful school leadership, an approach that accounts for its complex, multi-faceted and nuanced nature is required. This is particularly so when considering how successful school leadership influences teacher quality for improved student learning outcomes (Day et al., 2010; Day et al., 2009; Mulford, 2008).

It is clear from international educational leadership literature that successful school leadership has a shared central skill set to be effective (Day et al., 2009). This leadership is integrative, not singular, and includes instructional, transformational and distributed leadership for improved teacher effectiveness and schooling (Hopkins & Higham, 2007; Leithwood & Sun, 2012; Louis et al.,

2010; Marks & Printy, 2003; Robinson et al., 2008). Indeed, instructional, transformational and distributed models appear to retain most resilience in the literature (Watson, 2009). Table 2.5 outlines the three models (see page 71).

Robinson et al., (2008) directly compared three models of leadership and their effect on improving quality teaching through a meta-analysis of differential effects from 22 studies across nine nations (including the Australian LOLSO study). This was followed by comparison of five sets of leadership practice (the inclusion of later comparisons of subsets of studies aimed to negate the common critique of aggregating studies' utilising various theoretical or methodological approaches). The results suggested instructional leadership had more influence on student learning than the other two models (Robinson et al., 2008).

Meta-analysis, however, designed as a statistically based generalisation of research within a given field, has several limitations in this context (Marzano et al., 2005). Critics of meta-analysis question the data quality and data analysis of chosen studies, how effect size is calculated and the inclusion of already aggregated effect sizes in the new meta-analyses (Terhart, 2011). It is suggested these differences within studies may lead to the discrepancies shown in results.

Factors which threaten the validity of Robinson et al., (2008) study include: significance testing and homogeneity analysis effect sizes were not presented; the academic and non-academic student outcomes were combined; and, only a small number of studies were included (5 transformational and 12 instructional). In addition, it has been argued effect sizes from different conceptual models; the combination of variables in the study; and, direct or indirect sizes were not discernible in the study (Leithwood & Sun, 2012).

Table 2.5

Models of successful school leadership

Model and Key theorist	**Transformational Leadership** Burns, 1978; Caldwell, 2003; Duke & Leithwood, 1994; Leithwood & Jantzi, 1999	**Instructional Leadership** Bossert 1982, as cited in Hallinger & Heck, 2010	**Distributed Leadership** Spillane, Halverson & Diamond, 2001 Ogawa & Bossert (1995)
Description	Foundations in organizational management Transformational leadership was modified to suit educational settings Transformational leadership construct for education The model included six leadership and four management dimensions including leadership dimensions of: • building school vision and goals; • providing intellectual stimulation; • offering individualised support; • symbolising professional practices and values; • demonstrating high performance expectations; and, developing structures to foster participation in school decisions	The concept was refined from models described by Bossert (1982). The framework was understood as follows: • Defining the school mission (Dimension 1) • Managing the Instructional Program (Dimension 2) • Developing the School Learning Climate Program (Dimension 3)	Distributed leadership is grounded in activity rather than position where leadership practice is shared amongst the school team. Shared or distributed leadership fosters teachers' participation in decisions and collaborative learning within schools (Louis, Dretzte et al., 2010). The reality faced by leaders in day to day managerial tasks tends to distract them from this improving teaching quality (Watson, 2009). Shared leadership offers a solution to this dilemma (Spillane et al., 2001).
Comment	As a model for educational leadership it has been investigated often, increasing the knowledge base concerning this theory of leadership (Leithwood & Sun, 2012; Silins & Mulford, 2002). Several positive links between transformational leadership and student learning outcomes were reported including a positive effect on classroom practices, collective teacher efficacy, organisational learning and pedagogical and instructional quality (Leithwood & Jantzi, 2006; Silins & Mulford, 2002) Acts as a strong mediator to whether positive change is adopted in teacher practice (Leithwood & Sun, 2012; Thoonen et al., 2011).	Much international research was based on this construct. In their review on leadership from 1980-1995 Hallinger & Heck (1996) found that it was the most common conceptualization of leadership at this time. Beyond 1995, instructional leadership evolved from a mainly North American perspective to a construct with "…international currency as policy makers across the globe evinced a mounting desire to understand and strengthen 'leadership for learning'" (Hallinger & Heck, 2010, p. 272).	This distribution or dispersal of leadership is a common feature of successful school leadership throughout studies on improving schools with more positive results in educational change (Day et al., 2010; Hayes et al., 2004; Retallick & Fink, 2002; Silins & Mulford, 2002).

Note. Adapted from Bossert, 1982, as cited in Hallinger & Heck, 2010; Burns, 1978; Caldwell, 2003; Day et al., 2010; Duke & Leithwood, 1994; Hallinger & Heck, 2010; Hayes et al., 2004; Leithwood & Jantzi, 1999; Leithwood & Sun, 2012; Louis, Dretzte et al., 2010; Ogawa & Bossert, 1995; Retallick & Fink, 2002; Silins & Mulford, 2002; Spillane et al., 2001; Thoonen et al., 2011; Watson, 2009.

Alternatively in another examination of both transformational and instructional leadership practices, Marks and Printy (2003) reported the use of both models to be positive for improvement in learning outcomes. Similarly, Day et al., (2009) argued successful Heads of Schools drew on both instructional and transformational leadership.

Or, in the Australian study of 96 secondary schools, Silins et al., (2002) drew on both transformational and distributed forms of leadership to operationally define each concept. In their commentary paper, Mulford & Silins (2003) summarise the findings by stating that the predominant conditions accounting for variations in organisational learning (with its associated influence on teacher instruction and subsequent student learning outcomes) were a principal using transformational leadership and administrators and teachers who were actively involved in the school (distributed leadership).

Likewise, an examination of the impact of instructional and shared leadership (and trust) on teacher practice and subsequent student learning survey data from 2005 and 2008 indicated the largely indirect and less important effect of instructional leadership practice through classroom visits, modelling of good teaching and individual interventions.

Rather than reject fully one or other approach, the data suggested that both models were complementary and necessary in improving teacher quality and student learning outcomes (Louis, Dretzke et al., 2010). This finding fits with other studies suggesting the person in leadership chooses several core dimensions of leadership practice for effectiveness according to context and/ or issue (Day et al., 2009; Leithwood & Sun, 2012). In short, they are aware of context, history

and so on and tailor their style accordingly.

Furthermore, both leadership practice and peer influence which are focused on improving pedagogy and peer influence (or teacher leadership) is found to influence and improve teacher practice in areas such as English language arts (Supovitz, Sirindes & May, 2010). Thus, distributed leadership models are important in understanding how leaders influence quality teaching within their schools.

Whilst many principals believe instructional leadership is of value to improving teacher effectiveness and student learning outcomes, the demands of school leadership, such as time and professional isolation, inhibit its enactment. Few teachers perceive that their principals are monitoring or recognising quality teaching; nor do principals assume responsibility or have the expertise for instructional leadership in their schools (Mulford, 2008; York-Barr & Duke, 2004). Here intent is not matched by the reality of practise.

Thus, the stresses of the role (including heavy workloads, management of financial, human and other resources, together with perceived and actual expectations); challenges of leading self-managed schools with incumbent tensions between management and educational leadership (Watson, 2009); challenges in disadvantaged areas (Harris & Chapman, 2002); the size of the school and the skills required - all these factors appear to act as significant barriers to instructional leadership (Mulford, 2008). Given these challenges for school leaders, a practical theory needs to demonstrate how successful school leadership can focus on improving teaching and learning within the real-life boundaries of school work.

Rather than disregard transformational, instructional, or distributed models of leadership for improved teacher practice, it would seem more prudent to acknowledge them as parts of improving teacher effectiveness (Leithwood & Sun, 2012). Therefore, many argue for an integrated model of successful school leadership where future research examining leadership practice and its influence on student learning outcomes should avoid exclusive use of singular leadership models and instead focus on specific practices that have emerged from research as having strong influence (Leithwood & Sun, 2012).

2.5.3 Leadership practices which influence quality teaching

In evaluating the multitude of international studies which have examined the practices of leadership that have improved teacher quality, four key themes emerge. For this study, these have been analysed and classified according to personal, interpersonal, organisational and instructional leadership practices. The connection to the broad domain of teacher capacity or capital (whether individual, social, decisional or other) is shown. Table 2.6 (see page 75) represents these leadership practices along with research and findings.

Louis, Dreztke et al., (2010) suggest that individual research studies typically examine a limited range of leadership practices, making comparisons difficult. Table 2.6 represents a synthesis of studies (from international and national contexts) which have examined various aspects of leaders' influence on teacher practice in the classroom. The table links the leadership practice with its suggested influence on teacher capacity and argues the research has focused predominantly on individual teacher capacity or the social teaching capacity.

A large number of the studies in Table 2.6 explored the components of leadership

Table 2.6

Leadership practices for improving teacher quality

Theme	Personal leadership practices	Interpersonal leadership practices	Organisational leadership practices	Instructional practices
Teacher capacity or capital addressed through the study	Individual and social capacity	Individual and social capacity	Social capacity (predominantly school based social capacity)	Individual and social capacity
Summary of Findings	Leaders' values, purpose, expectation and vision underpin and inform practice (Day et al., 2009; Mulford & Silins, 2011); Strong moral purpose and values through which leaders mediate conflicts, dilemmas and tensions in their schools (Day et al., 2010; Day, Harris & Hadfield, 1999; Day et al., 2001; Harris & Chapman, 2002; Leithwood et al., 2006); Leaders possess common personal characteristics, moral purpose and ethical practice (Caldwell & Harris, 2008; Day, Elliot & Kington, 2005); Strong link between shared beliefs of staff and the positive impact on student learning (Mawhinney, Hass & Wood, 2003).	Workplace factors such as job satisfaction, sense of professionalism and influence, trust, collaboration and positive working environment affect teacher effectiveness and student learning outcomes (Leithwood & Strauss, 2008; Louis, Leithwood et al., 2010; Silins & Mulford, 2002; Wahlstrom & Louis, 2008); Effect of leadership and teacher relationships on quality teaching, teachers viewed shared leadership and teams as positive influence, positive characteristics of principals included high expectations, responsive to others (Dinham, 2007); Emotional well-being powerful mediator of effective teaching where emotions direct cognition (Oakley et al., 2006); Establishing mediating layer to support teachers (Mourshed et al, 2010).	School leadership, which contributed to organizational learning influences the core business of the school: teaching and learning. This would in turn, facilitate high quality equitable educational outcomes for all children (Mulford, 2008; Silins & Mulford, 2002); Conditions supporting organizational learning enabled more innovative teaching practice (Silins et al., 2002); View organisation as a living system (Day & Leithwood, 2007); Promote collaboration, networking, communities of learners (Caldwell & Harris, 2008; Leadbeater, 2005; Leithwood & Straus, 2008); Leaders support positive learning cultures, believe in staff; expected up to date with research and knowledge; distributed leadership; made data accessible; built trust; shared research and led collaborative dialogue and discussion (Hord & Hirsh, 2009).	Teacher learning focus- pedagogy, assessment and curriculum (Hattie, 2009; Luke, 2011); More effective methods (peer observation, micro teaching, video and audio feedback, missing teaching across levels of schooling, coaching and adopting broader view to teaching learning (Hattie, 2012); Opportunities for collaborative cycles of teacher learning and improvement (Timperley et al., 2007); Evidence based (Mourshed et al., 2010); More targeted approaches to improving teacher practice, more effective (May & Supovitz, 2011); Increased professional development opportunities (events, resources, networks, internet) (Levin, 2010). Effective feedback (Jensen & Reichl, 2011)

Note. Adapted from Caldwell & Harris, 2008; Day & Leithwood, 2007;Day et al., 1999; Day et al., 2001; Day et al., 2005; Day et al., 2009; Day et al., 2010; Dinham, 2007; Harris & Chapman, 2002; Hattie, 2012; Hord & Hirst, 2009; Jensen & Reichl, 2011; Leadbeater, 2005; Leithwood et al., 2006; Leithwood & Strauss, 2008; Levin, 2010; Louis, Leithwood et al., 2010; Luke, 2011; Mawhinney et a., 2003; May & Supovitz, 2011; Mourshed et al., 2010; Mulford & Silins, 2011; Silins & Mulford, 2002; Silins et al., 2002; Oakley et al., 2006; Timperley et al., 2007; Wahlstrom & Louis, 2008.

practice in isolation. The cited studies examined various aspects of leadership practice within each theme including personal, interpersonal, organisational and instructional leadership practice. Few studies examined all leadership practice in its situated context, from multiple perspectives within the school through in-depth case studies.

Leaders' behaviours are often polyphonic, where actions are carried out in an interrelated and holistic manner (Southworth, 2004). Unless studies examine both leadership and quality teaching in a holistic manner, "…leadership will remain little more than a fragmented list of behaviours and admonishments for 'best practice' that are largely detached from their (leaders) day to day life" (Prestine & Nelson, 2003, p. 7).

International research has examined links between culture, climate and teacher development (Cosner, 2009); and, highlighted school level factors of trust, professional community and organisational learning as conductive to improving school cultures (Kruse & Louis, 2009).

Studies have demonstrated variables such as relationships, trust, shared leadership, teachers' sense of self efficacy and the quality of instruction influence positive teacher learning cultures and improvement (Leithwood et al., 2010; Leithwood & Strauss, 2008; Louis et al., 2010; Wahlstrom & Louis, 2008). The impact of leadership on the learning climate has been reported as the strongest influence on teacher instruction when compared to interactions with parents, professional community, and quality of programs or professional learning (Sebastian & Allensworth, 2012). Even further, trust in leaders other than the principal has been shown to mediate stress and promote a positive climate

(Wahlstrom & Louis, 2008).

Yet, these studies have not explored how collaborative learning cultures are established, how trust develops within schools to enhance teacher learning and development or how leadership influences this.

Furthermore, there is need for studies to build on Australian research which has examined how successful school leadership influences quality teaching within the Australian school context. Leadership itself is complex and highly contextual in nature (Day, Harris & Hadfield, 2001a). Whilst various theories compete for understanding, typically they are context specific and do not allow for application to differing physical and relational situations in educational settings (Christie & Lingard, 2001). Leadership is contingent on many contextual factors such as setting, people involved, economic status, and type of school, leadership skills and available resources (Southworth, 2001).

Certainly, practice and the extant literature would suggest that it is virtually meaningless to study leadership without reference to aspects of school context such as constraints, resources and opportunities (Hallinger & Heck, 1996). Contextual variables including student background, community type, organisational structure, school culture, teacher experience and competence, fiscal resources, school size and bureaucratic and labour organisation must all be considered when planning improvement measures and must be incorporated into theoretical models (Hallinger & Heck, 1996; Southworth, 2004).

Indeed, only recently have studies begun to explicitly develop the link between patterns of successful school leadership and the context of schools (environmental

and organisational conditions) (Hallinger & Heck, 2011). Further Australian based studies are needed to explore how Australian leaders influence quality teaching within their schools.

2.5.4 The need for further Australian based studies

As outlined, there is some Australian contribution to this area (see Caldwell & Harris, 2008; Dinham, 2005; Gurr et al., 2005; Silins & Mulford, 2002); however, a scarcity of Australian based educational leadership research exists. This is particularly so in efforts to understand how leadership influences quality teaching or professionalism (with various teacher capacities) within Australian schools.

In summary, of those Australian studies that have examined how successful school leadership influences teacher quality these have been:

- Large scale quantitative studies focused on how leadership and organisational learning influences teaching and learning within the school (Silins & Mulford, 2002);
- Set in the context of other international studies attempting to find similarities across nations (Caldwell & Harris, 2008; Gurr et al., 2005; Mulford & Edmunds, 2009);
- Referenced in international meta-analyses of research to understand core leadership practices applicable to all nations (see Robinson et al., 2008). These meta-analyses do little to expand on particularities in the Australian school setting;
- Limited to one or two perspectives (Scott & Bergin, 2002), or one state, and often focused on what leadership does (including sharing leadership,

being responsive, having high standards and relating in a reciprocal manner, e.g. Dinham, 2005); or

- Small scale case studies exploring the emerging characteristics of leaders who foster improving teaching and student learning outcomes (Hayes et al., 2004).

In addition, much of the Australian findings examining leadership's influence on quality teaching were preliminary and incidental to the main focus of each research project (Lingard et al., 2001; Mulford & Edmunds, 2009). As an example, the narrative within one study such as 'generally supports' and 'available evidence' indicated ambiguity in findings and that further study would be necessary to elucidate these preliminary indications (Lingard et al., 2001).

The Australian research which has given a holistic description is large scale and quantitative in nature. Three notable contributions are synthesised below.

2.5.4.1 International Successful School Principalship Project (ISSPP)

Australian studies which have examined leadership practice as a whole include the *International Successful School Principalship Project* (ISSPP, 2004-2010). This study explored successful school leadership practices within schools in international and Australian school contexts using multiple methods. The Tasmanian and Victorian based case studies expanded on a preliminary model of successful school leadership (Mulford & Johns, 2004) and analysed further quantitative surveys.

Three significant teacher level variables relating to student achievement (academic, empowerment and social development) were identified. These were teachers' values, beliefs, capacity building (teachers' perceptions) and

accountability and evaluation (Mulford & Silins, 2011). Capacity building was teacher-perceived and defined by three dimensions (e.g. trusting climate, staff valued, collaborative decision making; shared school vision; and school structures and values which support experimentation, initiative and professional development) (Mulford & Silins, 2011). The level of capacity building evident to teachers was a significant predictor of student academic achievement (second to students' social skills) (Silins & Mulford, 2010). A full commentary on the five-year Australian research journey can be accessed by reading Mulford & Silins (2011).

These findings, however, were drawn largely from the Australian primary environment. They did not explore how leadership influenced capacity building, teacher learning and development over time. Figure 1, Appendix A, shows the missing relationship of teacher learning and development for improved quality teaching in the Tasmanian, Australia model of successful school leadership. Further qualitative study organised and nuanced towards an exploration of *how* leaders built multiple teacher capacity domains (beyond individual, social) in two secondary schools over a period of say, five years improvement, may expand these understandings.

2.5.4.2 An Exceptional Schooling Outcomes Project (AESOP)

The AESOP study investigated processes leading to outstanding educational outcomes in secondary schooling (Years 7-10). 50 sites were studied within 38 secondary schools using case study (both quantitative and qualitative). Similar to the ISSPP, principals of schools with outstanding outcomes had a positive attitude to change, shared vision and expectations, supported students and promoted

collaboration (Dinham, 2005). More than this, they were outward looking, actively sought networks and had a bias towards innovation, action and risk taking. This attribute and practice resonated with the LOLSO dimension of risk taking and initiative within organisational learning (Silins & Mulford, 2002). Here the conditions in place "… support organisational learning, which enables the adoption of more innovative teaching practices" (Silins et al., 2002, p. 614).

2.5.4.3 Leadership for Organisational Learning and Student Outcomes (LOLSO)

In the Australian LOLSO study, Silins & Mulford (2002) specifically examined secondary schools. The authors used model building techniques to investigate the relationship of influence that external and internal factors within schools had on student learning outcomes. Path analysis examined causal relationships between the variables. In so doing, three sequential paths were suggested which promoted organisational learning for improved teaching and student learning outcomes.

These were:

- Collaborative and trusting work environment,
- Shared and monitored mission,
- Empowerment of staff in decision making, taking risks and initiative, and,
- Ongoing challenging and relevant professional development.

This suggests a linear and sequential nature to the practice of leadership for influencing quality teaching. It could be argued that the practice of school leadership for improved teacher effectiveness is neither linear nor staged, yet the quantitative nature of the study made this difficult to verify. To clarify this matter,

further in-depth study with the situated context of the Australian secondary school is necessary.

The LOLSO research collected and analysed survey ratings (0-5) against various external and internal variables. For a full explication of the study including the empirically analysed path models that identify principals' practices and the indirect path by which leaders improve classroom instruction, see Silins & Mulford, 2002; Silins & Mulford, 2005.

Whilst comprehensive in its account, the study was nuanced towards understanding the organisational features of Australian schools and their leaders in order to improve classroom instruction and student learning outcomes (Silins & Mulford, 2002). Also, the study did not directly examine specific improvement to teacher pedagogy or classroom activity over time.

A targeted qualitative study within two Australian secondary school sites may elicit deeper knowledge of the leadership processes involved when influencing and facilitating change in teacher quality. Such studies would offer new, more detailed understanding on how changes were experienced by individuals and communities, the intricacy of the interactions amongst all involved or the dilemmas faced when engaging in educational change.

Consequently Australian quantitative findings could be extended and enriched through targeted Australian qualitative inquiry, where deeper insight and investigation of particular, contemporary phenomenon within real life contexts occurs (Stake, 1995).

2.5.4.4 Australian qualitative studies of leadership for improved quality teaching

The QSRLS included a three case qualitative investigation of what Australian leaders (principal and other) do within improving schools to assist teachers in developing productive teaching strategies (Hayes et al., 2004). Productive leadership was concerned with capacity building (Hayes et al., 2004).

Certain characteristics of leadership within the three Australian schools emerged as did an acknowledgement that leaders adopted various styles. The characteristics were:

- leadership dispersal with shared decision making,
- supportive social relationships within the school (teachers, staff, students),
- hands on knowledge about educational theory and strategic action,
- a focus on pedagogy where leadership focused on improving learning with the school as a whole,
- support for the development of a culture of care which supported teacher professional risk taking, and,
- a focus on structures and strategies for the smooth running of the school (Hayes et al., 2004).

These were viewed as emerging characteristics of leaders and would benefit from further investigation. Similarly, as part of the International Successful School Principalship Project (ISSPP) Gurr et al., (2005) conducted 14 case studies using multiple perspectives in Victoria and Tasmania, Australia. The focus was on the characteristics of successful school leadership for improved student learning.

Amongst other features, evidence demonstrated that the Tasmanian and Victorian

leaders engaged in building capacity of teachers for improved student learning. It appeared the leaders supported individual capacity through encouraging teacher leadership, accepting responsibility for professional learning and community learning groups. In addition, leaders across the two states focused on building social capital (or capacity) through fostering a school learning culture, collaboration, innovation and risk taking (Gurr et al., 2005).

Further Australian based studies in differing states, systems and school size are needed to explore how Australian leaders influence quality teaching within their schools. Also, the number of Australian empirical studies of leadership practice at varying levels, which have explored a variety of perspectives within the school, are limited (Gurr et al., 2006; Mulford & Edmunds, 2009).

In summary, these Australian studies supported findings from international research (see Table 2.6 and also Caldwell & Harris, 2008; Leana & Pil, 2006), namely, that successful school leadership builds both individual and social teacher capacities to improve teacher quality within and throughout the school.

The query at the heart of this study is whether there are other teacher capacity domains and associated elements at work in Australian improving secondary schools, and, if so, how do Australian leaders influence these in ways which improve quality teaching?

Supplementary study examining how Australian leaders influence these (and possibly other) capacity domains within Australian schools would be beneficial. Indeed, Davis, Darling- Hammond, LaPointe & Meyerson (2005) comment, "While there is increasing research on how principals influence school

effectiveness, less is known about how to help principals develop the capacities that make a difference in how schools function and what students learn" p. 5.

In depth, more nuanced qualitative Australian studies will add to large scale studies and quantitative data. A new Australian perspective will be explored by nesting the current study within contemporary understandings of teacher professionalism, then exploring how leadership influences these various capacities. This fine distinction sets the direction for the thesis and gives it its unique perspective.

Consequently, the current study offers new insights through an exploratory case study examining how successful school leadership (as it influences quality teaching) is enacted within Australian secondary school contexts.

Finally, the review of literature will explore the third wheel of the research design, namely how leaders influence quality teaching over time.

2.6 Subsidiary research question three: how are these influences enacted over a period of five years of school improvement

2.6.1 Development of quality teaching over time

The process of school improvement, through which successful school leaders influence the quality of teaching across the school, occurs over a period of time. Accordingly, in order to adequately capture the interactions among teacher, leadership and school variables, and determine the direction of proposed relationships, it is argued that empirical studies need to measure and examine the leadership influence over time (Hallinger & Heck, 2010).

Indeed, it can be contended that in exploring leadership influence on all aspects of teacher capacity (including individual, social and decisional), a consideration of changes over time are vital. This is due to the fact that individual, social and decisional teacher capacities develop and improve over a number of years.

Effective or quality teachers believe students can learn the content. They view and organise their teaching accordingly, examining student learning, reassessing and making adaptations to their teaching to ensure students achieve high quality learning outcomes (Hattie, 2012). Quality teaching takes time to develop.

It is suggested that it takes up to eight years to develop expertise in any profession (Hargreaves & Fullan, 2012). More recent studies have indicated teacher practice is likely to improve for a period of three to four years and then plateau without continuing professional learning (Kukla-Acevedo, 2009, as cited in Coe, 2013). In addition, a difference exists in teacher effectiveness and quality throughout varying phases of teaching careers (Hargreaves, 2012). In attempting to improve the quality of teaching, it is therefore appropriate to understand how these changes in individual teaching practice occur over time.

Teacher social capacity (or capital) resides in the relationships between teachers (Leana, 2011). The ability of people to work collaboratively for a common purpose is increased from networks, trust, reciprocity, resources and the norms within those relationships (Harris, 2008; Mulford, 2011). These social relationships develop and deepen over time.

Decisional capacity (or capital) is related to an accumulation of expertise and reflection from a number of years' teaching practice (approximately eight years)

which influences the effectiveness of teaching within the classroom (Hargreaves & Fullan, 2012). It is the capacity to make discretionary decisions or judgements (Hargreaves & Fullan, 2012).

Whilst teaching can improve over a number of years, improvement is not inevitable. Some teachers may gain experience over a number of years, but experience may not always translate to expertise. Indeed, there is strong evidence which indicates a difference between experienced teachers and expert teachers exists (Dinham, Ingvarson & Kleinhenz, 2008; Hattie, 2009). It has been suggested experienced teachers may repeat the same teaching and learning activities each year without improvement in their practice. Expert teachers, however, differ in the level and depth of challenge they present to their students, and the manner in which they manage the classroom (Hattie, 2003; Hattie & Jaeger, 1998).

Expert teaching is not innate; rather, it is the result of learning, motivation and ongoing professional development (Dinham, Ingvarson & Kleinhenz, 2008). This develops over a number of years through investment in teacher professional learning. While studies have indicated that years of experience and learning have a definite impact on teacher practice, the process whereby how leadership influences and develops teacher learning and development over time remains unclear (Wahlstrom & Louis, 2008).

Therefore, high quality teaching with its various individual, social and decisional capacities (or capitals) is, by definition, a process occurring over a period of a number of years that involves change and development in teacher capacity. This suggests that the empirical study of how leadership influences quality teaching

requires "…models that take into account changing relationships among relevant variables over time" (Hallinger & Heck, 2010, p. 9). Furthermore, the importance of the dimension of time must be emphasised, including the time required and the persistence of the effects, for leadership influence on quality teaching to occur (Hallinger & Heck, 2010).

How leaders influence the development of various decisional or other teacher capacity domains (or capitals) through learning opportunities such as pathways, career mentoring, risk taking, and innovation remains relatively unknown, particularly in Australian school settings. Understanding how the effects of school, leadership and teacher led processes unfold, requires data and a research design that can incorporate some of this complexity within the analysis (Hallinger & Heck, 2010).

In addition, whilst some leaders are able to influence and improve the quality of teaching within and across their schools (Lupton, 2005; Muijs, Aubrey, Harris & Briggs, 2004), once improved, the sustainability of their efforts becomes a major obstacle (Hargreaves & Fink, 2004; Harris, 2003). There is some evidence which suggests some school improvement efforts (as evidenced by increased student learning outcomes) in various contexts have been short lived (Hargreaves, 2009; Harris & Chapman, 2004; West, Ainscow, & Stanford, 2005). The data suggest, most early studies examining improvements in education were based on optimistic snapshots of early implementation and do not monitor effects over time (Hargreaves, 2009).

Some research examining sustainability of improvement efforts for student learning demonstrated that whilst many reform efforts produce short term

improvement in results, there is a tendency for initial test scores to reach a plateau or even regress once external support is withdrawn or leaders are succeeded (Hargreaves, 2009; Harris, 2006; Lambert, 2007). In addition, there is some suggestion that gains in student achievement levels can be attributed to teaching to the test, or beginning with lower baselines, so "…that what appears to be an improvement is actually a recovery" (Hargreaves, 2009, p. 93).

2.6.2 Studies examining how leadership influences quality teaching over time

Subsequently, features of leadership conducive to achieving sustainable improvement in quality teaching, rather than improved achievement tests, become of interest (Stoll, 2009). These characteristics can be identified through longitudinal study which explores changes in teaching and examines subsequent links with student learning outcomes (both social and academic). Such research designs which explore "…the sustainability of educational change (whether what matters, spreads and lasts) can only be addressed by examining change experiences in a range of settings from the longitudinal perspective of change over time" (Hargreaves, 2004, p. 3).

Furthermore, examining the indirect effects of leadership presupposes that leadership would influence the organisational capacity of the school, which "…suggests the process is one in which the organisation 'gains momentum' over time through changes in leadership and academic capacity that are organic and mutually responsive" (Hallinger & Heck, 2010, p. 26, 27).

Hallinger & Heck (2010) suggest that the majority of studies, however, examining how leadership influences quality teaching have adopted a cross sectional

research design making inferences related to changes over time difficult. Cross sectional designs are poorly suited to issues of validation when examining links in relationships (in this case, leadership influence on quality teaching) (Witziers et al., 2003, as cited in Hallinger & Heck, 2010). This is more evident when the research "…seeks to investigate the impact of leadership on school improvement, a process which by definition unfolds over time" (Hallinger & Heck, 2010, p. 4). Furthermore, although it is possible to test reciprocity in relationships using cross-sectional data, the limitations of this approach for understanding changes over time are considerable (Hallinger & Heck, 2010).

Understandings gleaned from studies of how successful school leadership influences quality teaching based on these cross sectional designs suggest various factors or variables of import. Whilst providing lists of features or factors of effective and improving schools, these studies do not demonstrate how to achieve and sustain these features over time, particularly in an Australian school setting (Hayes, 2005).

Therefore, it can be argued that these studies have, to a large extent, operated in isolation and are often characterised by lists or frameworks of what should be done, and followed to then assess the standards to be attained, with little explanation given on how to enact improvement, particularly how to obtain sustainable improvement at a school level (Fullan, 2012). Indeed, these studies give little insight into the complexities of influencing quality teaching to the point where all teachers are operating at an expert level.

In addition, longitudinal data of how successful school leadership influences quality teaching within a school setting is often difficult to obtain, on a scale

sufficient to assess the effects of leadership across comparable organizational units (Hallinger & Heck, 2010). Of those longitudinal studies which have examined how leadership influences quality teaching over time, the great majority have been systems based (Barber & Mourshed, 2007; Mourshed et al., 2010), or based in nations other than Australia (Day et al., 2009; Hopkins et al., 2011).

Australian based longitudinal studies relevant to how successful school leadership influences quality teaching have often been part of larger international study. These have either focused on school conditions for transforming schools (Caldwell & Harris, 2008), or on the nature of leadership success and sustainability itself (Drysdale, Goode & Gurr, 2008; Gurr et al., 2005; Mulford & Edmunds, 2009). Other Australian based longitudinal research has examined particular aspects such as leadership, productive pedagogy and student learning outcomes, but not changes in teacher quality over time (Lingard et al., 2001).

Despite data from multiple perspectives and over a period of up to four years (due to initial and return visits four years apart), the focus of these studies was not on leadership influence on quality teaching. Furthermore, the studies did not give a long term view of how this influence was enacted over time to improve various teaching capacities. This has resulted in incomplete explanation for how leadership influences quality teaching over time within Australian school settings.

A summary of international studies examining how successful school leadership influences quality teaching over time is outlined in Table 2.7 (see page 92).

The majority of the studies summarised in Table 2.7 framed leadership as an independent variable, or the driver for change. That is, most studies examining

Table 2.7

Summary of studies which have examined how successful school leadership influences quality teaching over time

Study	Moushed et al., (2010)	Higham et al., 2011; Hopkins & Higham, 2007	Hallinger & Heck, 2011	Hogan & Dimmock, 2011	Caldwell & Harris, 2008	Jensen et al., 2012
School Systems Studied	20 school systems	UK	UK	Singapore	8 systems including Australia	Examining high performing, improving systems
Teacher capacity	Individual, social and decisional	Individual and social	Individual and social	Individual	Individual and school based capitals	Individual
Findings	Differentiated improvement according to student achievement stages (poor to fair, fair to good, good to great, great to excellent). Interventions to improve quality teaching chosen according to improvement phase. Focus on curricula and standards; remuneration and rewards; assessment; data systems; improvement policy documents and other pedagogical reforms	Implementation of improvement followed iterative pattern: Clear mandates for improvement Belief and high expectations Building positive climate and culture Assess school achievement levels Cycle of improvement: diagnose, plan, action, assess	Leaders diagnosed school performance from student achievement data, classified schools and subsequently chose interventions to improve teacher quality. Capacity building, team building, collaboration key	Improvement following cyclical pattern: assessment or data, plan, action, review Centre for Research in Pedagogy and Practice (CRPP). Large scale study; beginning with pedagogies used within all Singapore schools.	Examining transforming systems by aligning three interwoven wheels; enriching capital, fostering a supportive culture and maintaining a moral purpose These wheels were aligned through investment in four *school capitals*, namely, intellectual, social, spiritual and financial	Various interventions focused on improving teacher quality including professional development opportunities within and outside the school; pre service training for teachers and leaders; how teachers and leaders learn; remuneration and recognition of quality practice; and, the attractiveness of the profession (leadership and teaching) to high achieving individuals

Note. Adapted from Caldwell & Harris, 2008; Hallinger & Heck, 2011; Higham et al., 2011; Hogan & Dimmock, 2011; Hopkins & Higham, 2007; Jensen et al., 2012; Mourshed et al., 2010.

how leadership influences quality teaching over time, whether international or nationally based, have explored this question by focusing on the practices of leadership which influenced the various teacher or school conditions (Hopkins et al., 2011; Lingard et al., 2001; Mourshed et al., 2010).

This approach follows traditional empirical research within the fields of school effectiveness and improvement where causal links between leaders' actions and student outcomes use simple direct effects (or mediated effects when studying indirect influence) models (Hallinger & Heck, 2010).

These models conceptualise and examine leadership in relation to its influence on mediating school-level variables (Hallinger & Heck, 2010; Leithwood et al., 2010). Mediating variables, as evidenced in the majority of studies in Table 2.7, consist of factors such as school climate, culture, vision, capacity building, professional learning and development, instructional programs. The focus on the direct influence neglects the reciprocal and interactive nature of leadership which, when influencing change over time will act on and, be influenced by, quality teaching and other factors. Furthermore, Hallinger (2003) stressed:

> Leadership must be conceptualised as a mutual influence process, rather than as a one-way process in which leaders influence others. Effective leaders respond to the changing needs of their context (p. 346).

Notably, Robinson (2006) contends most models and research examining successful school leadership follow a traditional approach of conceptualising leadership where the question of how leaders' impact teacher quality is asked after the theory is developed (Robinson, 2006). Educational leadership scholars (Honig & Louis, 2007; Jacobson, 2011) argue that the majority of their peers explore the leadership practices that have the most impact on student learning,

namely teacher quality whilst missing the mutual influence between leaders, teachers, students and parents.

By designing research in this manner, studies overlook the reciprocal, mutual influence process and the nature of leadership and teaching. This need to consider such influence provided impetus for this study's conceptual frame of backwards mapping design. In exploring how successful school leaders influence quality teaching there is an assumed interrelated and mutually beneficial nature of activity, context and social interaction within the learning community of the school (Prestine & Nelson, 2003).

In addition, direct and mediated effect models reflect 'great man' views of leadership which are contrary to the reality experienced within schools (Christie & Lingard, 2001; Mulford, 2008; Spillane, 2006). Multiple studies have established that successful school leadership is not the sole responsibility of one leader but also distributed or dispersed amongst staff (Day et al., 2010; Mulford, 2008; Spillane, 2006). Thus, Hallinger and Heck (2010) suggest the majority of contemporary research provides an incomplete picture of the relevant processes involved in how leadership influences and, is influenced by, quality teaching over time.

This is not to say that the field of educational leadership has not explored the reciprocal and mutual influence processes of leadership and teaching, rather, that such studies within Australia are rare. One example is the Australian based conceptualisation from scholars who acknowledge school leadership is "…interactive, reciprocal and evolving process involving many players that is

influenced by, and in turn, influences the context in which it occurs “ (Mulford, 2012, p. 103, 104).

Yet those Australian studies exploring these relationships (Silins & Mulford, 2002), have not explored these changing relationships, interactions and influences in a qualitative manner, over time. Nor have they undertaken qualitative inquiry within a secondary school that has achieved improvement over a sustained period, such as five years.

Indeed, few empirical studies of this kind exist at an Australian school level. The reviewed studies were predominantly from the United Kingdom or USA, were systems-based studies of leadership, or were conducted in a single nation context. They rarely examined mutual and reciprocal influence (Day et. al; 2000; Day et al., 2009; Hopkins et al., 2011; Mourshed et al., 2010). Whilst these studies are informative, Australian leadership operates in differing national and organisational cultures. Further Australian based studies within Australian secondary schools seem prudent.

The question at the heart of this study addresses how successful school leadership in two improving Australian secondary schools is understood and enacted in ways which influence quality teaching. No study was found which explored how this occurred within an Australian school context over a period such as five years of school improvement.

In order to address this, it is argued that an exploratory case study examining this third subsidiary question, through the use of retrospective interview data taken

over a period of five years of school improvement will add a worthwhile and significant contribution to the field.

Conclusion

This review of literature demonstrates that a substantial body of research has attempted to answer how successful school leadership influences quality teaching for improved student learning outcomes. Despite some influential Australian contribution, most of this research has occurred outside Australian contexts.

In particular, the review of educational leadership research and literature highlights:

- emerging conceptions of quality teaching or teacher professionalism have yet to be explored within the Australian school setting (Hargreaves & Fullan, 2012);
- no known studies have examined Australian school leaderships' influence on this notion of quality teaching (with various teaching capacity domains) within the improving Australian secondary school; and,
- studies are yet to explore multiple perceptions (Australian principal, school leader, teacher, parents and key personnel) of how this influence is defined and enacted over, for example, five years of improvement.

These 'missing links' in the chain of Australian educational leadership research became the focus of this study. Indeed, the review demonstrates that further research was necessary to expand upon, clarify and explore how successful school leadership influences quality teaching, particularly over a period such as five years of school improvement in improving Australian secondary school settings.

The next chapter will examine the methodology or loom upon which the study of how successful school leadership is woven, as it influences quality teaching, and how it is understood and enacted in two improving Australian secondary schools.

Chapter Three: Methodology

Introduction

This chapter describes the qualitative research approach and design employed in the study. Two schools were used for comparison within the exploratory case study. These were taken as purposive samples from two secondary schools which are in the vanguard of improvement, one in Tasmania and one in Queensland.

The methodology is presented in four sections. Each section mirrors the four research phases adopted throughout the study.

Section one outlines the research preparation:

- Research approach and design
- Research questions
- Review of literature guiding research design
- Case study design (backwards mapping design)
- Ethical considerations
- Purposive sampling of two sites

Section two describes the data collection phase:

- Multiple sources from two schools including principals, school leaders, teachers, key personnel and parents
- Multiple types of evidence in two schools such as interviews, observations, and artefacts
- Establishing a database
- Keeping a chain of evidence

Section three explains the method of analysis and interpretation:

- Data analysis
- Validity and reliability of data
- Data interpretation

Section four briefly discusses the format used for 'writing-up' the study.

- Writing using APA, 2010 guide

In considering these four phases and their components the researcher adopted the view that,

> The essence of good qualitative research design turns on the use of a set of procedures that are simultaneously open-ended and rigorous and that do justice to the complexity of the social setting under study (Janesick, 2000 in Denzin & Lincoln, 2000, p. 379).

The researcher, as the research instrument, undertook the role of designing and completing the study over a period of approximately four years (from October 2007-October 2009 and February, 2012-October 2013).

The qualitative research project was likened to a rich tapestry. The research design, data collection, analysis and interpretation were compared to the loom. The loom (representing the research design) facilitated the knitting of the tapestry (Welsh, 2002, as cited in Jones, 2007). Using this organising metaphor, the key threads of leadership and quality teaching, and various yarns (or themes) were interwoven over the loom to form the tapestry or fabric of the study.

An overview of the research procedure, including research phases, components and time-line of the study, is shown in Table 3.1 (see page 100, 101).

Table 3.1
Research Procedure for Exploratory Case Study

• **How is successful school leadership, as it influences quality teaching, understood and enacted within two improving Australian secondary schools?**			
Research Phase	**Research Components**	**Detailed Actions**	**Timeline**
Phase One: Preparation	Research approach and design	Defining goal, aims, purpose	2007
		Choosing research approach from aim and purpose	
	Research questions	Refine main research question and subsidiary questions	
		Formulate backwards mapping framework to address research questions	
	Review of literature informing methodology	Exploring literature, identifying themes	2008, 2009 and 2012
		Formulating focus, analysing, interpreting, integrating literature, reaching saturating point	
		Writing literature review	
	Case study design	Protocol	2009
	Ethical considerations	Minimum Risk Ethics Application	Approval August 2012
		Risks to consider and minimize	
		Issues arising	
	Sampling: purposive	Participant selection	August 2012
		Participant recruitment	
Phase Two: Data Collection	Multiple sources from two schools	Principals	August-October, 2012
		School Leaders	
		Teachers	
		Parents	
		Key Personnel	
	Multiple types of evidence in two schools	Interviews	
		Observations	
		Documents, archival records and artefacts	
	Establishing database/ Chain of evidence	Interviews transcribed	
		Transcription sent to participants for validation	
		Data entered into database using NVivo10 software.	

Table 3.1
Research Procedure for Exploratory Case Study

Research Phase	Research Components	Detailed Actions	Timeline
Phase Three: Interpretation and Analysis of Data	Data Analysis	Case Description Strategy Inductive Analysis using the following techniques: • constant comparison, • classical content analysis, • word count, • taxonomic analysis, and, • componential analysis	July 2012 to January 2013
	Validity of qualitative data	Internal validity External validity Construct validity Reliability Bias and assumptions	Throughout exploratory case study
	Data Interpretation		
Phase Four: Writing Research Thesis	Writing using APA, 2010 guide		Ongoing throughout the research with final thesis completed for submission in September, 2013.

Note. Adapted from Onwuegbuzie et al., 2012; Yin, 2003

Research procedure

3.1 Phase One: Preparation

3.1.1 Research approach and design

A qualitative approach was chosen for the study, not for convenience, but in response to the research problem and question (Blum & Muirhead, 2003). Qualitative inquiry fosters the opportunity for holistic, in-depth investigation. It supports the researcher to explore issues, appreciate the uniqueness and complexity of each case and secure a greater understanding of the phenomenon of interest (Flick, 1998; Stake, 1995).

An exploratory case study utilising two school sites was designed. Data gained from the two sites were compared to explore the situation of interest. The multiple, two-case design allowed for sound analytical conclusions. This arose from direct replication of specific questions in differing contexts which elicited common themes (Yin, 2003).

The two threads of successful school leadership and quality teaching represented the case or situation of interest. The case study acted as the research strategy. The exploratory case study was chosen as the most relevant technique in answering questions where the purpose of the study is to seek new insights, ask questions and assess the phenomena in a new light (Robson, 1993; Yin, 2003).

This strategy allowed for in-depth and rich comparison of the data concerning perceptions of principals, school leaders, teachers, key personnel and parents. These perceptions, or recalled experiences, were related to how successful school leadership in two improving Australian secondary schools was understood and enacted in ways which influence quality teaching.

The chosen methodology has a number of advantages including its ability to:

- extend previous empirical investigation, adding further depth and insight (Stake, 1995);
- give multiple viewpoints (Tellis, 1997); and,
- provide fresh perception and perspective on leadership and quality teaching through the use of a humanistic paradigm.

Gunter and Ribbons (2002) suggest that research within the field of educational leadership utilises five knowledge domains to describe and understand leadership and its influence on student learning outcomes. These are humanistic, conceptual, critical, instrumental and evaluative domains (Gunter & Ribbons, 2002). The instrumental and evaluative domains are the most commonly used to understand educational leadership and its relation to quality teaching (Babchuck & Badiee, 2010; Gunter & Ribbons, 2002). Here the focus is on what successful school leaders do (instrumental) to influence quality teaching, along with the measurement of the extent of the impact of those influences on student learning outcomes (evaluative).

This tendency towards instrumental and evaluative domains is particularly so in large scale quantitative Australian studies, including that of Lingard et al., (2001) and Silins & Mulford (2002). These studies utilised both instrumental and evaluative orientations in examining what leaders do to improve student learning outcomes and measuring the impact of those actions on teacher instruction and student learning outcomes. Similarly, the Australian longitudinal work within the ISSPP favoured an instrumental approach as it examined what successful school leadership does to influence student learning outcomes (Mulford & Edmunds, 2009).

