Induction Experts:
An analysis of beginning teacher support in low-socioeconomic New Zealand primary schools

Andrea Squirrel Main

A thesis submitted in partial fulfilment of the requirements
for the degree of Doctor of Philosophy in Education
The University of Auckland, 2008

Abstract

This thesis analyses induction programmes in low-socioeconomic New Zealand primary schools. A review of the literature indicates that effective induction is integrated and has four main components: pedagogical development, socioemotional support, professional agency, and structured balance. In addition, New Zealand's induction programmes are reported to be strong by international standards. Literature is synthesised to create a framework of low-socioeconomic schools as induction experts. Although there have been large-scale analyses of New Zealand induction programmes, there has been no research on the integrated induction systems found in low-socioeconomic primary schools.

A mixed-methods approach was used to investigate the support provided for beginning teachers (BTs) in these schools. Methods included a nationwide survey of BTs in low-socioeconomic primary schools, which was mailed to 467 primary and intermediate BTs (44% response rate). Additionally, from all 156 low-socioeconomic primary schools, five exemplar induction programmes were selected and visited throughout the 2007 school year. Survey analysis, success case methods, discourse analysis, and grounded theory methods indicated that induction in these schools is integrated and strong by international standards.

Findings indicate that induction programmes in low-socioeconomic schools are pedagogical, supportive, and well structured; however, not all schools focus on enhancing the professional agency of teachers. Exemplar practices such as peer coaching, university partnerships, on-site BT support groups, curricular leadership roles, and formal programme evaluations were found at case study sites.

Analyses of factor themes, cluster graphs, frequency-utility matrices, documents, events, and transcripts of meetings and interviews reveal several key findings. First, the Hauora model—a Mäori concept of balanced pedagogical, spiritual, socioemotional, and physical development—may be applicable to induction in the New Zealand setting. Second, analyses indicate that low-socioeconomic schools have relatively strong induction programmes. Third, some teachers—particularly those beginning after the start of the school year or older teachers in their second year of teaching—may receive varied support. Findings from this research may provide framing for induction programmes in New Zealand as well as for international longitudinal studies of teacher induction models.

Acknowledgements

First and foremost, I would like to acknowledge the beginning teachers, tutor teachers, and principals who generously contributed their time towards the completion of this thesis. Next, my sincere thanks to my supervisors for their patience, time, and editing. Specifically, thank you Dr. Mary Hill for all of the school connections, the assistance with framework design, and for asking such thought-provoking questions. Thank you Professor John Hattie for the survey resources, the assistance with statistics, and for "pushing" me to publish. I also greatly appreciate the efforts of the librarians and other university staff who facilitated the research process. Sam and Andrea's help in setting up my desk(s) was invaluable, as was Earl's assistance in formatting the survey.

I would like to thank Sandra, Judy, Martin, Nicole, and Max for allowing me to attend workshops, feeding me, and even letting me stay at their homes. Also, thank you to Peter and Mary, Dan and Rita, Anjuli and Ollie, John and Myra, Sue and Phil, Lillian, and Samantha for providing me with a bed at various times, occasionally when I turned up unannounced and often at late hours. Equally, a thank you to the AA road service mechanics and the kind folks who helped my subsequent hitchhiking endeavours seems appropriate.

Huge thanks to my flatmates Dan, Elnaz, Phil in Auckland, Mat and Ants in Turangi, and Holly and Aimee in Murchison for all of their food, love, and support. Equally, thank you to Jules, Kitty, Rashmi, KT, Jontel, Spanna, Heather, and Shannon for keeping me sane. Special thanks to Nina, whose musings on poststructuralism and academia in general sparked many ideas. I would also like to thank Dad and Sheila for the packages, the phone calls, and the editing. I equally appreciate the support from Mom and Mitch, and my sisters Dana and Cynthia, who were always just a phone call away.

Thank you to John Dewey, Les Tickle, and David Battersby for writing such inspiring works.