The current study deliberately chose a humanistic approach to build on these Australian studies, exploring participants' experience as leadership influenced quality teaching within the two improving schools. Here an exploration of the perceived realities of those within the schools, along with apparent tensions, complexities and challenges experienced offers new insights and perspectives to that which is currently understood.

The exploratory case study will provide opportunity to thoroughly investigate the influence leadership has on quality teaching within its real life context. That is, the influence leadership has on quality teaching within the socially embedded context of two improving secondary schools. Examination of perceived realities of those within schools, through the analysis of in-depth interviews, observations and documentary evidence illuminates quantitative findings, adding a fresh perspective and alternative view.

Common criticisms of qualitative research and case study include: a lack of rigour in data collection and analysis, issues of researcher bias, lack of reproducibility or generalizability, and, the target of a limited number of events and conditions (Yin, 2003). Often these arguments are made on ideological grounds where assessment is made on values or methodological preferences (Foskett, Lumby & Fidler, 2005). Research methodology however, must be appropriate to the research questions and not dictated by personal preference or interest.

Indeed, Yin (2003) argues when a case study is undertaken using an all-encompassing method, which covers the logic of design, data collection and specific approaches to analysis, a qualitative inquiry is of equal value to other methods (Yin,

2003). The researcher utilised the case study approach outlined by Yin (2003). This approach consists of four phases of design which are:

Phase One: Preparation with protocol.

Phase Two: Collecting data while incorporating three principles to increase quality and sustainability in the field,

Phase Three: Analysing and evaluating data and,

Phase Four: Preparing the report.

This is evident in the four phases of the case study procedure outlined throughout the chapter (refer also to Table 3.1 on pages 100, 101) and followed sequentially in the current exploratory case study. In so doing, the researcher ensured high standards of empirical research were maintained throughout the study.

As a stand-alone study the research offered a unique and significant contribution to the field of educational leadership. It enabled issues and themes to emerge from analysis of rich and detailed data. The study allowed observation and extraction of the problems inherent within Australian secondary school settings (including political, social, historical and personal contexts) (Stake, 1995). The qualitative inquiry, through exploratory case study, presented an example of the realities faced by Australian educators, with close attention to clarity, depth and rigour (Stake, 1995).

3.1.1.1 Goal, aim and purpose

As research in qualitative inquiry is often directed at the exploration, classification and hypothesis development stages of the knowledge building process, it is anticipated that findings from the study may contribute to further larger scale research (Stephen, 2005).

Due to the small number of sites used in the exploratory case study it was not possible to deduce that all conclusions were found in all improving Australian secondary schools. However, the variety of data, multiple perspective and attention to external and internal validity, support some particularizations. Here,

> Readers take from case studies a sense of the case as exemplary, with general lessons to teach. They believe themselves to be learning not just about particular people but about people who are like them, not just about particular situations but about a class of situations (Stake, 1995, p. 168).

Thus, the goal was not for theory development, but to develop pertinent propositions for further inquiry (Yin, 2003). As such, the study offered a unique insight into how successful school leadership influence quality teaching within two improving Australian secondary schools. Consequently, the aims of the study were as follows:

1. to describe how quality teaching was understood within two Australian secondary schools;
2. to explore how successful school leadership influenced the quality of teaching within the two improving schools; and,
3. retrospectively to document the process by which successful school leadership enacts these influences for improving teacher quality, through a focus on perceived changes over a period of five years.

3.1.2 Research questions

Together, the three undertakings answered the previously mentioned subsidiary and main research question, 'How is successful school leadership, as it influences quality teaching, understood and enacted within two improving Australian secondary schools?' These questions were explored sequentially. Beginning with the first subsidiary question and progressing through to the third, the research wove the two

threads of Australian leadership practice and quality teaching as the relevant and significant yarns for study and exploration.

3.1.3 Review of literature informing methodology

An extensive review of the literature relating to the domains of educational leadership and quality teaching was undertaken. Much of the educational leadership research reviewed, either involving Australian samples or studies based within Australia, relied heavily on meta-analysis (see for example, Robinson et al., 2008), quantitative investigation (Silins & Mulford, 2002) or large scale longitudinal research (Lingard et al., 2001), often with focus on a singular aspect of leadership or quality teaching. The studies attempted to determine the influence successful school leadership has on teacher quality within school settings. When synthesised, these Australian studies (see Dinham, 2005; Hayes et al., 2004; Lingard et al., 2001; Silins & Mulford, 2002) offered a robust understanding of what successful school leaders do to influence teacher quality within individual classrooms.

Yet the standardised precision offered from these research designs did not elicit full reports of how this was enacted, understood or experienced by principals, teachers, parents, key personnel and school leaders within the complex environs of the improving Australian secondary school. Such research methods give concrete answers on what, but leave us "… in relative darkness about 'why' or 'how'" (Holland, Thomson & Henderson, 2006, p.1).

Of the Australian studies examining successful school leadership and quality teaching, each used qualitative research in conjunction with larger quantitative studies (Lingard et al., 2001; Mulford & Edmunds, 2009; Silins & Mulford, 2002). These multiple methods strengthened each research design, providing enrichment,

instrument fidelity, integrity and significance (Leech & Onwuegbuzie, 2007). Yet, when designed this way, the qualitative studies of Australian schools lost their unique value where details were subsumed in the quantitative framework (Holland et al., 2006).

Indications, however, from qualitative studies suggested Australian successful school leadership focused on building both individual and social capacity to lift the quality of teaching within their schools (Douglas & Harris, 2008; Gurr et al., 2005; Hayes et al., 2004). Elements of leaders influencing decisional capacity were also evident in some Australian studies (e.g. Dinham et al., 2008; Silins & Mulford, 2002).

Yet, to date the study was unable to find an Australian study which had explored how leadership influenced quality teaching (understood as comprising at least three teaching capacity domains) over a period of time, say, for example five years. Nor was it able to locate such a qualitative case study based in an improving school that had experienced sustained, long term improvement in the quality of teaching over a number of years.

Further exploration of the nature of quality teaching within Australian secondary schools along with how successful school leaders influenced this over time was recommended.

Thus, further detailed, rich and descriptive data from unique case studies will build on Australian educational leadership literature. Using this review of extant literature, the researcher then designed the exploratory case study in an effort to begin to address the need for more targeted Australian research.

3.1.4 Case study design

The exploratory case study utilised a backwards mapping design to direct and inform the investigation of the three aims and corresponding subsidiary questions. The research moved sequentially from part one through to part three as shown in Figure 1.2 (on page 34 and again here).

Figure 1.2 The research design explained using a backwards mapping design

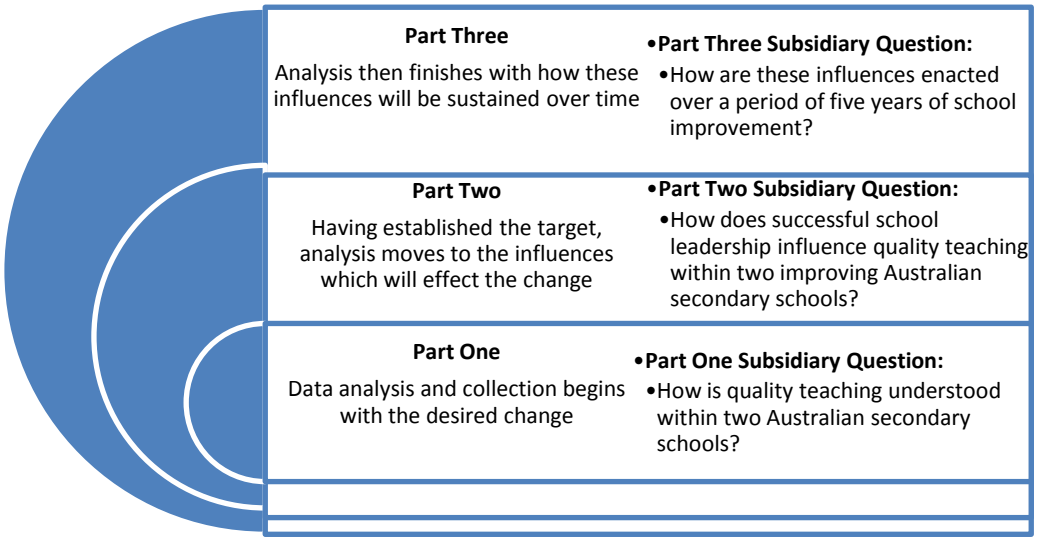

Figure 1.2 Denotes the backwards mapping research approach utilised by the study. The left hand column represents the sequence of the data collection and analysis; the right hand column gives the corresponding research question for each part.

A backwards mapping design is a conceptual framework proposed by Elmore (1979) for effectively researching and focusing case studies on issues of implementation of policy. This seemed a prudent method, given that the exploratory case study was designed to address the challenge faced by Australian educators to lift the quality of teaching for improved student learning outcomes. Indeed, the logic of backward mapping is that it begins not at the,

> …top of the implementation process but at the last possible stage, the point at which administrative actions intersect …it begins with a statement of the specific behaviour at the lowest level of the implementation process…only after that behaviour is described does the analyses presume to state an objective (Elmore, 1979, p. 604).

Backwards mapping is an analytic approach which begins data collection and analysis with the specific behaviour required or desired (Elmore, 1979). The approach grounds the study in the desired area for change (i.e. quality teaching).

Several scholars have suggested backwards mapping is an approach of merit when attempting to understand how effective leadership influences quality teaching (Prestine & Nelson, 2005; Robinson, 2006). Backwards mapping suggests an alternative approach to theory development, employing the "…logic of backwards mapping (where) theories of educational leadership should be grounded in our best evidence about effective teaching i.e. teaching which has positive impacts on students" (Robinson, 2006, p. 62).

In this study, backwards mapping begins with an understanding of quality teaching. Adapting Elmore's (1979) backwards mapping research design, the case study progressed in the following manner:

Part One: Data collection and analysis begins with the desired change, that is, quality teaching;

Part Two: Having established this target, analysis moves to the structure, organisation, resources and process most likely to affect or influence the desired behaviour, in this case leadership influence; and,

Part Three: Analysis focuses on how these influences are most likely to sustainably improve over time (a retrospective examination of how leaders influence quality teaching over time).

The emphasis is not on the policy maker, leader or other influencers; rather it is on the one with the most power to implement the desired effect. That is, the teaching profession within the Australian school (Elmore, 1979). In so doing, backwards mapping enables the analysis to "…focus leadership on instructional improvement and define everything as instrumental to it" (Elmore, 2000, p. 14).

The backwards mapping design provided a frame and basic direction for the study (Patton, 1990).

3.1.5 Ethical considerations

Once the research approach, design and focus were clarified, the research sought to ensure high standards of ethics were maintained throughout the study. Ethics of duty and relational ethics were considered. These are outlined in Table 3.2 (pages 112, 113).

This laid the foundation for ethical practice during recruitment, data collection, analysis and final reporting. Students were not involved in the study and thus the study was considered minimum risk for the purpose of the Ethics Application (Holland et al., 2006).

The researcher acknowledged issues of power throughout the study. In particular this was considered when trust had been established and participants shared deeply personal experiences. These personal accounts were removed from the transcripts out of respect for the participants and labelled, 'off the record comments'.

Table 3.2

Ethical practice and procedures

Theme 1: Ethics of duty	
Ethics application	Preparation of rigorous minimum-risk ethical application outlining issues such as consent, confidentiality, and anonymity
	Potential risks to participants identified included: • some discomfort felt by interviewees should they feel their practice was not what they thought it was, their personal values and beliefs may be challenged or those being observed may feel under pressure; • voluntariness and dependency issues where leaders may be motivated by a need to portray their school and leadership as exemplary, leading to coercive behaviours (whether overt or not) towards teachers and parents; • differences amongst staff may be revealed which may affect relationships amongst staff
	Plans to minimise risk via: • principals and school leaders were not informed the identity of participants in study; • possible risks were discussed with research participants in order to secure confidence and trust; • participants were assured that whilst every effort will be made to avoid these risks; • Supervisor and Co-Supervisor were available to discuss any concerns and discomfort that may have arisen; • during every aspect of the research, participants were reminded of these risks prior to the commencement of activities and given the opportunity to withdraw from any/ or all aspects of the study.
	Application submitted to The University of Tasmania Ethics Committee and granted approval (see Appendix B, Ethic Approval to Conduct Research).
Theme 2: Relational ethics	
Recruitment	Procedure ensured principals and school leaders did not know who was participating in study to avoid issues of coercion (See Appendix C, Email to Principals)
Entry to the field	Invitation to participate, introduction to the project and process using ethical practice as outlined in Ethics Application (See Appendix D, Invitation to Participate, Appendix E, Information Sheets and Appendix F, Consent Forms)
Data collection	*Non identifiable data* • all observations, interviews, gathered data and all assessment data remained strictly confidential and was non-identifiable. • Identification of schools, leaders, teachers and parents were masked by pseudonym and no identifying information was recorded. As improving schools were selected from publicly available achievement data, peer recognition or awards, there may be some risk of re-identification, however, every effort was made to minimise and avoid this. • Interviewee tapes and transcripts were labelled generically and participants assigned a code name (Pseudonym) and number. For summary of Participants and Pseudonym see Appendix G2, Participant Details and Pseudonyms. • Participants were asked not to provide identifying information about others during the interview (i.e. no family names). In the event that identifying information about individuals or the school was provided it was removed from the transcripts.

Table 3.2

Ethical practice and procedures

Theme 2: Relational ethics	
Data collection	• All data was kept in a locked, secure cabinet in the researcher's office within the School of Education at The University of Tasmania, Hobart, or with secure password protected server. Once the study is complete, all paper files will be shredded and electronic files deleted.
Analysis and interpretation	• A transcript of each participant's interview was returned to them to ensure their expressed wishes were complied with, prior to publication. Should the participant wish, they will receive a summary of the final overall results • The researcher continually informed and shared findings with the participants in order to maintain integrity of information and data. • In addition, participants will be able to talk with the Chief Investigator or other Investigator should they feel the need to.
Final write up and presentation of study	Completed results will be made available through access to reports at scholarly meetings, articles in refereed journals and other publications.

During every aspect of the research, participants were reminded of potential risks prior to the commencement of activities and given the opportunity to:

- Decline to answer any or all of the questions; or
- Ask that observations cease; or
- Request to withdraw from participation in the project.

Maintaining trust continued throughout the data collection and over the course of the study. Transcripts of interviews were returned to participants as promised as an attachment in an email. The transcripts displayed non-identifiable data which built further trust (Janesick, 2002). The email asked participants to read the transcript and reply to the researcher if there were any changes regarding discrepancies, anything they would like to add, or anything they would like to be removed. Only one participant requested a change. This was the withdrawal of a small portion of interview data which was honoured and permanently deleted from the transcript.

Every opportunity to withdraw from the study was given both during data collection and after. No participant withdrew from the study.

Furthermore, in order to maintain ethical standards, the researcher sought constant input from others. This included critical colleagues, particularly supervisors. Regular meetings ensured opportunity to discuss the project and any potential risks arising. Critical colleagues were also available to support participants should they desire or address any concerns (see Appendix E, Information Sheets). At no stage of the project was this support sought from participants.

3.1.6 Sampling

3.1.6.1 Participant selection

Two secondary schools were used as sites for comparison in the exploratory case study. These were taken as purposive samples. The secondary schools which were selected were in the vanguard of improvement, one in Tasmania and one in Queensland. Selection was through four criteria:

1. Secondary schools;
2. Larger schools of over 800 students;
3. One public and one private school; and,
4. Evidence of school improvement and successful school leadership.

The researcher chose to study larger secondary schools as previous Australian studies had shown smaller schools were more likely to be achieving organisational learning than larger schools (greater than 900) (Silins & Mulford, 2002). This would be attained by exploring how successful school leadership influenced quality teaching in larger secondary schools with a view to understand aspects of school

organisation, faculty size, shared leadership and collaboration across various school departments.

The fourth criterion, evidence of school improvement and successful school leadership, was gained through referring to the definition of both improving schools and successful school leadership (as outlined in definition of terms in Chapter 2). Specifically,

- *The criteria for improvement* were schools that had achieved significant, sustained and widespread gains over the past five years (Mourshed et al., 2010) on student learning outcomes as measured by international (PISA, TIMSS) or national assessments (NAPLAN, HSC).
- *Three indicators for successful school leadership* were a positive external school review, increasing student learning outcomes and achievement scores, and peer recognition (Gurr et al., 2003).

Using these criteria the **two improving Australian secondary schools** were selected through:

- the Australian National Institute of Quality Teaching and School Leadership Quality. Participating schools were chosen from the annual awards finalist list. To be a nominated finalist, successful school leaders and their improving schools are nominated from peak bodies. They receive positive peer review. The nominees undergo a stringent process of external selection and review as identified by clear data demonstrating increases in student learning.

To further validate these nominations, the researcher checked public data sets available online through various websites such as *MySchool* and *Better Education*. In addition, the researcher explored other publicly available records which included peer recognition and positive review.

The sample was limited to two improving schools to enable the researcher to experience the situation over time and answer the research question fully (Janesick, 2000, in Denzin & Lincoln, 2000). A description of the two schools is outlined in Table 3.3. A more detailed account in Appendix G, Item G1.

There were a total of 30 interview participants from the two schools. These varying perspectives were obtained as "…it is important to gather data on school operations and results from sources other than school principals, who tend to overestimate the effectiveness of reforms" (Mulford et al., 2007).

Table 3.3

Description of two schools sites for exploratory case study

School A	**School B**
School Location	
Queensland	Tasmania
School Type	
Independent	Public
Student Cohort	
All girls Grade 8-12 Over 1100 students	Co-educational Grade 7-10 Over 800 students

In School A sample there were:

- 1 principal
- 5 school leaders
- 7 teachers

- 2 key personnel
- 5 parents

Within School B sample there were:

- 1 principal
- 2 school leaders
- 5 teachers
- 1 key personnel (former principal)
- 1 parent

3.1.6.2 Participant recruitment

Two schools were invited to participate in the study via an introductory email (see Appendix D). Each school accepted the invitation. A preliminary meeting with the Principal from School B and initial email contact with the Principal from School A (due to distance) addressed:

- the purpose of the project;
- an invitation to participate for all participants (see Appendix D, Invitation to Participate);
- information about the project (see Appendix E, Information Sheets);
- a set of guiding interview topics for staff and parents (see Appendix H, Guiding Interview Questions, Items H1-H4);
- observation schedules (see Appendix I, Observation Schedule);
- explanation of how teachers, leaders, parents and key personnel would be invited to participate during a whole school staff meeting, through school newsletter or email from researcher (for key personnel);

- possible risks including coercive behaviour between leadership and staff or impact on relationships between staff;
- how the potential risks would be addressed throughout the project;
- a request for the principal to not brief staff regarding the study at any time during the project, with all concerns to be addressed to the researcher or supervisory team; and,
- information regarding confidentiality of information and the capacity to retrieve and destroy information or withdraw from the study at any time.

Signed consent was gained from each Principal and arrangements were made to address the staff meeting at each school (see Appendix F, Consent Forms).

With the Principal's agreement, teachers, leaders, and key personnel were invited to participate at a whole school staff meeting. A two-step process was undertaken as follows:

Step one: An explanation of the project providing

- information of purpose and aim;
- potential involvement for teachers, leaders, parents or key personnel (including interviews, observations, collection of artefacts);
- discussion of potential risks and the manner in which these would be addressed;
- opportunity to answer concerns or queries directly.

Step two: An invitation to participate was given with:

- emphasis on the possibility to be involved in none, some or all of the components of data collection; and,
- documentation including invitation to participate, information sheets and consent forms.

For those parents, key personnel and staff who were not at the whole school staff meeting, an invitation to participate in the study was issued via school newsletter or email. The same two-step process as above was followed where opportunity to explain the project, participation requirements and possible risks were given; invitation to participate, information sheets and signed consent forms were given; and, schedules were arranged for interview.

At no stage were the principals or school leaders informed about the teachers, parents, key personnel or school leaders who decided to participate. This was in reference to the project's strong adherence to relational ethics, where power tensions and issues relating to professional identity during reflective dialogue were upheld (Zigo, 2001).

3.2 Phase Two: Data collection

Data collection across the two sites occurred over a period of three months, from August 2012-October, 2012. Time in the field for each school varied due to each school's location, time and financial constraints on the researcher. Due to the need to travel to Queensland, the researcher spent one intensive week within School A.

Field research in School B occurred over a longer period of five weeks. Interviews were staggered over the weeks, at times a number of weeks apart. This gave time to establish rapport, build trust and gather information within the context of the participants' lives (Denzin & Lincoln, 2000). Field research in School A was conducted over one week. The researcher established rapport, trust and gathered information by continuing email contact with the participants during the period of data collection. Documentary evidence was collected over the three months of data collation.

The limited time in School A allowed for only one observation of a whole school staff meeting, whereas in School B, four observations were undertaken in whole school staff meetings. Consequently, the exploratory case study chose to rely more heavily on the analysis of data from interviews and documents in both schools to ensure some equal understanding of the data.

3.2.1 Sources and types of evidence

Table 3.4 (see pages 121, 122) outlines the process of data collection including multiple sources and types of evidence, as utilised in the study. The activities presented in the left hand column highlighted their relationship to activities in the normal part of the school day. On the right hand side, parallel research activities indicated those data collection experiences that were in addition to school routines. These formed supplementary activities for the purpose of the research.

In both schools, the principal, school leaders, teachers, key personnel and parents were the primary source of data. From these sources, five types of evidence were collated, namely: interviews, observations, documents, archival records and physical artefacts. These were collated in a comprehensive and systematic manner, referencing and sorting data to allow details and insights to emerge (Yin, 2003). A summary of exact numbers and types of data sources are contained in Appendix J.

3.2.1.1 Interviews

Semi structured interviews occurred to gain insight into how successful school leadership (as it influences quality teaching) was understood and enacted in the two improving schools. The interview schedules are in Appendix H. Several common questions were asked of the respondents to give consistency and allow for comparison of response; however, questions were used as a guide and adapted

Table 3.4

Data collection procedures

Usual School Activities	Parallel Research Activities
PRINCIPAL	
Professional learning where the researcher **observed** principal leading teacher learning via opportunities such as collaborative learning, professional learning communities, professional development, coaching, school walks, review	Principal participate in **3 interviews** for approximately 45-60 duration each. These were audio recorded and later transcribed. Two interview schedules (See Appendix H, Items H1-H2) were used: 1. For current improvement initiatives 2. Retrospective interviews, to chronicle and comment on past improvement interventions to improve teacher quality. During the interview and discussion Principals were asked to chronicle their perceptions and experience of main interventions for improving teacher effectiveness in a granular manner, specifying • intervention type (resource, process or structural), • action, • resource, • time frame, • change management strategy • evidence of success during the five year period of improvement.
	Principals were asked to **provide data** relating to school improvement, including school improvement plans, action plans, reviews, reports and student learning improvement data
SCHOOL LEADERS (Deputy Principals, Assistant Principals, Heads of Faculty or Department)	
Professional learning where the researcher **observed** school leaders and their involvement in teacher learning via opportunities such as collaborative learning, professional learning communities, professional development, coaching, school walks, review	School Leaders participate in up to **3 interviews** each approximately 45-60 minutes duration. These were audio recorded and later transcribed. Two interview schedules (See Appendix H) were used: 1 For current improvement initiatives 2 Retrospective interviews, to chronicle and comment on past improvement interventions to improve teacher quality. During the interview School Leaders were asked to chronicle their perceptions and experience of main interventions for improving teacher effectiveness in a granular manner, specifying • intervention type (resource, process or structural), • action, • resource, • time frame, • change management strategy • evidence of success during the five year period of improvement.
	School Leaders were asked to **provide data** relating to school improvement, including school improvement plans, action plans, reviews, reports and student learning improvement data

Table 3.4

Data collection procedures

Usual School Activities	Parallel Research Activities
TEACHERS and KEY PERSONNEL (Non-teaching staff, former principals)	
Professional learning where the researcher **observed** teacher learning via opportunities such as collaborative learning, professional learning communities, professional development, coaching, school walks, review	Teachers and key personnel participate in 1 **interview**, approximately 45-60 minutes duration. The interview was audio recorded and later transcribed. Two interview schedules (See Appendix H) were used: 1. For current improvement initiatives 2. Retrospective interviews, to chronicle and comment on past improvement interventions to improve teacher quality. During the interview School Leaders were asked to chronicle their perceptions and experience of main interventions for improving teacher effectiveness in a granular manner, specifying • intervention type (resource, process or structural), • action, • resource, • time frame, • change management strategy • evidence of success during the five year period of improvement.
	Teachers and key personnel were asked to **provide data** relating to school improvement, including school improvement plans, action plans, reviews, reports and student learning improvement data
PARENTS	
	Parents were asked to participate in **one group interview** of 5 parents to discuss current and past improvement initiatives as they relate to improving teacher quality. The group interview was approximately 45-60 minutes in duration. These were **audio recorded** and later transcribed.

throughout the interview to illuminate responses of interest. The interviewer actively listened, followed up on points of interest, asked for clarification when necessary and sought detailed examples or stories (Seidman, 1998).

In addition, the researcher transcribed each interview personally, enabling an immersion in the data. This allowed for deeper understandings and a fuller knowledge of the experiences of principals, leaders, teachers, key personnel and parents as they related to leadership and its influence on quality teaching (Stake,

1995). To ensure validity of accounts, a number of respondents were interviewed in the belief that "…richly detailed accounts of vividly remembered events are likely to be trustworthy" (Denzin & Lincoln, 2000, p. 150).

3.2.1.2 Observations

Observations of professional development activities were anecdotal and recorded in the researcher's field journal. These opportunities included peer presentation or discussion and collaborative planning for a new school improvement plan. Set in the socially embedded contexts of the school, observations provided valuable details, interpretations and opportunities to correlate the interview data (Denzin & Lincoln, 2000).

Yet the researcher acknowledged that observations can contain error or bias where the capacity to interpret actions are 'often in the eyes of the beholder' (Luke, 2003). Observers within the QSRLS (2001) reported,

> … three researchers went into classroom to code for inclusivity. The result was one confused research exercise: I was watching for whether the Asian kids were being included, M was looking for the girls and boys breakdown and none of us saw the deaf kids in the back row (Luke, 2003, p.16).

Acknowledging this potential to overlook or possibly misrepresent professional learning, the researcher sought to validate data using other sources and gained access to notes taken by participants during learning activities. These documents were freely shared with the researcher.

3.2.1.3 Documents, archival records and artefacts

Several documents, archival records and artefacts were collected throughout the case study both during and after the site visits. These included research papers, online documents from both schools' websites, and presentations from both Principals recorded on YouTube. In addition, external review documents (surveys) were

documented, together with school annual reports, documents from staff including professional learning journal, and written accounts of artefacts of significance. Despite the understanding that documents are not always accurate representations, or without bias, these were collected as secondary data to corroborate and augment evidence from other sources (Yin, 2003).

3.2.2 Establishing the database

An extensive database was established containing:

- 31 interviews, of over 350 pages including retrospective data;
- 60 pages of field notes of observations and artefact descriptions;
- 26 documents including research papers, school improvement plans and newspaper articles written by the respondents;
- transcripts from participant presentations on YouTube; and,
- 12 archival records were established.

The study utilised the software, NVivo10 to store the data on this database according to school and data type. It was used to reliably store all material and facilitate efficient retrieval of data (Yin, 2003).

The use of computer software allowed thorough and rigorous coding and interpretation where blocks of data from each source was deconstructed into textual segments which retained their contextual meaning (Tesch, 1990, as cited in Jones, 2007). These textual segments were coded, distilled and re-contextualised into themes based on an accumulation of evidence from the interviews, observations and documents (Jones, 2007).

3.2.3 Chain of evidence

A chain of evidence was maintained throughout the study. This enabled tracing of the evidentiary process both from beginning to end, and back again. Thus, a link could be established from the findings and interpretation, to the evidence in the database (along with notation of when it was collected), to the research protocol, and, finally to the research questions (Yin, 2003).

3.3 Phase Three: Interpretation and analysis of data

3.3.1 Data analysis

The analytical strategy used in the study followed 'case description' where a descriptive framework organised the case study (Yin, 2003). The descriptive framework, as previously described was the backwards mapping design (Elmore, 1979).

This was chosen for three reasons. First, the use of theoretical propositions or theories as a basis for analysis was inappropriate given the exploratory nature of the case. In addition, the available literature did not lend itself to propositions or causal claims suitable for an exploratory case study.

Whilst the threads of knowledge gleaned from the review of literature informed the purpose and focus of the study, grounding it in well-documented evidence (Mulford, 2005), the study was not limited by them. Indeed, every attempt was made to make sense of the data without imposing pre-existing expectations on the study.

Second, various analytical strategies were not optimal for the case. For example, 'rival explanations' is a strategy used to define and test the case against rival theories. This is particularly useful when undertaking case study evaluations (Yin,

2003). The exploratory, rather than evaluative, nature of the case did not lend itself to this strategy. Another approach, grounded theory is particularly useful for developing theoretical frameworks from constant comparison of the data (Strauss & Corbin, 1998). Yet, the case study did not seek to develop theory, rather propositions for further exploration.

Third, the descriptive approach using the backwards mapping design was the deemed the most appropriate method for the purpose of the study. In so doing, the study was designed to provide rich, detailed descriptions. Consequently, developing a 'descriptive case' through the use of the backwards mapping design was the most relevant analytical strategy (Yin, 2003).

Using this strategy as a base, the researcher then developed an iterative, inductive process involving preparation, exploration, illumination and formulation (Janesick, 2000, cited in Denzin & Lincoln, 2000).

Analytical techniques of constant comparison, classical content analysis, word count, taxonomic analysis and componential analysis were used (Onwuegbuzie et al., 2012). In this manner, a rigorous and systematic process of analysis was undertaken. Table 3.5 (see page 127) summarises the process and chosen analysis techniques for the case study.

The process of data analysis involved systematically searching and arranging interview transcripts, observation records, field-notes and other artefacts to establish findings. These processes were iterative and undertaken using both computer assisted tools (NVivo10) and manual tools (written documents by researcher).

Table 3.5

Summary of the process of analysis and interpretation

Source of Data	Type of Analysis Technique	Short Description of Analysis
Interview	Constant comparison analysis	Beginning with transcripts undertaken by researcher, reducing data to codes systematically, then developing themes from the codes *NVivo10*
	Classical content analysis	Counting the number of codes to identify strongest themes *NVivo10*
	Word count	Counting the total number of words used or the number of times a particular word is used to identify themes *NVivo10*
	Key words in context	Identifying key words and utilising the surrounding words to understand the underlying meaning of the key word *Manual process*
		From the above four techniques, identifying key themes for each question *Manual process*
	Taxonomic analysis	Using themes, creating a system of classification that inventoried the domains into a flowchart to begin to understand relationships between the domains *Manual process*
	Componential analysis	Using tables to discover the differences among the subcomponents of domains *NVivo10*
Observation	Constant comparison analysis	Using anecdotal records, reducing data to codes systematically, then developing themes from the codes *NVivo10*
	Key words in context	Identifying key words and utilising key words to understand the underlying meaning of the word *NVivo10*
Documents	Constant comparison analysis	Using transcripts or notes from records, reducing data to codes systematically, then developing themes from the codes *NVivo10*
	Key words in context	Identifying key words and utilising key words to understand the underlying meaning of the word *Manual process*
	Componential analysis	Using tables to discover the differences among the subcomponents of domains *Manual process*

Note. Adapted from Onwuegbuzie et al., 2012.

The data analysis process demanded that the researcher demonstrate two key skills: one, the capacity to employ intuition and creativity through reflection, description and explanation (Janesick, 2001) and, two, the ability to systematically organise, interrogate and interpret the data (Onwuegbuzie et al., 2012). This involved both art and science (Schwandt (2007, as cited in Onwuegbuzie et al., 2012).

3.3.2 Validity and reliability of data

In case study, it is important to test or establish the validity and reliability of qualitative data to determine "…the stability and quality of the data obtained" (Riege, 2003, p. 75). As there is no single, coherent set of validity and reliability tests available for case study research, the researcher chose to utilise four common tests for case study (Denzin & Lincoln, 2000; Miles & Huberman, 1994; Yin, 2003;). These were construct validity, internal validity, external validity and reliability (Yin, 2003). The exploratory case study addressed each of these throughout each phase of the case study. Table 3.6 (see page 129) outlines the tests administered, and the technique and corresponding phase of research in which the techniques were undertaken.

3.3.2.1 Bias and assumptions

The researcher acknowledges that qualitative research is influenced by ideology. Indeed, there is no value-free or bias-free design (Denzin, 2000). Consequently biases were articulated early in the study (refer to Chapter 1). In addition, these issues of bias and potential problems or obstacles and how to mitigate them were considered throughout the study (Stromquist, 2000). Through identifying these personal biases the researcher made value judgements transparent and together with

Table 3.6

Tests and techniques for establishing validity and reliability in exploratory case study

Test	Technique	Research Phase
Construct validity	• Use of multiple sources of evidence (principals, school leaders, teachers, key personnel and parents, using interviews, observations and documents) • Establish chain of evidence • Key informants review data collected	Data collection Data collection Data collection
Internal validity	• Cross case analysis • Triangulation of data through multiple sources, multiple cases • Establish internal coherence of findings and concepts- systematic process • Debriefing with critical colleagues • Research self-monitoring through researcher journal • Reviewing assumptions and world view	Data analysis Data analysis Data collection and analysis Data analysis Data collection and analysis Data collection and analysis
External validity	• Replicable case study in multiple sites • Cross case analysis • Specific procedures for coding and analysis • Scope and boundaries of particularisations established • Comparison of evidence with extant literature	Research design, data collection and analysis Data analysis Data collection and analysis Research design Data analysis and interpretation
Reliability	• Full account of ideas • Congruence between research issues and design established through backwards mapping design • Use of case study protocol • Critical colleagues' input • Observations based on evidence, not judgements • Transcription of interviews by researcher and use of methodological analysis techniques • Clarify researcher bias	Research design Research design Research design, data collection and analysis Data analysis Data collection Data collection and analysis Data analysis

Note. Adapted from Riege, 2003.

critical colleagues was able to monitor perspective, track its evolution and challenge and refine thinking accordingly (Janesick, 2000).

Issues of subject error through instances of tiredness or respondents providing answers they think the researchers want to hear may have weakened the data (Convery, 1999). Yet the multiple views sought, the request for detailed examples alongside the fairness with which evidence was reported, all added to the validity of the case and lessened the likelihood of this impact.

A conceptual or theoretically driven bias commonly observed within much study of educational leadership, views leaders as actors or agents (Hallinger & Heck, 2010). This brings an incumbent methodological bias towards cross-sectional data, which whilst offering useful information, "…provide(s) an incomplete picture of the relevant processes and paths of influence" (Hallinger & Heck, 2010, p. 2).

As the study was limited by time and resource, the case study is mainly cross-sectional in nature. Attempts were made, however, to add to this approach in two ways. First, the inclusion of retrospective interview data with participants extended the data collection with a reflection on improvements over the prior five years. Second, the use of multiple perspectives from various participants (network leadership, principals, school leaders, teachers and parents), alongside the design of the study, enabled a more reciprocal perspective to leadership to be adopted.

3.3.3 Interpretation and transferability of study

The purpose of the exploratory case study was to extend present understandings of successful school leadership and quality teaching to Australian secondary school settings through detailed, rich descriptions from the perspective of principals, school

leaders, teachers, key personnel and parents. Using the ensuing detailed descriptions, the case study sought to establish initial propositions for further research.

As the study was limited to two school sites, it was not possible to deduce that the conclusions were applicable to all successful school leaders within Australian secondary schools. Indeed, this was not a major aim of the study. Rather, the variety of data and sources, the strength of the design and the methodical manner in which the study was undertaken, all facilitated some particularization, rather than generalizations. As Stake (1995) asserted:

> Readers take from case studies a sense of the case as exemplary, with general lessons to teach. They believe themselves to be learning not just about particular people but about people who are like them, not just about particular situations but about a class of situations (p. 168).

The qualitative research focused on qualities that were difficult to quantify and led to deep, rich and detailed interpretation of areas where little is known (Babchuk & Badiee, 2010). Its preliminary propositions formed a platform for further study in Australian schools.

3.4 Phase Four: Writing the report

Following the first three phases, the researcher reported the study through the writing of the thesis. The Publication Manual of the American Psychological Association APA10, (2010) was used to format the document in accordance with The University of Tasmania, Faculty of Education requirements.

3.4.1 Citation of Data Sources and Types of Evidence

Six identifiers were used in the citation of data sources. These included:

- Type of evidence

- School
- Name (Pseudonym linked to role and Number)
- Age
- Gender
- Month and Year of Data Collection.

Further coding included:

Type of evidence

- I Interview (Number 1, 2 or 3)
- O Observation
- D Document

School

- School A (Queensland, Australia, Independent Girls School, Years 8-12, 1100 students)
- School B (Tasmania, Australia, State Co-Educational School, Years 7-10, 800 students)

Name

- Principal, 1 or 2
- School Leaders, 1-6
- Teachers 1-12
- Key Personnel 1-3
- Parents 1-6

These were listed throughout the study in the following order: type of evidence, participant, and date of data collection.

Hence, *I No.1, School A, Principal 1, 50, F, September, 2012* refer to: Interview, Number 1, School A, Principal 1, 50 years old, Female, Date of Interview.

Or, *D, No. 3, School B, Key Personnel 3, 50+, M, July, 2009* refer to: Document, Number 3, School B, Key Personnel 3, 50+ years old, Male, Date Document Written

Conclusion

This chapter described the methodology used to undertake the study. An exploratory case study using two school sites for cross comparison was designed. Four phases informed the research process, each with replicable research components and actions. The outlined research design ensured research preparation, data collection, analysis and interpretation and writing of the report all maintained ethical and high standards throughout. Using this foundation, the study undertook three aims and addressed how successful school leadership in two improving Australian secondary schools was understood and enacted in ways which influence quality teaching. A report of the findings follows in Chapter Four.

Chapter Four: Findings

Introduction

The previous chapter detailed the methodology, or using the organising metaphor of weaving, the loom upon which the data would be gathered and analysed.

This chapter now reports the findings pertaining to the main and subsidiary research questions. The findings are presented in three parts, each according to the backwards mapping design.

Part one addressed the first subsidiary question. It presented evidence on how quality teaching was understood within two improving Australian secondary schools.

Part two focused on data for the second subsidiary question, that is, how successful school leadership influenced quality teaching in two improving Australian secondary schools.

Part three attended to the third and final subsidiary question which addressed how these influences were enacted over a five year period of school improvement.

The findings from the three components crystallised the major themes gleaned from the data. To substantiate the claims, the narrative of principals, leaders, teachers, key personnel and parents was interwoven and triangulated with observational and documentary evidence. Here the text told the participants' stories, using their recalled perceptions, experience and understandings. The independent data obtained from observations and documents served to corroborate and test the emerging themes.

To enable cross referencing of data to the corresponding sample and participant, two tables were prepared. Table one described the two improving schools and Table two

presented the participant details and pseudonyms. Details of the two improving Australian secondary schools included a background to each state in which the school was situated and a description of each school. Details of participants included age, gender, number of years at the school and, where appropriate, number of years teaching. These are included in Appendices G, Item G1, Participating School Information and Background, and Item G2, Participant Details and Pseudonyms, respectively.

In addition, four tables were designed to support cross referencing of the data presented in Chapter Four to the source of evidence. Each table related to types of evidence, including interviews, observations and documents. These are found in Appendix J as:

- Item J1, Summary of Interview Data Sources;
- Item J2, Summary of Observation Data Sources;
- Item J3, Summary of Documentary Evidence, School A; and,
- Item J4, Summary of Documentary Evidence, School B.

The findings for each subsidiary research question are now given.

Part One: Subsidiary Research Question One

4.1 How is quality teaching understood within two improving Australian secondary schools?

Interviews documenting the perceived experiences of principals, school leaders, teachers, key personnel and parents, as well as documentary evidence and observations, were collated and analysed to answer the first subsidiary research question.

4.1.1 Preliminary themes from the interview data

Guiding topics from the semi structured interview schedule (See Appendix H, Item H1) relevant to this question were:

- Perceptions of teacher quality or effectiveness and its importance.
- Perceptions of how teacher quality is enacted.
- The factors that facilitate achievement of teacher quality within the school.
- The factors that act as constraints on teacher quality.

Preliminary analysis of the guiding topics common to all participants in terms of how quality teaching was understood began with systematic coding from the interview transcripts. The process involved constant comparison analysis. Once this was complete the data were checked for the most used themes (or nodes as used in NVivo10) via classical content analysis.

The interview data revealed that the most common themes were twofold:

1: Quality teaching was understood as a collective phenomenon, involving a sense of **professionalism and high quality teaching** throughout the whole school population

and,

2: Quality teaching was understood to be associated with **four components or teaching capacities.** These were:

1. Individual capacity
2. Social capacity
3. Decisional capacity
4. Innovative capacity

More specifically, the preliminary analysis of themes common to all participants is outlined in Table 4.1 below. The table shows the main themes on the left. The middle column records the number of participants from the total of 30 who commented on the theme. The right hand column shows the number of times the participants commented on each theme, for example, using the innovative capacity row, 18 participants commented directly about innovative capacity and made 60 references to it, averaging approximately three spoken references each.

Table 4.1

Participant interview responses to how quality teaching is understood

How is quality teaching understood within two improving Australian secondary schools?		
Quality teaching themes	**Number of participants (from a total of 30**	**Number of references (from all 30 participants)**
Collective phenomenon		
Professionalism	14	22
High quality teaching across whole school	28	156
Quality Teaching Capacity		
Individual capacity	21	55
Decisional capacity	13	32
Social capacity	22	62
Innovative capacity	18	60

These themes were further analysed and triangulated using the documentary and observational data.

4.1.1.1 Collective nature of quality teaching involving teacher professionalism and high quality teaching

Consistently quality teaching was viewed as a collective teacher professionalism of high quality teaching across the school. Interview statements from participants across both schools related to this. Principal comments included:

> So I think it's about having the majority of really good dedicated people doing their job *(I, No. 3, School A, Principal 1, 50, F, September, 2012)*

and,

> So we are shaping tomorrow's future…and if teachers understand when they go into the classroom that we are creating tomorrow's society, then that's really the philosophy, then *as a group* then let's work out… let's go there collaboratively and together (*I, No. 1, School B, Principal 2, 50+, M, August, 2012).*

Documentary evidence supported this including an article written by Principal A and published in *The Australian* newspaper stating,

> Quality teaching is the most effective way to improve the educational outcomes for young people… Ensuring we attract the best and brightest to the profession, keeping those teachers engaged and committed, and providing them with the necessary support through mentoring and professional development is surely crucial to delivering a quality education for every child *(D, No. 4, School A, Principal 1, 27 August, 2011).*

In interviews, participants often included teacher professionalism or a culture of professionalism to describe their perception of quality teaching within each school. Various respondents from School A stated:

> So when we say teacher quality in this place, it's part of a whole culture of professionalism and pride and tradition, and money as well...So I think quality teaching is quite a complex, rather than just in the psychology of pedagogy and, you know there's a lot more to it *(I, No.1, School A, Teacher 7, 39, F, 12 September, 2012)*

and,

> I think it's the culture, I think it's the culture of the way Principal 1 does things. It's a business and it's professional *(I, No. 1, School A, Parent 2, 41, F, 10 September, 2012).*

Statements in documents supported this with phrases such as:

> I think the staff has improved in professionalism,
>
> …all the time reinforces their professionalism,
>
> You should be able to implement professional enhancement programs…to reassure you that what they are thinking about their own professionalism and development is of high quality, and,
>
> We need to understand what our philosophy is about- professional improvement and reward and then work out how we are going to do it *(D, No.15, School A, Principal 1, August, 2011).*

Similarly, participants within School B expressed:

> Just that behaving professionally, not toward the kids so much, but as a professional team. I think there's a lot more to do there I think *(I, No. 1, School B, School Leader 6, 56, F, 22 August, 2012).*
>
> I believe that this is a good school. It's got a really good staff that are professional and are committed and work hard and I think my kids have excellent opportunities here *(I, No. 1, School B, Parent 6, 56, M, 21 August, 2012).*

4.1.1.2 Quality teaching capacities

The collective conception of quality teaching was related to four teaching capacities. Tables 4.2, 4.3, 4.4 and 4.5 summarise the key findings relevant to the **quality teaching capacities**. Particular reference is given to interview and documentary evidence from principals, school leaders, teachers, key personnel and parents. Salient comments and written evidence are selected from the plethora of data collected and presented below. Data from the four observations are included in the summarising box at the left hand column of each table.

Table 4.2

Participant data related to individual teaching capacity

Participant	Source of Data	
	Interview	**Documents**
Principals	The Heads of Department are always wanting someone who is good in their area and can teach in a classroom and won't cause them any grief, I'm looking for something more. That to me is a given, what's next… I think there's a bit of eccentricity about them, I think there's generally a bit of a sense of play and of humour that balances the professionalism, I think there's some fairly witty, clever people, that it's not sarcastic wit, it's something beyond being the dour school mam, or master in the classroom *(I, No. 3, School A, Principal 1, 50, F, September, 2012).* So the quality comes down to the how really. How are they going to move those students from this point to that point? How that comes through feedback, letting students know exactly where they are on the continuum, where they need to be, giving them the information they require so as to improve, to get where they want to be. I'm a great believer in students getting immediate feedback as to the work they have produced, as to what level it is and, yeah, that feedback explanation is really important to get them to move to the skill level they need to *(I ,No. 1, School B, Principal 2, 50+, M, August, 2012).*	The philosophy challenges the school's teachers to create authentic and empowering learning environments through providing experiences for girls that: • foster rigour and deep understanding; • promote higher order thinking skills; • engage in disciplined and critical inquiry; • create connectedness across different contexts; • engage students with their learning and the learning process; and, • develop sustained and substantive communication skills. *(D, School A, No. 2, School Leader 4, 40, M, October, 2012).* As a learning organisation we place students at the centre of all our practices with the aim of "Enriching Lives Through Learning" for our whole school community, students, staff and parents. *(D, School B, No. 4, School Improvement Plan, 2009).* A deeper look analysis, written comments: Managing unsatisfactory performance- consensus that the process is not known- more research is necessary We did too many things last year so reduced our expertise *(D, School B, No.17, All Staff, 2012).*
School Leaders	I think it is, there's the idea of teacher quality that says you can meet particular standards, that you know your content and you know that you have highly developed pedagogical skills, um, you can manage a class, you can act as a professional, professional in the way that you are as a teacher with the girls and with your colleagues….There's also something about…passion *(I, No. 1, School A, School Leader 2, 38, F, 11 September, 2012).*	

Table 4.2

Participant data related to individual teaching capacity

Participant	Source of Data	
	Interview	**Observation**
Key Personnel	We are going to place learning at the centre at every question we ask here, so it's not going to be about teaching, it's not going to be about students or people, it's going to be about learning and what that looks like in a modern 21st Century school *(I, No.1, School B, Key Personnel 3, 55+, M, 17 August, 2012).*	Collaborative inquiry group: Effective and expert teaching Anecdotal notes: Staff comments included: a desire to revisit Hattie and other relevant research, wanted to share each other's teaching strategies, what works, what doesn't, good to see practices in action, desire to share practice across the school
Teachers	The quality of what you deliver. The quality of the way you deliver the material to the students and your interest in the subject and how you teach basically, and how effective you are with what you are teaching which I guess is measured by how well the students, initially how engaged they are and how well they retain the information and apply it *(I, No 1, School A, Teacher 2, 34, F, 10 September, 2012).* I think my best thing is a purpose to learning. There is no point learning something for the sake of learning. I hate busy work. I get frustrated seeing kids getting handed out sheets and then getting handed back and then nothing happened to them. I think if you are not going to use it, you don't need it, why give it to them? Because they can see, they are smart, they can see right through you. So everything you do has got to have a purpose. You are doing this because, you need this because and they go, yep. And it gets back to that old, we are all getting paid and it's what you do between 8 and 4. I mean you can do the best job you can *(I, No. 1, School B, Teacher 8, 21 August, 2012).*	
Parents	…having come from outside from a different school with a child who came in grade 10 and you know there was this whole step up academically for her and she's bright, she ended up with an OP1 and she would comment that she had two teachers in her old school, she'd been there for 10 years, two teachers at her old school who could come here, the rest of them would not have lived up to it. It's interesting that that's her comments and I think that she is fairly fair *(I, No. 1, School, A, Parent 3, 50, F, 11 September, 2012).*	

Table 4.3

Participant data related to social teaching capacity

Participant	Source of Data	
	Interview	**Documents**
Principals	So right from the start what I tried to do is be collaborative, to say, this is the direction, the strategic direction of the Department, let's collaborate and find ways of achieving this strategic direction *(I, No.1, School B, Principal B, 50+, M, 14 August, 2012).*	ACEL Conference power-point slides of presentation ' Social capital, a key driver for school improvement', Key Personnel C (former Principal of School B): **Building effective communities of inquiry** Focus on learning rather than teaching Work collaboratively, know what this means Keep the focus relatively narrow Be outcomes focused and time constrained *(D, No. 6, School B, Key Personnel 3, 55+, M, 2012).*
School Leaders	Probably all those things, high expectation, curiosity, learning, the vibrancy, people sharing stuff as well, there's not many people who are a bit selfish with things *(I, No. 1, School A, School Leader 1, Mid 50, F, 13 September, 2012).* Yeah, though, it was more collaborative than that though, it was more bouncing ideas, I mean I came to this school because I knew the work of the Head of Department here and I knew that this was someone I wanted to work with and learn from, even though he is my age. So, that really gave, those couple of years gave us the opportunity to do some truly collaborative programme development or sharing of resources (and then that curriculum as well) *(I, No. 1, School A, School Leader 2, 38, F, 11 September, 2012).* I'm a teacher as well, I'm not just a leader in this school, I teach and I think. You know one of the most powerful things for me to be able to demonstrate in terms of leading is how I go about my teaching and if I want, if I believe in personalising learning then I have to demonstrate that. If I believe in building communities in kids collaborating then I've got to demonstrate that *(I, No. 1, School B, School Leader 6, 57, F, 14 August, 2012).*	
Teachers	We do, we teach collaboratively as well, in Grade 9 and 10 we have classes where we put two classes together so there's two teachers so we basically take turns to lead or whoever is more specialised in that topic will lead it…it's been quite new for me, it's been fantastic *(I, No 1, School A, Teacher 2, 34, 10 September, 2012).* About three years into that I was happy with what I was doing but I wasn't stimulated… I wanted something different…five years ago I was having a conversation with a friend of mine (name withheld). We both really liked the water and we were looking over the view at the water and we thought well, wouldn't it be good to teach a subject. I could use my skills, he could use his skills and within about ten minutes we had already mapped out a subject *(I, No. 1, School B, Teacher 8, 41, M, 21 August, 2012).*	

Table 4.3

Participant data related to social teaching capacity

Participant	Source of Data	
	Interview	**Observation**
Key Personnel	…we just kept I suppose pushing all the time, you know, particularly around collaboration because that's the only way you get uniform quality assurance across the school, by having people work together, because good teachers will take poor teachers with them and you don't get that privacy of practice *(I, No. 1, School B, Key Personnel 3, 55+, M, 17 August, 2012).* Talking with people is really important, being able to share ideas and positions, because different people have different ideas and that really helps me because I think it will be quite difficult to get terribly stuck in your own sort of way of seeing things. And with the study that is a particular way of getting things, I really value having other sort, of input, I don't know, I'm the kind of person who likes to do a job but that's pretty much inherent area. I think that helps *(I, No.1, School A, Key Personnel 2, 59, F, 13 September, 2012).*	Professional learning session, teacher comments for strengths and weaknesses Strengths: 'Planning own learning', 'working together', 'discuss with others', 'professional growth', 'meetings- do things together', 'engage with others', 'working as a team', 'opportunities to form partnerships', 'possibility of rescheduling meeting times to mornings'. Weaknesses: To add 'We need more structured time to collaborate and plan in subject teams and grade teams', 'some teachers teaching outside their area', 'no built in planning time' Opportunities: 'opportunity to work with others from other schools', 'sample lessons', 'grade team meetings in the morning then time for mentoring' Threats: 'Timetable', 'lack of time', 'resources', 'lack of flexibility' *(O, School B, Professional Learning Collaborative Inquiry Teams, 13 August, 2012).*
Parent	I think because you know there are a lot of really competent teachers here who are really committed and hard-working and also the fact that we've seen evidence of success with students coming out of this school. I certainly don't see it as a perfect school as a parent, but nor do I see any private schools as being perfect. So I think when you weigh it all up it's a very good school *(I, No. 1, School B, Parent 6, 56, M, 21 August, 2012).*	

Table 4.4

Participant data related to decisional teaching capacity

Participant	Source of Data	
	Interview	**Documents**
Principals	Looking for potential, so can this person grow into being a really good one of these, have they got what it take: the robustness, the resilience, the energy, the thinking. Do they role model well? Do they look the part even if they're not the part, can they look the part, can they behave that way? Because that's part of believing in themselves. I give them a go, some rise to it, some don't *(I, No. 3, School A, Principal 1, 50, F, 14 September, 2012).* I think there's so much to show that if you tap someone on the shoulder, if you give them an opportunity, they'll rise to the occasion. It makes them think and it keeps them thinking aspirational, rather than forming a complacency of comfort *(I, No. 1, School A, Principal 1, 50, F, 11 September, 2012).* I'm a great believer that it doesn't always have to be about pedagogy to be really valuable in a classroom. It can be about developing the intellectual rigour and attitude of that staff member, so they 're role modelling for their students and active participation and engagement in thinking and reading and writing and all the things we would hold important for our students *(D, No.15, School A, Principal 1, 2011).* I want staff to feel like they are the experts and they have got the skills and support to gain the skills if they haven't got them *(I, No.1, School B, Principal 2, 50+,M, 14 August, 2012)*.	"For five consecutive years School A has been recognised as an EOWA Employer of Choice for Women. School A has successfully developed policies and procedures to provide all employees with equitable opportunities including the following activities. *Career Development* • Proactive succession planning including offering Positions of Added Responsibilities (PARs). • Development of the School's Centre for Professional Practice, in partnership with tertiary institutions to facilitate further research, development and promotion of exemplary practicum training through mentorship for pre-service teachers • Creative Leadership Group sessions are facilitated by the Queensland University of Technology (QUT) and held on campus to provide staff with professional development opportunities focused on leadership issues like leadership styles, power, gender and micro-politics, and ethical dilemmas. • Learning Innovation Group provides volunteer teachers with professional renewal through workshops with QUT lecturers in School time. Successful completion of the course and some written work can earn a Semester unit credit towards a Master's degree • Internal and external role and career mentoring and • Career Planning and provision of resources to support the training or professional development needs of staff. *(D, School A, No. 5, Equal Opportunity Award, 2011).*

Table 4.4

Participant data related to decisional teaching capacity

Participant	Source of Data	
	Interview	**Documents**
School Leaders	And then there's another person, again a new Head of House that we have trained up so she's become quite proficient at speaking to larger groups now. So I think I'll give someone else a go who is not as confident, who has done a beautiful little piece on her, for her appraisal actually around curiosity and learning and you know, couple of years' time she'll probably be ready to go off and do things, you know *(I, No.1, School A, School Leader 1, F, Mid 50, 13 September, 2012).*	Professional development and personal coaching for women seeking promotional positions beyond the School as well as within has resulted in a female staff member, coached by an external mentor provided by the School, being appointed to a significant promotional position at an all boys' school. School A also assisted some female staff by; • providing support to attain and undertake a secondment with a tertiary institution • awarding a Staff Fellowship and • encouraging the development of curriculum leadership or professional knowledge through the provision of resources to attend local, national and international conferences. *(D, No. 5, School A, 2011).* **Observations** Notes taken during professional learning session. Teachers comments: 'Coaching conversations, good to discuss strengths, growth areas' 'It's valuable' 'Everyone has similar things' *(O, No. 3, School B, 23 August, 2012).*
Teachers	I actually found it pretty difficult. I mean now after many, many years, really I can see what a great job it is. I can say in all honesty that it's extremely rewarding and extremely stimulating, but for many years I just found it really difficult. And maybe that's why I've been here so long because there's always a sense of trying to master it. It just never gets, I don't think it ever gets, oh well, it has got easier, but it's always challenging *(I, No.1, School A, Teacher 6, 40, F, 12 September, 2012).* And I think too, sometimes you've got to have respect and I think, within my team, I've got some first year out teachers, I've got teachers that have been teaching for a long, long time and I'm in the middle *(I, No.1, School B, Teacher 10, 39, F, 6 September, 2012).*	
Key Personnel	…with a view to incorporating this as a professional development award annually for a member of staff…And sure enough I went this year as the guest of the Oxbridge programme, but I was accompanied by the very first member of staff who had to write a reason or submission as to why she would be included and I know of at least three that went in, so there could have been more and she picked this member of staff and hopefully it will continue. It was the most enlightening and refreshing academic and intellectual experience of my life. And has nothing to do with careers counselling… And yes, you are definitely right. I tell these stories to every girl *(I, No.1, School A, Key Personnel, 1, M, 55+. 13 September, 2012).*	
Parents	The, what's the right way of putting it? They talk about developing young women confidently, it is focused on that development, I think it's a lifelong development too *(I, No.1, School A, Parent B, 41, F, 10 September, 2012).*	

Table 4.5

Participant data related to innovative teaching capacity

Participant	Source of Data	
Source	**Interview**	**Documents**
Principals	I knew I was going to be working with innovative people and dedicated people and I knew the students here on the whole were really engaged on the whole and it just seemed like an exciting possibility. I came and visited all the schools that I applied for and this was by far the most vibrant, even on a one day visit *(I, No. 1, School B, Principal 2, 50+, M, 14 August, 2012).*	**Examples of innovative pedagogy and capacity of staff** **'School A students meet regularly to discuss philosophical subjects with experts"** TIME travel, embryonic selection, Goedel's theorem, truth and perception, Chaos Theory, and economics and ethics. At least once each term, members of the (School A) community meet to exercise their minds by grappling with philosophical problems like these. Inspired by the grassroots Café Philosophique movement which began in France in 1992, principal (Principal 1) instituted the school's own Philosophy Café in 2002, the first of its kind in Australia' *(D, No.7, School A, 2009).* **A high-tech school of thought** **TASMANIAN schools are getting smart about technology.** Some schools have policies that mobile phones must be left in lockers or at the office during school hours. Others, such as (School B), actively encourage phones in the classroom. "A mobile phone can be a really useful educational device," principal (Principal 2) says. "At every opportunity we get students to use phones for educational purposes."*(D, No. 10, School B, 2012).*
School Leaders	But if you are always the school that's paving the way then, that's a challenge in itself. Because you will perhaps do things that you decide aren't the best way forward and so, it's easy for the schools following because they've gone, oh, they did it that way and that really worked or that did work, we'll follow it or we won't, so I think that's an added sort of sense of almost responsibility that you have *(I, No.1, School A, School Leader 3, 39, F, 12 September, 2012).* There are lots of criteria that describe 21st century learning, there's so many different sets that describe those criteria… we investigated all these different ideas around 21st century learning and we came up with a lot of things that were similar to the capabilities that the Australian Curriculum came up with. Being collaborative; being able to use ICT; to be able to think critically; to have good literacy skills and numeracy skills and so on *(I, No.1, School B, School Leader 6, 57, F, 14 August, 2012).*	
Teachers	Being well prepared, being attentive to your students and doing the best to meet all their needs, being up to date with changes and innovation, having a sense of discipline and organization, cause I think that provides your students with security and stability and being, in terms of teacher quality, being respectful, I think, of your students, your parents, your colleagues *(I, No.1, School A, Teacher 3, 41, F, 10 September, 2012).* I suppose too it's in a subject meeting where you might share some of the things you have been doing, showing some other ideas, and its being innovative and creative. That's what you need to be these days. You don't just teach out of a text book. *(I, No. 1, School B, Teacher 10, 39, F, 6 September, 2012).*	

Table 4.5

Participant data related to innovative teaching capacity continued

Participant	Source of Data	
	Interview	**Documents**
Key Personnel	So, that's why I love working here and it really is her leadership that allows me that to happen. You know them, you probably have them where you work, you have people who stay safe all the time and dump. This place is like an evolutionary paradise. For me anyway, I have all these ideas. *(I, No. 1, School A, Key Personnel 2, 59, M, 14 September, 2012).* When we talk about innovative teaching and learning or innovative practice, or ICT or the timetable, what we want to do, you go out and research world's best practice in that domain of practice in schools… so the group that was talking about innovative teaching and learning *(I, No.1, School B, Key Personnel 3, 55+, M, 17 August, 2012).*	**Paper delivered to ACEL conference, Melbourne, Australia, 2008** School B is now committed to becoming a leading centre of innovation, creativity and excellence in teaching and learning. We will achieve this by exploring possibilities for improving, enriching and enhancing all aspects of the school's operations, and by identifying and using best practice. As educators we will work with students to explore ways to construct new paradigms of schooling and provide a service to learners in a variety of old and new contexts. Taroona High School will contribute to, and assist develop, a system of 'schooling' suited to the needs and aspirations of both individuals and groups as they contribute locally and globally to a 21st century world. *(D, No. 7, School B, 2012).*

A summary of the characteristics of the four teaching capacities crystallised by the data is outlined below in Table 4. 6.

Table 4.6

Summary of four teaching capacities

Four teaching capacities reflecting participants' understanding of quality teaching		
Teacher capacity	**Evidence**	**Characteristics**
Individual capacity	Interviews Observations Documents	Quality teaching practice: • rigour • pedagogy; and, • assessment Engagement Feedback Passion Purpose filled
Decisional capacity	Interviews Documents (only School A)	Expertise Intellectually stimulating Potential, talent development Career development Aspirational Mentoring Life-long development
Social capacity	Interviews Observations Documents	Shared philosophy of quality teaching across staff Collaboration Professional dialogue Peer learning Shared practice, resources Teaching collaboratively, team teaching Professional partnerships
Innovative capacity	Interviews Observations Documents	Networked innovators Future focused Continuous improvement Open innovation, freedom to pursue ideas Creative Innovative pedagogy, changes Community of co-creation characterised by: • Freedom; • Risk taking; • Pilot projects; and, • Feedback and support

4.2 Conclusion to findings related to subsidiary research question one

Two key themes emerged from an analysis of the interviews, observations and documents gathered from 30 participants within the study. These themes related to the first subsidiary question, how quality teaching was understood within two improving Australian secondary schools?

First, quality teaching was understood to be associated with a **collective** phenomenon throughout each school, involving a sense of **professionalism** and high quality teaching throughout the whole school population.

Second, quality teaching was associated with **four components or teaching capacities.** These were:

1. Individual teaching capacity
2. Social teaching capacity
3. Decisional teaching capacity
4. Innovative teaching capacity

Findings are now reported for the second subsidiary question.

Part Two: Subsidiary Research Question Two

4.3 How does successful school leadership influence quality teaching within two improving Australian secondary schools?

Analysis of the second subsidiary research question addressed data from principals, school leaders, teachers, key personnel and parents. Interviews, observations and documents from the three types of evidence were explored.

Items from the semi structured interview schedule (See Appendix H, Item H1) relevant to this question included:

- Perceptions of successful school leadership within the school;
- Perceptions of how leadership influenced quality teaching within the school;
- The priority given to school improvement within the school; and,
- Other comments about leadership for improved teacher quality within the context of the school.

In addition, four observations and pertinent documents were explored which focused on successful school leadership's influence on quality teaching.

First, data were reduced to codes using NVivo10 (Jones, 2007) and developed into themes. Significant themes (or categories of influence) were examined using constant comparison analysis, classical content analysis and word count (Onwuegbuzie et al., 2012). Key words in context were explored to understand the framework of statements and identify any significant meanings or connections.

From the above process four broad categories of influence were identified:

- Challenge,
- Culture,
- Professional investment, and,
- Review, recognition and reward.

4.3.1 Challenge

In both improving Australian secondary schools the principals expressed both a high aspiration and expectation for their teachers to continually improve their practice. In School A the principal stated:

> That it's somewhere they actually want to be, that there's recognition that they've chosen this. No one's twisted their arm to be here, no one's twisted their arm to be a teacher, no one's twisted their arm to come to School A. That they therefore have been selected and offered a place to come here based on their intellect, or their experience, or their proven capacity and

> that, therefore, that's a trust that's invested in them by the employer and you would hope then that they understand that it's a continuum, that they don't just come and repeat the same thing every-day. That in a place like this I'm pretty direct in interviews that there's an expectation that you are constantly moving and changing *(I, No. 3, School A, Principal 1, 50, F, 14 September, 2012).*

Furthermore, Principal 1 expressed:

> I despise compliancy and near enough is good enough and they know that *(I, No.3, School A, Principal 1, 50, F, 14 September, 2010).*

When Principal B was asked about his future direction in leading quality teaching in the school, he explained:

> Constant improvement. Yeah, not be satisfied with…see we've got very compliant students and it would be very easy to just walk into a room, shut the door and have no extreme goals with the kids because the kids are going to achieve anyway, mostly, but we want them to be outstanding kids not just achieve well. So that's the challenge: continuous improvement *(I, No. 1, School B, Principal 2, 55+, M, 14 August, 2012).*

Several participants from each school made comments related to their experience of the challenge and expectation. Table 4.7 (see page 152) presents principals' explanations regarding challenge and perceived experience (both positive and negative) by teacher and key personnel related to this.

Table 4.7

Links between Principal challenge and perceived experiences of teachers and participants

SCHOOL A
Principal challenge for continual improvement
Because if my staff do that, I'm going, Why are you still sitting in that staffroom doing the same thing? You need to be challenged in different ways, why are you still here? Why don't you go to a different school and try things there? So, I'm role modelling I guess what I preach, and I'm role modelling, I hope, different challenge, different context… *(I, No. 1, School A, Principal 1, 11 September, 2012).*
Teacher and Key Personnel perceived experience: positive comments
Right, well I would be very frank with you. I've never worked as hard here as I have in any other school or anywhere else. It does pretty much take all of your energy. It makes juggling family commitments very hard, that's not out of mean spiritedness on behalf of the school, it's just the nature of work, but the payoff with that is you get to work with some pretty extraordinary students, really high calibre staff. The expectations of staff are very high and you need to be able to keep up with that. It is basically a sink or swim environment and you have to hit the ground running every single day *(I, No. 1, School A, Teacher 1, 37, F, 14 September, 2012).*
Feeling that I'm competent, that I'm capable, that I'm trusted and that I'm safe. I think the other thing too is knowing that there's a desire for me to be my best which comes from the leadership too, so that I'm not complacent and I don't just think, oh, yeah, good enough is good enough and there's always, 'I'd actually like to do this a bit better' feeling. So that sort of expectation of your best. Or the desire to do your best, to cause you want to be well regarded too, you know *(I, No.1, School A, Key Personnel 2, 59, F, 13 September, 2012).*
I think we are also kind of expected to come up with new ideas and to do things a little bit better and to reflect on ourselves and you know, there is a little bit of an expectation that you will challenge yourself and not do the same things over and over *(I, No. 1, School A, Teacher 7, 39, F, 12 September, 2012).*
Teacher and School Leader perceived experience: negative comments
Weaknesses, the long hours, I don't know how they can solve that one, it's a tough one, the teachers here work really long hours. I'll work, my average day is about 10 hours *(I, No 1, School A, Teacher 3, 41, F, 10 September, 2012).*
There are high expectations, of well, just high expectations really. We have I think a pretty demanding parent base. They have high expectations and that's fine because often it means that there is a high value placed on the work that happens… But not always, sometimes there's a mismatch between the expectations that parents have and reality…It's a busy place, there's lots happening, there's a real focus on innovation and new initiatives. So there's never really a holding pattern. There's always a sense of the next thing moving forwards, yeah. I think the fact that it is such a busy place has, I don't know that there's enough time for reflection before the next thing is focused upon *(I, No. 1, School A, School Leader 2, 38, F, 11 September, 2012)*.

Table 4.7

Links between Principal challenge and perceived experiences of teachers and participants

SCHOOL B
Key Personnel 3 (former Principal) challenge for continual improvement
I suppose the staggering thing when I went back was the school was a bit like it was in time warp because even though it had been 12 or 14 years since I had been there, that in lots of ways I felt the school had gone backwards. Well, it hadn't gone backwards but it certainly hadn't gone forwards. So there still were some very entrenched and very conservative practices… made you think a bit about what was going on in this school that had every single advantage but wasn't using those advantages to improve the quality of student learning outcomes or anything. Not just to improve them, but to change them *(I, No.1, School B, Key Personnel 3 (former Principal), 55+, M, 17 August, 2012).*
Teacher perceived experience: positive comments
And so what I decide, is well I'm here, I may as well do the best job I can and provide, engage these kids and provide really good learning opportunities and that stemmed back from a situation where I had some kids who were really disengaged and who were a pain… and running round *(I, No.1, School B, Teacher 8, 41, M, 21 August, 2012).*
Well, I mean Principal 2 is fantastic, but I mean he's only been here 7, 8 months and Key Personnel 3 (former principal) last year was very into getting us well known and becoming a technological school and trying to encourage people to go that step further *(I, No.1, School B, Teacher 11, 28, F, 4 September, 2012).*
Teacher and School Leader perceived experience: negative comments
So despite all the different things that you'll have going on around a school like different programs or other add-ons, it fundamentally doesn't change your practice. It looks good, sounds good. 'So what works best to change your practice do you think?' I suppose a bit of study and research to find out about such things and the time to do so. If you're on a fulltime teaching load you're teaching on average 3 periods out of 4 per day. You're flat out and you don't necessarily have the time to improve or plan *(I, No.1, School B, Teacher 12, 56, M, 22 August, 2012).*
I think probably our last Principal who constantly made me very uncomfortable and a lot of the time angry, but he certainly made me question quite a lot of things and I have changed…He drove me nuts… he was just always challenging everything we did and basically making me defend it and very rigorous arguments but he was happy to argue and there were no hard feelings… and he gave me a couple of opportunities to travel which is rare in teaching and we went to a couple of schools in (a capital city of Australia) and some schools on the (area in Australia) so I could look at what other people were doing which was fantastic… sort of changed some of (my) ideas. So not good for my peace of mind, but certainly challenged my teaching *(I, No. 1, School B, School Leader 7, 56, F, 22 August, 2012).*
As far as I was aware it was all very positive, there were, initially, like when any changes are mooted, you've got your resisters and there was a very strong resistance before (the consulting company) was engaged and before this whole Strategic Action Team thing happened, teachers that didn't want to change couldn't see any point in changing the school structure, we've always done it like this, it works for our kids, you know. If the system ain't broke, why fix it, you know, that kind of attitude and I mean School B I guess has been one of those perceived successful schools and a lot of kids will succeed despite those teachers; it's just one of those things…I think the whole idea of (the consulting company) and everything came about in a response to the resisters to bring somebody from the outside in sort of working *(I, No.2, School B, School Leader 6, 57, F, 16 August, 2012)*.

4.3.2 Culture

The second broad theme or category of influence was the pursuit of a culture which promoted the development of quality teaching. Data revealed a complex and continual approach involving:

- Desire to influence positive learning culture
- Listening to current climate and culture (staff, parent and student voice)
- Intervening as necessary through:
    - Collaboration
    - Slowing down, opportunity to consolidate
    - Seeking engagement
    - Using data to counter perceptions
    - Providing feedback and support

Salient documentary evidence for each aspect in addition to data from interviews is now presented.

4.3.2.1 Desire to influence the culture to promote teacher learning

Both interviews and documents demonstrated that Principals sought to continuously influence a positive learning culture of professionalism in their school in order to promote improvement in quality teaching.

In a presentation to school leaders regarding improving the quality of teaching within independent schools (YouTube, transcribed), Principal 1 stated:

> So it's not always just about the teacher in the classroom, it's the circumstance and the culture that they are within and I think when you start to look at the complexities of this…it does rely on us and it relies on the culture of our schools if we are going to improve professional performance…I advocate more for a voluntary, self-imposed improvement...I

> would prefer to see a staff motivated to a point where their professional improvement is at their own volition *(D, No.15, School A, Principal 1, 2011).*

In a paper given to the ACEL conference in 2008 entitled, *The Power of Individuals in School Improvement, Cultural and Strategic Alignment*, Key Personnel 3 (former Principal of School B) wrote:

> The full process (of improvement in School B) enacted strategies and a cultural shift with a clear aim of further developing the school as high performing school embracing accountability and professionalism and achieving outstanding results. (This was a) school, where a culture of collective responsibility for the achievement of whole school objectives, could be clearly aligned with the accountability of individuals through their actions *(D, No. 7, School B, Key Personnel 3, 2008).*

4.3.2.2 Listening to the current climate and culture (staff, parent and student voice)

Positive and negative comments expressed by participants highlighted a variety of views with regards to the culture within each school. Interview data described resistance to change, disinterest in continual professional improvement, in addition to engagement and support. These are presented in a summary of the two improving schools below.

School A: An independent stakeholder survey was undertaken in School A every four years. The researcher viewed the survey and was able to triangulate the interview comments, however, it was requested that for confidentiality the survey not be included in the appendices. Principal 1 described how the survey questioned past and present parents, students, staff and leaders.

> Every four years we do a huge stakeholder survey and the last one that we did in 2010 the company that did it does universities, corporates and schools and we were benchmarked at the top, number one in the country from the survey results, with that company, so where that company has done this, so it was qualitative and quantitative. It was questions about, have we delivered our strategic design? Did people understand what it was? Did they know

> what it was? Do they believe that we delivered on these things? *(I, No.2, School A, Principal 1, 50, F, 12 September, 2012).*

Some school leaders, teachers and parents within School A described a positive culture which promoted learning for teaching staff. School Leader 1 stated:

> I think the philosophy of the school is around learning. Everyone is keen to learn and it seems to stay with the kids when they leave the school as well. We can get staff who come here and they are pretty ordinary, I would have said I was pretty ordinary when I came here, but there is, there's something about the school that brings people on. We provide opportunities but it's just something about the environment… I mean you catch it when you get here, you know, you just get caught up in it. Some of it is strategy and some of it is just the culture *(I, No. 1, School A, School Leader 1, Mid 50, F, 13 September, 2012).*

A parent in School A reported:

> Well I think everything comes down from the top, and I think, I strongly believe that any school is only, is totally culturally determined by the top. You do see with the change in schools having seen a totally incompetent person in the top of the school and what that did to even really good teachers in that school and the strain that they were under actually working in that environment, so it is, you've got to give, I believe, you've got to give credit all the way down *(I, No. 1,School A, Parent 2, 41, F, 10 September, 2012).*

A teacher described:

> I suppose you can see that the school really values learning and really values rigorous learning and rigorous education and so therefore the expectation obviously is that you'll do your best and that can be quite demanding and so that's what I think I mean about that special culture. Yeah, you've always got to stay on your game and do your best and to help your students in the best way that you can and it would be nice if that were the culture in every school, but here I find that it is quite rigorous and so therefore, it's a bit of an adjustment in your first year to get used to that sort of, I guess, subtle expectation, but once you get into the swing of it, it's enjoyable *(I, No. 1, School A, Teacher 3, 41, F, 10 September, 2012).*

School B: Using the school climate survey from 2010 as evidence, Principal 2 described the climate of School B through phrases such as 'challenged', 'change weary', 'distressed', 'change compelled not collaborated', 'tricky and rapid',

'divisive' and 'pain and turmoil' *(I, No.1, School B, Principal 2, 50+, M, 14 August, 2012).* The researcher viewed the survey and was able to triangulate the interview comments, but again, was asked that for confidentiality the survey itself not be included in the appendices.

Principal 2 stated:

> The previous Principal had rapid change happening and the staff climate survey was actually not good, on all markers it was pretty low down on what you would want it to be which was not good. So they were challenged and change weary… I think they wanted to go there but it was all challenging because it involved a lot of change, you know in your life there'd be things that you've wanted to do so you've changed to make it happen but it's been a challenge. And that's the same for the staff. They could see the benefit *(I, No. 1, School B, Principal 2, 50+, M, 14 August, 2012).*

Teacher comments described a negative culture.

> Under Key Personnel 3, when he arrived he came in, it was awful. The mood in the school was really down. There was concern about him arriving because there were certain stories going from other schools and other teachers from those schools saying, 'Good luck'. So he came with that and the first six months or so was just, it's hard to describe. You had various people saying 'I just don't want to be here anymore', and I don't think he got that and no one dared tell him *(I, No.1, School B, Teacher 12, 56, M, 22 August, 2012).*

Key Personnel 3 (former principal) described staff resistance to improvement and innovation. He asserted:

> There was potential to do something fundamentally pretty special with the school if you could actually motivate the staff to change…It wasn't necessarily that they were negative, it was lack of understanding and it was a lack of…In schools you can have a whole culture and climate which is tacit rather than real, so people think they understand what people think and what they want to do, but because people never asked, or you never get a way to get that information, then you get the same situation we had. It's because people are really reluctant to say in front of a public audience what they really think deep down, or whether it's because you challenge their fundamental belief systems then. Until you actually get to the bottom where you are actually going to do it, then all of a sudden that stuff comes out. And it's not aggressive or anything else, it's just a reluctance to participate, so

> they withdraw their services more than anything else *(I, No.1, School B, Key Personnel 3, 55+, M, 17 August, 2012).*

4.3.2.3 Monitoring culture

Principals and/ or school leaders monitored, evaluated and listened to the climate and culture of the school. Key Personnel 3 (former principal) stated:

> So they didn't say anything in the meetings, but what they did was they bubbled and worked away in the background to stop it happening. To the stages where that noise, I suppose, came to the stage where we weren't sure as a senior staff how many people were actually in favour and how many people weren't. So we decided to have a vote and the vote was 29 in favour and 28 against… So then we needed to find a way to progress this so we could actually counter the negativity *(I, No. 1, School B, Key Personnel 3, 55+, M, 17 August, 2012).*

Similarly, Principal 1 explained:

> I find out, that's a thing about being in these jobs. You have to have your sources to find out what is going on and most of the time, 85 percent of the time I ignore it *(I, No 3, School A, Principal 1, 50, F, 14 September, 2012).*

4.3.2.4 Intervening to influence learning culture as necessary

In both schools the principal and school leaders described incidences, where after monitoring and evaluating staff climate and culture, they intervened. Principal 1 stated:

> But, after a while, if there is a bit of niggling, I'll think, right, I'm going to climb in on this one and I'm going to be quite tough here and I'm going to play on the edges of this one *(I, No 3, School A, Principal 1, 50, F, 14 September, 2012)*.

Principal 2 explained:

> And my task as a leader is to keep them on that direction, say no when they veer off and say yes, well done when they go there… because of their dealings with students, the interactions, the way they talk to and about students, yeah, so that's how I know *(I, No. 1, School B, Principal 2, 50+, M, 14 August, 2012).*

School leaders also explained their interventions when they believed the climate and culture of the school was low. School Leader 7 stated:

> I did quite a bit of patching up in my role for staff, empowering, no you're not, and you are doing a great job. You know that sort of stuff. And going in and knocking on the door and saying, a few people are really upset, they feel. Oh, because he didn't get those social cues at all…it's hard to find that middle ground isn't it as a principal? It certainly was a challenging time, we achieved a lot but it made quite a lot of people feel quite isolated I think *(I, No. 1, School B, School Leader 7, 56, F, 22 August, 2012).*

Interventions to influence the negative or resistant nature of the culture within each school were common. The interventions along with participant responses are presented in Table 4.8.

Table 4.8
Interventions to influence culture and participant responses

Intervention to influence culture	Perceived experience
Collaboration, shared decisions, engagement	
Well I talked about collaboration, being clear about direction. I don't know if you've noticed how much I have emphasised that these decisions are made by everyone and for everyone *(I, No.2, School B, Principal 2, 50+, M, 27 August, 2012).*	We don't have consultative staff meetings, decisions are passed down to us. We very rarely get opportunities to inform those decisions or provide our opinions before they are made…you are dealing with a very complex, large structure if you had to take in everybody's decision that would blow out the decision making process. So I can understand that things need to be done quickly and efficiently, but I think there does need to be more staff consultation and that might allay some of the feelings that staff have *(I, No.1, School A, Teacher 1, 37, 14 September, 2012).*
Slow down, opportunity to consolidate	
It was too intense because we are highly operational as teachers and all of the other stuff made you very stressed and it made you, it didn't empower you to think you could do it a better way, you kept on feeling like you were doing a bad job. So it needed to be embedded more slowly. So it was a steep learning curve *(I, No. 1, School B, School Leader 7, 56, F, 22 August, 2012).*	It's been an opportunity for a lot of teachers to consolidate where they have been instead of, you know, a fast pace of moving and learning and trying to implement a lot of things in their classrooms, a lot of them appreciating a bit of space to be able to consolidate and think about what they've learnt and what they've done and put things into practice *(I, No. 1, School B, School Leader 6, 57, F, 14 August, 2012).*
Use of data to counter perceptions	
I reckon that's around staff perception. So we've actually got a database working now, a student behaviour database where any time there's an incident we electronically record it. Now what that data is showing to staff is that we have got really, really low percentage of students who are being exited from class or who have to have a disciplinary office referral *(I, No. 2, School B, Principal 2, 50+, M, 27 August, 2012).*	So that real data from those 400 hours of interviews and the extracting of the common themes and common threads from those conversations, that was the most valuable data I've ever seen I think in terms of changing an organisation, because it put on the table all of the stuff that people were thinking about but had never said…So it changed attitudes *(I. No. 1, School B, Key Personnel 3, 55+, M, 17 August, 2012).*

Table 4.8

Interventions to influence culture and participant responses

Intervention to influence culture	Perceived experience
Listening to staff voice	
I drank a lot of coffee. I spent last year drinking an enormous amount of coffee, in all honesty last year just talking to people and spending a lot of time at faculty meetings and senior staff meetings and trying to assess the pulse of the place. How can I put it, who has the influence and who doesn't? And who to listen to and who not to. Trying to work out what the dominant issues are. What are the points of contention? Where are the divides? I'm trying to work out what are the best channels through which to drive change *(I, No. 1, School A, School Leader 4, 40, M 12 September, 2012).*	And then voices weren't always heard I don't think. Like sometimes the decision was already made prior to us having a say…I think it's a bit more like that now, probably because a lot of people have aired how they feel, they're voices aren't being heard. That's one thing that came up with the school review thing, like the student voice wasn't even being heard. So now, I mean, but it takes time. When things are identified, some things you can't fix straight away cause especially if you've got a lot of things to fix you can't fix everything at once *(I, No 1, School B, Teacher 10, 39, 6 September, 2012).*
Collaborative projects	
Then it becomes really messy and they start getting cranky and cross with each other so you have to come in over the top and create something that's going to divert them, literally. It's senior management 101. So you create a diversion, give them a bit of a pump up … and get them all back…doing their jobs *(I, No 3, School A, Principal 1, 50, F, 14 September, 2012).*	But the powerful part was that when those people came back and they had to come back to staff and present to staff their recommendations for change, so instead of me saying it, then it was them *(I. No. 1, School B, Key Personnel 3, 55+, M, 17 August, 2012).*

4.3.3 Investment in teacher capacities

The third theme or category of influence was investment into the four teacher capacities. This broad theme of investment was further divided into the four subcategories of professional learning, professional pathways, professional collaboration, and professional innovation.

Links between the subcategories of investment influence and teacher capacities were made through an examination of data from interviews, documents and observations. Investments in teacher capacities were as follows:

- Professional learning;
- Professional pathway;

- Professional collaboration; and,
- Professional innovation.

Tables 4.9, 4.10, 4.11 and 4.12 represent the mutual and reciprocal nature of influence, or investment in the four teaching capacities as shown by interview data. In the tables, the left hand column represents the influence (action or practice). The right hand column displays the perceived effect of the influence as reported by participants.

Table 4.9(a)

Participants' responses regarding investment in professional learning both within and outside the school, School A

School A	
Intervention	**Perceived experience**
School Leader	**Teacher**
Centre for Professional Practice: • Staff presentations (pathways, passions) • Guest presentations (provocations) • Mentoring training • Learning Innovation Groups • Links with university and post graduate credit for courses *(D, Nos 1,2,3,6, School A, 2009, 2010, 2011, 2009).* Out of those Learning Innovation Groups, the number of staff who have gone on to further study... one of the women who was in the very first group is now just about to finish her PhD…she said to me the other day I wouldn't have done this if you hadn't have pushed me. But then again, she wouldn't have done it if Principal 1 hadn't paid the money and set it in motion *(I, No.1, School A, School Leader 5, 60+, F, 11 September, 2012*).	So that's I think why I'm prepared to try these new things. And I also felt that through trying this study again I realised that there was this tsunami coming and the tsunami I mean is this digital revolution of education and I thought to myself, my god, you know, I'm so far behind. Then I realised , no I'm not, everyone is behind and I think that it is a matter of up-skilling and so I changed the way that I was teaching to bring a whole lot more, I felt, constructivist pedagogy into my classroom. I thought that was the way I needed to go, so yeah, I feel that I have changed my way of teaching in the last five years of so and I think its principally due to the study that I have been doing. So, really that's probably a personal thing, rather than being here? Do you think that you would do that anyway, or is it encouragement? (Researcher) Well, oh no, I think it came from here because of that initial work in the professional learning *(I, No. 1, School A, Teacher 5, 53, F, 13 September, 2012).*
Teachers presenting to staff: I took the idea and that became Teacher Talk and then we divided Teacher Talk into three strands so they are the Provocations, the Passions and the Pathways…the Passions …it's something that a staff member is passionate about that they want to share with colleagues *(I, No. 1, School Leader 5, 60+, F, 11 September, 2012).*	So you go along and you know I've been along to an astronomy one I've been to a maths one, I've gone along to English ones and yeah, just all sorts, but I think School Leader 5 has been busy on other projects this year so we haven't had them this year which is a real shame because I found them so interesting and it was voluntary to attend but usually you'd get twenty people would come along and it would be a really enjoyable afternoon *(I, No. 1, School A, Teacher 3, 41, F, 10 September, 2012).*
Teacher	**Teacher**
Teachers networking, personal learning I'd say very much the school supporting me being on syllabus writing teams because that has allowed me to become well versed with what it is that we do with our students here in Queensland, how you prepare them, how you assess them…enabled me to help the faculty as well… *(I, No. 1, School A, Teacher 1, 37, F, 14 September, 2012).*	I just like how they are interested in what's going on in all the subject areas and that's what I also like about the staff presenting to the academic staff about what they are doing cause it just gives you a little bit of insight into what goes on in other faculties and it encourages you to improve and to be more innovative *(I, No. 1, School A, Teacher 3, 41, F, 10 September, 2012).*

Table 4.9(b)

Participants' responses regarding investment in professional learning both within and outside the school, School B

School B	
Intervention	**Perceived experience**
Principal	**Teacher**
Individual teacher learning I want staff to feel like they are the experts and they have got the skills and support to gain the skills if they haven't got them *(I, No.1, School B, Principal B, 50+, M, 14 August, 2012).*	So what works best to change your practice do you think? (Researcher) I suppose bit of study and research to find out about such things and the time to do so. If you're on a fulltime teaching load you're teaching on average 3 periods out of 4 per day. You're flat out *(I, No.1, School B, Teacher 12, 56, M, 22 August, 2012)*
Principal	**Teacher**
Mandatory professional learning within school So every Monday afternoon for three hours…for the last three years on straight professional learning….when you start to talk about changing teachers pedagogy who have been teaching for 30 years and you try, who have only got a couple of years to go before retirement, to try and convince them that they have got to do something in a different way. Takes some time. But in the end they will do it if you convince them it's the right thing to do and they did *(I, No.1, School B, Key Personnel 3 (former Principal), 55+, M, 17 August, 2012).*	I don't think so. But then some of the changes, I suppose when we went through that process and we'd had you know, the big wigs came in and we'd do the school review and improvement stuff, it probably, that's probably when I started to apply some of the stuff to my teaching and the way I did things. Like making sure I did know every student's story and addressing the values of the school were some of the things that I was doing but it wasn't until then I think, that I did anything about it. Well we sort of had too then, because before you just came along, I was just coming along doing my job *(I, No.1, School B, Teacher 10, F, 39, 6 September, 2012).*
School Leaders and Teachers	**Teacher**
Mentoring student teachers, personal reflection Our school picked up a Master's student from the university as part of their PITL, which is the Partnerships in Teaching and Learning programme which is associated with the university...a good refresher and reminder of things that I could be doing with my staff *(I, No.1 , School B, School Leader 6, 57, F, 14 August, 2012).*	I reflect a lot. I do regularly take on student teachers and the thing I like about that is you get the opportunity to see what another teacher is doing or a student from UTAS. You get to work together a little bit and you get to reflect. I like that period of time. I like to see student teachers reflect and what did and didn't work *(I, No.1, School B, Teacher 12, 56, M, 22 August, 2012).*
School Leader	**Teacher**
Professional learning within school We did whole staff professional learning… we offered different ICT groups that you could go and be part of…My focus was more classroom strategies and philosophies around what we were working on…whole day sessions around personalising learning…then we would run some little sessions after that, so you didn't just end with that idea and we'd ask teachers to bring snapshots of what they did to sort of feed into that idea *(I, No.1, School B, School Leader 6, 57, F, 14 August, 2012).*	Well last night Principal B thanked us, as often we are in schools and staff are asked to do stuff and people don't really embrace it, and he's saying to us that he really appreciates it the fact that as a staff when he asks us to do something, we all get in and have a real go of it and he really appreciates that *(I, No. 1, School B, Teacher 9, 55+, M, 21 August, 2012).*

Table 4.10(a)

Participants' responses regarding investment in professional pathways, School A

School A	
Intervention	**Perceived experience**
School Leader	**Teacher**
Talent development There's a whole new generation coming through… We had a spate of them developing and going on to promotional positions….*N*eeds, talent, areas where they need developing. In doing that you've got to identify faults and weaknesses as well and see if you can find sneaky ways to address that without making them feel terrible *(I, No. 1, School A, School Leader 1, Mid 50, F, 13 September, 2012).*	And it was just quite comfortable for me to keep going with that, because I've had good mentors along the way and as they have left I've just kind of been the next person and it's come without, it hasn't been a push.. So, just like all teachers. So, yeah, over the time, I've gone through as a Head of Department, District Panellist *(I, No.1, School A, Teacher 4, 39, M, 14 September, 2012).*
Principal	**School Leader**
Mentoring and networking But the main thing is the mentoring that comes out of it and I think our staff professionally respond beautifully to well-constructed mentoring of their professional practice. And teaming them up perhaps with people not in their discipline, and not one of their friends they'd ordinarily sit with to mentor them through and my staff see that as incredibly valuable to have that opportunity given to them. ..It's thinking about who is out there and what they might be good for, constantly talking about it. The young talent on school, someone goes on long service leave, always expressions of interest, interviewing them, then giving them feedback on the interview. It's punishing on your time…everyone comes back in here and I give them feedback…are you going to do your Master's? Why did you apply for this role…have you thought about this, you should go to the aspiring women's conference *(I, No. 1, School A, Principal 1, 50, F, 11 September, 2012).*	Really given fantastic advice about my career. The Principal here has provided strong mentoring for me, about my career progression, about what kinds of jobs to go for, how to position myself, that kind of thing. So she has actually been incredibly encouraging there and also helpful in terms of identifying promotional positions within the school for me and even creating positions that I can go into. She's been aware…that there was a possibility that I could kind of get stuck. So she has been very good in that regard *(I, No. 1, School A, Teacher 1, 37, F, 14 September, 2012).* I've really learnt that networking is really powerful because there is always somebody else who is treading that ground that you are trying to get to. Mentoring wise, it's been very powerful… and in those younger days…I felt that my confidence wasn't as high, obviously as what it is now. Now I don't really need a lot of guiding, I've been fortunate to have that…cause I do quite a lot of conferences and stuff as well *(I, No.1, School A, Teacher 4, 39, M, 14 September, 2012).*
Principal	**Teacher**
Team leadership positions within the school One of the ways that I've been pushing lately with the younger staff... If you've coordinated and coached sporting teams, you learn so much about conflict resolution…think about your career and what you learn through doing this….this is one of the best ways that you will get on the ground experience and confidence for promotional positions *(I, No. 2, School A, Principal 1, 50, F, 12 September, 2012).*	I'm involved in co curricula area as well as Duke of Edinburgh, and I had to be involved in the whole co curricula program. I report to the Dean of Co-Curricula… obviously running that little area… a whole other level of administration and accountability, responsibility and that's been really helpful. I think it builds your confidence and running that sort of alongside your teaching, you can find, managing your time to do both... *(I, No. 1, School A, Teacher 2, 34, F, 10 September, 2012).*

Table 4.10(b)

Participants' responses regarding investment in professional pathways, School B

School B	
Intervention	**Perceived experience**
School Leader	**Teacher**
Leading meetings, networking So the school was actually in full swing and so my role was very much to keep the professional learning going that helped feed what the school needed and what it valued... Then you'd get feedback from what people were thinking and then you'd move on to the next idea. And there was a lot of collaborative stuff going on, lots of discussion, lots of sorting out, so that their learning was through a collaborative thing not just a talk fest *(I, No.2, School B, School Leader 6, 57, F, 16 August, 2012).*	Towards the end of last year different teachers could take different parts of meetings and there are a lot of people within our school that probably aspire to be leaders but they are not given an opportunity to do so. So that's one way to give them a go *(I, No.1, School A, Teacher 10, 39, F, 6 September, 2012).* Along the way I've done a whole lot of professional development. Educational department asked me to come in and sit in on their, looking at the outdoor education guidelines…I take on mentoring roles with other schools, we regularly get other schools phone us up and come down and say, what are you doing, can we come and see? I had to present, because of the subject we were doing *(I, No.1, School B, Teacher 8, 41, M, 21 August, 2012).*
School Leader	**Teacher**
Mentoring What are your challenges and resultant actions and then which career stage do you see yourself at…well obviously not any graduates, but are you proficient, highly accomplished or lead…Then we ask them how do you think the school can support them to realise their goals and I like to use the growth coaching model to actually work out what do you want to make a goal and often it can be a challenge or it can be something that you want to work on that's a strength *(I, No.1, School B, School Leader 6, 57, F, 14 August, 2012).*	It was nice to actually sit down and have an excuse to actually sit down and talk to someone from senior staff and I was with School Leader 6, and she was great, she agreed with everything that I'd said and gave me a few positive and agreed that I needed to do a bit more PD *(I, No. 1, School B, Teacher 11, 3 September, 2012).* The notion of coaching or mentoring is quite a hierarchical arrangement and I know for some people they strongly dislike it *(I, No. 1, School B, Teacher 12, 56, M, 22 August, 2012).*
Principal	**Teacher**
Professional discussions We are having and you know, we have professional discussions as a lead in for high performance process. Its led by me and all staff have a mentor and that mentor reports back to me with the discussions they have about staff, or with staff, so it's pretty easy to see who is veering off from those discussions *(I, No.1, School B, Principal 2, 50+, M, 14 August, 2012).*	We've just finished a whole lot of coaching conversations with colleagues… there was a survey that they had to do and you discussed the results, like their strengths and their growth areas and things like that and how they can improve in a classroom...I think they are valuable, but looking at the people that I've had, everyone's got the same things that need addressing, or similar things are coming up…We need to spend more time as smaller groups within a learning area and learn from each other possibly more than we do *(I, No.1, School A, Teacher 10, 39, F, 6 September, 2012).*

Table 4.11(a)

Participants' responses regarding investment in professional collaboration, School A

School A	
Intervention	**Perceived experience**
Teacher	**Teacher**
Collaborative teaching Because we teach collaboratively, more through, you are going to see it, so. And I'm pretty sure other people have got things from me cause I've come from a much, you know, you have to be a lot stricter in the state system, not in the previous school, and you get from other people and then they get from you *(I, No.1, School A, Teacher 2, 34, F, 10 September, 2012).* Also, coming back to that learning community thing, that we have here, I think in a school where the girls are really dedicated and engaged, um, the approach is a sort of, slightly more, yeah, it's got a sense of a more of a sense of a learning community and it's interesting because you are there, but also they are looking at what the others are doing and they are sharing ideas and so it's sort of an organic process if you can kind of enable that. Like we are all learning together and sharing ideas and what do you think? Have you tried this? I've been thinking a bit about that in art lately and also as a department we review our programmes and you know we share ideas and resources because we are all heading towards the same goals, we've got to get to these goals *(I, No. 1, School A, Teacher 7, 39, F, 12 September, 2012).*	We do, we teach collaboratively as well, in Grade 9 and 10 we have classes where we put two classes together so there's two teachers so we basically take turns to lead or whoever is more specialised in that particular topic will lead it and that's been quite new for me, it's been fantastic, and I think the students really benefit from having two heads thinking about something. And has that changed your teaching do you think? (Researcher) Yeah, I think it has, obviously you've got somebody else in the room, so you bounce off one another, like we will both teach at the same time. You usually have one teacher that's more leading the lesson, unless it's more project work and you're coming in and you are giving individual sessions with students or groups, umm, but generally yeah. You have to think about the other person in the room, how they like to deal with the dynamics and it's really interesting *(I, No.1, School A, Teacher 2, 34, F, 10 September, 2012).* We have a reporting up structure here. So we don't have whole staff meetings where issues are discussed. That's unusual to me, I've never been in a school where that doesn't happen…But I think that can be frustrating for some people *(I, No. 1, School A, Teacher 1, 37, 14 September, 2012).*
School Leaders	**Teachers**
Team building And that's another thing. We deliberately put different age groups and skills together on committees. So, just to sort of keep that vibrancy with the wisdom. I guess because you are so conscious of that then you won't be just doing the old stuff because that is front and centre in your mind (*I, No. 1, School A, School Leader 1, mid 50, F, 13 September, 2012).*	Our directors are very upbeat and both are doing extending study as well, in their Masters and are involved in university work as well, and I think that kind of feeds back, they are always talking about what is going on in other places and the sort of network that is created enriches what you are doing and also, resources that you get from other places and people that you have spoken to say, oh this is useful. It's very good links within Brisbane definitely. I probably prefer that when I think about it *(I, No. 1, School A, Teacher 2, 34, F, 10 September, 2012).*

Table 4.11(b)

Participants' responses regarding investment in professional collaboration, School B

School B	
Intervention	**Perceived experience**
Principal	**Teacher**
Collaborative practice Well I talked about collaboration, being clear about direction, I don't know if you've noticed how much I have emphasised that these are decisions made by everyone for everyone *(I, No.2, School B, Principal 2, 50+, M, 27 August, 2012).*	Principal B's really pushing team work, something that he's really focussed on. And again I think that's fantastic as we're a big team working together for these kids and the community and if he treats us as a team and he cares about us as his team of staff, then in turn I think we'll care for the kids. I just see that as such an obvious leadership style…So if a Principal looks after their staff, makes sure they're happy and treats them with respect, does all the good leadership stuff with the staff, it will follow through that the staff will do that with the kids *(I, No.1, School B, Teacher 9, 55+, M, 21 August, 2012).*
Principal	**School Leader**
Teams With staff, at every opportunity I'm allowing them to collaborate or getting them to collaborate, they are working in teams *(I, No.1, School B, Principal 2, 50+, M, 14 August, 2012).*	I don't think that washes with staff because here staff will say, 'But we weren't asked, we don't own any of this', so it's a fine line too. I don't think there's hatred of, it's just that tiredness and to engage in big picture stuff at the end of the day is hard work *(I, No. 1, School B, School Leader 7, 56, F, 22 August, 2012).*
Teachers	**School Leaders**
Staff presenting So groups of teachers presented their work to the rest of the staff…that was the most enjoyable learning experience that they'd had for a long time. They'd really enjoyed listening to each other, they really enjoyed presenting what they were doing. It was an opportunity to showcase how they actually work within their classroom *(I, No. 1, School B, School Leader 6, 57, F, 14 August, 2012).*	Then there are a lot of things you can improve and work on. You learn as you go along, you learn from other colleagues *(I, No.1, School B, School Leader 6, 56, F, 22 August, 2012).*
Principal (former)	**Teacher**
Collaboration for improved practice We just kept I suppose pushing, all the time, collaboration…because that's the only way you get uniform quality assurance across the school, by having people work together, because good teachers will pull teachers with them (*I, No.1, School B, Key Personnel 3, 55+, M, 17 August, 2012).*	It tends more often than not to be a solo enterprise. There are occasions where you team teach and you do have some sessions when you get together and you might plan stuff but generally speaking…you're working like a sole trader…you do tend to work a little bit in isolation…you get your perspective on your class, you hear about things from other classes and teachers you may work with…but that can be somewhat deceptive at times *(I, No. 1, School B, Teacher 12, 56, M, 22 August, 2012).*

Table 4.12(a)

Participants' responses regarding investment in professional innovation, School A

School A	
Intervention	**Perceived experience**
Principal	**School Leaders**
Innovation for student learning I was more ready to open the gates if someone wanted to know how we did something. My philosophy was by the time they've worked it out, looked at it and implemented it, we'll be over that and have done something new *(I, No. 1, School A, Principal 1, 50, F, 11 September, 2012).*	To be honest, Principal 1 worked very hard to push me out of my nice little safe procedural dot. At the time I used to think, why can't I just be happy with the job that I'm doing…and I kept thinking well why do I have to be this other person as well? …But now…I'm really grateful for that, for her to push the boundaries and to um…I mean, she lives in 20 20 and she drags us all on with her. I think she has taken this school to a level that you know, that's so well respected around the country *(I, No.1, Parent 4, 11 September, 2012).*
School Leaders	**School Leaders**
Forward thinking, new practice and initiatives It's a busy place, there's lots happening, there's a real focus on innovation and new initiatives, so there's never really a holding pattern. There's always a sense of the next thing moving forwards, yeah, I think the fact that it is such a busy place has…I don't know that there's enough time for reflection before the next thing is focused upon *(I, No.1, School A, School Leader 2, 38, F, 11 September, 2012).*	But if you are the school that's paving the way then, that's a challenge in itself *(I, No. 1, School A, School Leader 3, 39, F, 12 September, 2012).*
School Leader	**Teacher**
Innovative pedagogy So if I could take pressure off them that gave them more space to innovate and be better in the classroom and do better things with the (students) in the school *(I, No. 1, School A, School Leader 4, M, 40, 12 September, 2012).*	I would like to continue with innovative pedagogy in my classroom. I would like to continue doing new and different and exciting things… it just gives you a little bit of insight into what goes on in other faculties and it encourages you to improve and to be more innovative *(I, No. 1, School A, Teacher 3, 41, F, 10 September, 2012).*
School Leader	**Key Personnel**
Risk taking, freedom, creativity Involving staff I think in directions...I guess maybe the luxury comes, of having someone dedicated to making ideas happen, to run with it…there's a measure of creativity and knowing the culture that you are working within. But I guess above all it's not being constrained on what people can do, to allow them the freedom to experiment *(I, No.1, School A, School Leader 5, 60+, F, 11 September, 2012).*	All the freedom that gives me to chase my ideas, the strength of the (school community)… to actually make these things happen. Makes this place the most amazing place to work I have ever worked in my life. You know, I am thrilled to be here. It has its frustrations, every job does *(I, No.1, School A, Key Personnel 1(not leader, counsellor), 55+, M, 13 September, 2012).*

Table 4.12(b)

Participants' responses regarding investment in professional innovation, School B

School B	
Intervention	**Perceived experience**
Principal	**Teacher**
Innovative courses and teaching *As former Principal of School B, Key Personnel 3,* So we had a vision, which was that Taroona High School would be a leading centre of innovation, creativity and excellence in teaching and learning. That was our vision for the school *(I, No. 1, School B, Key Personnel 3, 55+, M, 17 August, 2012).* I knew I was going to be working with innovative people and dedicated people and I knew the students here on the whole were really engaged and it just seemed like an exciting possibility. I came and visited all the schools that I applied for and this was by far the most vibrant, even on a one day visit *(I, No.1, School B, Principal 2, 50+, M, 14 August, 2012).*	Key Personnel C was good. I think he was looking himself for some new innovative things to introduce. It's helped him along his way because he's taken what we've done all over the world in his presentations *(I, No.1, School B, Teacher 8, 41, M, 21 August, 2012).* Firstly, we were looking after kids well through the 'know every student's story' initiative where we scoped out what that meant, and through those innovative real world courses where kids were engaged in learning which had a purposeful intent not just learning for learning' sake…That course that was just one example of lots of different courses… So we said let's see if we can construct courses around teacher passion and that was one the things we did. So…we ended up with nine different science courses I think *(I, No. 1, School B, Key Personnel 3, 55+, M, 17 August, 2012).*
Principal	**School Leader**
Networking, school visits I think we started to recognise some of the professionalism of staff, so we put in things like innovation grants and we said, well, if you want to go and look at a school in Victoria in the school holidays then we'll pay your airfares and accommodation for a couple of days, and you can have a couple days' holiday *(I, No. 1, School B, Key Personnel 3, 55+, M, 17 August, 2012).*	A couple of opportunities to travel which is rare in teaching and we went to a couple of schools in Adelaide and some schools on the North West Coast so I could look at what other people were doing which was fantastic. And sort of changed some of my ideas *(I, No.1, School B, School Leader 7, 56, F, 22 August, 2012).*
School Leader	**Teacher**
Innovative pedagogy So a lot of teachers still had fairly traditional ideas about how and one of the big things that we tried to do was move them from that traditional model to a much more 21st century model *(I, No.1, School B, School Leader 6, 57, F, 14 August, 2012).*	For improving my teaching, I honestly don't know, I've definitely had people be helpful over time but…I don't think anyone has specifically helped me *(I, No.1, School B, Teacher 11, 28, F, 4 September, 2012).*

4.3.4 Professional review, rewards and recognition

The fourth and final theme or category of influence which was identified through analysis of data was professional review, reward and recognition. The influence is first reported, followed by the perceived experience of the influence on quality teaching.

4.3.4.1 Review

School A had a model of professional review which was in the process of being revised. It involved a four phase process of: presentation of an academic paper, classroom observation, collaboration, and achievement data. This entailed:

> It's only a proposed model at this stage…implementation at start of 2013. At the moment it's a two year cycle, so semesterized. Staff need to use an individual instrument, or review instrument each semester…they need to choose an instrument from each of those domains, across their four (domains).
>
> So the domains are: student outcome analysis; active collaboration; lesson or classroom observation; and an academic paper. So within each of those domains there might be up to half a dozen individual instruments and they can then choose. So staff can choose whatever they are comfortable with and then use that as the source of data *(I, No.1 School A, School Leader 4, 40, M, 12 September, 2012).*

School B introduced feedback and review as a result of staff feedback during the collaborative process of developing the school improvement plan. This began with a survey instrument developed by Key Personnel 3 from the AISTL teacher standards. Once staff had filled in the survey, opportunity for professional conversations and goal setting was given with mentors throughout the school. This was then shared with Principal 2 *(I, No.1, Principal 2, 50+, M, 14 August, 2012).*

The perceived effectiveness of the review was described in a variety of ways by the principals and school leaders. Some data from interview indicated that review

influenced teaching practice in a positive manner for some staff. Perceived influence on quality teaching within School A was described as follows:

> And that was excellent in some ways, because it forced, it provided an external imperative to do some academic work and to write and investigate something which, if left to your own devices, you often don't get around to doing and I think it gave, it enriched the knowledge bank of the school because it did develop, helped to develop, expertise. But it always felt like an intellectual exercise that was always a little bit removed from discussing how I was going professionally…
>
> Open classrooms where you come to, where you go into someone else's classroom and watch them with their students. I think it's some of the most powerful professional learning so, to have the opportunity… That was the first time I think in 8 years that I'd had anybody come and actually see me teach or see me work with the girls and so I thought that was tremendously, I found it affirming, but I also felt it was- that it enriches the knowledge of the school too *(I, No.1, School A, School Leader 2, 38, F, 11 September, 2012).*

However, further analysis of interview data regarding review indicated that some staff did not respond positively to review. Teacher 12 stated:

> I suppose anything with a large survey where you have 101 questions and it takes over an hour to do and then you sort of look at it say, 'Well that's rubbish', and ask how is this contributing to development and relevant. That's general staff remarks that they don't necessarily express to the likes of Principal 2; they'll be supportive generally *(I, No. 1, School B, Teacher 12, 56, M, 22 August, 2012).*

Similarly, Teacher 11 described her experience as both positive and negative. She explained:

> I did and I didn't. It was nice to actually sit down and have an excuse to actually sit down and talk to someone from senior staff... I don't like the survey. I think if you were actually able to survey maybe some kids and I'm not just talking about surveying the best kids in the class but maybe survey the main class to get feedback about that teacher. That would almost be better, because I can say I do something well but it doesn't mean I do, and it doesn't mean that other people perceive that I do, and I really didn't like the wording of a lot of the questions in the survey. So in the end I sort of felt like the survey was a bit redundant, it was a bit of a waste of time *(I, No. 1, School B, Teacher 11, 28, F, 4 September, 2012).*

4.3.4.2 Reward and recognition

In addition to professional review, interview and documentary data showed leaders influenced quality teaching across the school through reward and recognition.

Principal 1 (School A) shared:

> Staff love to be recognised… so we implemented three awards at the end of each year for staff. One is for a teacher of outstanding quality in their first five years of practice; one is an experienced teacher who has contributed above and beyond to the culture of the school; and, one is for either from your general staff or teaching staff similarly, nominated by peers, voted by peers and awarded by the Chair of the Board on speech day... we've seen staff often apply for promotional positions after that. It's quite interesting to see the working of the psyche on that. It's not about the extrinsic; it's about the recognition and the intrinsic reward from that;
>
> Our website and tweeting… they will email and thank me for actually recognising them in that way publicly for something that they've done that we believe, and I believe that professionally is really quite exceptional; and,
>
> Staff meetings: anyone can send a name with a reason to my exec meetings, for a colleague for recognition by me at staff meeting, and they get a bottle of wine or a book voucher or something. These are very token items but it's the recognition, it's the coming from the grass roots up, so that they see as leaders about recognition for a colleague doing something and it's very well received *(D, No. 15, School A, Principal 1, 2011).*

In a similar manner School B rewarded and recognized quality teaching across the school. Innovation grants, opportunities to present internationally and feedback were used to reward and recognise teachers *(I, No.1, School B, Key Personnel 3, 55+, M, 17 August, 2012).* Key Personnel 3 (former principal) stated:

> It's a reward to build on future practice. So you reward the people who are putting the effort in and knowing that if you give them some money, then you'll get even more return from them. But I'm not sure by giving them a cash bonus that's going to have the same effect.

At times staff mentioned times where they did not believe they were appreciated.

School Leader 7 stated:

> It's rare to see anybody come up here showing an interest in what they are doing in science. I counter act that by going and taking kids and knocking on the office door of the Principal and saying look at what they have done *(I, No. 1, School B, School Leader 7, 56, F, 22 August, 2012).*

Other teachers, school leaders, key personnel and parents described how they responded to rewards and recognition:

> I don't know, I can't tell you how far down the food chain that feeling would go, but from my perspective I feel that there is a great sense of worth and appreciation in what I'm doing and I feel very, very supported and that's always the case *(I, No. 1, School A, Key Personnel 2, 59, F, 13 September, 2012)*; and,

> I just feel that I have become a lot more confident and competent in my own abilities. I definitely know more about my own subject because of the level of expectation from not, from just the school, but from myself of what I want to be able to deliver. So I feel like I am continually looking at new ways of delivering things and finding what's current. Yeah, so, like I feel happy. Happy in myself and happy in what I'm doing *(I, No.1, School A, Teacher 2, 34, F, 10 September, 2012); and,*

> I feel like staff morale is actually quite on the up at the moment and its better this year than it's been…the whole place has a brighter happier feel to it and I think that it transfers to the kids…one of the things Principal 2 has done recently he has suspended staff meetings while people are frantically writing reports. It's simple little things, a lot of school Principals do that but not all. That's just such good-will, people say 'oh thank you' *(I, No. 1, School B, Teacher 9, 55+, M, 21 August, 2012).*

Table 4.13 summarises these four influences (challenge, culture, professional investment and review, reward and recognition). It combines documentary evidence for triangulation of results. These documents can be cross referenced to Appendix J, Data Sources.

Table 4.13

Summary of categories of influence on quality teaching from interviews and documents

Challenge: Expectation for continual improvement in quality teaching and professionalism	
Culture: Continually monitor, evaluate and at times intervene to influence a positive culture of learning	
Investment: In four teaching capacities	
Professional influence	**Activities**
Professional learning • Challenging • Stimulating • Flexible • Personalised learning plans	Multiplicity of professional learning opportunities (external, internal) including professional learning centre, peer learning, presentations given to peers, conferences- both attend and present, overseas, state based and national visits Supporting staff to: * Lecture * Deliver training packages * Audit other school programmes * Write courses for State Education Departments * Participate in panels * Write texts * Consult on national curriculum * Write and deliver papers, newspaper articles * Influence media- interviews, articles, twitter * Professional learning groups within school *Project groups or committees * Study tours * Post graduate opportunities * Study leave * Fellowships* Staff referenced articles published on website and in newsletters* Feedback from parents, community, networks (*Documents, Interviews)*
Professional pathways Across various paths including: • Leadership • Expertise in teaching • Pastoral care	* Igniting passion * Desire to grow staff * Mentoring across professional pathways including pre-service, early, mid, and, late career * Talent watch/ list * Acting roles * Expressions of interest for acting roles- exit interview for unsuccessful candidates *Promotion * Leading projects * Feedback * Fostering opportunities to develop connections with mentors and coaches * Professional conversations * Networking (*Documents, Interviews)*
Professional collaboration • school • networks	Building collective knowledge bank (articles collated in book form and distributed to networks, database with reports on professional learning, presentations to staff, classroom visits, observations) * Professional writing- papers, written work highlighting staff, newsletters * Peer learning; wider school community (host conferences); present at conferences* Books, texts, curriculum * Networking- leading professional groups, social media, course development, lecturing * Shared practice: planning, teaching, assessment, research * Shared language and philosophy * Strategic Action Research Groups researching next, most relevant practice * Project groups * Connections to networks outside school (visiting scholars, residents, University links, Microsoft innovative schools) (*Documents, Interviews)*
Professional innovation • Freedom, support and feedback • Risk taking • Expectation for innovation	* Networked innovation * Pilot projects *Risk taking and ideas supported * Innovative curriculum *Timetabling * Use of learning spaces *Buildings * Philosophy cafes * Digital technologies * Outside links with external agencies * Futurists in residence * Innovative Grants (*Documents, Interviews)*
Professional review, reward and recognition Recognition: raising pay commensurate with position or acting role, recognition and thanks when staff articulate vision, act towards vision Rewards, honorariums, weekly peer nominated awards, end of year peer nominated awards, innovative research grants Professional Review: evidence based, appraisals, feedback mechanisms, exit interviews for unsuccessful candidates as part of mentoring, psychometric tools, coaching, planning	

4.4 Conclusion to findings related to subsidiary research question two

Four themes or categories of influence emerged from an analysis of the interviews and documents. These were gathered from 30 interview participants within the study and the documents available via the internet, school websites, YouTube, and archived data. The themes related to the second subsidiary question which addressed how quality teaching was influenced by successful school leadership within two improving Australian secondary schools.

The four themes or categories of influence were:

- **Challenge**
- **Culture**
- **Professional investment**
    - Professional learning
    - Professional pathways
    - Professional collaboration
    - Professional innovation
- **Review, reward and recognition.**

In linking the interview data of the theme of influence together with the perceived experience, it was apparent that a mutual and reciprocal relationship existed between leadership, teachers and key personnel.

Part three now reports the findings for subsidiary research question three.

Part Three: Subsidiary Research Question Three

4.5 How are these influences enacted over a period of five years of school improvement?

During the interviews participants were asked to effect and provide retrospective information. This related specifically to how successful school leadership's influence on quality teaching was perceived as enacted over a period of up to five years of school improvement in the two school sites.

Specific interventions or activities undertaken by successful school leadership for improving quality teaching were identified. These accounts were triangulated through documents found on school websites, school reviews, past papers, and presentations from each principal in each school. In School A the interventions were:

- A new appraisal system,
- Establishing a Centre for Professional Practice for internal professional learning;
- Mentoring and coaching staff,
- Actively seeking and implementing new initiatives and innovations in teaching and learning practice, such as Philosophy Cafes, new curriculum content 'Philosophy of Learning', new career pathway learning spaces; and,
- A new Creative Arts Centre.

In School B the interventions were:

- An emerging appraisal system which included a mentoring and coaching process;
- Establishing Monday internal professional learning meetings;

- School Improvement Process including data collection and analysis, collaboration, implementing Strategic Action Teams, formulating a plan and implementing improvements;
- New initiatives and innovations in teaching and learning, including 9 new science subjects specific to the school site, 3 new health and fitness subjects, Microsoft Innovative School, new pastoral care system; and,
- Re-purposing a Learning Support Centre.

Next, the retrospective data which reported these activities were systematically coded to more deeply explore how leadership influenced quality teaching throughout the intervention. During the interviews participants were asked to:

- Chronicle their perceptions and experience of main interventions in a granular manner, specifying the:
    - intervention,
    - action,
    - resource,
    - time frame,
    - change-management strategy, and,
    - evidence of success during the five year period of improvement;
- Give perceptions of how the intervention was enacted;
- Give perceptions of how they experienced the intervention;
- Give perceptions of the value of the intervention for improving teacher quality.

Key categories of influence (challenge; culture; professional investment; review, recognition and reward) were identified and coded from the retrospective interview

transcripts. In addition, other emerging themes or patterns were explored. The process involved constant comparison analysis (Onwuegbuzie et al., 2012). Once this process was complete the researcher attempted to plot the categories of influence, emerging patterns and specific interventions on a timeline from 2004-2012 as arose from the description. For example, in the intervention 'Establishing a Centre for Professional Practice' in School A, School Leader 5 gave a retrospective account of the activities and changes that occurred from 2004 till the time of the interview (September, 2012). Within this time frame, the retrospective data was coded and analysed for emerging patterns and categories of leadership influence. This was repeated for each intervention.

Three main dynamics were identified through the retrospective interview data. These were:

- A cyclical and differentiated approach to improvement and innovation in quality teaching across the school; and,
- Leadership influence was contingent on the culture, level of engagement and teacher need within the school; and,
- Varying levels of perceived success in improving quality teaching;

4.5.1 Cyclical and differentiated approach

First, an emerging cyclical and differentiated approach was identified. Key Personnel 3 expressed:

> But gradually over time they came to a frame of mind that we need to continually reflect and review our practice, identify the stuff that is not working and flick that out and identify the new stuff we want to do. So you get that continuous cycle of you know plan, act, observe, reflect and do again. So we got into that cycle pretty intensively and I think, right down into classrooms *(I, No. 1, School B, Key Personnel 3, 17 August, 2012).*

The cycle typically involved four distinct phases for whole school interventions. These were:

1. **New initiatives or innovations** to improve the quality of teaching and professionalism within the school with varying levels of engagement
2. **A differentiated interweaving of the investment in quality teaching:** either broad or targeted
3. **Perceptions of varying levels of improvement in professionalism and quality teaching** across the school.
4. **Professional reflection and evaluation.**

This cyclical pattern was surrounded and mediated by continuous referral and at times interventions to foster a positive learning culture of professionalism. Figure 4.1 (see page 180) represents pictorially the emerging cyclical pattern underpinned and mediated by school culture.

Figure 4.1 Cycle of iterative and differentiated improvement and innovation in quality teaching professionalism

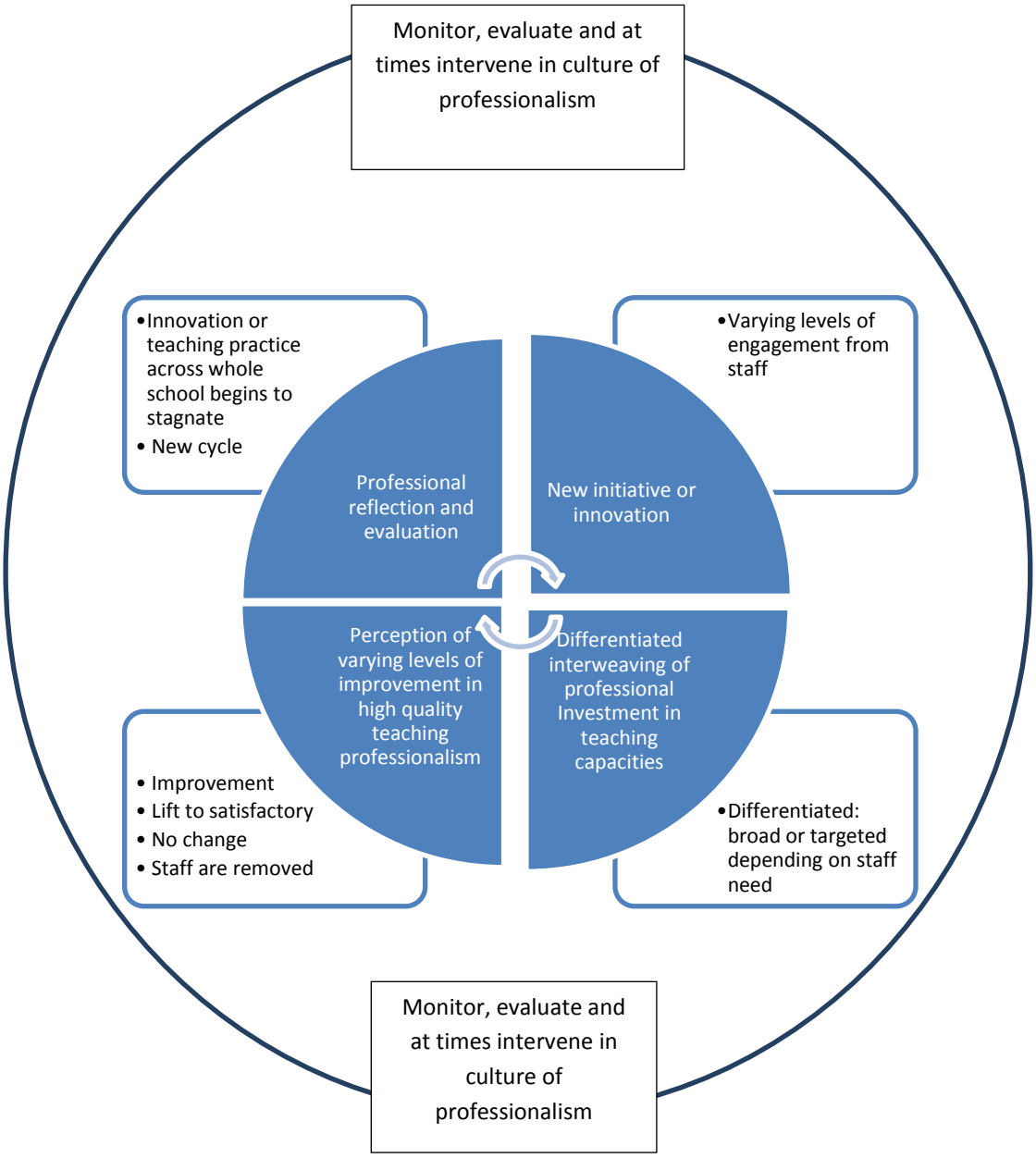

Figure 4.1 The inner circle depicts the emerging cyclical pattern of four phases which were: new initiatives or innovations to improve the quality of teaching and professionalism across the school; a differentiated approach of investment in various teaching capacities through professional learning, collaboration, pathways and innovation; perception of improvement in professionalism and quality teaching; and, evaluation of initiative where new initiatives were pursued when a stagnation in teaching practice was observed. The outer circle denotes the manner in which this cycle was supported by a continual monitoring, evaluation, and at times intervention in the culture and level of engagement for staff.

Findings linked to each distinct phase within the cycle are now presented through examples of interventions. Two examples of broad interventions from each school were selected. In each, a retrospective report from a leader and two members of staff (one a positive voice, the other a negative voice) is used. The report is interspersed with responses (either supportive or critical) and the resultant actions that leaders took.

The examples are as follows:

1. School A, Appraisal System
2. School B, School Improvement Process

Each example is presented in a table outlining the distinct phase in the cycle. Evidence presented in the tables is cross referenced with direct transcripts from each school leader in Appendix K, in addition to the responses from both positive and critical voices. The data codes are numbered for ease of identification of transcripts in-text.

Table 4.14

Example 1: Successful school leadership influence on quality teaching, appraisal system

School A				
Successful school leadership activity (Principal 1)	**Evidence**	**Location Transcript**	**Experience: negative** **School Leader 4, 40, M, 12 September**	**Teacher experience: positive** **Teacher 3, 41, F, 10 September**
Pursuit of new initiative or innovation				
Requirement of executive staff to prepare referenced article	Principal 1 described new initiative, replacing old model of appraisal	**2**	OK, appraisals worked on a couple of levels here, for middle managers they've always had to give a presentation to the boss and Principal 1 loves that and it puts the middle managers under enormous amounts of pressure and stress. I understand why she does it. I understand how it builds a culture and all those sorts of things.	I like how our Principal is very decisive and such a visionary. She's always got her eyes on the future and what's next and she has a long term plan which she plans for which I really like, I don't ever get of sense of anything being done ad hoc, so its seems to be a real program.
Requirement of middle management to prepare referenced article	Principal 1 described new initiative, replacing old model of appraisal	**2**		
Appraisals of leadership, followed by all staff via presentation	Principal 1 described new initiative, replacing old model of appraisal	**4**		I actually get a lot from the professional development provided by my own colleagues like often after staff appraisals and director appraisals, some of those staff will be invited to present to the whole staff and I've found that even though they might be presenting on something they are doing in maths I've actually found them really useful and beneficial.
Observation of teaching staff	Bi annual		One lesson on one day every two years, somebody who possibly has not been in the classroom for ten years would walk in a sit in the back of the classroom, fill out a form and tell them how good they thought they were…So apparently every two years we'd have this bun fight anyway, and every two years we'd revisit this bun fight.	Then the following year the appraisals are for all of teaching staff and the first time they did it we were given an option, you could do a presentation or you could have a lesson observation.

Table 4.14

Example 1: Successful school leadership influence on quality teaching, appraisal system

Successful school leadership activity (Principal 1)	**Evidence**	**Location Transcript**	**Experience: negative School Leader 4, 40, M, 12 September**	**Teacher experience: positive Teacher 3, 41, F, 10 September**
Interweaving of professional investment (professional learning, professional collaboration, professional pathways, professional innovation)				
Challenge: high expectation for improvement in professionalism	Referenced article post 2005 Presentation to peers Observations	**1**	Oh, appraisal would be very controversial like it doesn't really matter whether you present the least confronting one in the universe. It's still going to be. It then went out to staff and caused a furore…all of a sudden they thought they were going to be assessed, they went off their heads.	Yeah, you've always got to stay on your game and do your best and to help your students in the best way that you can and it would be nice if that were the culture in every school, but here I find that it is quite rigorous and so therefore, it's a bit of an adjustment in your first year to get used to that sort of, I guess, subtle expectation, but once you get into the swing of it, it's enjoyable.
Investment: teaching capacities	Building knowledge bank Professional confidence built Further study pursued Career pathways Application to classrooms	**3, 5, 7, 8, 9, 10, 13, 15, 16,**	Making it from something that creates a perception of putting heat on people, to drawing light on people. Trying to make it multifaceted. Trying to redefine the way that we think about data analysis as well.	I like how the principal knows who I am, I enjoy how the principal knows what I am involved in and chats to me about what I'm doing in my subjects. I enjoy how the principal is always offering opportunities for extended study and professional development to present to parents, you know.
Review of initiative and innovation				
Review, recognition and reward	Articles and presentations acknowledged by peers, school community and others	**18**	Moving it from an event to an ongoing embedded process.	Oh yes, and interest and conversation and then you'll…on the three occasions you'll also get a letter.

Table 4.14

Example 1: Successful school leadership influence on quality teaching, appraisal system

Principal 1	**Evidence**	**Location Transcript**	**Experience: negative School Leader 4, 40, M, 12 September**	**Teacher experience: positive Teacher 3, 41, F, 10 September**
Perception of improved professionalism and quality teaching				
More staff apply for promotional positions Staff presenting outside school Further post graduate study Improved classroom practice	Principal 1 reports this as a perception of improved professionalism and quality teaching	**11, 12, 17,**	I really don't feel-I've got to be honest- I'm in a position to get that feedback now.	They are always thinking of opportunities they can offer to the staff to enrich their careers. In my first couple of years here, on two occasions I received emails form the Principal saying a school has contacted me looking for a Head of English, would you be interested in applying and both times I've said no, I'm very happy here but I just, I really respect a principal who thinks, Oh, she might be good for the position, I'll see if she is interested.
Continual monitoring, evaluation and at times intervention to culture of professionalism				
Culture: Countering negativity and criticism	Print copies sent to outside school networks, people asking staff to present at conferences Communication strategies	**6, 19**	I need to control information and dissemination really carefully, so I've got a communications strategy of sorts, but to put information in Directors' hands first and get them to understand it and try and get some in principle buy-in from them. And then even before it's ready to go, before it's got the details to implement, to get out into faculties at faculty level…to talk about it, so people have got time to become familiar with it as an idea as a concept rather than it get dumped on them…then I can control the rumour mill because rather than people talking about what may or may not happen, I can tell them about what will and won't happen and so therefore I can hose down the 'catastrophising' that goes on in this place I did a tour to faculty meetings and sort of was the one that got pushed out and copped a lot of that vitriol.	I suppose you can see that school really values learning and really values rigorous learning and rigorous education, and so therefore the expectation obviously is that you'll do your best, and that can be quite demanding so that's what I think I mean about that special culture.

Table 4.15

Example 2: Successful school leadership influence on quality teaching, school improvement process

School B				
Key Personnel 3 – former principal)	**Evidence**	**Location Transcript**	**Teacher experience: negative Teacher 12, 56, M, 22 August**	**Teacher experience: positive Teacher 8, 41, M, 21 August**
Pursuit of new initiative or innovation				
Transformation of teaching practice	Vision for continual initiatives	**2, 3, 4, 5**	I suppose that was in the first six months. Up to a year it was like that. It took a while for that to thaw. Various people almost said 'I don't actually want to be here'. You had people chatting about it in people's offices. You never knew what was coming with Key Personnel 3. Part of it was like baseball, he would throw a curve ball at you and the staff and he would say, 'This is coming, that is coming', and you felt like he was going flat out on a motor bike. He wasn't quite sure where he was going but he was getting there in a hurry.	I wanted something different. And then five years ago I was having a conversation with a friend of mine… was a science teacher. We both really liked the water and we were looking over the view (where the school is positioned) and we thought well, wouldn't it be good to teach a subject? I could use my skills, he could use his skills and within about ten minutes we had already mapped out a subject.
School Improvement Plan	21st Century Learning Timetables, courses, pastoral care (Know Every Student's Story)	**14**	Things improved over the five years.	Principal 2 is really good, because Principal 2 is really supportive. But what Principal 2 has done for our school he has gone back and filled in the gaps. Where Key Personnel 3 has taken us out there into space in some regard.
Interweaving of professional investment (professional learning, professional collaboration, professional pathways, professional innovation)				
Challenge: high expectation for innovation and transformation	Expectation of innovation, transformation School B leading centre of innovation, creativity and excellence in teaching	**4** **23**	But then we did a lot of chat things there for a while which I suppose was about the staff owning. I don't know how productive that was. There was always this feeling that this is what he wanted right-up and that sort of thing. We were going to get there no matter what the parameters were. He was going to funnel us into this situation he had it already worked out but I'll make you think that you're doing it.	Key Personnel 3 was good. I think he was looking himself for some new innovative things to introduce.

Table 4.15

Example 2: Successful school leadership influence on quality teaching, school improvement process

Key Personnel 3 – former principal	**Evidence**	**Location Transcript**	**Teacher experience: negative Teacher 12, 56, M, 22 August**	**Teacher experience: positive Teacher 8, 41, M, 21 August**
Interweaving of professional investment continued				
Investment: teaching capacities	Strategic action teams, collaborative inquiry Digital pedagogies	**15, 16, 17, 18, 22, 25**	So that improved things a bit after that and so there were a few ticks on him for that. We did a lot of talk which some called 'Wafflegate' where he spent about 3 days doing various meetings and things. You never really felt like it was in your own hands what was happening.	Principal Key Personnel 3 at the time, and I said how about this… and he said that sounds good but here is a heap of questions. So is it going to be feasible, what are going to be the costs, legally can we do it? Then we started putting the subject together, we started talking to people from community groups.
Review, recognition and reward	Audit of school Innovation grants	**11, 12, 13**		He'll also come and say, this is really good so.
Perception of improved professionalism and quality teaching				
Improved teaching quality	Teachers were getting stale, construct courses around passions	**20**	Did it impact on my teaching? Lots of good things were happening beforehand, I was here beforehand, lots of people were doing things. There's lots of impacts. ELS was an impact, TCE, the Australian curriculum was an impact. These changes, the external ones that have always come through teaching they've always impacted on a school, wherever you are. It did impact, and there are some positives out of that.	I started and once we got that first one. I think it started with that one actually. Once we got that first one, we can make a difference and do your own thing, get an idea, push it through; they'll give you another one. And now I'm just like, that's just how we do it.

Table 4.15

Example 2: Successful school leadership influence on quality teaching, school improvement process

Key Personnel 3 – former principal	**Evidence**	**Location Transcript**	**Teacher experience: negative Teacher 12, 56, M, 22 August**	**Teacher experience: positive Teacher 8, 41, M, 21 August**
Expertise shared with others	Courses taken to over 20 schools	**21**	So Key Personnel 3 was good. It shook things up a lot but there was also a lot of time wasting involved as well, and some things would change for the sake of change you know, and some things seemed to be going back around. It was almost like he wanted to change. He managed some good things, the school building projects really well, he was happy with a blueprint in his hand.	Along the way I've done a whole lot of professional development. Educational department asked me to come in a sit in on their, looking at their outdoor education guidelines, so I was involved with that as someone who was in the school. And I take on mentoring roles with other schools. We regularly get other schools phone us up and come down and say, what are you doing, can we come and see? I had to present, because the subject we were doing.
Review of initiative and innovation				
Review of practice	New things, alongside continual improvement	**26, 27**	'Has your teaching changed over the years?' I hope so. I think it's always three steps forward, and two back. But it would be wasted if I hadn't learnt something. I do reflect a lot.	Ask me what I wanted. Key Personnel 3 was good. I think he was looking himself for some new innovative things to introduce. It's helped him along his way because he's taken what we've done all over the world in his presentations and stuff.
Continual monitoring, evaluation and at times intervention to culture of professionalism				
Culture: countering negativity	Use of data to challenge perceptions- consultancy firm Resistance of staff to change Vote for changes Time dedicated to adjust to change	**6, 7, 8, 9, 10, 19**	Consulting company came in and I suppose they asked me what you wanted the school to look like. That was kind of neat. But then we did a lot of chat things there for a while which I suppose was about the staff owning. I don't know how productive that was.	We had a…When Key Personnel C first came in, he had a big school review and went to the sheet and did all that kind of stuff and got people in, and I remember having a meeting with two of the people who were running it and they sat me down and said, 'What do you want to do, where do you want to go, where do you want to get to?' and up until then the schools had been: this is your job, this is what you are doing, this is your timeframe, this is this, we want to see this, we want to see this.

Documents supported the identified whole school cycles of innovation and improvement with written reports given of the process and cycle of improvement and innovation in each school. In School A supporting documents were:

- A new appraisal system *(D, No.15, Presentation, rewarding issues and opportunities, Principal 1, 2011 describing system and changes in professionalism)*;
- Establishing a Centre for Professional Practice for internal professional learning *(D, No.6, Courier Mail, Article about Centre for Professional Practice, June, 2009, quoted The Centre as first in Australia)*;
- Mentoring and coaching staff *(D, No.5, EOWA, Equal Opportunity Programs Award outlining mentoring and coaching opportunities, 2011)*;
- Actively seeking and implementing new initiatives and innovations in teaching and learning practice such as Philosophy Cafes *(D, No. 7, Courier Mail, article about the new Philosophy Café as the first in Australia, May, 2009)*, new curriculum 'Philosophy of Learning' *(D, No.2, Annual Review, 2011)*, new career pathway learning spaces *(D, No.11, Key Personnel 1, Article titled, 'Re-discovering the learning space', 2012)*; and,
- A new Creative Arts Centre *(D, No. 3, Annual Review 2009, 2010 and researcher field notes describing artefact)*.

In School B the documents were:

- An emerging appraisal system which included a mentoring and coaching process *(D, No. 17, Survey document for professional review, 2011)*;

- Establishing Monday internal professional learning meetings *(D, No.2 Meetings Schedule, 2011; D, No. 3, Professional Learning Focus, Term 2, 2011)*;
- School Improvement Process, Implementing Strategic Action Teams *(D, No.4, School Improvement Plan, 2009; D, No. 5, School B, The Whole Journey, D, No. 7, Conference Paper School Improvement Strategic and Cultural Alignment, 2008; D, No. 8, Paper, School Improvement, The Role of Strategic Action Teams, 2009)*; and,
- New initiatives and innovations in teaching and learning, including 9 new science subjects specific to the school site *(D, No. 13., Teacher 8, Journal entry, 2010-2011),* 3 new health and fitness subjects *(D, No. 13., Teacher 8, Journal entry, 2010-2011),* new curriculum *(D, No. 12, YouTube, New Ways of learning at School B),* new pastoral care system *(D, No. 16, School Prospectus 2012)*.

Alternatively, when some teachers were perceived to be performing poorly, the principals and school leaders worked in a more targeted manner. Principal 1 stated:

> What do I do with them? Mmm, make sure they know that I'm watching, ultimately though it's the Faculty Director's job to make sure they are performing. So the staff know that if I get parent complaints…they're in here and they are on a short road to hell. And you know in other schools they'd probably be not on anyone's radar. But I despise compliancy and near enough is good enough and they know that….They have to keep their noses above the water line and if they chose to only have the tip of their nose above the water line, well I can't do a lot about that. But I know that at least the teaching will be, probably better than satisfactory, but not exceptional. And eventually they will go *(I, No.3, School A, Principal 1, 50, F, 14 September, 2012).*

Similarly Principal 2 explained:

> We tick it off if it's been achieved. And you know this, some people you can't achieve it with because of who they are and it's very difficult. So I've got to keep insisting, that's all I can do, that this behaviour is not appropriate…*(I, No.1, School B, Principal 2, 50+, M, 14 August, 2012).*

4.5.2 Leadership influence was contingent on culture, level of engagement, and need

Second, over the period of up to five years of school improvement, principals and school leaders continually monitored, evaluated and at times intervened to foster a positive learning culture of professionalism. The leaders continually monitored the tone of the school for cultural resistance or levels of engagement. A leader within School B stated:

> And they felt from looking at the data that a lot of the change had been compelled rather than collaborated. So right from the start what I tried to do is be collaborative, to say, this is the direction, the strategic direction of the Department, let's collaborate and find ways of achieving this strategic direction *(I, No. 1, School B, Principal 2, 50+, M, 14 August, 2012).*

Similarly, levels of engagement were monitored by school leaders. This was linked to the stated purpose of avoiding stagnation or mediocrity of teaching practice. Comments from interview data indicated broad initiatives were continuously reviewed for stagnation in teacher practice. Principal 1 expressed:

> So I guess they know that I won't let them stagnate as much as I won't let the girls or myself stagnate *(I, No. 2, School A, Principal 1, 50, F, 12 September, 2012)*;
>
> and,
>
> It's not setting people up to fail if you can avoid it and it's just putting inordinate amounts of time and energy into bringing people on, so you are almost not allowing them to become complacent, or safe, or settled, you know, you fight against the cosiness, so you prod them every now and then, and you move them out of their office, you change their location, you, there's small things like that you can do. But there's also the; why aren't you doing this, do you think you should be doing this, why don't you go to this conference and give a presentation *(I, No.3, School A, Principal 1, 50, F, 14 September, 2012).*

When stagnation was identified in professionalism or teacher practice, successful school leadership pursued another innovation or initiative. Principal 1 stated:

> …you rail against 'group think'. At the beginning it was a bit motley and uneven and then you hit, it's the old s curve, you know, you hit the best and then you've got to do something to kick it the next bit… It's good it's reached a real level of engagement so we'll let that run for 12 months or so, and meanwhile, and I've been criticised for this…and it's very hard for me, that I live three or five years out. I don't live in the present, so it's one of my greatest failings I think is that I forget that I'm out here thinking of, I'm going to do these things and this will be great *(I, No. 2, School A, Principal 1, 50, F, 12 September, 2012).*

Participants from both schools described periods in the history of improvement in the school where there was resistance to change, negativity and critical voice.

Principal 1 stated:

> So I met a fair amount of resistance, even from (name withheld) the key Deputy…in the early years I was criticised… *(I, No.2, School A, Principal 1, 50, F, 12 September, 2012).*

School Leader 1 described the negativity in the beginning of Principal 1's tenure:

> First of all she tried to prove herself and tried to do too much too quickly and then within about a year or two she learned. Deputy (previous) used to keep telling her to slow down and she needed to think about things a bit more. I think she was just trying to prove herself. And things needed to be done because (former principal) hadn't, things had sort of lapsed a bit….And she tried that sort of thing out but she got a lot of push back because there was great loyalty to some of these people. She sort of learnt that that was part of the idiosyncratic nature of the organisation…So I don't know when it was with Principal 1, certainly in the first couple of years we just went 'Oh, my God', what have we got? Then it was just, 'Oh, my God', she's really very good *(I, No.1, School A, School Leader 1, Mid 50, F, 13 September, 2012).*

Similarly, in School B, School Leader 6 explained:

> A lot of teachers felt a little threatened by some of that. So there was a pull back, so you know about implementation dip. You've got these things that travel very well and then you hit a bit of a dip and you've got to be a bit careful as a leadership team to recognise what's actually going on and that's the thing…realising this is where we are at. We've just got to move through

> this, once we you know, move through the other side of this we are OK, because all of our resisters are now forming up, saying we told you so, and this is what happens. You can be aware of it, but you have got to be watching for it, you've got to see it happening, you've got to be ready to move forward through that *(I, No. 2, School B, School Leader 6, 57, F, 16 August, 2012).*

Principals and school leaders expressed a belief that improvement in quality teaching across the whole school takes time. In School B a school leader expressed:

> Oh, a big shift and that takes time. We are still moving in that direction because it's a continual thing…I mean you can take three to five years to make a cultural change like that *(I, No. 1, School B, School Leader 6, 57, F, 14 August, 2012)*; and,

> So you've got to keep, it's a slow drip feed, you can't drive it and say, make a decision and say, right you have to have this done by two nights. It just doesn't work. These people are very busy and if you want productivity and innovation and creativity to happen in the classroom, it doesn't come without time. Time to think, time to talk, do these things, and sometimes I look at meetings and I think they are a waste of time. So we've got to think really carefully where we are going with all of that *(I, No. 2, School B, School Leader 6, 57, F, 16 August, 2012).*

Similarly, Principal 1 stated:

> And you can't move too quickly in these places, it's like turning the Titanic. You know if you charge full steam ahead, you are going to hit an iceberg. If you just incrementally pick your battles and pick what you are going to do *(I, No. 2, School A, Principal 1, 50, F, 12 September, 2012).*

4.5.3 Varying levels of perceived success in improving quality teaching

Third, and finally, varying levels of perceived success or belief in the value of the intervention for improving teacher quality were reported. Table 4.16 provides examples the perceptive data.

Table 4.16

Participants' perceptions of improvement in quality teaching

Perceived improvement in quality teaching
Majority of staff as high quality professionals
So it's not all fun and but you wouldn't expect it, but I think it's having the majority of really good dedicated people doing their job *(I, No.3, School A, Principal 1, 50, F, 14 September, 2012).*
…we just kept pushing all the time, you know, particularly around collaboration because that's the only way you get uniform quality assurance across the school, by having people work together, because good teachers will take poor teachers with them and you don't get that privacy of practice *(I, No. 1, School B, Key Personnel 3, 55+, M, 17 August, 2012).*
I always thought that I wouldn't teach any differently depending on the school I was in and yet I've reflected on that in the time that I have been here and I think I do teach differently here because I think there are different expectations of me here… Look I always say the bar is high. Look there is a requirement of you to attempt to jump that bar, it's not a matter of how high you jump over it, you've just got to jump it and if you don't want to jump it, well don't be here *(I, No.1, School A, Teacher 5, 53, F, 13 September, 2012).*
Lift in professionalism
For some of them, for others you can work them up a bit better because you are relentless in your pursuit…and then some of them actually respond eventually to that and then are quite surprised I think by the new lease of life they have about being a professional *(I, No.3, School A, Principal 1, 50, F, 14 September, 2012).* I will meet about once a fortnight with that person and I've given them things, as I did with the other lady. I've given them things that I want them to achieve so they've got to report back *(I, No.1, School B, Principal 2, 50+, m, 14 August, 2012).*
Staff from mediocrity to satisfactory
I try and minimalize their impact, so each faculty would have a couple of those. So I figure across the school there's 15% of mediocrity that usually you've inherited *(I, No.3, School A, Principal 1, 50, F, 14 September, 2012).*
Mostly you manage and you don't change them *(I, No.1, School B, Principal 2, 50+, M, 14 August, 2012).*
No improvement
Our system doesn't deal with that well because for me as a human being what I want to do is be honest with that person, give them honest feedback and help them improve. But not everyone can improve, can they? And in our system we can't do anything about that *(I, No.1, School B, Principal 2, 50+, M, 14 August, 2012).*
Others remove or desire to remove but unable to do so
I have removed people and they know I will do it. So there's no doubt out there that if you don't perform or you do the wrong thing or consistently you don't perform…that they will go *(I, No.3, School A, Principal 1, 50, F, 14 September, 2012).*
So anyway, I don't think there is any, you try your best and people…most teachers want to improve and try their best but in the end there is no mechanism for getting rid of an underperforming teacher *(I, No. 1, School B, Principal 2, 50+, M, 14 August, 2012).*

4.6 Conclusion to findings related to subsidiary research question three

In examining how successful school leadership influenced quality teaching in the two improving Australian secondary schools over a period of five years of school improvement three main dynamics were identified. These were:

- A cyclical and differentiated approach to improvement and innovation in quality teaching;
- Leadership influence was contingent on the culture, level of engagement and need within the school; and,
- Varying levels of perceived success in improving quality teaching.

Chapter 5 now draws the threads of the research together with a discussion and conclusion.

Chapter Five: Discussion and Conclusion

Introduction

This chapter weaves the disparate threads of the findings from each subsidiary research question into a coherent piece, signifying the unique contribution of the study. It does so by reviewing the findings' three key theoretical propositions against current literature and research in the field.

The current study expanded contemporary understandings of leadership and quality teaching by undertaking an in-depth exploratory case study within Australian secondary school settings. In so doing it confirmed, extended and in some cases, suggested new interpretations of knowledge in the field.

The chapter elucidates this contribution in two parts:

Part one provides a discussion of the findings. It evaluates the results from each subsidiary research question and juxtaposes these against the extant literature.

Part two provides a conclusion, drawing together the various strands to address how successful school leadership in two improving Australian secondary schools was understood and enacted in ways which influence quality teaching. It gives the limitations of the study, implications for practice and recommendations for future research.

Part One: A discussion

5.1 Subsidiary research question one: how is quality teaching understood in two improving Australian secondary schools?

The first key proposition consists of two threads or themes. First, quality teaching was understood as a collective entity, involving high quality teaching

professionalism across the whole school. Second, understandings of quality teaching were linked to four teaching capacities: namely, individual, social, decisional and innovative. Explanation of the two threads now follows.

5.1.1 Collective, high quality teaching professionalism across the school

The findings from the current study indicated quality teaching was linked to, and operated within, **collective teacher professionalism**. This involved a sense of professionalism and the pursuit of high quality teaching throughout the whole school population. An example of this was expressed by Principal 2:

> And if teachers understand that when they go into the classroom we are creating tomorrow's society, then that's really the philosophy. Then as a group, let's figure out what our moral purpose is and as a group let's go there collaboratively and together *(I, No.1, School B, Principal 2, 50+, M, 14 August, 2012).*

A sense of professionalism was described as:

> … just that- behaving professionally, not towards the kids so much, but as a professional team *(I, No.1, School B, School Leader 6, 56, F, 22 August, 2012).*

This collective view of teacher professionalism supported conceptions in the extant literature which describe quality teaching as a high quality teaching profession across the school (King & Newmann, 2001), with shared values, beliefs and ways of behaving as a professional (Evans, 2008). It was consistent with results from recent international research (Day et al., 2009) and more recent reviews (Hargreaves & Fullan, 2012) describing emerging views of teacher professionalism as key to reducing teacher variation within schools.

The improvement of quality teaching was nested in the concept of improving professionalism. For example, Principal 1 used phrases such as 'I think the staff has improved in professionalism', '…all the time reinforces their professionalism', and

‘We need to understand what our philosophy is about- professional improvement and reward and then work out how we are going to do it’ *(D, No.15, School A, Principal 1, August, 2011).* The view of professionalism as a collaborative instrument of change (Evans, 2008) supported recent systems-based UK studies where:

> …the image that we see emerging from this research on successful schools is of individual leaders working to transform a system…to one where ‘professionalism’ provides the basis for a new approach (Day et al., 2009, p. 195).

One significant contribution of the study was that, perhaps uniquely, it used a backwards mapping design to explore the phenomenon of Australian successful school leadership and emerging understandings of quality teaching. Prior to this, any Australian study using this design had focused explicitly on teacher pedagogy and classroom practice (Lingard et al., 2001).

This approach offered a different viewpoint and perspective, taking the emerging idea (of quality teaching and teacher professionalism as comprised various teaching capacity domains) and brought innovative interpretations to the knowledge. Beginning with how quality teaching was understood within and across Australian secondary schools, the study was able to ground itself in the nature of teaching which will most probably support the reduction of within-school variants of quality teaching across the school (Elmore, 1979; Robinson, 2006).

Through beginning with how quality teaching was understood in improving Australian secondary schools, the current study offered fresh insights into this challenge. It highlighted that teacher quality within the two improving schools operated within a culture of teacher professionalism. For example, one teacher in School A described teacher quality as more than pedagogy. She stated:

> So when we say teacher quality in this place, it's part of a whole culture of professionalism and pride and tradition, and money as well...So I think quality teaching is quite complex, rather than just in the psychology of pedagogy and, you know there's a lot more to it *(I, No.1, School A, Teacher 7, 39, F, 12 September, 2012).*

Another example from a school leader:

> …there's the idea of teacher quality that says you can meet particular standards, that you know your content…you have a highly professional pedagogical skills… and you can act as a professional. Professional in the way that you are as a teacher and with your colleagues *(I, No.1, School A, School Leader 2, 38, F, 11 September, 2012).*

Together as these examples from the data highlight, understandings of quality teaching for reducing teaching variation across two improving Australian secondary schools were deeper than individual classroom teaching practice. Quality teaching and the desire to improve the quality of teaching within the two improving Australian secondary schools involved a sense of professionalism. This related to how teachers acted towards their colleagues and students. It was associated with a collective understanding of the whole staff within the school. This is consistent with Evans' (2008) view on new teacher professionalism, which aims for improvement in the quality of teaching.

This approach differs to previous Australian studies which examined teacher effectiveness to improve individual teacher quality (Lingard et al., 2001). This and other international research had focused on the impact of effective or quality teaching (Marzano, 2005; Rivers & Sanders, 1996; Ross et al., 2003) and the nature of quality teaching, including pedagogies and assessment most likely to lift student learning outcomes (Ladwig & Gore, 2003; Lingard et al., 2001; Newmann & Wehlage, 1996). Additionally, various models of quality teaching for effective

classroom practice were designed alongside models of leadership which would support its enactment (Hayes et al., 2004; Lingard et al, 2001).

With this focus on individual classroom practice, educational leadership literature often neglected to consider the whole of teaching professionalism understood as *all teacher capacity domains* which may support high quality teaching and learning within the classroom.

The current study began to explore this new perspective (as proposed by Hargreaves & Fullan, 2012) within an Australian context. Data within the two improving Australian secondary schools indicated that improving teacher quality was more complex and multifaceted than singular explanations of improving classroom practice. From the perspective of Principal 1 quality teaching was:

> …not just about the teacher in the classroom. It's the circumstance and the culture that they are within *(D, No.15, School A, Principal 1, 2011).*

Further, the current study added to knowledge by introducing an Australian school perspective; including the view of principals, school leaders, teachers, key personnel and parents; and, examining how leadership influenced this over a retrospective of five years. In so doing, the current study introduced culturally-specific evidence for Australian educators and scholars (Mulford, 2012).

Prior to this, little empirical work had examined this proposition of quality teaching comprising various teacher capacity domains (individual, social, decisional and perhaps others) within an Australian school setting. Even less had explored this in the context of improving secondary schools. Whilst the Australian LOLSO study examined within-school factors which influence student learning outcomes in secondary schools, its predominant focus was related to "…investigating the nature

of leadership contributions to the stimulation of organisational learning and inquired about the effects of both leadership and organisational learning on desired secondary school student outcomes" (Silins et al., 2002, p. 614).

It examined how leaders developed the social capacity of teachers (see constructs such as Organisational Learning, Leadership Team) for improved individual capacity (e.g. Teachers' Work, Staff Valued), and subsequent student learning outcomes (both academic and social) (Silins & Mulford, 2002; Silins et al., 2002). In this manner the LOLSO research echoed international studies (Leana & Pil, 2006) and Australian research (Douglas & Harris, 2008) which indicated that investment in social capacity will lift individual teaching capacity within and throughout the school.

The Australian studies (e.g. Dinham, 2005; Silins & Mulford, 2002) , however, were not nuanced towards exploring emerging conceptions of teacher professionalism and teacher capacity domains from the unique perspective and narrative of those within Australian secondary schools. The studies did not seek insight into how this conception of quality teaching was understood by principals, leaders, teachers, parents and key personnel.

In fact, both during and at the conclusion of the study, no research examples were found which examined how successful school leadership was understood or enacted in improving Australian secondary schools as it influenced this emerging notion of quality teaching.

5.1.2 Quality teaching and four teaching capacities

The recent international conception of teacher professionalism (Hargreaves & Fullan, 2012), developed from the proposition that a strong social or collective

teacher capacity (or capital) among teaching staff may lift individual teaching practice school-wide (Leana, 2010; Leana & Pil, 2006). Teacher professionalism in this model was linked to three teaching capacities, these being individual, social and decisional capacities (or capitals) (Hargreaves & Fullan, 2012).

The findings of the current study demonstrated that quality teaching in the two improving Australian secondary schools was associated with **four (rather than three) components or teaching capacities.** These were:

1. Individual teaching capacity
2. Social teaching capacity
3. Decisional teaching capacity
4. Innovative teaching capacity

This finding added a significant contribution to understanding of quality teaching and teacher professionalism in an Australian context, and how it is influenced for improved student learning outcomes. Previous international (e.g. Stoll et al., 2006) and national (Silins & Mulford, 2002) study explored school-based capacities in relation to building teaching capacity (see also Douglas & Harris, 2008). In the main, these were individual and social (see Lingard et al., 2001; Silins & Mulford, 2002) school-based capacities, although there were some elements within the constructs of the LOLSO study which were related to decisional and innovative teaching capacity domains (e.g. Dinham, 2005; Gurr et al., 2005; Silins & Mulford, 2002) .

Australian scholars argued that leaders reduced the variation between teachers in their school if they could influence capacity building, accountability, and teacher values and beliefs at the school level (see Mulford & Silins, 2011). Focus was on

improving school-based capacities and involved collaborative learning within and across schools (Hayes et al., 2004) to achieve this. However, conclusions from the current study both confirm and extend this further. The findings suggest leaders in the two improving Australian secondary schools broaden their focus from school-based capacities to building *teacher capacity domains* within the frame of lifting teacher professionalism.

The dimensions identified in the findings are similar to emerging international research which highlights individual, social (see Leana & Pil, 2006), and to a lesser extent decisional capacities (Dinham et al., 2008; Hargreaves & Fullan, 2012; Hattie, 2009). The current study extended this in two ways. First, the evidence provided a deeper understanding of individual, social and decisional *teaching capacity domains* in Australian school settings. Second, the results gave a new perspective on a fourth teaching capacity, namely: innovative teaching capacity.

The international literature largely emphasises social and individual teaching capacities (Leana, 2010; Leana & Pil, 2006), or focuses on school related capacities for improving quality teaching (Caldwell & Harris, 2008). This focus on school related capacities is similar to Australian studies (Silins & Mulford, 2002; Silins & Mulford, 2010). The current study confirmed the presence of social and individual teaching capacity. It offered a deeper understanding of both social and individual teaching capacity within the Australian secondary school setting.

Social teaching capacity entailed both learning together and teaching collaboratively. This endorsed and extended previous Australian understandings of social capacity which are mostly related to learning together (for example Hayes et al., 2004;

Lingard et al., 2001; Silins & Mulford, 2002). In relation to collaborative teaching, evidence from the exploratory case study indicated:

> …we *teach collaboratively* [emphasis added]…so we basically take turns to lead or whoever is more specialised in that particular topic will lead it, and that's been quite new for me, it's been fantastic *(I, No.1, School A, Teacher 2, 34, F, 10 September, 2012).*

An example of learning together was given from School B:

> So groups of teachers presented their work to the rest of the staff…that was the most enjoyable learning experience that they'd had for a long time. They'd really enjoyed listening to each other; they really enjoyed presenting what they were doing. It was an opportunity to showcase how they actually work within the classroom *(I, No. 1, School B, School Leader 6, 57, F, 14 August, 2012).*

Whilst the current study supported the presence of collaborative or social teaching capacity, it also indicated that not every teacher was working collaboratively. For example, within School B a teacher stated:

> It tends more often than not to be a solo enterprise. There are occasions where you team teach and you do have some sessions when you get together and you might plan stuff but generally speaking…you're working like a sole trader…you do tend to work a little bit in isolation…you get your perspective on your class, you hear about things from other classes and teachers you may work with…but that can be somewhat deceptive at times *(I, No. 1, School B, Teacher 12, 56, M, 22 August, 2012).*

More recently Hargreaves and Fullan (2012) suggested that another teacher capacity (or capital) existed to lift the quality of teaching across the school, that is, decisional capacity. This work synthesised previous studies. However, no published study had explored this and other teaching capacities together in an in-depth manner within an improving school. Certainly, prior to undertaking the exploratory case study, the researcher was unable to locate through an extensive literature search relevant Australian research which had examined this concept in the context of leadership and improving schools.

The study addressed this gap in Australian studies. In addition to social and individual capacity, analysis of interviews and documents supported the presence of decisional teaching capacity within the two improving Australian secondary schools. Decisional capacity echoed elements of the LOLSO construct, Teacher Leadership (Silins & Mulford, 2002). It was also reflected in the Australian study of quality teachers who valued mentoring relationships in their professional development (Ayres et al., 2004).

Yet the narrative of the participants within the current study, along with observations and document analysis provided richer and more detailed interpretations of this teacher capacity domain.

Decisional capacity was viewed as expertise. It had a sense of career progression attached to it where staff was given the opportunity to develop in areas of intellectual rigour, teaching, management or leadership. Principal 1 expressed:

> I'm a great believer that it doesn't always have to be about pedagogy to be really valuable in a classroom. It can be about developing the intellectual rigour and attitude of that staff member, (which supports) their role modelling for their students and active participation and engagement in thinking and reading and writing and all the things we would hold important for our students *(D, No.15, School A, Principal 1, 2011).*

Moreover, participant perceptions indicated that decisional capacity was correlated to a strong contribution towards lifting quality teaching. This was demonstrated through interview data of perceived experiences from school leaders, teachers and key personnel. A persuasive example of this is outlined below:

> The Principal here has provided strong mentoring for me, about my career progression, about what kinds of jobs to go for, how to position myself, that kind of thing. So she has actually been incredibly encouraging there and also helpful in terms of identifying promotional positions within the school for me and even creating positions that I can go into. She's been aware you know that there was a possibility that I could kind of get stuck. So she has been

> very good in that regard *(I, No.1, School A, Teacher 1, 37, F, 14 September, 2012).*

Similarly, another teacher expressed:

> …a whole other level of administration and accountability, responsibility and that's been really helpful, I think it builds your confidence and running that sort of thing alongside your teaching, you can find, managing your time, to do both *(I, No. 1, School A, Teacher 2, 34, F, 10 September, 2012).*

The current study supported and concurred with emerging studies indicating the presence of three teaching capacities (or capitals) (Hargreaves & Fullan, 2012; Leana, 2011). Yet, it also found that in the two improving Australian secondary schools an additional teacher capacity, namely innovative capacity, exists. This introduced new knowledge to the field, with the preliminary identification of innovative teaching capacity.

Previous Australian studies have reported evidence of risk taking and initiative (e.g. Dinham, 2005; Silins & Mulford, 2002), and new innovative teaching and learning initiatives (Douglas & Harris, 2008), within Australian schools. Yet, these had not been explored in any depth through Australian qualitative case study. The current study expanded upon, explored and clarified new aspects of this teacher capacity. In doing so, the current study gave a more comprehensive account of the perceived nature of innovative teaching capacity in two improving secondary schools.

In School B innovative teaching capacity was described as:

> When we talk about *innovative teaching and learning, or innovative practice* [emphasis added], or ICT or the timetable, what we want to do, you go out and research world's best practice in that domain of practice in schools…so the group was talking about innovative teaching and learning *(I, No.1, School B, Key Personnel 3, 55+, M, 17 August, 2012).*

Another example, this time from School A:

> I would like to continue with *innovative pedagogy* [emphasis added] in my classroom. I would like to continue doing new and different and exciting

> things…it just gives you a little bit of insight into what goes on in other faculties and it encourages you to improve and to be more innovative *(I, No.1, School A, Teacher 3, 41, F, 10 September, 2012).*

This focus on innovative teaching practice was described as a teaching capacity which was fostered across the whole school. In reference to this across the school, School Leader 2 stated:

> It's a busy place, there's lots happening, there's a real focus on innovation and new initiatives so there's never really a holding pattern. There's always a sense of the next thing moving forwards *(I, No.1, School A, School Leader 2, 38, F, 11 September, 2012).*

Thus, analysis of data indicated innovative teaching capacity was understood to be both related to innovative pedagogy and innovative approaches to school experiences (including professional learning centres, philosophy cafes, new curriculum and initiatives). Whilst there is support for innovative teaching practice in several systems based studies (see Hopkins et al., 2010; Mourshed et al., 2010), no known Australian (or international) study had specifically examined this through exploratory case study.

The findings introduced new knowledge to the field, and as such will require further consideration in the future.

It is therefore argued that previous Australian educational leadership literature's conceptualisations of quality teaching offered explanations regarding the collective notion of quality teaching professionalism and the various teaching capacities within schools which could be extended. Indeed, despite support for several findings including the import of capacity building (Day et al., 2009; Stoll, 2009); the collective notion of quality teaching and professionalism (Hargreaves & Fullan, 2012; Evans, 2008); and teaching capacities (Leana & Pil, 2006), the Australian research had yet to explore the perceived understandings of Australian educators and

parents in relation to whole school quality teaching and professionalism (beyond classroom practice), within improving secondary schools.

Data from the current study offers new knowledge to the field of Australian educational leadership research. It gives a plausible key proposition that within the two improving Australian secondary schools, quality teaching was understood as a collective phenomenon associated with teacher professionalism. This comprised four teaching capacity domains, which were individual, social, decisional and innovative capacities.

This conception formed a foundation for the study where what informed the next subsidiary research question was the nature of quality teaching which will be most likely to support the reduction of within-school variation across the two improving Australian secondary schools (Elmore, 1979; Robinson, 2006). Not offering causation, the exploratory study case began to identify themes of quality teaching which exist in improving Australian secondary schools, with the assumption that these *may* then lift the quality of teaching for subsequent student learning outcomes.

5.2 Conclusion to subsidiary research question one

Therefore, the first key proposition from the exploratory case study was that, contrary to many individual conceptualisations of teacher quality focusing on classroom practice, quality teaching was understood in the two improving Australian secondary schools collectively as a teacher professionalism comprising four teaching capacities: namely, individual, social, decisional and innovative.

5.3 Subsidiary research question two: how does successful school leadership influence quality teaching within two improving Australian secondary schools

The second key proposition established from the data was that successful school leadership contributes to or influences quality teaching via four key categories. These were challenge, culture, professional investment in the four teaching capacities, and, review, recognition and reward.

Previously theorists argued, that as teacher instruction and classroom environments have the strongest effect on student learning outcomes (Louis et al., 2010), teacher quality could be best improved by successful school leadership's influence on classroom practice (Robinson et al., 2008). Research had, for the most part, focused on how to change and influence classroom practice for improved student learning outcomes (Lingard et al., 2001; Newmann & Wehlage, 1996; Timperley, 2011).

Much was understood including:

- the influence on teacher self and collective efficacy, links between shared beliefs, teacher empowerment, and teacher well-being (Goddard et al., 2004; Leithwood & Strauss, 2008; Thoonen et al., 2011);
- the need for collaborative professional learning (Harris, 2003), and learning communities (Stoll et al., 2006);
- creating the conditions for effective teaching (Hayes et al., 2004; Leithwood & Riehl, 2006); and,
- higher pedagogical demands to support improved teaching (Lingard et al., 2001).

Indeed, from the perspective of school effectiveness and improvement research, studies examining successful school leadership and its influence on quality teaching have, for the most part, focused on leadership's influence on school level factors such as vision, culture, structure and organisation. Australian examples of this were offered by Mulford & Johns (2004) who devised the Preliminary Model of Successful School Leadership (or diagram) and later incarnations of the model (Mulford & Silins, 2011); along with Victorian case studies (Gurr et al., 2005); Queensland concepts of productive leadership (Hayes et al., 2004); and, Tasmanian models of successful school principalship (Mulford & Edmunds, 2009). Yet in their focus on creating the conditions for fostering quality teaching, these conceptions often neglected in-depth study on *how* leadership influenced teacher capacity and development.

Those Australian studies which explicitly examined leadership's influence on quality teaching were often limited to exploring one teaching capacity, namely individual capacity (e.g. Lingard et al., 2001), as defined by productive pedagogies or assessment, classroom practice and instruction. Or they explored leadership practice as it created the conditions for quality teaching in classrooms such as collaboration or shared leadership (Hayes et al., 2004). These conditions for building capacity appeared to foster social or collective teacher capacity within schools to lift teacher instruction.

The LOLSO study was one of the few studies which examined several school related factors to measure how Australian leaders impact student learning outcomes (Silins & Mulford, 2002). The construct of Organisational Learning gave particular reference to school based culture and conditions which foster professional learning

(Silins & Mulford, 2002). The four leadership factors identified within the current study were similar to leadership characteristics in the LOLSO study, including Intellectual Stimulation, Culture, Performance Expectation and Individual Support (Silins & Mulford, 2002). Whilst the current study confirmed these characteristics, it also highlighted themes pertaining to the investment in teacher professionalism and specific teacher capacity domains.

It is to be noted that prior Australian studies (Dinham, 2005; Lingard et al., 2001; Silins & Mulford, 2002) were not nuanced towards a direct qualitative exploration of the collective notion of teacher professionalism or the effect on various teaching capacity domains. Whilst elements of decisional or innovative teaching capacity could be identified within some Australian studies of schools (e.g. Ayres et al., 2000; Douglas & Harris, 2008; Silins & Mulford, 2002), an in-depth qualitative exploration of these constructs had not occurred.

Consequently, how leadership influenced these other teaching capacities has remained largely unknown in Australian secondary school settings.

Following this argument, the most important influence for successful school leadership has been focused on individual teaching capacity and classroom practice. This has been through leadership developing social capacity within the school (Douglas & Harris, 2008), by fostering conditions such as dispersal of leadership (Hayes et al., 2004) and organisational learning, that is, trusting and collaborative climate, taking initiatives and risks, shared and monitored mission, and professional development (Silins & Mulford, 2002).

It also suggests that leaders, in focusing all attention on improving classroom practice (individual) and social capacity within the school, may inadvertently miss the development of several additional and important *teaching capacity domains.* This could perhaps even be to the detriment of improvement in quality teaching across the whole school. These other teaching capacity domains (such as decisional and innovative), can be identified within a frame of teacher professionalism.

More specifically, in focusing on improving individual teacher quality, few Australian studies have been nuanced towards exploring how successful school leadership influences the *teacher capacity domains* needed to support it.

By beginning with an understanding of quality teaching within the two Australian school sites, the study was able to explore leadership's influence from a new perspective. This extended previous research in the area. The data from the first subsidiary research question indicated that various teaching capacities exist across the two improving Australian secondary schools. Data from the interviews, observations and documents then suggested that successful school leadership influenced these teaching capacities through four categories of professional influence. These were:

- Challenge;
- Culture;
- Professional investment in the four teaching capacities through
    - Professional learning
    - Professional collaboration
    - Professional pathways and
    - Professional innovation; and,

- Review, recognition and reward.

Each category of influence is now considered against the literature.

5.3.1 Challenge

High expectations and challenge have been consistently articulated in educational leadership literature. Several systems based (Caldwell & Harris, 2008; Higham & Hopkins, 2007; Mourshed et al., 2010) and Australian school studies (Gurr et al., 2005; Mulford & Johns, 2004) indicate that leadership's values, expectations and strong vision for improvement, influence quality teaching.

Consistent with these findings, the current study offered further confirmation, namely that these expectations for continual improvement within the two schools were directed towards teacher improvement (similar to Performance Expectation in the LOLSO study, Silins & Mulford, 2002), rather than the students' learning outcomes alone. In relation to expectations towards improving teacher quality, Principal 1, School A stated:

> It's somewhere they actually want to be, that there's recognition that they've chosen this. No one's twisted their arm to be here…and you would hope then that they understand that it's a continuum, that they don't just come and repeat the same thing every day. That in a place like this, and I'm pretty direct in interviews, there's an expectation that you are constantly moving and changing *(I, No. 1, School A, Principal 1, 50, F, September, 2012).*

Similarly Principal 2 *(I, No.1, School B, Principal 2, 55+, M, 14 August, 2012)* expected continuing improvement in teaching and learning.

In addition, links were made from the data between the expectation and challenge of leadership to teachers' level of work, performance, and in some cases perceived improvement in practice. In so doing, the study extended understandings beyond the

need for challenge (Day et al., 2009; Dinham, 2007), to how teachers experienced and responded to the challenge. One teacher commented:

> I always thought that I wouldn't teach any differently depending on the school I was in and yet I've reflected on that in the time that I have been here and I think I do teach differently here because I think there are different expectations of me here… Look I always say the bar is high. Look there is a requirement of you to attempt to jump that bar, it's not a matter of how high you jump over it, you've just got to jump it and if you don't want to jump it, well don't be here *(I, No.1, School A, Teacher 5, 53, F, 13 September, 2012).*

Not all staff, however, responded positively to the challenge from leadership. Specifically, teacher comments included:

> I think probably our last Principal who constantly made me very uncomfortable and a lot of the time angry, but he certainly made me question quite a lot of things and I have changed…He drove me nuts… he was just always challenging everything we did and basically making me defend it and very rigorous arguments… sort of changed some of (my) ideas. So not good for my peace of mind, but certainly challenged my teaching *(I, No. 1, School B, School Leader 7, 56, F, 22 August, 2012).*

The examination of how participants experienced the challenge added knowledge in two ways. First, participant responses indicated challenge appeared to be delivered by leadership in either a supportive or adverse manner. The evidence indicated the manner in which the challenge was delivered influenced teacher responses to change.

Moreover, shared leadership appeared to foster trust, relationships and teachers' sense of self-efficacy. More specifically, in the case of adverse challenge from leadership, contrary responses from other school leaders served to mediate and support teaching staff. This reinforced several international studies indicating shared leadership influences positive learning cultures (Leithwood et al., 2010; Wahlstrom & Louis, 2008). It also provided insight into how this occurred within an Australian school setting. School Leader 7 stated,

> I did quite a bit of patching up in my role for staff, empowering, no you're not, you're doing a great job….because he didn't get those social cues at all…It certainly was a challenging time *(I, No. 1, School B, School Leader 7, 56, F, 22 August, 2012).*

Second, individuals in the study responded to leadership's challenge for continual improvement in their teaching practice according to their attitudes, beliefs and values. For instance,

> There were, initially, like when any changes are mooted, you've got your resisters and there was a very strong resistance…teachers that didn't want to change, couldn't see any point in changing the school structure, we've always done it like this, it works for our kids, you know. If the system ain't broke, why fix it? You know, that kind of attitude *(I, No.2, School B, School Leader 6, 57, F, 16 August, 2012).*

This was consistent with the limited Australian literature in this area (predominantly in Australian primary schools) which would indicate that three teacher level variables are of importance in leadership's ability to influence teacher quality, including teacher values and beliefs (Mulford & Silins, 2011).

Further examination of how leadership interacted with and influenced teacher values and beliefs extended prior focus on teacher beliefs in relation to productive pedagogy (Lingard et al., 2001), self- efficacy (Thoonen et al., 2011), and the importance of teacher emotions (Oatley et al., 2006). The current study did this by exploring multiple perspectives from multiple participants. New findings demonstrated that leaders explicitly aimed to influence teacher beliefs for improvement in quality teaching. This was evident in statements including:

> There was potential to do something fundamentally pretty special with the school if you could actually motivate the staff to change…needed to find a way to counter the negativity…whether you challenge their fundamental belief systems *(I, No. 1 School B, Key Personnel 3, 55+, M, 17 August, 2012).*

5.3.2 Culture

Findings indicated successful school leadership's influence on culture was continual and related to several key threads. These were:

- A culture of professionalism was understood as pivotal in improving quality teaching;
- Leaders constantly monitored the climate and culture of each school; and,
- Leadership adjusted their actions to foster a positive learning culture for teachers through various interventions.

These three threads will be explained in more detail.

5.3.2.1 A culture of professionalism was understood as pivotal in improving quality teaching

In a similar manner to how challenge has been understood as an important variable in prior studies (e.g. Mourshed et al., 2010), the importance of successful school leadership' influencing and creating a positive culture for learning has been well represented in educational leadership research (Hord & Hirsh, 2009; Silins, Mulford & Zarins, 2002; Wahlstrom & Louis, 2008).

Australian based studies have made a significant contribution to understanding organisational learning for improved student learning outcomes, including promoting collaborative learning cultures within schools (Dinham, 2007; Silins & Mulford, 2002); identifying key variables including teacher beliefs and attitudes (Mulford & Silins, 2011); and, have explored leadership influence on student learning outcomes via culture, organisation or structure (Gurr et al., 2005; Silins & Mulford, 2002). These studies (Lingard et al., 2001; Silins & Mulford, 2002), however, were large scale longitudinal studies, and as such, relied heavily on quantitative data. Whilst

identifying key variables related to culture and climate of the school, the nature of quantitative studies resulted in an incomplete explanation for how a positive culture is established. Australian case studies which have explored this in more detail have identified the importance of collaborative learning cultures (Hayes et al., 2004; Mulford & Silins, 2011). Yet they have not offered rich explanation for how these cultures are developed, maintained or promoted.

The qualitative approach of the current study made the world of the two improving schools visible (Denzin & Lincoln, 2011). It fostered holistic, in-depth investigation of the nature and enactment of collaborative cultures (Flick, 1998). In particular, by studying how successful school leadership influenced quality teaching within the natural or situated context of the improving school, a deeper understanding of *how* leadership influenced culture was gained.

Findings indicated participants recognised a culture of professionalism existed within each school. This culture of professionalism supported shared values, beliefs, practices and relationships towards learning and professional improvement. For example, School Leader 1 stated:

> Everyone is keen to learn…We get staff who come here and they are pretty ordinary…but there is something about the school that brings people on. We provide opportunities...some of it is just the culture *(I, No.1, School A, School Leader 1, Mid 50, F, 13 September, 2012).*

Evans' (2008) supports this notion where professional culture can contribute to the development and improvement process of teaching staff. In relation to influencing culture, Principal 1 stated:

> …it's the circumstance and the culture that they are within and I think when you start to look at the complexities of this…it does rely on us and on the culture of our schools if we are going to improve professional performance *(D, No.15, School A, Principal 1, 2011).*

Similarly, Key Personnel 3 (former principal of School B) recognised the import of culture for improving quality teaching. He stated:

> So then we needed to find a way to progress this so we could actually counter the negativity *(I, No 1, School B, Key Personnel 3, 55+, M, 17 August, 2012).*

5.3.2.2 Leaders constantly monitored the climate and culture within each school

The current study presented multiple views regarding a culture of professionalism. It demonstrated differing or competing views of how culture was influenced by using various participants' voice. Comments from principals, school leaders, teachers, key personnel and parents demonstrated the realities faced by leaders and teachers in attempting to influence quality teaching.

Issues related to negativity, resistance to change from staff, and a sense of change weariness was raised. For instance in School B, Principal 2 stated:

> The previous Principal had rapid change happening and the staff climate survey was actually not good, on all markers it was pretty low…so they were challenged and change weary…I think they wanted to go there but it was a challenge…They could see the benefit *(I, No. 1, School B, Principal 2, 50+, M, 14 August, 2012).*

Some Australian studies have suggested a positive culture was a necessary pre-requisite for school improvement in Australian secondary schools in Tasmania and South Australia (Silins & Mulford, 2002). Yet, indications from data in the current study showed leadership influence on culture was not only a pre-requisite. Rather, establishing, maintaining and fostering a positive learning culture for teachers remained a constant and continual process.

The exploratory case study presented multiple perspectives of this continual process, from the variety of sources of data. The leader, teacher, staff and parent voices enabled a crystallization of differing points of view (Denzin & Lincoln, 2011). From

the perspective of the leader, the aim was to develop, monitor and foster a positive learning culture. For instance, Principal 1 specified:

> But, after a while if there is a bit of niggling, I'll think, right, I'm going to climb in on this one… *(I, No. 3, School A, Principal 1, 50, F, 14 September, 2012).*

Likewise, Principal 2 explained:

> My task as a leader is to keep them on that direction, say no when they veer off… *(I, No. 1, School B, Principal 2, 50+, M, 14 August, 2012).*

In both school sites it appeared the Principal had a strong influence on the school culture. An example of this was where a parent from School A stated:

> I strongly believe that any school is only, it totally culturally determined by the top *(I, No.1, School A, Parent, 46, F, 10 September, 2012).*

Whereas, the teacher, key personnel (not teaching staff) and parents often expressed how they experienced, or acted on, the influences designed to improve culture. For example, teachers and key personnel stated:

> When he arrived he came in, it was awful. The mood in the school was really down *(I, No. 1, School B, Teacher 12, 56, M, 22 August, 2012);*
> and,
> …you've always got to stay on your game and do your best and to help your students in the best way you can and it would be once, if that were the culture in every school. But here I find that it is quite rigorous…but once you get into the swing of it, it's enjoyable *(I, No. 1, School A, Teacher 3, 41, F, 10 September, 2012).*

In examining how leadership constantly monitored the culture (whether positive or negative) within their schools and identifying various perspectives in relation to, this the case study added further knowledge to the field.

> *5.3.2.3 Leadership adjusted actions to foster a positive learning culture for teachers through various interventions.*

Across both sites successful school leadership within the two secondary schools acted on their perceptions of the climate and culture of the school. Successful school

leadership in both schools articulated how they worked to ensure a positive culture of professionalism. Prior studies have highlighted relationships (Louis et al., 2010), trust (Wahlstrom & Louis, 2010), teachers' sense of self and collective efficacy (Goddard et al., 2004) as important factors in building positive learning cultures.

Yet, the evidence from the exploratory case study provided new insights for Australian improving secondary schools. Several key interventions designed to influence the positive learning culture of professionalism for teachers were identified by the leadership voice in the study. These were:

- collaboration, shared decisions and engagement;
- slowing the pace of change down, giving the opportunity to consolidate;
- using data to counter perceptions;
- listening to staff voice; and
- undertaking collaborative projects.

These findings added to Australian knowledge accumulating in the area. Further, in documenting the perceived experience of some school leaders, teachers, key personnel (not leadership or teaching staff) in relation to these interventions further insights were gained. At times the voices were dissenting. Yet, comments often demonstrated how climate or perceptions had changed over time as a result of the intervention. For example in School B:

> And then voices weren't always heard I don't think… I think it's a bit more like that now probably because a lot of people have aired how they feel… *(I, No. 1, School B, Teacher 10, 39, 6 September, 2012).*

Another instance, again from School B, was:

> I suppose that was in the first six months, up to a year it took a while to thaw… Things improved over the five years *(I, No. 1, School B, Teacher 12, 56, M, 22 August, 2012).*

Here, the variety of data, multiple perspectives and attention to external and internal validity supported particularizations including how leadership in these two improving Australian schools influenced the culture of their schools. Thus, the case study:

- confirmed and extended previous studies (e.g. Mourshed et al., 2010) by recognised the importance of a positive learning culture of professionalism for improving quality teaching;
- offered a different view to prior Australian studies which had suggested a more sequential approach (Silins & Mulford, 2002), with evidence from the current study that indicated leaders constantly monitored and evaluated the culture and climate within the school; and,
- provided new insights into how leaders adjusted their actions and interventions to foster a positive learning culture within the school.

5.3.3 Professional investment in teaching capacities

Substantial educational leadership research has provided invaluable knowledge of what successful school leadership does to influence quality teaching within classrooms. Actions such as creating the cultures, environment and opportunities for collaborative professional learning (Mulford & Silins, 2011); ensuring focused relevant and directed professional learning on classroom practice (Louis et al., 2010; Timperley, 2011); providing feedback (Hattie, 2009); and, using strategies such as coaching and peer learning (Ayres et al., 2004) are well known.

It is apparent, however, when continuing with the case of focusing solely on teaching practice within the classroom, that educational leadership research has relied significantly on leadership's influence on the classroom, through promoting professional learning and development (Hodkinson & Hodkinson, 2005; Opfer & Pedder, 2011; Robinson et al., 2008), and through creating the collaborative conditions and opportunities to support it (Day et al., 2009; Leithwood et al., 2006). This is evident in both international and Australian based studies, where Australian research has examined school conditions for promoting teacher professional learning (Hayes et al., 2004) and organisational learning (Silins & Mulford, 2002).

Whilst the current study supports these findings related to individual capacity and building this through professional learning and development, it took a broader view. The evidence base revealed successful school leadership influenced quality teaching within collective teacher professionalism. It also found that successful school leadership influenced other teaching capacity domains through professional collaboration, professional pathways and professional innovation. This finding forms a significant contribution to Australian based research.

As previously mentioned, in examining leadership's influence on teaching quality, a more recent Australian study indicated that three teacher level variables are of importance. These are capacity building, accountability and evaluation, and teacher values and beliefs (Mulford & Silins, 2011). The study recognised the importance of building teacher capacity.

Yet, it did not focus on *how* successful school leadership influenced or built teaching capacity domains. Nor did the study explore how leadership influenced the various teaching capacities (including individual, social, decisional and innovative) within

Australian secondary schools. The current study built on this research, giving preliminary insight into how leadership influenced capacity building in two Australian secondary schools.

The in-depth and detailed nature of the current exploratory case study allowed four sub-categories or themes to emerge which reflected these four teaching capacities. Evidence indicated that successful school leadership influenced four teaching capacities through professional investment in the following: professional learning, professional collaboration, professional pathways and professional innovation.

5.3.3.1 Professional learning

In a similar manner to other studies (Harris, 2003; Reynolds, 2007), evidence from the case study indicated teaching professional learning incorporated peer learning, opportunities to give presentations, supporting staff to lecture, write texts, go on study tours, attend conferences, complete post-graduate study, and the establishment of professional learning afternoons or a centre for practice.

Furthermore, some indications from the data supported prior Australian studies (Ayres et al., 2004) where individual staff preferred individual learning and capacity building rather than that offered within each site. A teacher stated:

> I suppose a bit of study and research to find out about such things and the time to do so *(I, No. 1, School B, Teacher 12, 56, M, 22 August, 2012).*

Previous critiques of teacher learning have suggested that to a large extent the body of research examining how quality teaching is improved has focused on creating the conditions for collaborative learning to the neglect of individual or experiential learning (Hodkinson & Hodkinson, 2005). By attending to various settings and

perspectives, the current study was able to contribute a nuanced addition of knowledge to the field.

5.3.3.2 Professional collaboration

The presence in the current study of shared practice (King & Newmann, 2001), shared professional learning (Timperley, 2011), and collaborative learning cultures (Hayes et al., 2004) gave further evidence for collaborative capacity building. Yet, the study revealed how leaders influenced professional collaboration through building collective knowledge bank, writing papers, peer learning, team teaching, observations of lessons, project groups, strategic action research teams, and links to university.

In School B regarding collaborative practice:

> Then there are a lot of things you can improve and work on. You learn as you go along, you learn from other colleagues *(I, No. 1, School B, School Leader 6, 56, F, 22 August, 2012).*

This suggested that participants' perceived experience from the investment in the various teaching capacities was a positive influence on the quality of teaching within each school. Yet, equally, the study found that some staff did not respond positively to various investments in teaching capacities. For example:

> The notion of coaching or mentoring is quite a hierarchical arrangement and I know for some people they strongly dislike it *(I, No. 1, School B, Teacher 12, 56, M, 22 August, 2012*; and,

> For improving my teaching, I honestly don't know. I've definitely had people be helpful over time but… I don't think anyone has specifically helped me *(I, No. 1, School B, Teacher 11, 28, F, 4 September, 2012).*

Consistent with these arguments of individual and collective learning, the current study demonstrated various teachers' perspectives, views and perhaps preferences for teacher learning within each school. These included individual and collective.

Therefore, contrary to the contemporary extant literatures' focus on collaborative practice for improvement (Silins & Mulford, 2002; Timperley, 2011), the current study presented the case for both.

5.3.3.3 Professional pathways

Moreover, further examination within the two school sites revealed leaders' influenced quality teaching through promoting professional pathways. This finding supported emerging UK research which identified one factor in reducing within school variation amongst teachers was the development of middle management (Reynolds, 2007) or developing teachers' capacities for leadership (Day et al., 2009). It also confirmed Australian studies (e.g. Dinham et al., 2008).

However, the current study expanded understandings of how to enact this, through providing culturally relevant examples for Australian leadership. These included examples of mentoring staff, establishing professional pathways with options for expertise or leadership, talent watch, acting roles, promotional opportunities, leading projects and networking.

An instance of professional pathways was:

> There's a whole new generation coming through… we had a spate of them developing and going on to promotional positions…[sic] needs talents, areas where they need developing, in doing that you've got to identify faults and weaknesses as well and see if you can find sneaky ways to address that without making them feel terrible *(I, No.1, School A, School Leader 1, Mid 50, F, 13 September, 2012).*

Another example of professional pathways, this time from School B:

> What are your challenges and resultant actions? And then, which career stage do you see yourself at? Then we ask them how do you [sic] think the school can support them to realise their goals and I like to use the growth coaching model *(I, No.1, School B, School Leader 6, 57, F, 14 August, 2012).*

5.3.3.4 Professional innovation

Findings also indicated leadership invested in professional innovation. They supported networked innovation, pilot projects, supporting risk taking and new ideas, fostering new initiatives, use of learning spaces and freedom with feedback. Prior international work on innovative teaching indicated systems based leaders' foster professional innovation when influencing high quality teaching (Mourshed et al., 2010).

Similarly, Australian studies suggest successful leaders promote risk taking and initiatives through aspects such as supporting experimentation, protecting those who take risks, providing rewards and empowering staff to make decisions (Mulford et al., 2004).

There was some suggestion that this was developmental (e.g. Mourshed et al., 2010), although further study was required at a school based level. Findings from the current study brought new insight into how Australian school leaders encouraged freedom, risk taking, and initiatives gained from prior study (Silins & Mulford, 2002). It highlighted investment into professional innovation:

> I would like to continue with innovative pedagogy in my classroom. I would like to continue doing new and exciting things… it (learning from others) just gives you a little bit of insight into what goes on in other faculties and it encourages you to improve and to be more innovative *(I, No.1, School A, Teacher 3, 41, F, 10 September, 2012).*

The nature of this current study allowed for rich descriptions of perceived experience from the influence (professional learning, professional collaboration, professional pathway or professional innovation), through links with principals, school leaders, teachers, parents and key personnel's comments. For example, in School A, Key Personnel 1 stated:

> All the freedom that gives me to chase my ideas, the strength of the (school community)…to actually make these things happen, all makes this place the most amazing place to work I have ever worked in my life. You know, I am thrilled to be here *(I, No.1, School A, Key Personnel 1, 55+, M, 13 September, 2012).*

Again, this contribution was unique and significant to Australian research in improving secondary schools.

Unlike previous argument which has solely focused on leadership building individual and social teaching capacity domains through professional learning, development and collaboration (Leana & Pil, 2006), this study also found leadership emphasis on pathways and innovation.

Continuing with the professional investment in the four teaching capacities, this preliminary finding was a richer insight for Australian, and perhaps international, educational leadership literature and research. Taken together, these findings suggest leadership invested in professional enhancement programs (professional learning, professional collaboration, professional pathways and professional innovation) to improve teacher professionalism. This in turn, was perceived to support improvement in teacher quality. Principal 1 expressed:

> You should be able to implement professional enhancement program for your staff that actually when you see them writing and you see them presenting, you might go into a classroom on visits- reassure you that what they are doing with kids and what they think about and how they are thinking about their own professionalism and development is of high quality *(D, No.15, School A, Principal 1, August, 2011).*

Consequently, this finding forms a significant contribution of knowledge to the field.

5.3.4 Review, recognition and reward

The fourth and final category of influence was review, recognition and reward. In both school sites successful school leadership undertook continual professional

review. Review and feedback of professional practice has been well documented in school effectiveness and improvement research with several systems based studies articulating it as key in improving school systems (Higham et al., 2011; Mourshed et al., 2010). School based studies of improving teacher quality indicated professional feedback and review was pivotal to continual improvement (Hattie, 2012; Jensen & Reichl, 2011).

Evidence from both schools supported previous research (Jensen & Reichl, 2011; Mulford & Silins, 2011). In particular, it was consistent with Mulford & Silins' (2011) finding that evaluation and accountability forms one key factor in how Australian principals reduce variation between teachers in their schools.

The in-depth nature of the study also gave a deeper view. It highlighted the methods of review that were being used in the improving Australian secondary schools. These included observations of teaching, evidence of collaboration, preparing professional papers, providing data for improvement and professional conversations. Regarding the influence on the quality of their teaching School Leader 2 stated:

> …open classrooms where you come to, where you go into someone else's classroom and watch them with their students. I think it's some of the most powerful professional learning so, to have the opportunity. That was the first time I think in 8 years that I'd had anybody come and actually see me teach or see me work with the girls and so I thought that was tremendously, I found it affirming, but I also feel it was, that it enriches the knowledge of the school too *(I, No.1, School A, School Leader 2, 38, F, 11 September, 2012).*

The review process was supported by recognition and reward. Recognition and rewards encompassed a spectrum from simple and inexpensive to more expensive and multifaceted. Examples included simple personal and at times public thanks, emails, perhaps boxes of chocolates, moving then to more complex acts such as the

provision of fellowships, scholarships for further study or innovation grants. Key Personnel 3 (former principal) stated:

> It's a reward to build on future practice. So you reward people who are putting the effort in and knowing that if you give them money, then you'll get even more return from them *(I, No.1, School B, Key Personnel 3, 55+, M, 17 August, 2012).*

5.4 Conclusion to subsidiary research question two

The exploratory case study both confirmed and extended previous research, adding new interpretations and insight. By following the backwards mapping design, indications from the data suggested that successful school leadership influenced quality teaching via four categories of influence. These were challenge, culture, professional investment in four teaching capacities, and review, recognition and reward. A key argument and second proposition of the current study is that in influencing quality teaching and teacher professionalism across the whole school, successful school leadership invested in four teaching capacity domains through these four categories of influence.

5.5 Subsidiary research question three: how are these influences enacted over a period of five years of school improvement?

From the findings it is suggested that:

- quality teaching was understood as linked to and part of collective teacher professionalism;
- it comprised four teaching capacity domains;
- leaders did not simply influence improvement through a singular focus on improving classroom practice; rather,

- leadership influenced teacher professionalism and quality teaching through four categories aimed to influence teaching capacities (individual, social, decisional and innovative).

Findings from the third subsidiary question offered a new perspective on how this was enacted over a period of five years. The current study indicated successful school leadership adopted an iterative, developmental process aimed to lift collective teacher professionalism (and subsequent quality teaching) over time.

The third and final key proposition from the current study emerged from this perspective. The proposition involved three parts. These are as follows:

First, Successful school leadership enacted a continuous cyclical and differentiated process of improvement and innovation to influence quality teaching. The cycle involved four distinct phases.

Second, the leadership influence was contingent on the culture, level of engagement and teacher need within the school.

Third, there were varying levels of perceived success in improving quality teaching with a leadership belief that the majority of staff were functioning at a high performing level.

5.5.1 A cyclical and differentiated approach to improvement and innovation in quality teaching across the school

It can be contended that career stages, years of experience and access to continual professional learning can have an impact on the quality of teaching within Australian schools (Barber, 2012; Hattie, 2012). Moreover, differences exist between years of experience and expertise in teaching (Dinham et al., 2008).

Following on from this, there is a plausible argument that studies exploring how successful school leadership influences quality teaching within Australian school settings should consider this question over time. The longitudinal studies which have explored successful school leadership's influence on quality teaching have, for the most part, been large scale systems based studies in nations other than Australia (Higham et al., 2011; Mourshed et al., 2010).

Australian based longitudinal studies have either been part of an international comparative study (Caldwell & Harris, 2008; Gurr et al., 2005; Mulford & Edmunds, 2009); have focused on one aspect, namely organisational learning (Silins & Mulford, 2002); or have identified important variables for reducing teacher variation (Mulford & Silins, 2011). Other comprehensive Australian studies of leadership, productive pedagogy, assessment and student learning outcomes have not directly examined changes in teacher quality over time (Lingard et al., 2001).

Furthermore, within these studies, the details within the case studies were often subsumed within multi-method design (Holland et al., 2006). This limited the depth of Australian based understandings of how successful school leadership influenced quality teaching over time.

In examining how leadership influenced organisational learning (for improved student learning outcomes) in Australian schools, the LOLSO study suggested three sequential dimensions to promote professional learning and development. These dimensions were:

- a trusting climate,
- shared school vision and

- the provision of school structures to support experimentation, initiative and professional exchange and development (Mulford, 2005; Silins & Mulford, 2002).

In contrast to the linear sequential pathway described in the LOLSO study, the current investigation of the perceptions of respondents within the two improving Australian secondary schools indicated a more complex and cyclical view. Rather than a linear (Leithwood et al., 2010), or sequential (Silins & Mulford, 2002) path, the current study demonstrated successful school leadership's influence on quality teaching was continuous and interrelated. Each school followed a cyclical pattern. Comments offered by both principals (current and former) with regards to the changes to quality teaching over time substantiated this. For example, Key Personnel 3 expressed:

> So gradually over time they came to a frame of mind that we need to continually reflect and review our practice, identify the stuff that is not working and flick that out and identify the new stuff we want to do. So you get that continuous cycle of, you know, plan, act, observe, reflect and do again *(I, No.1, School B, Key Personnel 3,55+, M, 17 August, 2012).*

International system wide studies of improvement efforts appeared to follow a similar iterative pattern: beginning with clear mandates, beliefs and high expectations; positive climate and culture for change typified by trust, openness and support; assessing, diagnosing, planning influence; and, enacting interventions (Higham et al., 2011; Hogan & Dimmock, 2011; Hopkins & Higham, 2007).

The evidence from the current study added a significant contribution through providing an Australian school based knowledge to the field. Retrospective data indicated a cyclical pattern was adopted in the two improving secondary schools. This also resonated with Evans' (2008) view of an improving teacher

professionalism which is iterative and developmental. Similarly, it reflects iterative cycles of collaborative professional learning as identified by Timperley et al., (2007). Yet it extended these commentaries or research studies to the study of Australian educational leadership and quality teaching (as comprised four teacher capacity domains).

Whilst the pattern was similar to previous studies, the phases of the cyclical pattern were different. The phases were:

- the pursuit of innovative practice which supported the teaching capacities of staff;
- leadership investing in high quality teaching professionalism and the four teaching capacity domains across the school through the key categories of influence;
- a perceived improvement in quality teaching and professionalism; and,
- reflection on the context and need for further improvement and innovation in quality teaching.

It is worth noting that this cycle indicated successful school leadership in both improving schools utilised *both improvement and innovation* to improve quality teaching and teacher professionalism across the school.

The notion of innovation and improvement in education is not a new one, nor is the need for education to embrace this for 21st century needs (Barber et al., 2012). Some systems based studies examining quality teaching have explored improvement and innovation and suggested this occurs when school systems are functioning at a high performing achievement level (Mourshed et al., 2010).

How successful school leadership influences quality teaching, through both innovation and improvement, at a school rather than systems level in Australia, however, was relatively unknown in educational leadership literature. The current study did not indicate that improvement preceded innovation (as previously indicated in systems based studies, e.g. Mourshed et al., 2010) in the two improving schools. Rather, retrospective data indicated that the pursuit of both continuous improvement and innovation appeared to co-exist and be pivotal throughout the improvement cycle.

A pertinent example of this was given by Principal 1 in School A regarding the specific innovative professional review which was implemented. Each phase in the cycle was linked to retrospective interview data (and supporting documents).

> *Pursuit of the new initiative or innovation:* Principal 1 replaced old model of professional review with written academic papers and presentation to school leadership executive;
>
> *Interweaving four categories of influence:* Principal 1 published articles, gave staff opportunity to present to peers, sent articles to universities, staff presented to others; career pathways were pursued, mentoring opportunities given, staff applied innovative pedagogies to classrooms, articles were acknowledged by peers;
>
> *Perception of improved professionalism and quality teaching:* Principal 1 reports increased professional confidence, staff seeking promotions, staff presenting, further degrees, application to classrooms. Evidence cross

referenced with teachers talking about their presentations on innovations in their classroom

Review of the initiative and innovation: Principal 1 reviews articles and begins to design a new appraisal system.

In the above example of professional review, Principal 1 described (in Appendix K1) her intention to change presentations to short blogs or web pieces. Another relevant example of this was given by Key Personnel 3 who described the pattern of seeking innovative practice to underpin whole school improvement in School B (see Appendix K2).

Furthermore, the impetus of innovation or new initiatives appeared to be a key or catalyst for teacher professional growth and development. Examples of these were numerous and included establishing a Centre for Professional Practice, new and innovative course and subjects, mentoring and coaching staff, a new Creative Arts Centre, establishing new and innovative digital pedagogies and Monday afternoon professional learning meetings.

The current exploratory case study provides preliminary findings for how Australian leadership may support quality teaching through the use of both innovation and improvement. It offers new and unique insights for further exploration and study.

Moreover the cyclical approach was not uniform. Rather, the nature of leadership influence during the cycle was differentiated. It was contingent on context, issue and interaction. This is now explained below.

5.5.2 Leadership influence was contingent on the culture, level of engagement and teacher need within the school

5.5.2.1 Successful school leadership continually evaluated, monitored, and at times intervened in the culture and level of engagement in teacher learning for improved quality teaching

In examining how successful school leadership influences quality teaching over time, the current study differed from the previous Australian studies in two ways. First, as argued above, the retrospective data suggested that a continuous, cyclical process was utilised by leadership to influence quality teaching. This cycle was not uniform rather it evolved and was contingent on culture, levels of engagement and teacher need within the school. Second, in relation to this cycle, leaders constantly monitored the culture and level of engagement in quality teaching within the school.

When the review of the cycle of continual improvement and innovation revealed growing stagnation in quality teaching or a low level of engagement, successful school leadership would explore a new initiative, intervention, or innovation to lift the quality of teaching further.

Continuing with the example of the cycle of improvement and innovation given through professional review in School A, Principal 1 stated:

> You rail against group think. At the beginning it was a bit motley and uneven and then you hit, it's the old s curve, you know, you hit the best and then you've got to do something to kick it to the next bit…It's good, it's reached a really good level of engagement so we'll let that run for 12 months or so, and meanwhile…I'm going to do these things and this will be great *(I, No.2, School A, Principal 1, 50, F, 12 September, 2012).*

Furthermore, in support of the desire to avoid stagnation in practice Principal 1 expressed:

> So I guess they know that I won't let them stagnate as much as I won't let the girls or myself stagnate *(I, No.2, School A, Principal 1, 50, F, 12 September, 2012).*

Findings supported Evans' (2008) commentary on the dualities of a culture of professionalism and teacher professionalism. Here leaders monitored and responded to the overall climate and culture of the schools to support a culture of professionalism, which in turn, may foster improvement in teacher quality.

5.5.2.2 Reciprocal and mutual leadership influence

Scholars (Hallinger & Heck, 2010; Robinson, 2006) argue that many previous studies of successful school leadership and its influence on teacher quality have predominantly begun with and explored leader- follower relations. Several studies have focused on the conditions leadership creates (Leithwood et al., 2006), and what leadership does to influence quality teaching (Louis et al., 2010; Mulford & Silins, 2011; Timperley et al, 2010).

In contrast, the retrospective data from this study suggested that, unlike the predominant leader-follower relationship in many studies of educational leadership, a more complex, nuanced and multi-faceted nature of leadership and its influence within schools existed.

Consistent with prior Australian studies of leadership for organisational learning within secondary schools (Silins & Mulford, 2002), the current study demonstrated successful school leadership's influence involved a mutual and reciprocal relationship between other participants. When influencing quality teaching, leadership would act on, and be influenced by staff and the presence of various quality teaching capacities.

An example of the mutual and reciprocal influence of successful school leadership on quality teaching was given by a school leader:

> Out of those Learning Innovation Groups, the number of staff who have gone on to further study… one of the women who was in the very first group is now just about to finish her PhD…she said to me the other day, I wouldn't have done this if you hadn't pushed me. But then again, she wouldn't have done it if Principal 1 hadn't paid the money and set it in motion *(I, No.1, School A, School Leader 5, 60+, F, 11 September, 2012).*

It was evident in the current study that the relationships and influence for improved quality teaching were more complex than one way influence of leadership to teacher.

Even further, the exploratory case study offered more detail and depth, as previous Australian work has been large scale quantitative studies spanning two states (Silins & Mulford, 2002). Indeed, the current study offered deeper insight into the relationship between principals, school leaders, key personnel, teachers and parents. By linking the perceived influence on quality teaching with the experience, it became apparent that the influences were not always from an appointed leadership position. Depending on the professional investment, influence was evident from teacher to teacher, school leader to teacher, principal to school leader, school leader to principal and so on.

5.5.2.3 Broad and targeted influence

Continuing with the stance that quality teaching involved various teaching capacity domains, the current study indicated that leadership's influence towards the capacities was both broad and targeted.

Specifically, broad interventions involved actions and programs across the school related to professional learning, professional collaboration, professional pathways and professional innovation. Examples included appraisals, establishing a Centre for Professional Practice, mentoring and coaching staff, new initiatives, internal

professional learning, whole school improvement process, and, strategic actions teams.

More targeted influences were directed towards underperforming teachers. School leaders shared this influence. Principal 1 stated:

> Ultimately though it's the Faculty Director's job to make sure they are performing... *(I, No. 3, School A, Principal 1, 50, F, 14 September, 2012).*

Similarly Principal 2 explained his approach when dealing directly with underperforming staff:

> We tick it off if it's been achieved. And you know this, some people you can't achieve it with because of who they are and it's very difficult. So I've got to keep insisting, that's all I can do, that this behaviour is not appropriate…*(I, No.1, School B, Principal 2, 50+, M, 14 August, 2012).*

Previously, several studies examining how successful school leadership influences quality teaching in the classroom indicated interventions were both targeted and broad (May & Supovitz, 2011). The more targeted and instructional interventions were reported to have a stronger correlation to improved student learning outcomes (Robinson, et al., 2008). In addition, more targeted approaches were shown to lead to more perceived improvement in teaching practice (May & Supovitz, 2011).

Similarly, the present study demonstrated interventions that were both targeted and broad as leadership influenced quality teaching over time. In addition, the study confirmed leadership chose various dimensions of leadership according to need, context and issue (Leithwood & Sun, 2012).

Whilst not measuring impact or causation, the different approach of the study (backwards mapping design) elicited a deeper and more nuanced interpretation of the nature of the influence. Apart from the above mentioned commonalities, leadership

practice differed in a number of ways. In particular, leadership influence and action was directed towards building the four teaching capacities, namely individual, social, decisional and innovative. It focused on actions related to professional learning, professional collaboration, professional pathways and professional innovation. In addition, it was more directed when working with underperforming teachers.

5.5.3 Varying levels of perceived influence on quality teaching

From the perspective of principals within both improving schools there was an acknowledgement that not every teacher was of exceptional quality. Yet data indicated principals believed that through their interventions, the majority of teachers were. For example, Principal 1 stated:

> So it's not all fun and you wouldn't expect it- but I think it's having the majority of really good dedicated people doing their job *(I, No.3, School A, Principal 1, 50, F, 14 September, 2012).*

Key Personnel 3 explained:

> …we just kept pushing all the time, you know, particularly around collaboration because that's the only way you get uniform quality assurance across the school *(I, No. 1, School B, Key Personnel 3, 55+, M, 17 August, 2012).*

Furthermore, responses from the leaders in the two improving Australian secondary schools indicated they believed that their influence and focus on quality teaching ensured that the quality of teaching was at least satisfactory. For example:

> They have to keep their noses above the water line, and if they chose to only have the tip of their nose above the water line; well I can't do a lot about that. But I know that at least the teaching will be, probably better than satisfactory, but not exceptional. And eventually they will go *(I, No. 3, School A, Principal 1, 50, F, 14 September, 2012).*

It is important to note that principals tend to conflate their results and influence in comparison to teachers. Thus it is important to utilise data from varying perspectives

and sources (Mulford et al., 2007). The interview responses indicated varied perceptions of influence and improvement ranging from: majority of staff high quality professionals, an improvement from mediocre to satisfactory, no improvement, to removal of underperforming staff.

Accordingly, the data did confirm that the relationship between leadership, improving teacher quality and student learning outcomes is complex and not easily verified (Hallinger & Heck, 1996).

5.6 Conclusion to subsidiary research question three

Retrospective data exploring the influence of successful school leadership on quality teaching over a period of up to five years of school improvement supported the third key proposition of the study. This proposition was in three parts:

First, successful school leadership enacted a continuous cyclical and differentiated process of improvement and innovation to influence quality teaching.

Second, leadership influence was contingent on the culture, level of engagement and teacher need within the school.

Third, there were varying levels of perceived success in improving quality teaching with a leadership belief that the majority of staff were functioning at a high performing level.

Part Two: Conclusion

5.7 Overview

The current study explored the challenge faced by Australian educators and leaders to improve quality teaching within their schools.

Previous research had demonstrated there was a plethora of literature and research examining the nature, impact and practice of successful school leadership (Day et al., 2010; Mulford & Silins, 2011; Silins & Mulford, 2002) and quality teaching (Hattie, 2009; Lingard et al., 2001). A growing evidence base existed to indicate what successful school leadership does to influence quality teaching including several Australian based studies (for example Lingard et al., 2001; Mulford & Silins, 2011; Silins & Mulford, 2002).

The majority of these studies, however, were large scale studies examining leadership at a systemic level. Of those studies that examined successful school leadership at a school based level in Australia, the researcher was unable to find relevant research reflecting emerging conceptions of quality teaching (where quality teaching is viewed as teacher professionalism with various teacher capacity domains) for reduced within-school variation. This was particularly true of exploratory case studies.

5.8 Purpose

The study undertook to:

1. Describe how quality teaching was understood within two Australian secondary schools;
2. Explore how successful school leadership influenced the quality of teaching within the two improving schools; and,
3. Retrospectively document the process by which successful school leadership enacted these influences for improving teacher quality, through a focus on perceived changes over a period of up to five years.

5.9 Conclusion to main research question

This study's data suggests that previous Australian educational leadership research and literature gives a picture of how successful school leadership influences quality teaching which can be extended. Using the findings or threads from three subsidiary research questions the study answers the main research question,

> 'How is successful school leadership, as it influences quality teaching, understood and enacted within two improving Australian secondary schools?

Specifically the three key propositions, formed from a juxtaposition of extant literature against the data from the case study, answered the main research question. Findings were as follows:

First, quality teaching was associated with a collective phenomenon of teacher professionalism across the whole school. This was described as comprising four teacher capacity domains: individual, decisional, social and innovative.

Second, successful school leadership utilised four broad categories of influence which were:

- challenge,
- culture,
- professional investment (professional learning, professional pathways, professional collaboration and professional innovation); and,
- review, recognition and reward.

Third, and finally, by examining how the two schools improved over a period of five years through retrospective interviews, three elements of successful school leadership influence became clear:

One: Successful school leadership enacted a continuous cyclical and differentiated process of improvement and innovation to influence quality teaching.

Two: Leadership influence was contingent on the culture, level of engagement and teacher need within the school.

Three: There were varying levels of perceived success in improving quality teaching with a leadership belief that the majority of staff were functioning at a high performing level.

These findings suggest that successful school leadership (and quality teaching) was understood within a frame of *collective teacher professionalism* across the whole school. In influencing quality teaching, Australian successful school leaders broaden their focus from developing school-based capacities, to building teacher capacities (individual, social, decisional *and innovative*) inherent in teacher professionalism.

Successful school leaders in the two improving Australian secondary schools expect continual professional improvement and were persistent in their pursuit of a positive culture of professionalism. Over time they invested in quality teaching through adopting an iterative process of innovation and improvement. This process was supported by review, recognition and reward.

5.10 Method

Using two improving Australian secondary schools as its base, the exploratory case study examined the aims through three subsidiary research questions. Perhaps uniquely, it did so incorporating a research design that included a backwards mapping approach, which, in conjunction with the data gathering approaches,

enabled the emerging conceptions of quality teaching to be explored from a different viewpoint and perspective. Following the design, the study answered the main research question by drawing together the findings from the three subsidiary research questions.

5.11 Limitations

In presenting an exploratory case study on how successful school leaders influence quality teaching within their schools, the intention was not to suggest that improving student learning is completely answered by improving teacher quality, nor that whole school improvement is solely accomplished through increased collective teacher effectiveness (Leithwood et al., 2010). How successful or effective educational leadership impacts student learning outcomes is more complex than single exhortations of singular virtues of leadership (Mulford, 2012).

Substantial research has demonstrated that several factors influence the quality and equity of student learning outcomes. Family related factors such as home learning environment and parental expectations, together with student related factors such as trust and wellbeing have a strong impact on improving student learning outcomes, both social and academic (Hattie, 2009; Leithwood et al., 2010). Indeed, the family path is arguably the most untapped in terms of leadership impact (Leithwood et al., 2010). These factors were not the purview of this study, which instead chose to draw attention to quality teaching as an important, but not singular aspect to improving student learning outcomes.

There is a plausible contention that in influencing quality teaching professionalism across the whole school, through investment in the various teaching capacities, that improvement in quality teaching is closely related. Yet, the nature of the exploratory

case study, including the limited and perception based data, does not explicitly explain or establish this as a causal claim.

Examples of teacher perception of influence for improved quality teaching were given, along with successful school leaders' comments. An example of this was from Key Personnel 3, who indicated his belief that individual teaching capacity was influenced and lifted by social teaching capacity. He stated:

> …we just kept pushing all the time, you know, particularly around collaboration because that's the only way you get uniform quality assurance across the school, by having people work together, because good teachers will take poor teachers with them and you don't get that privacy of practice *(I, No. 1, School B, Key Personnel 3, 55+, M, 17 August, 2012).*

These links, however, were based on principal, school leader, teacher and key personnel perception or self-report. The data did not provide evidence of specific change in teacher practice or student learning outcomes. As such this link would require further verification.

5.12 Interpretation of study

Finally the sample size and nature of the exploratory case study allowed for rich and detailed accounts of leadership and quality teaching within the two improving Australian secondary schools. Yet, due to the small scale of the study it is not possible to deduce that all conclusions are found in all Australian secondary schools. Nor is it possible to find that all successful school leadership or quality teaching would present in the same manner across all Australian schools.

Rather, the qualitative research offers a set of interpretive, material practices that make the world of the two improving Australian secondary schools visible (Denzin & Lincoln, 2011). Readers then take from the case,

> …a sense of the case as exemplary, with general lessons to teach. They believe themselves to be learning not just about particular people but about people who are like them, not just about particular situations, but about a class of situations (Stake, 1995, p. 168).

Thus, the exploratory case study was designed to develop pertinent propositions for further inquiry (Yin, 2003).

5.13 Recommendations or suggestions for further research

5.13.1 Suggestions related to new interpretations of knowledge

In extending current understandings of successful school leadership to emerging conceptions of quality teaching (comprising teaching capacity domains) various new interpretations and information was proposed. The study extended previous Australian research in terms of:

- the four teaching capacity domains;
- the four categories of influence: including professional investment in learning, collaboration, pathways and innovation; and,
- the proposed iterative cycle of improvement and innovation.

Further research is necessary to verify, examine and extend these findings. In particular additional research is suggested to:

- examine and verify the four teaching capacities in Australian schools;
- explore the development of these teaching capacities over time;
- clarify and deepen understandings of how leadership invests in the teaching capacities, with greater exploration of the emerging themes of pathways and innovation; and,

- expand and scrutinize how successful school leadership fosters both innovation and improvement within Australian schools.

5.13.2 Suggestions related to methodological issues

Whilst the exploratory case study provided deep insights into two improving Australian secondary schools, it was limited to an examination of two school sites. As the resources and time of doctoral students are limited, further work exploring a larger and more varied sample would be advantageous (Hallinger & Heck, 2010).

Comparisons between school size, school level (secondary of primary) and school location (rural, remote or urban) were not addressed in the study; nor were the number, age and gender of staff. Furthermore, student voice was not explored during the study. In a larger study these aspects could be included as covariates, linking successful school leadership's activities with improved quality teaching (May & Supovitz, 2010).

As the study was limited to one researcher and a small sample, findings will need to be explored and examined further. Using the qualitative inquiry in the exploration, classification and proposition development stages of knowledge building, it is anticipated that findings from the study may contribute to further larger scale research (Stephen, 2005). Consequently, larger scale study longitudinal is suggested to corroborate findings.

5.13.3 Suggestions related to policy or practice

There is a growing expectation that Australian leadership should influence quality teaching within their schools. Political exponents of Australian school improvement promote improved quality teaching as pivotal in raising student learning outcomes.

To date policy directions have to a large extent operated in isolation from Australian educational leadership research and are typified by top down measures and external directives.

The current study offered an alternative and compelling view, using the backwards mapping design (Elmore, 1979). By grounding the study in an understanding of quality teaching, that is, the political effect or desired change, the study was able to then explore the most direct and influential means of achieving this.

Application of these findings would suggest, for example, that Australian policy direction consider investment in opportunities for professional learning, professional collaboration, professional pathways and professional innovation to influence quality teaching in Australian schools.

Certainly it would seem prudent to base policy direction and drivers on those at the forefront of the educational change and on those who are influencing educational change. Indeed, it is suggested that policy direction consider utilising and engaging in further Australian based studies of how successful school leadership influences quality teaching.

Conclusion to the exploratory case study

The qualitative researcher is like a weaver (or quilt maker) who stitches, edits and puts slices of reality together. The process creates unity to an interpretive experience (Denzin & Lincoln, 2011).

This study concluded that the current educational leadership literature and research provided a useful explanation requiring further, more nuanced study of how successful school leadership, within improving Australian secondary schools, was

understood and enacted in ways which influence quality teaching. The unique contribution of the study and focus of this chapter was that it used a backwards mapping design to explore the threads of Australian successful school leadership and emerging understandings of quality teaching. It wove this perspective into the fabric of the study.

The design led the study to support and extend the new or emerging idea of quality teaching as whole school teacher professionalism comprising four teacher capacity domains. This understanding, in turn, supported a different viewpoint and perspective on how Australian successful school leadership enacted its influence to reduce variation of teaching within the school. Indeed, a cyclical pattern of continuous improvement and innovation emerged.

The study took leadership beyond creating and influencing the conditions for effective teaching (Leithwood et al., 2006) or influencing classroom instruction (Robinson et al., 2008) to an exploration of how leadership was influencing, and influenced by, the teaching capacities required to support high quality instruction and practice within two improving Australian secondary schools. In so doing, the exploratory case study offered a unique and significant contribution to the field of educational leadership.

As an exploratory case study, the research did not provide causation from those themes identified with regards to improved teacher practice and student learning outcomes. It did, however, through its weaving of detailed and rich threads from perceptual data across the two improving Australian secondary schools, provide several salient insights for future study, policy and educational practice.

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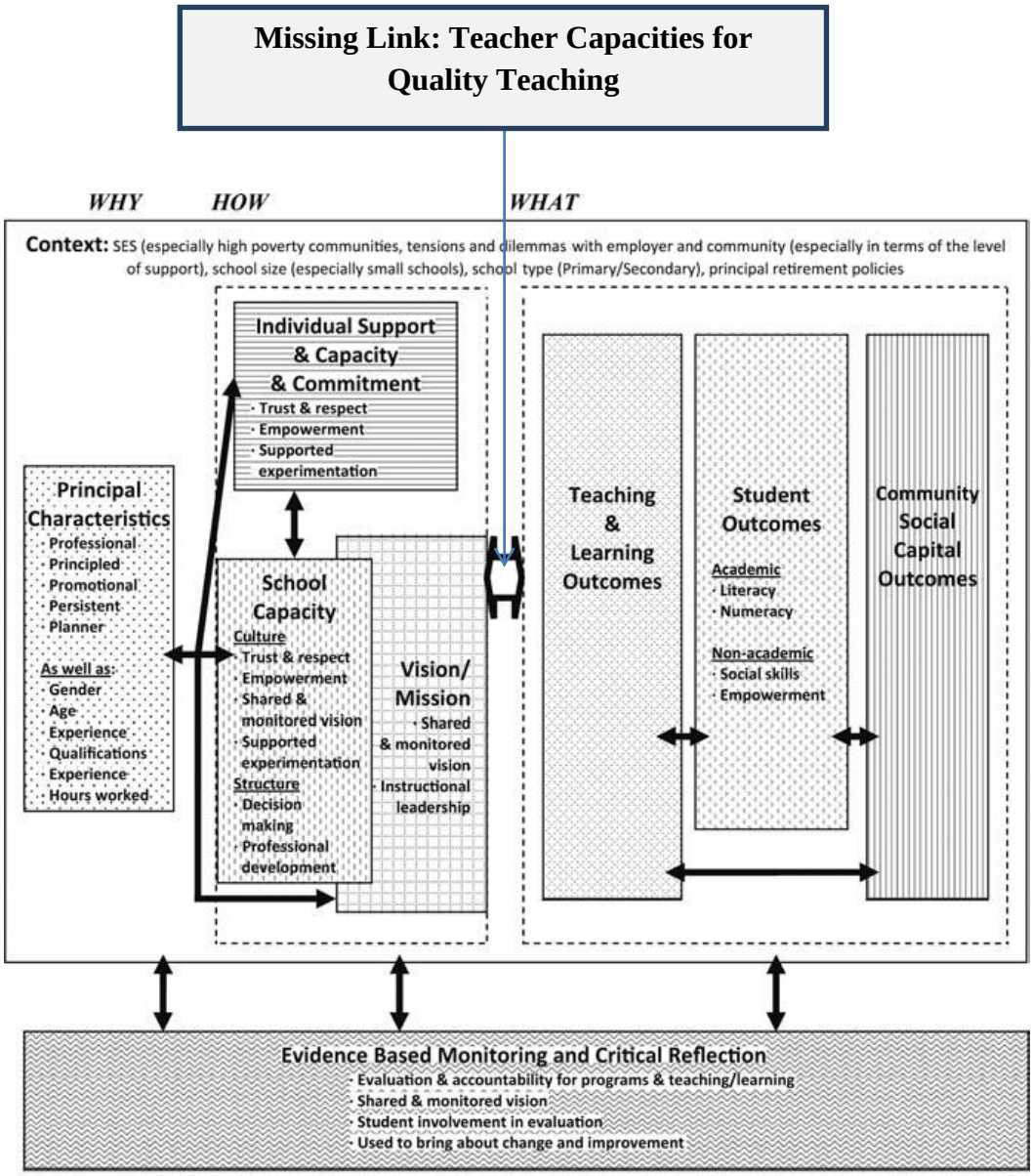
Appendices

List of Appendices

Appendix A Contents: Missing Link in Australian Preliminary Model of Successful School Leadership

Item A1: Missing Link in the Preliminary Model of Successful School Leadership (Mulford & Johns, 2004; Mulford & Edmunds, 2009).



Appendix B Contents: Ethics Approval to Conduct Research

Item B1: Ethics Approval to Conduct Research

Social Science Ethics Officer
Private Bag 01 Hobart
Tasmania 7001 Australia
Tel: (03) 6226 2763
Fax: (03) 6226 7148
Katherine.Shaw@utas.edu.au

HUMAN RESEARCH ETHICS COMMITTEE (TASMANIA) NETWORK

UTAS

03 August 2012

Professor John Williamson
Education
Private Bag 1307

Sent via email

Dear Professor Williamson

Re: MINIMAL RISK ETHICS APPLICATION APPROVAL
Ethics Ref: H0012616 - Leadership practice for improved teacher quality: a case study focussing on how successful school leadership, as it influences teacher effectiveness is enacted and understood in two improving schools within Australia

We are pleased to advise that acting on a mandate from the Tasmania Social Sciences HREC, the Chair of the committee considered and approved the above project on 19 July 2012.

This approval constitutes ethical clearance by the Tasmania Social Sciences Human Research Ethics Committee. The decision and authority to commence the associated research may be dependent on factors beyond the remit of the ethics review process. For example, your research may need ethics clearance from other organisations or review by your research governance coordinator or Head of Department. It is your responsibility to find out if the approval of other bodies or authorities is required. It is recommended that the proposed research should not commence until you have satisfied these requirements.

Please note that this approval is for four years and is conditional upon receipt of an annual Progress Report. Ethics approval for this project will lapse if a Progress Report is not submitted.

The following conditions apply to this approval. Failure to abide by these conditions may result in suspension or discontinuation of approval.

1. It is the responsibility of the Chief Investigator to ensure that all investigators are aware of the terms of approval, to ensure the project is conducted as approved by the Ethics Committee, and to notify the Committee if any investigators are added to, or cease involvement with, the project.

2. Complaints: If any complaints are received or ethical issues arise during the course of the project, investigators should advise the Executive Officer of the Ethics Committee on 03 6226 7479 or human.ethics@utas.edu.au.

3. Incidents or adverse effects: Investigators should notify the Ethics Committee immediately of any serious or unexpected adverse effects on participants or unforeseen events affecting the ethical acceptability of the project.

4. Amendments to Project: Modifications to the project must not proceed until approval is obtained from the Ethics Committee. Please submit an Amendment Form (available on our website) to notify the Ethics Committee of the proposed modifications.

5. Annual Report: Continued approval for this project is dependent on the submission of a Progress Report by the anniversary date of your approval. You will be sent a courtesy reminder closer to this date. **Failure to submit a Progress Report will mean that ethics approval for this project will lapse.**

6. Final Report: A Final Report and a copy of any published material arising from the project, either in full or abstract, must be provided at the end of the project.

Yours sincerely

Lauren Townsend
Ethics Administrator
Office of Research Services
Tel: +61 (0)3 6226 2764
Email: Lauren.Townsend@utas.edu.au
University of Tasmania, Private Bag 01 Hobart Tas 7001

Appendix C Contents: Initial Email to Principals of schools

Item C1: Initial Email to Principals of Schools

Dear ,

Hello. My name is Emma Burgess and I am a PhD candidate currently working at the University of Tasmania, Hobart with the eminent scholars Professor John Williamson and Professor Gary O'Donovan as my supervisors in the field of successful school leadership and school improvement.

I am undertaking a significant case study as part of the fulfilment of the PhD examining successful school leadership as it influences teacher quality and subsequent student learning outcomes. The aims of the study are to:

1. Document the process by which successful school leadership leads school improvement (through a focus on improving teacher quality) over a period of five years within two improving schools
2. Identify the dimensions of successful school leadership that influence teacher quality
3. Identify specific interventions or actions successful school leadership adopt to improve teacher quality
4. Examine how differences in context impact how successful school leadership enacts interventions for improving teacher quality
5. Identify the features of leading professional learning as it most effectively brings change to teacher quality

The outcome of the study is to provide practical and relevant application for school based leaders and policy makers in leading improving schools.

The project will explore two improving schools led by successful school leaders who have influenced improvements in teacher quality. Your school, _____and your outstanding leadership has been identified as such an improving school.

The project will involve two sets of activities:

Stage 1. *Case studies of two improving schools* within Australia; one primary (K-6) and one secondary (7-12) or K-12. These will involve interviews, observations, collection of assessment data and collation of school related texts in order to obtain how leadership practice for improved teacher effectiveness is enacted and understood in two improving schools.

Stage 2. *Interviews with approximately 16 key personnel* (1 system leader, 3 leaders, 3 teachers, 1 parent from each school) to gain retrospective information from the past 5 years of specific school improvement interventions of successful school leadership for improved teacher quality. (Note: If at all possible, we will not be selecting new leaders, teachers and parents for retrospective interviews, but rather will select Key Personnel from Stage 1 participants).

Together with Professor John Williamson and Professor Gary O'Donovan, I am hoping you would consider discussing the possibility of participating in this exciting study.

I have attached an invitation to participate and information sheet for your perusal.

Thank you so much for your consideration.

Looking forward to hearing from you soon.

Kindest regards,

Emma Burgess.

Appendix D Contents: Invitation to Participate

Leadership practice for improved teacher quality in two improving Australian schools.

Item D1: Invitation to Participate: For Principals

Dear . . .

Month 2012

Emma Margaret Burgess, in conjunction with Professor John Williamson, and Professor Gary O'Donovan, take pleasure in inviting you to participate in a research study examining successful school leadership practice for improved teacher quality in two Australian improving schools. This study is being conducted in partial fulfilment of a PhD for Emma Burgess under the supervision of Professor John Williamson and Professor Gary O'Donovan.

What is the purpose of the study?

The purpose of the study is to examine how successful school leadership as it influences teacher quality and subsequent student learning outcomes is enacted and understood in two improving schools. The aims of the study are to:

1. Document the process by which successful school leadership leads school improvement (through a focus on improving teacher quality) over a period of five years within two improving schools
2. Identify the dimensions of successful school leadership that influence teacher quality
3. Identify specific interventions or actions successful school leadership adopt to improve teacher quality
4. Examine how differences in context impact how successful school leadership enacts interventions for improving teacher quality
5. Identify the features of leading professional learning as it most effectively brings change to teacher quality

The outcomes of the project will provide practical application for policy makers and school based leaders.

Why have you been invited to participate?

You have been invited to participate as successful school leaders of improving schools. We believe that your contribution would add an important perspective to the study and provide valuable insights into school improvement through successful school leadership practice and teacher quality within Australian schools.

What does this project involve?

If you agree to participate you will be asked to:

- Participate in a case study with four other leaders, five parents and ten teachers in your school. You would be asked to contribute data through
    - Maintaining a log of your leadership practice for 4 weeks
    - Participate in up to three interviews, approximately 45 to 60 minutes in duration. With your permission, the interview will be audio recorded and transcripts returned to you for checking before being added to the research data. *Every effort will be made to minimise the number and duration of interviews, where 3 interviews will only be conducted if sufficient data has not been collected.*
    - Participate in your usual professional learning activities, allowing the researcher to observe and audio-record the learning experiences

Further details of the study are contained in the attached Information Sheet.

Acceptance of this invitation to participate, or the provision of additional information can be made by phoning Emma Burgess on 0413 346 742.

We look forward to further contact from you,

Yours sincerely

Emma Margaret Burgess

Student Investigator, Faculty of Education, University of Tasmania

Leadership practice for improved teacher quality in two improving Australian schools.

Item D2: Invitation to Participate: For School Leaders

Dear . . .

Month 2012

Emma Margaret Burgess, in conjunction with Professor John Williamson, and Professor Gary O'Donovan, take pleasure in inviting you to participate in a research study examining successful school leadership practice for improved teacher quality in two Australian improving schools. This study is being conducted in partial fulfilment of a PhD for Emma Burgess under the supervision of Professor John Williamson and Professor Gary O'Donovan.

What is the purpose of the study?

The purpose of the study is to examine how successful school leadership as it influences teacher quality and subsequent student learning outcomes is enacted and understood in two improving schools. The aims of the study are to:

1. Document the process by which successful school leadership leads school improvement (through a focus on improving teacher quality) over a period of five years within two improving schools
2 Identify the dimensions of successful school leadership that influence teacher quality
3. Identify specific interventions or actions successful school leadership adopt to improve teacher quality
4. Examine how differences in context impact how successful school leadership enacts interventions for improving teacher quality
5. Identify the features of leading professional learning as it most effectively brings change to teacher quality

The outcomes of the project will provide practical application for policy makers and school based leaders.

Why have you been invited to participate?

You have been invited to participate as successful school leaders of improving schools. We believe that your contribution would add an important perspective to the study and provide valuable insights into school improvement through successful school leadership practice and teacher quality within Australian schools.

What does this project involve?

If you agree to participate you will be asked to:

- Participate in a case study with four other leaders, five parents and ten teachers in your school. You would be asked to contribute data through
    - Maintaining a log of your leadership practice for 4 weeks
    - Participate in up to three interviews, approximately 45 to 60 minutes in duration. With your permission, the interview will be audio recorded and transcripts returned to you for checking before being added to the research data. *Every effort will be made to minimise the number and duration of interviews, where 3 interviews will only be conducted if sufficient data has not been collected.*
    - Participate in your usual professional learning activities, allowing the researcher to observe and audio-record the learning experiences

Further details of the study are contained in the attached Information Sheet.

Acceptance of this invitation to participate, or the provision of additional information can be made by phoning Emma Burgess on 0413 346 742.

We look forward to further contact from you,

Yours sincerely

Emma Margaret Burgess (Student Investigator, Faculty of Education, University of Tasmania

Leadership practice for improved teacher quality in two improving Australian schools.

Item D3: Invitation to Participate: For Teachers

Dear . . .

Month 2012

Emma Margaret Burgess, in conjunction with Professor John Williamson, and Professor Gary O'Donovan take pleasure in inviting you to participate in a research study examining successful school leadership practice for improved teacher quality in two Australian improving schools. . This study is being conducted in partial fulfilment of a PhD for Emma Burgess under the supervision of Professor John Williamson and Professor Gary O'Donovan.

What is the purpose of the study?

The purpose of the study is to examine how successful school leadership as it influences teacher quality and subsequent student learning outcomes is enacted and understood in two improving schools. The aims of the study are to:

1. Document the process by which successful school leadership leads school improvement (through a focus on improving teacher quality) over a period of five years within two improving schools
2. Identify the dimensions of successful school leadership that influence teacher quality
3. Identify specific interventions or actions successful school leadership adopt to improve teacher quality
4. Examine how differences in context impact how successful school leadership enacts interventions for improving teacher quality
5. Identify the features of leading professional learning as it most effectively brings change to teacher quality

The outcomes of the project will provide practical application for policy makers and school based leaders.

Why have you been invited to participate?

You have been invited to participate as quality teachers of improving schools. We believe that your contribution would add an important perspective to the study and provide valuable insights into school improvement through successful school leadership practice and teacher quality within Australian schools.

What does this project involve?

If you agree to participate you will be asked to:

- Participate in a case study with five other leaders, five parents and nine teachers in your school. You would be asked to contribute data through
    - Maintaining a journal of your teacher learning for 4 weeks
    - Participate in up to three interviews, approximately 45 to 60 minutes in duration. With your permission, the interview will be audio recorded and transcripts returned to you for checking before being added to the research data. *Every effort will be made to minimise the number and duration of interviews, where 3 interviews will only be conducted if sufficient data has not been collected.*
    - Participate in your usual professional learning activities, allowing the researcher to observe and audio-record the learning experiences

Further details of the study are contained in the attached Information Sheet.

Acceptance of this invitation to participate, or the provision of additional information can be made by phoning Emma Burgess on 0413 346 742.

We look forward to further contact from you,

Yours sincerely

Emma Margaret Burgess (Student Investigator, Faculty of Education, University of Tasmania

Leadership practice for improved teacher quality in two improving Australian schools.

Item D4: Invitation to Participate: For Parents

Dear . . .

Month 2012

Emma Margaret Burgess, in conjunction with Professor John Williamson, and Professor Gary O'Donovan take pleasure in inviting you to participate in a research study examining successful school leadership practice for improved teacher quality in two Australian improving schools. This study is being conducted in partial fulfilment of a PhD for Emma Burgess under the supervision of Professor John Williamson and Professor Gary O'Donovan.

What is the purpose of the study?

The purpose of the study is to examine how successful school leadership as it influences teacher quality and subsequent student learning outcomes is enacted and understood in two improving schools. The aims of the study are to:

1. Document the process by which successful school leadership leads school improvement (through a focus on improving teacher quality) over a period of five years within two improving schools
2. Identify the dimensions of successful school leadership that influence teacher quality
3. Identify specific interventions or actions successful school leadership adopt to improve teacher quality
4. Examine how differences in context impact how successful school leadership enacts interventions for improving teacher quality
5. Identify the features of leading professional learning as it most effectively brings change to teacher quality

The outcomes of the project will provide practical application for policy makers and school based leaders.

Why have you been invited to participate?

You have been invited to participate as parents of improving schools. We believe that your contribution would add an important perspective to the study and provide valuable insights into school improvement through successful school leadership practice and teacher quality within Australian schools.

What does this project involve?
If you agree to participate you will be asked to:

- Participate in a case study with five other leaders, four parents and ten teachers in your school. You would be asked to contribute data through
    - Participate in a group interview with four other parents. The interview will be approximately 45 to 60 minutes in duration. With your permission, the interview will be audio recorded and transcripts returned to you for checking before being added to the research data. *Every effort will be made to minimise the number and duration of interviews, where 3 interviews will only be conducted if sufficient data has not been collected.*

Further details of the study are contained in the attached Information Sheet.
Acceptance of this invitation to participate, or the provision of additional information can be made by phoning Emma Burgess on 0413 346 742.

We look forward to further contact from you,

Yours sincerely

Emma Margaret Burgess (Student Investigator, Faculty of Education, University of Tasmania)

Leadership practice for improved teacher quality in two improving Australian schools.

Item D5: Invitation to participate: For Key Personnel

Dear . . .

Month 2012

Emma Margaret Burgess, in conjunction with Professor John Williamson, and Professor Gary O'Donovan take pleasure in inviting you to participate in a research study examining successful school leadership practice for improved teacher quality in two Australian improving schools. This study is being conducted in partial fulfilment of a PhD for Emma Burgess under the supervision of Professor John Williamson and Professor Gary O'Donovan.

What is the purpose of the study?

The purpose of the study is to examine how successful school leadership as it influences teacher quality and subsequent student learning outcomes is enacted and understood in two improving schools. The aims of the study are to:

1. Document the process by which successful school leadership leads school improvement (through a focus on improving teacher quality) over a period of five years within two improving schools
2. Identify the dimensions of successful school leadership that influence teacher quality
3. Identify specific interventions or actions successful school leadership adopt to improve teacher quality
4. Examine how differences in context impact how successful school leadership enacts interventions for improving teacher quality
5. Identify the features of leading professional learning as it most effectively brings change to teacher quality

The outcomes of the project will provide practical application for policy makers and school based leaders.

Why have you been invited to participate?

You have been invited to participate as key personnel of improving schools. We believe that your contribution would add an important perspective to the study and provide valuable insights into school improvement through successful school leadership practice and teacher quality within Australian schools.

What does this project involve?

If you agree to participate you will be asked to:

- Participate in a retrospective interview of approximately 45-60 minutes, chronicling and commenting on your experience of past interventions undertaken by leadership to improve teacher quality over the past 5 years. The interview will be audio-recorded and later transcribed. *Every effort will be made to minimise the number and duration of interviews, where interviews will only be 45 minutes duration if sufficient data has not been collected.*

Further details of the study are contained in the attached Information Sheet.
Acceptance of this invitation to participate, or the provision of additional information can be made by phoning Emma Burgess on 0413 346 742.

We look forward to further contact from you,

Yours sincerely

Emma Margaret Burgess (Student Investigator, Faculty of Education, University of Tasmania)

Appendix E Contents: Information Sheets

Leadership practice for improved teacher quality in two improving Australian schools.

Item E1: Information Sheet: For Principals

What is the study about?

The research project is focused on identifying how successful school leadership, as it influences teacher quality for improved student learning outcomes and sustained school improvement is understood and enacted.

Specific aims include to:

1. Document the process by which successful school leadership leads school improvement (through a focus on improving teacher quality) over a period of five years within two improving schools
2. Identify the dimensions of successful school leadership that influence teacher quality
3. Identify specific interventions or actions successful school leadership adopt to improve teacher quality
4. Examine how differences in context impact how successful school leadership enacts interventions for improving teacher quality
5. Identify the features of leading professional learning as it most effectively brings change to teacher quality

The outcomes of the project are intended to be pragmatic, providing relevant, practical application for school based leaders and policy makers seeking sustained, widespread and significant school improvement.

The project extends to December 2012 and hopes to inform and promote both successful school leadership and teacher quality and generate several publications from the research.

Who is conducting the study?

Emma Burgess, a PhD candidate within the Faculty of Education, University of Tasmania is undertaking this PhD project. As her supervisors the chief investigators are:

Professor John Williamson, University of Tasmania – John.Williamson@utas.edu.au

Professor Gary O'Donovan, University of Tasmania- Gary.ODonovan@utas.edu.au

As the PhD candidate, the Student Investigator is Mrs Emma Burgess, University of Tasmania- burgess@eftel.net.au; Emma.Burgess@utas.edu.au

The Faculty of Education at the University of Tasmania is undertaking the study in two Australian schools. The fieldwork will be performed by Mrs Emma Burgess, PhD candidate.

Why were you selected for participation?

We are hopeful that information gleaned from the study will be useful for improving Australian schools, and as a consequence, we need successful school leaders from improving schools that have influence. You are considered to be a successful school leader within an improving school.

What does this study involve?

If you agree to participate you will be asked to:

- Participate in a case study with four other leaders, five parents and ten teachers in your school. You would be asked to contribute data through
    - Maintaining a log of your leadership practice for 4 weeks
    - Participating in up to three interviews, approximately 45 to 60 minutes in duration. With your permission, the interview will be audio recorded and transcripts returned to you for checking before being added to the research data. *Every effort will be made to minimise the number and duration of interviews, where 3 interviews will only be conducted if sufficient data has not been collected.*
    - Participating in your usual professional learning activities, allowing the researcher to observe and audio-record the learning experiences. These observations will utilise descriptors of leadership practice.

Are there any benefits or risks to be expected?

Your contributions will help us better understand the ways in which the concept of leadership practice for improved teacher quality is understood and enacted in Australian schools, what forms of leadership practice contribute significantly to teacher quality and improved student learning outcomes (both academic and social) and what are the implications for leadership practice. To elaborate further on the purpose or benefits of the study may compromise the integrity of the study or 'lead' you.

There is a very small risk that this study could reveal differences or affect relationships among or between staff. Because neither individuals nor schools will be identified, we believe this risk to be minimal. Every effort will be made to minimise this risk.

There is a small risk that you may feel some discomfort during interviews or observations, where your personal values and beliefs may be challenged or you may feel under pressure. Every effort will be made to minimise this risk and you are able to contact the research team at any time to talk through these matters.

The purpose of this study is to examine how your school has improved, not whether or not it is exemplary. There is a small risk that you may be motivated by a perceived need to portray your school and leadership as exemplary, which may lead to pressure on your staff and parents. Be assured, at no time will you be informed of those teachers or staff who have or have not chosen to participate in any aspect of the research, so we believe every effort will be made to mitigate this risk. In addition, we will support you and your staff through opportunity to contact the research team and or providing opportunity to withdraw from any aspect, or all of the project at any time.

How will the data be used, stored and treated once the study is over?

As mentioned earlier, data that you provide will be used to inform the project and assist the production of publications. All data will be stored in locked filing cabinets and password protected files at the Hobart Campus of University of Tasmania.

Once the study is complete data will remain in secure, locked cabinets and password protected files at the Hobart Campus of the University of Tasmania for five years. After five years all data will be destroyed, including hard copies shredded, computer files deleted and audio taped destroyed.

Participation is voluntary

To opt in, or opt out or withdraw at any time is your choice and your decision will be respected. No payments are involved. If you agree to participate in an interview, you will be asked to read and sign a Statement of Informed Consent before commencing the interview. The interviews will be recorded and transcripts will be returned to you for confirmation before being used in the study. Similarly, if you agree to participate in an observation, you will be asked to read and sign a Statement of Informed Consent before commencing the observation. The observations will be recorded and transcripts will be returned to you for confirmation before being used in the study.

Anonymity

Whilst every effort will be made by the researchers to preserve each person's identity there is a small risk that you may be identified by your responses. Identifying information will be removed from transcripts. Names of participants will not be used or linked to respective contributions. The data will be used for research purposes only. If you consider your participation may cause concern, please feel free to decline from participation.

Confidentiality

Every effort will be made to maintain confidentiality of research data. Data obtained in interviews will be stored separately from details of information sources.

Feedback

The results of our study will be forwarded to you.

What if I have any questions?

If you have questions about the research or need to talk to the Chief Investigators or Student Investigator during or after your participation in the study, you can contact

John Williamson: John.Williamson@utas.edu.au Phone: 03) 63243339

Gary O'Donovan: Gary.ODonovan@utas.edu.au Phone: 03) 62262278

Emma Burgess: Emma.Burgess@utas.edu.au Phone: 0413 346 742

Ethics Committee Approval

This project has been approved by the Tasmanian Social Sciences Human Research Ethics Committee and complies with the laws of the State.

Should you have any concerns, questions or complaints with regard to the ethical conduct of this research, please contact the Executive Officer of the Human Research Ethics Committee (Tasmania) Network, on 6226 7479 or human.ethics@utas.edu.au

You will be given a copy of this Information Sheet to keep.

Thank you for your assistance.

Professor John Williamson
Chief Investigator,
Faculty of Education,
University of Tasmania.

Emma Burgess
Student Investigator,
Faculty of Education,
University of Tasmania.

Leadership practice for improved teacher quality in two improving Australian schools.

Item E2: Information Sheet: For School Leaders

What is the study about?

The research project is focused on identifying how successful school leadership, as it influences teacher quality for improved student learning outcomes and sustained school improvement is understood and enacted.

Specific aims include to:

1. Document the process by which successful school leadership leads school improvement (through a focus on improving teacher quality) over a period of five years within two improving schools
2. Identify the dimensions of successful school leadership that influence teacher quality
3. Identify specific interventions or actions successful school leadership adopt to improve teacher quality
4. Examine how differences in context impact how successful school leadership enacts interventions for improving teacher quality
5. Identify the features of leading professional learning as it most effectively brings change to teacher quality

The outcomes of the project are intended to be pragmatic, providing relevant, practical application for school based leaders and policy makers seeking sustained, widespread and significant school improvement.

The project extends to December 2012 and hopes to inform and promote both successful school leadership and teacher quality and generate several publications from the research.

Who is conducting the study?

Emma Burgess, as PhD candidate within the Faculty of Education. The University of Tasmania is undertaking this PhD project. As her supervisors, the chief investigators are:

Professor John Williamson, University of Tasmania – John.Williamson@utas.edu.au

Professor Gary O'Donovan, University of Tasmania- Gary.ODonovan@utas.edu.au

As the PhD candidate the Student Investigator is Mrs Emma Burgess, University of Tasmania- burgess@eftel.net.au; Emma.Burgess@utas.edu.au

The Faculty of Education at the University of Tasmania is undertaking the study in two Australian schools. The fieldwork will be performed by Mrs Emma Burgess, PhD candidate.

Why were you selected for participation?

We are hopeful that information gleaned from the study will be useful for improving Australian schools, and as a consequence, we need successful school leaders from improving schools that have influence. You are considered to be a successful school leader within an improving school.

What does this study involve?

If you agree to participate you will be asked to:

- Participate in a case study with four other leaders, five parents and ten teachers in your school. You would be asked to contribute data through
    - Maintaining a log of your leadership practice for 4 weeks
    - Participate in up to three interviews, approximately 45 to 60 minutes in duration. With your permission, the interview will be audio recorded and transcripts returned to you for checking before being added to the research data. *Every effort will be made to minimise the number and duration of interviews, where 3 interviews will only be conducted if sufficient data has not been collected.*
    - Participate in your usual professional learning activities, allowing the researcher to observe and audio-record the learning experiences. These observations will utilise descriptors of leadership practice.

Are there any benefits or risks to be expected?

Your contributions will help us better understand the ways in which the concept of leadership practice for improved teacher quality is understood and enacted in Australian schools, what forms of leadership practice contribute significantly to teacher quality and improved student learning outcomes (both academic and social) and what are the implications for leadership practice. To elaborate further on the purpose or benefits of the study may compromise the integrity of the study or 'lead' you.

There is a very small risk that this study could reveal differences or affect relationships among or between staff. Because neither individuals nor schools will be identified, we believe this risk to be minimal. Every effort will be made to minimise this risk.

There is a small risk that you may feel some discomfort during interviews or observations, where your personal values and beliefs may be challenged or you may feel under pressure. Every effort will be made to minimise this risk and you are able to contact the research team at any time to talk through these matters.

The purpose of this study is to examine how your school has improved, not whether or not it is exemplary. There is a small risk that you may be motivated by a perceived need to portray your school and leadership as exemplary, which may lead to pressure on your staff and parents. Be assured, at no time will you be informed of those teachers or staff who have or have not chosen to participate in any aspect of the research, so we believe every effort will be made to mitigate this risk. In addition, we will support you and your staff through opportunity to contact the research team and or providing opportunity to withdraw from any aspect, or all of the project at any time.

How will the data be used, stored and treated once the study is over?

As mentioned earlier, data that you provide will be used to inform the project and assist the production of publications. All data will be stored in locked filing cabinets and password protected files at the Hobart Campus of University of Tasmania.

Once the study is complete data will remain in secure, locked cabinets and password protected files at the Hobart Campus of the University of Tasmania for five years. After five years all data will be destroyed, including hard copies shredded, computer files deleted and audio taped destroyed.

Participation is voluntary

To opt in, or opt out or withdraw at any time is your choice and your decision will be respected. No payments are involved. If you agree to participate in an interview, you will be asked to read and sign a

Statement of Informed Consent before commencing the interview. The interviews will be recorded and transcripts will be returned to you for confirmation before being used in the study. Similarly, if you agree to participate in an observation, you will be asked to read and sign a Statement of Informed Consent before commencing the observation. The observations will be recorded and transcripts will be returned to you for confirmation before being used in the study.

Anonymity

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Confidentiality

Every effort will be made to maintain confidentiality of research data. Data obtained in interviews will be stored separately from details of information sources.

Feedback

The results of our study will be forwarded to you.

What if I have any questions?

If you have questions about the research or need to talk to the Chief Investigators or Student Investigator during or after your participation in the study, you can contact

John Williamson: John.Williamson@utas.edu.au Phone: 03) 63243339

Gary O'Donovan: Gary.ODonovan@utas.edu.au Phone: 03) 62262278

Emma Burgess: Emma.Burgess@utas.edu.au Phone: 0413 346 742

Ethics Committee Approval

This project has been approved by the Tasmanian Social Sciences Human Research Ethics Committee and complies with the laws of the State.

Should you have any concerns, questions or complaints with regard to the ethical conduct of this research, please contact the Executive Officer of the Human Research Ethics Committee (Tasmania) Network, on 6226 7479 or human.ethics@utas.edu.au

You will be given a copy of this Information Sheet to keep.

Thank you for your assistance.

Professor John Williamson
Chief Investigator,
Faculty of Education,
University of Tasmania.

Emma Burgess
Student Investigator,
Faculty of Education,
University of Tasmania.

Leadership practice for improved teacher quality in two improving Australian schools.

Item E3: Information Sheet: For Teachers

What is the study about?

The research project is focused on identifying how successful school leadership, as it influences teacher quality for improved student learning outcomes and sustained school improvement is understood and enacted.

Specific aims include to:

1. Document the process by which successful school leadership leads school improvement (through a focus on improving teacher quality) over a period of five years within two improving schools
2. Identify the dimensions of successful school leadership that influence teacher quality
3. Identify specific interventions or actions successful school leadership adopt to improve teacher quality
4. Examine how differences in context impact how successful school leadership enacts interventions for improving teacher quality
5. Identify the features of leading professional learning as it most effectively brings change to teacher quality

The outcomes of the project are intended to be pragmatic, providing relevant, practical application for school based leaders and policy makers seeking sustained, widespread and significant school improvement.

The project extends to December 2012 and hopes to inform and promote both successful school leadership and teacher quality and generate several publications from the research.

Who is conducting the study?

Emma Burgess, a PhD candidate within the Faculty of Education, The University of Tasmania is undertaking this PhD project. As her supervisors, the chief investigators are:

Professor John Williamson, University of Tasmania – John.Williamson@utas.edu.au

Professor Gary O'Donovan, University of Tasmania- Gary.ODonovan@utas.edu.au

As the PhD candidate, the Student Investigator is Mrs Emma Burgess, University of Tasmania- burgess@eftel.net.au; Emma.Burgess@utas.edu.au

The Faculty of Education at the University of Tasmania is undertaking the study in two Australian schools. The fieldwork will be performed by Mrs Emma Burgess, PhD candidate.

Why were you selected for participation?

We are hopeful that information gleaned from the study will be useful for improving Australian schools, and as a consequence, we need quality teachers from improving schools that have influence. You are considered to be a quality teacher within an improving school.

What does this study involve?

If you agree to participate you will be asked to:

- Participate in a case study with five other leaders, five parents and nine teachers in your school. You would be asked to contribute data through
    - Maintaining a journal of your teacher learning for 4 weeks and/or
    - Participate in up to three interviews, approximately 45 to 60 minutes in duration. With your permission, the interview will be audio recorded and transcripts returned to you for checking before being added to the research data. *Every effort will be made to minimise the number and duration of interviews, where 3 interviews will only be conducted if sufficient data has not been collected and/or*
    - Participate in your usual professional learning activities, allowing the researcher to observe and audio-record the learning experiences

Are there any benefits or risks to be expected?

Your contributions will help us better understand the ways in which the concept of leadership practice for improved teacher quality is understood and enacted in Australian schools, what forms of leadership practice contribute significantly to teacher quality and improved student learning outcomes (both academic and social) and what are the implications for leadership practice. To elaborate further on the purpose or benefits of the study may compromise the integrity of the study or 'lead' you.

There is a very small risk that this study could reveal differences or affect relationships among or between staff. Because neither individuals nor schools will be identified, we believe this risk to be minimal. Every effort will be made to minimise this risk.

There is a small risk that you may feel some discomfort during interviews or observations, where your personal values and beliefs may be challenged or you may feel under pressure. Every effort will be made to minimise this risk and you are able to contact the research team at any time to talk through these matters.

The purpose of this study is to examine how your school improved, not whether or not it is exemplary, however, there is a small risk that you may be motivated by a perceived need to portray your school as exemplary, which may lead to you feeling pressure. Be assured, at no time will leaders be informed of those teachers or staff who have or have not chosen to participate in any aspect of the research, so we believe every effort will be made to mitigate this risk. In addition, we will support you through opportunity to contact the research team and or providing opportunity to withdraw from any aspect, or all of the project at any time should you wish to do so.

How will the data be used, stored and treated once the study is over?

As mentioned earlier, data that you provide will be used to inform the project and assist the production of publications. All data will be stored in locked filing cabinets and password protected files at the Hobart Campus of University of Tasmania.

Once the study is complete data will remain in secure, locked cabinets and password protected files at the Hobart Campus of the University of Tasmania for five years. After five years all data will be destroyed, including hard copies shredded, computer files deleted and audio taped destroyed.

Participation is voluntary

To opt in, or opt out or withdraw at any time without prejudice is your choice and your decision will be respected. No payments are involved. If you agree to participate in an interview, you will be asked to read and sign a Statement of Informed Consent before commencing the interview. The interviews will be recorded and transcripts will be returned to you for confirmation before being used in the study. Similarly, if you agree to participate in an observation, you will be asked to read and sign a Statement of Informed Consent before commencing the observation. The observations will be recorded and transcripts will be returned to you for confirmation before being used in the study.

Anonymity

Whilst every effort will be made by the researchers to preserve each person's identity there is a small risk that you may be identified by your responses. Identifying information will be removed from transcripts. Names of participants will not be used or linked to respective contributions. The data will be used for research purposes only. If you consider your participation may cause concern, please feel free to decline from participation.

Confidentiality

Every effort will be made to maintain confidentiality of research data. Data obtained in interviews will be stored separately from details of information sources.

Feedback

The results of our study will be forwarded to you.

What if I have any questions?

If you have questions about the research or need to talk to the Chief Investigators or Student Investigator during or after your participation in the study, you can contact

John Williamson: John.Williamson@utas.edu.au Phone: 03) 63243339

Gary O'Donovan: Gary.ODonovan@utas.edu.au Phone: 03) 62262278

Emma Burgess: Emma.Burgess@utas.edu.au Phone: 0413 346 742

Ethics Committee Approval

This project has been approved by the Tasmanian Social Sciences Human Research Ethics Committee and complies with the laws of the State.

Should you have any concerns, questions or complaints with regard to the ethical conduct of this research, please contact the Executive Officer of the Human Research Ethics Committee (Tasmania) Network, on 6226 7479 or human.ethics@utas.edu.au

You will be given a copy of this Information Sheet to keep.

Thank you for your assistance.

Professor John Williamson
Chief Investigator,
Faculty of Education,
University of Tasmania.

Emma Burgess
Student Investigator,
Faculty of Education,
University of Tasmania.

Leadership practice for improved teacher quality in two improving Australian schools.

Item E4: Information Sheet: For Parents

What is the study about?

The research project is focused on identifying how successful school leadership, as it influences teacher quality for improved student learning outcomes and sustained school improvement is understood and enacted.

Specific aims include to:

1. Document the process by which successful school leadership leads school improvement (through a focus on improving teacher quality) over a period of five years within two improving schools
2. Identify the dimensions of successful school leadership that influence teacher quality
3. Identify specific interventions or actions successful school leadership adopt to improve teacher quality
4. Examine how differences in context impact how successful school leadership enacts interventions for improving teacher quality
5. Identify the features of leading professional learning as it most effectively brings change to teacher quality

The outcomes of the project are intended to be pragmatic, providing relevant, practical application for school based leaders and policy makers seeking sustained, widespread and significant school improvement.

The project extends to December 2012 and hopes to inform and promote both successful school leadership and teacher quality and generate several publications from the research.

Who is conducting the study?

Emma Burgess, a PhD candidate within the Faculty of Education, The University of Tasmania is undertaking this PhD project. As her supervisors, the chief investigators are:

Professor John Williamson, University of Tasmania – John.Williamson@utas.edu.au

Professor Gary O'Donovan, University of Tasmania- Gary.ODonovan@utas.edu.au

As the PhD candidate the Student Investigator is Mrs Emma Burgess, University of Tasmania- burgess@eftel.net.au; Emma.Burgess@utas.edu.au

The Faculty of Education at the University of Tasmania is undertaking the study in two Australian schools. The fieldwork will be performed by Mrs Emma Burgess, PhD candidate.

Why were you selected for participation?

We are hopeful that information gleaned from the study will be useful for improving Australian schools, and as a consequence, we need parents from improving schools that have influence. You are a parent within an improving school.

What does this study involve?

If you agree to participate you will be asked to:

- Participate in a case study with five other leaders, four parents and ten teachers in your school. You would be asked to contribute data through

- Participating in a group interview with four other parents. The interview will be approximately 45 to 60 minutes in duration. With your permission, the interview will be audio recorded and transcripts returned to you for checking before being added to the research data.

Are there any benefits or risks to be expected?

Your contributions will help us better understand the ways in which the concept of leadership practice for improved teacher quality is understood and enacted in Australian schools, what forms of leadership practice contribute significantly to teacher quality and improved student learning outcomes (both academic and social) and what are the implications for leadership practice. To elaborate further on the purpose or benefits of the study may compromise the integrity of the study or 'lead' you.

There is a very small risk that this study could reveal differences or affect relationships among or between participants. Because neither individuals nor schools will be identified, we believe this risk to be minimal. Every effort will be made to minimise this risk.

There is a small risk that you may feel some discomfort during interviews, where your personal values and beliefs may be challenged or you may feel under pressure. Every effort will be made to minimise this risk and you are able to contact the research team at any time to talk through these matters.

The purpose of this study is to examine how your school improved, not whether or not it is exemplary, however, there is a small risk that you may be motivated by a perceived need to portray your school as exemplary, which may lead to you feeling pressure. Be assured, at no time will leaders be informed of those teachers or parents who have or have not chosen to participate in any aspect of the research, so we believe every effort will be made to mitigate this risk. In addition, we will support you through opportunity to contact the research team and or providing opportunity to withdraw from any aspect, or all of the project at any time should you wish to do so.

How will the data be used, stored and treated once the study is over?

As mentioned earlier, data that you provide will be used to inform the project and assist the production of publications. All data will be stored in locked filing cabinets and password protected files at the Hobart Campus of University of Tasmania.

Once the study is complete data will remain in secure, locked cabinets and password protected files at the Hobart Campus of the University of Tasmania for five years. After five years all data will be destroyed, including hard copies shredded, computer files deleted and audio taped destroyed.

Participation is voluntary

To opt in, or opt out or withdraw at any time is your choice and your decision will be respected. No payments are involved. If you agree to participate in an interview, you will be asked to read and sign a Statement of Informed Consent before commencing the interview. The interviews will be recorded and transcripts will be returned to you for confirmation before being used in the study.

Anonymity

Whilst every effort will be made by the researchers to preserve each person's identity there is a small risk that you may be identified by your responses. Identifying information will be removed from transcripts. Names of participants will not be used or linked to respective contributions. The data will be used for research purposes only. If you consider your participation may cause concern, please feel free to decline from participation.

Confidentiality

Every effort will be made to maintain confidentiality of research data. Data obtained in interviews will be stored separately from details of information sources.

Feedback

The results of our study will be forwarded to you.

What if I have any questions?

If you have questions about the research or need to talk to the Chief Investigators or Student Investigator during or after your participation in the study, you can contact

John Williamson: John.Williamson@utas.edu.au Phone: 03) 63243339

Gary O'Donovan: Gary.ODonovan@utas.edu.au Phone: 03) 62262278

Emma Burgess: Emma.Burgess@utas.edu.au Phone: 0413 346 742

Ethics Committee Approval

This project has been approved by the Tasmanian Social Sciences Human Research Ethics Committee and complies with the laws of the State.

Should you have any concerns, questions or complaints with regard to the ethical conduct of this research, please contact the Executive Officer of the Human Research Ethics Committee (Tasmania) Network, on 6226 7479 or human.ethics@utas.edu.au

You will be given a copy of this Information Sheet to keep.

Thank you for your assistance.

Professor John Williamson
Chief Investigator,
Faculty of Education,
University of Tasmania.

Emma Burgess
Student Investigator,
Faculty of Education,
University of Tasmania.

Leadership practice for improved teacher quality in two improving Australian schools.

Item E5: Information Sheet: For Key Personnel

What is the study about?

The research project is focused on identifying how successful school leadership, as it influences teacher quality for improved student learning outcomes and sustained school improvement is understood and enacted.

Specific aims include to:

1. Document the process by which successful school leadership leads school improvement (through a focus on improving teacher quality) over a period of five years within two improving schools
2. Identify the dimensions of successful school leadership that influence teacher quality
3. Identify specific interventions or actions successful school leadership adopt to improve teacher quality
4. Examine how differences in context impact how successful school leadership enacts interventions for improving teacher quality
5. Identify the features of leading professional learning as it most effectively brings change to teacher quality

The outcomes of the project are intended to be pragmatic, providing relevant, practical application for school based leaders and policy makers seeking sustained, widespread and significant school improvement.

The project extends to December 2012 and hopes to inform and promote both successful school leadership and teacher quality and generate several publications from the research.

Who is conducting the study?

Emma Burgess, a PhD candidate within the Faculty of Education, The University of Tasmania is undertaking this PhD project. As her supervisors, the chief investigators are:

Professor John Williamson, University of Tasmania – John.Williamson@utas.edu.au

Professor Gary O'Donovan, University of Tasmania- Gary.ODonovan@utas.edu.au

As the PhD candidate, the Student Investigator is Mrs Emma Burgess, University of Tasmania- burgess@eftel.net.au; Emma.Burgess@utas.edu.au

The Faculty of Education at the University of Tasmania is undertaking the study in two Australian schools. The fieldwork will be performed by Mrs Emma Burgess, PhD candidate.

Why were you selected for participation?

We are hopeful that information gleaned from the study will be useful for improving Australian schools, and as a consequence, we need key personnel from improving schools that have influence. You are key personnel within an improving school.

What does this study involve?

If you agree to participate you will be asked to:

- Participate in a retrospective interview, chronicling and commenting on your experience of past interventions undertaken by leadership to improve teacher quality over the past 5 years.

Are there any benefits or risks to be expected?

Your contributions will help us better understand the ways in which the concept of leadership practice for improved teacher quality is understood and enacted in Australian schools, what forms of leadership practice contribute significantly to teacher quality and improved student learning outcomes (both academic and social) and what are the implications for leadership practice. To elaborate further on the purpose or benefits of the study may compromise the integrity of the study or 'lead' you.

There is a very small risk that this study could reveal differences or affect relationships among or between staff. Because neither individuals nor schools will be identified, we believe this risk to be minimal. Every effort will be made to minimise this risk.

There is a small risk that you may feel some discomfort during interviews or observations, where your personal values and beliefs may be challenged or you may feel under pressure. Every effort will be made to minimise this risk and you are able to contact the research team at any time to talk through these matters.

The purpose of this study is to examine how your school improved, not whether or not it is exemplary, however, there is a small risk that you may be motivated by a perceived need to portray your school as exemplary, which may lead to you feeling pressure. Be assured, at no time will leaders be informed of those teachers or staff who have or have not chosen to participate in any aspect of the research, so we believe every effort will be made to mitigate this risk. In addition, we will support you through opportunity to contact the research team and or providing opportunity to withdraw from any aspect, or all of the project at any time should you wish to do so.

How will the data be used, stored and treated once the study is over?

As mentioned earlier, data that you provide will be used to inform the project and assist the production of publications. All data will be stored in locked filing cabinets and password protected files at the Hobart Campus of University of Tasmania.

Once the study is complete data will remain in secure, locked cabinets and password protected files at the Hobart Campus of the University of Tasmania for five years. After five years all data will be destroyed, including hard copies shredded, computer files deleted and audio taped destroyed.

Participation is voluntary

To opt in, or opt out or withdraw at any time is your choice and your decision will be respected. No payments are involved. If you agree to participate in an interview, you will be asked to read and sign a Statement of Informed Consent before commencing the interview. The interviews will be recorded and transcripts will be returned to you for confirmation before being used in the study.

Anonymity

Whilst every effort will be made by the researchers to preserve each person's identity there is a small risk that you may be identified by your responses. Identifying information will be removed from transcripts. Names of participants will not be used or linked to respective contributions. The data will be used for research purposes only. If you consider your participation may cause concern, please feel free to decline from participation.

Confidentiality

Every effort will be made to maintain confidentiality of research data. Data obtained in interviews will be stored separately from details of information sources.

Feedback

The results of our study will be forwarded to you.

What if I have any questions?

If you have questions about the research or need to talk to the Chief Investigators or Student Investigator during or after your participation in the study, you can contact

John Williamson: John.Williamson@utas.edu.au Phone: 03) 63243339

Gary O'Donovan: Gary.ODonovan@utas.edu.au Phone: 03) 62262278

Emma Burgess: Emma.Burgess@utas.edu.au Phone: 0413 346 742

Ethics Committee Approval

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Should you have any concerns, questions or complaints with regard to the ethical conduct of this research, please contact the Executive Officer of the Human Research Ethics Committee (Tasmania) Network, on 6226 7479 or human.ethics@utas.edu.au

You will be given a copy of this Information Sheet to keep.

Thank you for your assistance.

Professor John Williamson
Chief Investigator,
Faculty of Education,
University of Tasmania.

Emma Burgess
Student Investigator,
Faculty of Education,
University of Tasmania.

Appendix F Contents: Consent Forms

Leadership practice for improved teacher quality in two improving Australian schools

Item F1: Statement of Informed Consent for Principals

The Faculty of Education at the University of Tasmania is undertaking a study entitled, 'Leadership practice for improved teacher quality: a case study focussing on how successful school leadership, as it influences teacher effectiveness is enacted and understood in two improving schools within Australia'.

I have read and understood the Information Sheet for this study.

1. The nature and possible effects of this study have been explained to me.
2. I understand that the study involves:
    a. interviews about how successful school leadership practice has influenced teacher effectiveness in my school,
    b. as well as my participation within the school

    I give my permission for the interviews to be audio-recorded.
3. I understand that the study involves;
    a. an observation of professional learning within the school and
    b. this observation includes descriptors of leadership practice.

    I give my permission for the professional learning activity to be audio-taped.
4. I understand that an aspect of this study involves;
    a. keeping a log of leadership practice for 4 weeks
5. I give my permission for the daily log to be used for data collection I understand that participation is voluntary, all responses will be anonymous, and every effort will be made to maintain confidentiality. I understand that there is a small risk that I may be identified by my responses, however every effort will be made to ensure no identifying factors are given.
6. I understand that participation involves potential risks that
    a. I may feel some discomfort during interviews or observations, where your personal values and beliefs may be challenged or you may feel under pressure. I understand that every effort will be made to mitigate this risk
    b. I may be motivated by a perceived need to portray your school and leadership as exemplary, which may lead to pressure on your staff and parents. I understand that every effort will be made to mitigate this risk.
    c. My participation could reveal differences or affect relationships among or between staff. I understand every effort is made to mitigate this risk.
7. I understand that no payment is involved.
8. Any questions that I have asked have been answered to my satisfaction.
9. All my data are for research purposes only
10. I agree that research data gathered for this study will be used for the project listed in the Information Sheet and may be published provided that I cannot be identified as a subject.
11. I understand that I have the right to see a draft of the transcript of my interview and can add and/or withdraw data from that transcript.
12. I agree to participate in this investigation and understand that I may withdraw at any time.

Name of subject: ……
Signature of Subject: ……. Date: ……..

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13. I have explained this project and implications of participation in it to this volunteer and I believe that the consent is informed and that she/he understands the implications of participation.

Name of field researcher: ……

Field Researcher's signature…….. Date ……

Leadership practice for improved teacher quality in two improving Australian schools

Item F2: Statement of Informed Consent for School Leaders

The Faculty of Education at the University of Tasmania is undertaking a study entitled, 'Leadership practice for improved teacher quality: a case study focussing on how successful school leadership, as it influences teacher effectiveness is enacted and understood in two improving schools within Australia'.

I have read and understood the Information Sheet for this study.

1. The nature and possible effects of this study have been explained to me.
2. I understand that the study involves:
    a. interviews about how successful school leadership practice has influenced teacher effectiveness in my school,
    b. as well as my participation within the school

    I give my permission for the interviews to be audio-recorded.
3. I understand that the study involves;
    a. an observation of professional learning within the school.

    I give my permission for the professional learning activity to be audio-taped.
4. I understand that an aspect of this study involves;
    a. keeping a log of leadership practice for 4 weeks

    I give my permission for the daily log to be used for data collection.
5. I understand that participation is voluntary, all responses will be anonymous, and every effort will be made to maintain confidentiality. I understand that there is a small risk that I may be identified by my responses.
6. I understand every effort will be made to ensure no identifying factors are given.
7. I understand that participation involves potential risks that
    a. I may feel some discomfort during interviews or observations, where my personal values and beliefs may be challenged or I may feel under pressure. I understand that every effort will be made to mitigate this risk
    b. I may be motivated by a perceived need to portray my school and leadership as exemplary, which may lead to pressure on my staff and parents. I understand that every effort will be made to mitigate this risk.
    c. My participation could reveal differences or affect relationships among or between staff. I understand every effort is made to mitigate this risk.
8. I understand that no payment is involved.
9. Any questions that I have asked have been answered to my satisfaction.
10. All my data are for research purposes only
11. I agree that research data gathered for this study will be used for the project listed in the Information Sheet and may be published provided that I cannot be identified as a subject.
12. I understand that I have the right to see a draft of the transcript of my interview and can add and/or withdraw data from that transcript.
13. I agree to participate in this investigation and understand that I may withdraw at any time.

Name of subject: ……

Signature of Subject: ……. Date: ……..

---

14. I have explained this project and implications of participation in it to this volunteer and I believe that the consent is informed and that she/he understands the implications of participation.

Name of field researcher: ……

Field Researcher's signature …….. Date ……

Leadership practice for improved teacher quality in two improving Australian schools

Item F3: Statement of Informed Consent for Teachers

The Faculty of Education at the University of Tasmania is undertaking a study entitled, 'Leadership practice for improved teacher quality: a case study focussing on how successful school leadership, as it influences teacher effectiveness is enacted and understood in two improving schools within Australia'.

I have read and understood the Information Sheet for this study.

1. The nature and possible effects of this study have been explained to me.
2. I understand that the study involves:
    a. interviews about how successful school leadership practice has influenced teacher effectiveness in my school,
    b. as well as my participation within the school

    I give my permission for the interviews to be audio-recorded.
3. I understand that the study involves;
    a. an observation of professional learning within the school in which I am a participant

    I give my permission for the professional learning to be audio-taped.
4. I understand that an aspect of this study involves:
    a. keeping a journal of my improvements in teacher practice for 4 weeks

    I give permission for the journal to be used for data collection
5. I understand that participation is voluntary, all responses will be anonymous, and every effort will be made to maintain confidentiality. I understand that there is a small risk that I may be identified by my responses.
6. I understand every effort will be made to ensure no identifying factors are given.
7. I understand that participation involves potential risks that
    a. I may feel some discomfort during interviews or observations, where my personal values and beliefs may be challenged or I may feel under pressure. I understand that every effort will be made to mitigate this risk
    b. I may be motivated by a perceived need to portray my school and leadership as exemplary, which may lead to pressure on me. I understand that every effort will be made to mitigate this risk.
    c. My participation could reveal differences or affect relationships among or between staff. I understand every effort is made to mitigate this risk.
8. I understand that no payment is involved.
9. Any questions that I have asked have been answered to my satisfaction.
10. All my data are for research purposes only
11. I agree that research data gathered for this study will be used for the project listed in the Information Sheet and may be published provided that I cannot be identified as a subject.
12. I understand that I have the right to see a draft of the transcript of my interview and can add and/or withdraw data from that transcript.
13. I agree to participate in this investigation and understand that I may withdraw at any time without prejudice.

Name of subject: ……

Signature of Subject: ……. Date: ……..

---

14. I have explained this project and implications of participation in it to this volunteer and I believe that the consent is informed and that she/he understands the implications of participation.

Name of field researcher: ……

Field Researcher's signature …….. Date ……

Leadership practice for improved teacher quality in two improving Australian schools

Item F4: Statement of Informed Consent for Parents

The Faculty of Education at the University of Tasmania is undertaking a study entitled, 'Leadership practice for improved teacher quality: a case study focussing on how successful school leadership, as it influences teacher effectiveness is enacted and understood in two improving schools within Australia'. The purpose is to extend current understandings of successful school leadership to the field of teacher effectiveness, examining how leadership influences teaching conceptions and practices for improved student learning outcomes.

I have read and understood the Information Sheet for this study.

1. The nature and possible effects of this study have been explained to me.
2. I understand that the study involves:
    a. interviews about how successful school leadership practice has influenced teacher effectiveness in my school,
    b. as well as my participation within the school

    I give my permission for the interviews to be audio-recorded.
3. I understand that participation is voluntary, all responses will be anonymous, and every effort will be made to maintain confidentiality. I understand that there is a small risk that I may be identified by my responses.
4. I understand every effort will be made to ensure no identifying factors are given.
5. I understand that participation involves potential personal risks that
    a. I may feel some discomfort during interviews or observations, where my personal values and beliefs may be challenged or I may feel under pressure. I understand that every effort will be made to mitigate this risk
    b. I may be motivated by a perceived need to portray my school as exemplary, which may lead to pressure on me. I understand that every effort will be made to mitigate this risk.
    c. My participation could reveal differences or affect relationships among or between staff. I understand every effort is made to mitigate this risk.
6. I understand that no payment is involved.
7. Any questions that I have asked have been answered to my satisfaction.
8. All my data are for research purposes only
9. I agree that research data gathered for this study will be used for the project listed in the Information Sheet and may be published provided that I cannot be identified as a subject.
10. I understand that I have the right to see a draft of the transcript of my interview and can add and/or withdraw data from that transcript.
11. I agree to participate in this investigation and understand that I may withdraw at any time.

Name of subject: ……

Signature of Subject: ……. Date: ……..

---

12. I have explained this project and implications of participation in it to this volunteer and I believe that the consent is informed and that she/he understands the implications of participation.

Name of field researcher: ……

Field Researcher's signature …….. Date ……

Leadership practice for improved teacher quality in two improving Australian schools

Item F5: Statement of Informed Consent for Key Personnel

The Faculty of Education at the University of Tasmania is undertaking a study entitled, 'Leadership practice for improved teacher quality: a case study focussing on how successful school leadership, as it influences teacher effectiveness is enacted and understood in two improving schools within Australia'. The purpose is to extend current understandings of successful school leadership to the field of teacher effectiveness, examining how leadership influences teaching conceptions and practices for improved student learning outcomes.

I have read and understood the Information Sheet for this study.

1. The nature and possible effects of this study have been explained to me.
2. I understand that the study involves:
    a. an interview about how successful school leadership practice has influenced teacher quality in my school,
    b. as well as my participation within the school

    I give my permission for the interview to be audio-recorded.
3. I understand that participation is voluntary, all responses will be anonymous, and every effort will be made to maintain confidentiality. I understand that there is a small risk that I may be identified by my responses.
4. I understand every effort will be made to ensure no identifying factors are given.
5. I understand that participation involves potential risks that
    a. I may feel some discomfort during interviews or observations, where my personal values and beliefs may be challenged or I may feel under pressure. I understand that every effort will be made to mitigate this risk
    b. I may be motivated by a perceived need to portray my school and leadership as exemplary, which may lead to pressure on me. I understand that every effort will be made to mitigate this risk.
    c. My participation could reveal differences or affect relationships among or between staff. I understand every effort is made to mitigate this risk.
6. I understand that no payment is involved.
7. Any questions that I have asked have been answered to my satisfaction.
8. All my data are for research purposes only
9. I agree that research data gathered for this study will be used for the project listed in the Information Sheet and may be published provided that I cannot be identified as a subject.
10. I understand that I have the right to see a draft of the transcript of my interview and can add and/or withdraw data from that transcript.
11. I agree to participate in this investigation and understand that I may withdraw at any time .

Name of subject: ……

Signature of Subject: ……. Date: ……..

---

12. I have explained this project and implications of participation in it to this volunteer and I believe that the consent is informed and that she/he understands the implications of participation.

Name of field researcher: ……

Field Researcher's signature …….. Date ……

Appendix G Contents: Participating Schools and Participants

Item G1: Participating Schools

School A	School B
Queensland, Australia	**Tasmania, Australia**
There were 1708 schools in Queensland at the time of data collection, with 421 independent schools (Queensland Treasury, 2012). Education was administered by the state department, Education Queensland with Independent and Catholic Education systems accountable to their own governing bodies. The Independent Education System in Queensland comprised 282 Catholic schools and 172 Independent schools. The majority of private schools are in Brisbane, with 9 independent boys' schools, 11 independent girls' schools and 19 Catholic girls' schools throughout Brisbane and Queensland. The remainder of independent schools are co-educational.	There were 283 schools in Tasmania, with 69 independent schools and 204 state schools. Of these state schools, 138 are primary schools, 58 high (7-10) schools and 8 secondary colleges (Years 11 and 12) and other schools include special education services. 2012 saw a change in organisational structure where schools were supported by three Learning Services (South, North and North West). The Learning Services consist of networks of schools of approximately 20 schools, each supported by Network Leaders. The curriculum, assessment and pedagogy were prescribed by the Tasmanian Department of Education, along with National Curriculum documents.
Description of School	**Description of School**
School A was an independent secondary school in Queensland with over 1100 students ranging from Grade 8-12. Governance in School A was through an Independent Board of community and parent members. Whilst the school was bound by National Curricula, Year 12 examinations and NAPLAN testing, it did have relative flexibility in its curriculum, teaching pedagogy, structure and assessment of student learning. In 2008 Principal 1 was recognised by AITSL with a Highly Commended, Excellence by a Principal award. The award for innovative school development stated: An increase in academic results was evident as Year 12 cohort moved from the top 10 performers in the state to consistently being in the top 5 within Queensland for ATAR results. External reviews occurred every four years where the school was benchmarked as the top organisation (amongst universities, corporate companies and other schools) for morale, culture, academic deliverables and the strategic design.	School B was a state based secondary school in Tasmania with over 800 students. Students ranged from Grades 7-10. Governance was through a state based education system with a state based curriculum, Essential Learnings. At the time of data collection the school was transitioning into using the National Curriculum in four key learning areas including English, Mathematics, Science and History. The team of successful school leaders comprised a Principal (male), three Assistant Principals, Heads of Department and Advanced Skills Teachers. The structure was set by the Tasmanian Department of Education. Prior to data collection the former Principal (now Network Leader) had led the school through a significant period of school improvement over five years. The former Principal was recognised by AITSL as an outstanding leader and was the recipient of the Australian Secondary Principal of the Year for 2011. The Principal at the time of data collection had been recognised by his peers and leaders, being offered various departmental roles and promotions

Item G2: Participant Details and Pseudonyms.

School A				
Name	**Age**	**Gender**	**Number of Years at School**	**Number of Years Teaching**
Principal 1	50	Female	11	30+
School Leader 1	Mid 50	Female	23	31
School Leader 2	38	Female	9	17
School Leader 3	39	Female	4	18
School Leader 4	40	Male	2	19
School Leader 5	60+	Female	33	40
Teacher 1	37	Female	10	10
Teacher 2	34	Female	2	9
Teacher 3	41	Female	7	20
Teacher 4	39	Male	13	13
Teacher 5	53	Female	11	30
Teacher 6	40	Female	19	19
Teacher 7	39	Female	7	15
Key Personnel 1	55+	Male	11	29 (working)
Key Personnel 2	59	Female	11	35 (working)
Parent 1	46	Female	2	Not teaching personnel
Parent 2	41	Female	10	
Parent 3	50	Female	3	
Parent 4	36	Female	9	
Parent 5	42	Female	4	
School B				
Name	**Age**	**Gender**	**Number of Years at School**	**Number of Years Teaching**
Principal 2	50+	Male	6 months	22
School Leader 6	57	Female	3	35
School Leader 7	56	Female	12	30+
Teacher 8	41	Male	8	18
Teacher 9	55+	Male	5	25
Teacher 10	39	Female	8	19
Teacher 11	28	Female	2	7
Teacher 12	56	Male	6	25
Parent 6	56	Male	4	None
Key Personnel 3	55+	Male	5 (Former principal)	30+

Appendix H Contents: Guiding Interview Questions

Leadership practice for improved teacher quality in two improving Australian schools.

Item H1: Guiding Topics for Stage 1: Principal, School Leader, Teacher, Parent and Key Personnel Interviewees

I will be using a semi-structured interview schedule, and will ask interviewees to give examples from within the school context to illustrate their comments. Depending on the group (i.e. principal, school leaders, teachers, parents or key personnel), I will ask questions about some or all of the following topics:

- Perceptions of teacher quality or effectiveness and its importance.
- Perceptions of how teacher quality is enacted (detailed examples will be sought).
- Perceptions of successful school leadership within the school.
- Perceptions of how leadership for improved teacher quality is enacted within the school.
- The priority given to school improvement within the school.
- The factors that facilitate achievement of teacher quality within the school.
- The factors that act as constraints on teacher quality.
- Other comments about leadership for improved teacher quality within the context of the school.

Leadership practices for improved teacher quality in two improving Australian schools.

Item H2: Interview Questions for Stage 1: Principals and School Leaders

Interviews will last approximately 45-60 minutes each. More than one interview (and up to three) will be scheduled should it be necessary to cover all areas.

- Can you tell me a bit about yourself?
- Why did you want to be an educational leader?
- Can you reconstruct the pathway that brought you to this school?
- How would you describe the ethos or philosophy of the school?
- What is your personal vision for the school?
- What are you planning over the next few years?
- How would you describe what makes this school successful? In what specific ways is it successful? What criteria do you use to measure its success?
- What do you believe is the most important factor in your success?
- What do you believe is the key to improving your school (including nature, timing and purpose)?
- How do you perceive teacher quality?
- How do you measure teacher quality?
- Can you describe a situation, a complex issue or challenge related to improved teacher quality, which you handled well?
- Identify challenges facing the school and your leadership.
- How would you describe the way you lead the teachers- school community- in dealing with these challenges?
- How do you know you are doing a good job?
- What leadership strategies have worked well for you?
- Which leadership strategies do you think are less effective?
- Can you describe a difficult challenge or issue you would have like to have handled differently?
- What non-professional sources of support and encouragement do you use in doing your job?

Adapted from interview questions (Gurr et al., 2003; Mourshed et al., 2010).

Leadership practices for improved teacher quality in two improving Australian schools.

Item H3: Interview Questions for Stage 1: For Teachers

Interviews will last approximately 45-60 minutes each. More than one interview (up to three) will be scheduled should it be necessary to cover all areas.

- Can you tell me a bit about yourself?
- Why did you want to be a teacher?
- Can you reconstruct the pathway that brought you to this school?
- Why do you teach?
- How would you describe your philosophy of teaching?
- Can you explain your approach to pedagogy, assessment and curriculum?
- What does teacher quality mean to you?
- What is your personal vision for the school? For your classroom? For your students?
- What factors have the greatest impact on student learning?
- Describe your professional development opportunities
- Which opportunities have worked best for you?
- What are you planning over the next few years to improve?
- How do you know you are doing a good job?
- How do you see your role as teacher in this school?
- What would you tell a new teacher about the school?
- What is it like to work here?
- What would you tell a new teacher about the leadership?
- How do you feel leadership has helped you improve your teaching?
- What was helpful in supporting your improvement?
- What leadership strategies have worked well for you?
- Which leadership strategies do you think are less effective?

Adapted from interview questions (Louis et al., 2010).

Leadership practices for improved teacher quality in two improving Australian schools.

Item H4: Interview Questions for Stage 1: For Parents

- Can you tell me a bit about yourself?
- Why did you choose this school for your child/ children?
- How would you describe the ethos or philosophy of the school?
- What is your personal vision for the school?
- Identify challenges facing the school and the leadership.
- How would you describe the way the school is led?
- How do you see the role of leader in this school?
- How would you describe the teaching quality?
- What is your understanding of teacher quality?
- Do you think the school has improved? Why?
- What factors do you think have had the greatest impact on improvement?
- What would you say to a new parent considering this school?
    - What are the strengths of the school?
    - What is the teaching like?
    - What are the leaders like?
    - How can parents and the community become involved?

Leadership practice for improved teacher quality in two improving Australian schools.

Item H5: Guiding Topics for Retrospective Data: Key Personnel Interviews

I will be using a semi structured interview schedule and will ask Key Personnel (principals, school leaders, teachers, parents and key personnel) for retrospective data on successful school leadership as it influenced teacher quality within two improving schools over the past five years of improvement.

During the interview the key personnel will be asked to

- chronicle their perceptions and experience of main interventions for leadership improving teacher quality in a granular manner, specifying
    - intervention type (resource, process or structural),
    - action,
    - resource,
    - time frame,
    - change management strategy
    - evidence of success during the five year period of improvement.

- Give perceptions of how the intervention was enacted
- Perceptions of how they experienced the intervention
- Perceptions of the value of the intervention for improving teacher quality

Appendix I Contents: Observation Schedule

Leadership practice for improved teacher quality in two improving Australian schools.

Item I1: Observation Construct for Successful School Leadership for Improved Teacher Quality-based on Robinson et al (2008) five dimensions of leadership practice for improved student learning outcomes.

Observation instruments will follow:

1. Focus statement (successful school leadership observation schedule) or question (leader observation schedule)

2. Brief description of how to recognise high or low measure of the practice being rated

3. A five item descriptor of practice, i.e., 1 very poor, 2 weak, 3 average, 4 good and 5 excellent

Leadership Practice Observation Scoring Manual. (Robinson et al., 2008)

Dimensions	1	2	3	4	5	Descriptor of practice
Establishing goals and expectations						No goals established 1….to…5 Goals established
Strategic resourcing						No alignment to teaching goals 1…to …5 Alignment of resource to priority teaching goals
Planning, coordinating and evaluating teaching and the curriculum						No direct involvement or oversight of teaching 1…to …5 Direct involvement in the support and evaluation of teaching
Promoting and participating in teacher learning and development						No promotion or direct involvement in teacher learning 1…to …5 Promotes and has direct involvement in teacher learning
Ensuring an orderly and supportive environment						No protection of time for teaching and learning, not establishing orderly and supportive environment 1…to …5 protects teaching and learning time, establishes orderly and supportive environment

Appendix J Contents: Data Sources

Item J1: Summary of Interview Data Sources

Participant	Interview	Date
School A		
Principal 1	Interview 1	11 September, 2012
	Interview 2	12 September, 2012
	Interview3	14 September, 2012
School Leader 1	Interview 1	13 September, 2012
School Leader 2	Interview 1	11 September, 2012
School Leader 3	Interview 1	12 September, 2012
School Leader 4	Interview 1	12 September, 2012
School Leader 5	Interview 1	11 September, 2012
Teacher 1	Interview 1	14 September, 2012
Teacher 2	Interview 1	10 September, 2012
Teacher 3	Interview 1	10 September, 2012
Teacher 4	Interview 1	14 September, 2012
Teacher 5	Interview 1	13 September, 2012
Teacher 6	Interview 1	12 September, 2012
Teacher 7	Interview 1	12 September, 2012
Key Personnel 1	Interview 1	13 September, 2012
Key Personnel 2	Interview 2	13 September, 2012
Parent 1 and Parent 2	Focus group interview 1	10 September, 2012
Parent 3, Parent 4 and Parent 5	Focus group interview 1	11 September, 2012
School B		
Principal 2	Interview 1	14 August, 2012
	Interview 2	27 August, 2012
School Leader 6	Interview 1	14 August, 2012
	Interview 2	16 August, 2012
School leader 7	Interview 1	22 August, 2012
Teacher 8	Interview 1	21 August, 2012
Teacher 9	Interview 1	21 August, 2012
Teacher 10	Interview 1	6 September, 2012
Teacher 11	Interview 1	4 September, 2012
Teacher 12	Interview 1	22 August, 2012
Parent 6	Interview 1	21 August, 2012
Key Personnel 3	Interview 1	17 August, 2012

Item J2: Summary of Observation Data

	Record	Date
School A		
Staff Meeting	1. Anecdotal	10 September, 2012
School B		
Professional Learning Collaborative Inquiry Teams	2. Anecdotal	Monday 13 August, 2012
Professional Learning Collaborative Inquiry Teams	3. Anecdotal	Monday 20 August, 2012
Professional Learning Collaborative Inquiry Teams	4. Anecdotal	Monday 27 August, 2012

Item J3: Summary of Documentary Evidence, School A

Name	Document	Date
School Review		
School Leaders	1. Annual Review	2009
	2. Annual Review	2011
	3. Annual Review	2010
Articles		
Principal 1	4. The Australian, Quality Teaching	27 August, 2011
School	5. EOWA, School A, Equal Opportunity Programs award	2011
School Leader 5	6. Courier Mail, Article about Centre for Professional Practice	Monday June, 2009
School	7. Courier Mail, Article about Philosophy Café	Tuesday 26 May, 2009
Principal 1	8. The Australian, Funding Futures	Thursday 22 February, 2012
Teacher 4	9. Article ICT	2012
Chair of Board	10. Strategic Design	2011
Key Personnel 1	11. Article, rediscovering learning space	2012
School Leader 3	12. Article international learning spaces	2011
School Leader 4	13. Article, reflecting on learning	2012
School Leader 4	14. Article, school publication, philosophy of teaching	2012
Presentation		
Principal 1	15. Presentation, Rewarding issues and opportunities	2011
Other		
Teacher 2	Professional Learning Record	2012

Item J4: Summary of Documentary Evidence, School B

Name	Document	Date
School Improvement Documents		
School Leaders	1. Evidence Based Improvement	2011
	2. Meetings Schedule	2011
	3. Professional Learning Focus	Term 2, 2011
	4. School Improvement Plan	2009
	5. School B, The Whole Journey	
Articles		
Key Personnel 3	6. Social Capital- presentation slides	2012
Key Personnel 3	7. Conference Paper, School Improvement, Strategic and Cultural Alignment	2008
Key Personnel 3	8. Paper, School Improvement, The Role of Strategic Action Teams	July, 2009
Key Personnel 3	9. Paper, Social Capital, A Key Driver of School Improvement	2012
Principal 2	10. Article, Tasmanian newspaper, innovative practice	2012
Presentations		
Key Personnel 3	11. Dialogue with Key Personnel 3 and Michael Fullan	2012
Key Personnel 3	12. You tube, New ways of learning at School B	2009
Collaborative Inquiry Team Documents		
Teacher 8	13. Journal entry	2010-2011
Key Personnel 3	14. Blog entry	2012
School Leaders	15. Curriculum Brochure	2011
School Leaders	16. School Prospectus	2012
Whole Staff	17. School Improvement review and planning	2012

Item J5: Detailed Summary of Data Sources

School A			
Method	**Participant**	**Number**	**Documentation**
Interview	Principal	3	3 X interviews with Principal, 45-60 minutes
	School Leaders	4	1 interview each, 45-60 minutes
	Teachers	8	1 interview each, 45-60 minutes
	Key Personnel	2	1 interview each, 45-60 minutes
	Parents	2	2 focus group interviews, 45-60 minutes
Observation	All staff	1	Field notes, researcher journal
Documents	Staff, parents (past and present), leaders (Board and school), Principal.	1	External survey
	Staff, Principal, School Leaders	8	Papers
	Principal	1	Conference transcripts from You Tube
	Staff and Principal	5	Newspaper articles
Archival records	All staff	1	Staff Appraisal Documents
	All staff	4	Annual Reviews
Physical Artefacts	All staff	Several	Field notes and observations
School B			
Method	**Participant**	**Number**	**Documentation**
Interview	Principal	3	3 X interviews with Principal, 45-60 minutes
	School Leaders	3	1 interview each, 45-60 minutes
	Teachers	5	1 interview each, 45-60 minutes
	Key Personnel (Former Principal)	1	1 interview each, 45-60 minutes
	Parent	1	1 interview each, 45-60 minutes
Observations	Principal, School Leaders and Staff	3	3 X Professional Learning Meetings Field notes, researcher journal
Documents	Principal, school leaders, teachers, staff, parents	1	External survey
	Principal, Teachers	5	Papers
	Key Personnel (Former Principal)	4	Presentations You Tube
	All staff	1	Current School Improvement Documentation
Archival records	All staff	5	School Improvement Documentation
	All staff	2	Prospectus
Physical artefacts	All staff	Several	Field notes

Appendix K Contents: Two Transcripts

Item K1: Successful School Leadership Influence on Quality Teaching: Example of Appraisal System

School A

I, No. 1, School A, Principal 1, 50, F, 11 September, 2012

Transcript 1	Code
It came out of appraisals years ago where I inherited a system and it was so boring.	
I thought, when did you last do some writing and you had to put out there and have it in open forum and of course none of them had had they, since they handed an essay in at university?	(1) Challenge- expectation for continual improvement
So I slowly implemented and I hated writing the newsletter every week. So I thought we are not doing this anymore, we are supposed to be good role models, we are supposed to be educational leaders, I'll start with the exec staff and they going to write a referenced article on some topic, and the next year I thought, this is fun, only have to do this here and here and I extended it to the Directors of Middle Management, so everyone had to write one article.	(2) New initiative for improved professionalism and quality teaching **2004**
Well, they got competitive didn't they. First up you got a really mixed bag, but it was going to every parent, I'd put it in the newsletter and what happened some parents would email the staff and say I loved reading your article on whatever.. got quite competitive about this and they now start planning their article well before and if they go to a conference they are looking for ideas to underpin their next article.	**2005** (3) Professional investment in individual capacity
Alongside that, because I was so bored with the appraisals, I got Middle Management, Directors and Heads of House to do presentations each year on anything, I didn't really care, topic of their choice that was relevant to what they were doing, open ended, but the research had to be post, then 2000, now it has to be post 2005. So they had to have some recent references, they had to stand up and present to the two deputies and I at that point.	(4) New initiative for improved professionalism and quality teaching **2004**
Then I picked the best six to run at a staff day at the beginning of the following year and the first year we had one or two crackers which tended to be from the younger ones and some woeful ones, some absolute woeful ones. They were nervous, they were underprepared, they didn't think about their topic… Once we put a couple up in front of everyone that was good or pretty good, well, it was on**.** And that then, I just had to sit back.	(5) Professional investment in social capacity **2006**

It created this culture of they hate doing them, they whinge and whine, but when they see them in print, have you seen them in print (goes to get the book of Insights), when they see them in print, they now have actually valued, and the appraisal were all. But we print them now, so we actually now print their articles.	(6) Culture **2007**
That's what they are, so you can get them on the website, but them we put them in a book and we send it to all the universities, all the vice chancellors around the countries, overseas, the colleges and of course, all the letters.	(7) Professional investment in social capacity **2008**
And what's happening from that then for them, is people from conferences say, we read an article that you wrote on this, would you come and do a workshop for us on this, so that's why I think the professionalism of the staff. They actually believe now, they are far more confident and believe now because of this and what's happening is I think probably close to a third of the staff have done a higher degree now, we've had more staff apply for promotional positions, because they've got more confidence, the women presenting, we've got five I think currently doing their doctorates. It's a confidence thing. I just gave a two hour workshop, paper in Adelaide for AIS on staff professionalism and I talked about the importance of scholarship and that when you leave a university you shouldn't leave behind researching and writing and presenting, that it should be integral to what you are doing and the kids know, the kids get the newsletters, the kids see it. It's a very long winded way of trying to explain why I can demonstrate, there would be no other staff in this country that could demonstrate (the improvement in professionalism), that could do that at this point in time.	(8) Professional investment in individual and decisional capacity (9) Professional investment in individual capacity (10) Professional investment in decisional capacity (11) Perceived improvement in professionalism and quality teaching
Well that's the flow on, because what happens now they just don't go to a conference and sit there like a sponge, they go to the conference and think, if I get an idea for my insight or presentation. So we've got presentations on the narcissism of organizations and applying narcissistic theory to faculties and what to avoid; we've had perfectionism; great one this morning on the brain, neuroscience, music and teaching; some just wonderful, those professional review topics, where we get an essay,	(12) Perceived changes in teacher professionalism (13) Professional investment in innovative capacity

power point and presentation, of course that's influencing their classroom because they are going away and thinking about their programs and they share the information, everyone has access to it.	(14) Perceived improvement in professionalism and quality teaching
Yes, they know that if they are selected, I select between six and eight and I don't always select the best, I select a variety, so young, old, male, female, Academic Director, Head of House. I mix it up, consult with the Deputy as to which ones we think, we put it together and package it. The staff loves it, when they know and they are madly taking notes. They also know they can go to the library and borrow the disk that has everybody on it, I don't mind lending you a disk that has everybody to look at overnight, so you can see the topics they are using that are different and they are learning to write differently for different contexts, which is what we teach kids. But you go into a school and see if staff can do it.	(15) Professional investment in individual and social capacity
I know that they stress about it, about what they are doing, but I also know they are proud; the younger ones in particular will say that it's helped them think about their career paths. It's helped them in their own professional confidence. What models will you get where the parents will write in the comment bank? I tweet their articles and we get feedback on it and if we get feedback on the tweet I forward it to the relevant staff member, so there's a feedback mechanism where they are getting feedback not just from peers, but from parents and from the board and from the general public and I actually think that the kids, particularly some of the older ones say to some of the staff, interesting articles, Ms Jones, we liked X. I know it's a hard thing to measure...In the peer context and I know when we had (an academic) in here for a year as she was a futurist in residence and, she spent a year here… we paid for her to come… Her views as a university academic of years seeing the enthusiastic uptake of the majority of staff of things that were offered to them: leadership seminars here, we got a lot of staff here, get guest speakers in, and I don't think it's a big thing, one article a year, and one presentation for middle management every second year.	(16) Professional investment in decisional capacity (17) Perceived reports of improved professionalism and quality teaching **2011**
But I spend a lot of time giving feedback. I don't think they would say that I'm asking them to do things that I	(18) Review

don't expect of myself, the things we talked about yesterday. I do talk to my staff, in the early years I was criticised… But I come back to, if the staff are in the palm of my hand so to speak, professionally then what's going on in the classrooms and the student care for those girls, I know, I know from what, the attitude and the culture of the staffrooms and the teachers I know it's the best.	(19) Culture
… I noticed that the articles are getting very formulaic feel to them, the way they write them, not all of them, but I would be able to pick a School A article now, it's almost, you rail against group think. At the beginning it was a bit motley and uneven and then you hit, it's the old s curve, you know, you hit the best and then you've got to do something to kick it the next bit… They're starting to get a really unhealthy formula about how they do this, not in the content but in the actual delivery. So I thought right o, if I was staying I was going to say, well, you can have a short blog, but then I want a 3 minute you tube clip and you can either be the talking head or you film in, you interview some kids or you do whatever but I want a three minute mini ted x thing that goes with a much shorter block, so that you are using the multi-media thing… That's where I was at next. So I guess they know that I won't let them stagnate as much as I won't let the girls or myself stagnate.	(20) Review of initiative and innovation for improved professionalism and quality teaching (21) New initiative for improved professionalism and quality teaching (22) New initiative with stated purpose to not let quality teaching or professionalism stagnate

Item K2: Successful School Leadership Influence on Quality Teaching: Example of Strategic Action Teams

School B

I, No. 1, School B, Key Personnel 3 (former Principal), 55+, M, 17 August, 2012

Transcript	Code
I left and then went back as Principal in 2007 I think. I suppose the staggering thing when I went back was the school was a bit like it was in time warp because even though it had been 12 or 14 years since I had been there, that in lots of ways I felt the school had gone backwards. Well, it hadn't gone backwards but it certainly hadn't gone forwards…	**2007**
It certainly wasn't what I thought reflecting what 21st century learning should look like… made you think a bit about what was going on in this school that had every single advantage but wasn't using those advantages to improve the quality of student learning outcomes or anything. Not just to improve them, but to change them I think, so it probably was a school stuck in a time warp in a sense.	(1) Expectation for continual improvement and change
And my vision had been for a long time… that schools needed to transform themselves, otherwise they just become irrelevant.	(2) Pursuit of new initiatives and transformation
But was the school doing any value adding? I think that's a real question and it probably wasn't…	
But these were middle class kids and quite tolerant and complacent but in saying that, they were also I suppose, I don't know, you could get the feeling that school was quite irrelevant to them in a lot of ways, like there were really good, there were some pockets of really good practice, there's no doubt about it, so there were some pockets of really good practice and the kids were doing some things that they really enjoyed, but as, on the whole I think the school	
So I think it had a whole stack of stuff around, some indicators that there was potential to do something fundamentally pretty special with the school if you could actually motivate the staff to change.	(3) Pursuit of new initiatives and transformation
So, when I first went there, like I went mid-way through a year about June, or beginning of second term I think. But when I went in there I said I wanted to just, I've got nine months really just to sit and look at the place but by the	**2007** (4) Challenge: expectation for improvement and

time I'd been there three weeks I couldn't tolerate it anymore. It was really that sort of, if I hadn't been there before then it would have been OK, but because I'd been there before and I could just say, well this, I knew more about the school probably than most of the staff there, although they had been there ten years now, so most of these staff had been there for longs periods of time, but most of them had been there after I had been there before. My difficulty I was there I suppose, that I know that in the previous five or six years we had worked pretty intensively around restructuring secondary schools about you know, changing timetables and bringing on board all the research about the latest brain research around learning and what it looks like in classrooms and the length of time that kids need to do it and whole range of stuff and none of that was there. They still had an 8 times 30 minute period day, all that kind of stuff and I had come from a school where it had three 110 minute periods um knew how successful that was.	innovation
So, trying to accelerate what I knew was going to work, but with a very conservative staff was quite difficult really. So, after I'd been there a couple of months I said we are going to do something about this. We started with the timetable. Really fundamentally about, first of all about the length of periods about what that looked like in the school and some other stuff around block scheduling and things around taking notice some of the research which was talking at that time, that highly fragmented learning delivery where kids might only see a teacher twice and week and if they have a holiday it might be twice in three weeks or twice in four weeks. It wasn't promoting good learning. So we constructed, well, I constructed a timetable where which wasn't unique here, it's been used.. and a few other places around block scheduling where you kids basically, you build your timetable around semesters. And we took on board some of the stuff from Ted Sizer in America where he talked about, that no human being can know more than 75 people at a time, which in a school is about 3 classes. The minute you push it beyond about three classes then you start to lose all that personal knowledge of people. I don't know how definitive the 75 is, but that's what he says that comes from, how many people you can keep in your head at one time, where at that particular time its I know things like foreign language teachers could see about 400 kids in a week. So the question is, Are they actually teaching kids or are they just delivering stuff?	**2007-08** (5) New initiative- change in timetable **2008**

So we constructed this timetable and we decided we were going to do it in 2008 which was the next year and we talked about all the research behind it and in the end, what we had was, on the surface we had people really agreeing it was a really good idea but we had some people in the background that didn't actually say anything who were quite opposed to it because we said things like, that if you are a part time teacher then you've got to teach in tandem with somebody else in a full time load, that we are not going to have you here 2 days a week because we are not going to write a timetable around your practice so if you want to be .6 that might mean you are going to have to be here every day. So we are going to build a timetable around students not around teachers. So although everybody agreed and knew how difficult it was for part timers when they only wanted to come in 2 days a week and you had to structure the whole timetable around getting the kids to them on those two days, although on the surface the said it's a really good idea, when it came to individual impact on those people then they were pretty anti it as you can imagine they probably were. So they didn't say anything in the meetings but what they did was they bubbled and worked away in the background to stop it happening. To the stage where that noise I suppose came to the stage where we weren't sure as a senior staff how many people were actually in favour and how many people weren't. So we decided to have a vote and the vote was 29 in favour and 28 against. So we said it wasn't clear enough majority to do that, so we decided not to do it, to postpone it, we didn't say we wouldn't do it. So the vote was, do we postpone this for a year to give us a chance to work through all the issues. So that's what we decided to do.	(6) Culture (7) Culture (8) Culture
So then we needed to find a way to progress this so we could actually counter the negativity. It wasn't necessarily that they were negative, it was lack of understanding and it was a lack of, in schools you can have a whole culture and climate which is tacit rather than real, so people think they understand what people think and what they want to do, but because people never asked, or you never get a way to get that information then you get the same situation we had is, because people are really reluctant to say in front of a public audience what they really think deep down, or whether you challenge their fundamental belief systems then until you actually get to the bottom where you are actually going to do it, then all of a sudden that stuff comes	(9) Culture

out. And it's not aggressive or anything else it's just a reluctance to participate, so they withdraw their services more than anything else. So I employed a management, an educational consultancy company which had just been set up in Tasmania, X was an ex-assistant principal from H College in Melbourne and his partner in the business had just done her PhD with Brian Caldwell actually around educational change and school improvement. So they set up this business to work with schools around a balanced score card approach to school improvement. So I employed them to actually run an audit I suppose across the school and to, and it was a data audit about what people fundamentally thought about the school so they interviewed every single staff member for an hour, right down to the grounds men, every single person that worked in the school, it was 120 people, they interviewed them all for an hour. And they interviewed 90 kids and about 80 parents. So by the time they had finished we had about 400 hours of face to face interview data. And we had that qualitative data and we had a whole stack on quantitative data from things like the survey stuff that schools do and literacy and numeracy results and a whole stack of stuff. And what they did is they did a triangulation of the data, so they identified themes that were consistent across the three data sets, from conversations, to the quantitative data to the perception data. And the fed that data back to staff just before Christmas of the same year, so it took them, that was about 3 months work.	(10) Culture **2008** (11) Review
Actually it was the first day of the following year. So we fed the data back to staff about what people were saying about the school, so a whole stack of stuff came out and quite confrontational stuff. So they fed it back to the staff. Staff were asked also to comment about me as the leadership. So all that stuff, all that baggage was on the table and so I sat there and listened to them say I wasn't non consultative and that I didn't understand the school community, all that sort of stuff, but that was good. Because if I was prepared to take it then they ought to take it too. OK. So that's where it started I think, if I was prepared to sit there and I was the only individual identified in the survey as the principal, so when they talked about the principal that was me, but when they talked about teachers that could have been anybody. So, they said, he's prepared to wear it, perhaps they should listen. And they did.	**2009** (12) Review (13) Review

So things that came out… OK, so till all of a sudden you've got all this data pilled on the table and its organised into themes around professional learning and innovative practice and so you pull some themes out.	
And when we structured the thing we said what we are going to do is we are going to place learning at the centre at every question we ask here, so it's not going to be about teaching, it's not going to be about students or people, it's going to be about learning and what that looks like in a modern 21st Century school. And so from then for the next four months I suppose about, what we did was we said, right we are going to take this and what are we going to do with it? So we formed strategic action teams, which I suppose are like collaborative inquiry teams whatever you want to call them, research teams and we formed eight, was it eight, no six, I think six of those around what we found were the six big issues. Those issues were an innovative curriculum, we named that one 'know every students story' which is, we can't teach a kid that we don't know. So we had one around that. We had one around future proofing the school, we had one around the effective use of data and evidence, we had one around communication and we had one around I think professional learning or collaboration and the timetable, organisational structures. So we formed a team around those big ideas and we wrote a scoping document which says, well the teams wrote the document. What they did, we said what we want you to do, when we talk about innovative teaching and learning or innovative practice, or ICT or the timetable, what we want to do, you go out and research world's best practice in that domain of practice in schools. So if your group is looking at the timetable, you go and find out what sort of timetable exist around the world, why do they exist, what do they look like, what can we learn from them and so each of those teams did that over a 12 week period. So they researched, they looked at world's best practice, they wrote a scoping document that said this is what the scoping document is, they identified overlaps between their group and the other group and they came back and integrated and they came back with a list of recommendations about what we were going to do in the school.	(14) New initiative- school improvement plan (15) Professional investment in social capacity (16) Professional investment in individual capacity (17) Professional investment in innovative capacity **2009** (18) Professional investment in social capacity
Yeah, it was compulsory, it was mandated. Everybody had to be on one team. So everybody had to participate and	

most of them had a senior staff member of some sort on them. I wasn't on any of those teams, so I just sort of visited them, but let them do the work themselves. But they kept coming back and saying what do you think of this Key Personnel 3, what do you think of that Key Personnel 3. So what you do is you can have subtle influence on that because if you say, no I don't think that will work then they tend to go back and have another look. So you can be quite influential, even though not directly. But the powerful part was that when those people came back and they had to come back to staff and present to staff their recommendations for change, so instead of me saying it, then it was them. OK, so this was their colleagues, so it was a teaching member of staff who in the end became the spokesperson for the timetable group, for example, stood up and said this is our recommendation for the timetable and they had all that stuff, we'll go to semesters, we'll increase the length of our periods, we'll do all that sort of stuff, which was the original model anyway cause it was all we knew for world's best practice, but coming from the staff member who had had ten weeks to go away and research it and try probably to undo it, to find reasons why they shouldn't do it and couldn't find ways why they shouldn't do it. They modified it a bit, so in the end we didn't go to a whole semester based timetable, said, well lets have the option, so we had some semester based courses, some year long, so then went back. So for example science department decided they would have all semester based, maths decided they would have half and half and English decided they wouldn't have any. So we had a real blend then of in between, allowing people to have some input into whether they could do it but as you know in the organisation of the school, you have to have some things where everybody, whether you agree to it or not. Things like period length, you just can't. So we went to a 3 period day, but when we allowed in the end, so people could, if they wanted to work together and split them those back into hour. So in a sense we had lots of flexibility.	(19) Culture
We said that we were going to construct courses based on the student's needs and the context of the school rather than what the curriculum said we should be doing, the curriculum would come secondary to context. That course, that was just one example of lots of different courses which we, so we said well, because one of the	**2010**

things that came out from the data was that teachers were getting stale because they weren't teaching their passions, they were just doing the job. So we said let's see if we can construct courses around teacher passion and that was one the things we did. So in the end we ended up with nine different science courses I think Out of the first 30 kids, so 20% of those kids decided to do Marine Science at university. So it had a big impact, it grew, so in the end I think it was about 150 kids doing that course a year. Kids were coming to the school, just purely because of that course. So enrolments went from 600 to 800 over 3 years. Not just because of that hopefully because we were looking, and they were saying two things. Firstly, we were looking after kids well through the 'know every students story' initiative where we scoped out what that meant and through those innovative real world courses where kids were engaged in learning which had a purposeful intent not just learning for learning sake…You know, and that's gone, I think it's about 20 schools in Tasmania do that course now. So it just went everywhere. And ticking along with that, you know, I'd been involved in technology back since the mid-80s and knew that we needed to do something about that. So we were working really hard on making technology integral, or digital pedagogy we were working on even though we didn't call it that then. About integrating digital technologies into classrooms. And in 2010 we were selected as a world-wide innovative school for that work. So we started to work with schools around the world, around the use of technology to support teaching and learning. So we went to Capetown and all sorts of places	(20) Perception of improved professionalism and quality teaching (21) Perception of improved professionalism and quality teaching (22) Professional investment in innovative capacity
So, but in the end, the focus all the way through was, that focus on learning, that we needed to focus on learning. So, and we didn't differentiate. So when we wrote the mission for the school we talked about, the mission for the school was to enrich lives through learning, that was, we re-wrote it. So we had a vision, which was that School B would be a leading centre of innovation, creativity and excellence in teaching and learning. That was our vision for the school. When we first wrote it we thought global, so we had this vision for people from all around the world to come and see how it was done here, so we had that, really that aspiration or vision. But the mission was to enrich lives through learning and it wasn't just kids' lives it's was the	(23) Challenge: high expectation for innovation and quality teaching

teachers lives, kids and their parents and the community, that we would really have a focus on learning.	
No, they didn't disband, some of them kept going. What happened was, the intention was that we would re-form those groups and do it with new initiatives, OK. So when we started we, you can't do too, we hit it with a big bang and did quite a few, we focused on three or four things, I think we had seven areas altogether and I think we focused on four of them in the first year with the intent that once we'd done that we could move to the other areas and stuff… But we never got to them because what happened was, these things got a life of their own, so when they, so the group that was talking about innovative teaching and learning, well it wasn't just a thing you could do and stop. So and then there was also, once they decided to do some things which were quite large, then obviously you need people to implement that stuff, you just can't way you are going to do it without people taking responsibility for its implementation.	**2011** (24) New initiatives (25) Professional investment in innovative capacity
So we moved to a thing of saying, well there are some things that we want to do new in terms of innovation and new practice, but there are also some things that we want to implement and keep going. So we constructed implementation teams and strategic action teams that were sort of sitting beside each other and we said well, its optional now. And that was good and bad because one of the powers in the first place was that everybody had to participate. OK. You didn't allow, there was no opting out of this. But the minute we had implementation teams then those few lazy sort of people who said we've had enough and I'm really tired could say, well I'm just going to go to the implementation team and probably not work as hard or with the same intent I suppose.	(26) Review **2011**
But gradually over time they came to a frame of mind that we need to continually reflect and review our practice, identify the stuff that's not working and flick that out and identify the new stuff we want to do, so you get in that continuous cycle of you know: plan, act, observe, reflect and do again. So we got into that cycle pretty intensively and I think, right down into classrooms. So when we	(27) Cycle of continuous review and new initiatives

started to talk about inquiry based learning that was the stuff that staff were doing around inquiry into their practices. We levered a whole stack of stuff out of innovative schools project around digital pedagogy and what that looked like… where we could work intensively with practice.	