Lastly, I am deeply grateful to the Tertiary Education Commission for their Bright Futures Top Achiever Doctoral Scholarship, the primary funding source for this research.

Table of Contents

List of Tables

List of Figures

CHAPTER 1. INTRODUCTION

There is no discipline in the world so severe as the discipline of experience subjected to the tests of intelligent development and direction.
–John Dewey

Over the past decade, teacher induction has shifted rapidly from the fringes of the political landscape to the centre (Thomas & Newton, 2001; Totterdell, Bubb, Woodroffe, & Hanrahan, 2004). During this period, there has been a marked increase in research regarding the support provided teachers during their first years of service (*Ethic of Care*, 2002; Ingersoll & Smith, 2004; Johnson, Kardos, Kauffman, Liu, & Donaldson, 2004; Totterdell, Bubb, Woodroffe, & Hanrahan, 2004). Internationally, the research covers a wide spectrum. For example, fewer than 1% of United States beginning teachers (BTs) received a comprehensive induction programme (Ingersoll & Smith, 2004) and less than a quarter of all Australian BTs had access to a tutor teacher (*Ethic of Care*, 2002). At the other end of the spectrum, Scottish BTs have a 30% reduction in their contact time as part of a university-supported induction system (Rippon & Martin, 2006), and virtually all Japanese beginning teachers are supported in completing a 30–40 page action research project during their first year of teaching (Moskowitz & Stephens, 1997). New Zealand, with government-subsidised BT allocation, portfolio systems, tutor teachers, and School Support Services, ranks high with countries that boast comparatively strong induction programmes, such as Japan, Scotland, and the Netherlands.

Since the mid-1980s, New Zealand has been refining its national induction policy, which includes a 0.2 funding allotment, the assignment of a tutor teacher, and maintenance of a portfolio for full registration. Prior to 2006, two nationwide surveys had investigated induction programmes (Mansell, 1996; Renwick, 2001) and, while offering suggestions to improve the role of the tutor teacher and management, basically found BTs to be satisfied with their support. In a series of interviews in 2004, the Education Review Office (ERO) found that most second-year BTs were "doing well," although a minority were not receiving appropriate support (*Quality of Year Two*, 2004). In this report, the ERO outlined parameters for a satisfactory support programme and recommended further research at the national level. In August 2006, after research began for this thesis, the New Zealand Teachers Council conducted a literature review

of current induction practices, a survey, and in-depth case studies of induction programmes and reported similar findings (Cameron, 2006; Cameron, Dingle, & Brooking, 2007).

Although these research projects provided nationwide overviews, none focused on low-socioeconomic schools. New Zealand has recognised that research on high-performing, low-socioeconomic-status schools is both beneficial and necessary. Another ERO study reported:

> *In-depth educational research is now needed to discover why some low SES schools perform better than others in terms of service delivery…Good practice examples drawn from practical and successful experience in similar schools would be useful to all decile 1 schools.* (*Good Schools, Poor Schools*, 1998, section 6, para. 13)

The research reported in this thesis examined induction programmes in low-socioeconomic primary schools via a nationwide survey and follow-up case studies. Given New Zealand's track record of coherent, successful induction programmes in the primary sector, it follows that examining the support offered in low-decile schools will contribute to the international dialogue surrounding support for teachers during their first years of service.

Definition of Terms

Given the international audience for this thesis, it is important that key terms are defined. These terms include *beginning teacher* and *induction programme*.

Beginning Teacher

A beginning teacher (BT) is someone who has recently begun his or her tenure as a teacher. Countries have varying standards regarding the pre-service education of the BT and the length of time before a BT is considered a full teacher. In New Zealand, a BT is a provisionally registered teacher who has completed an accredited teacher education degree or diploma programme. Full registration requires two years of full-time teaching in New Zealand. Although the registration period can last up to five years, most BTs are in their first or second year of teaching. In 2006, there were 2,349 BTs employed in New Zealand schools: 1,363 in primary schools and 981 in secondary schools. Given its common use in New Zealand, the acronym BT will be used throughout this thesis to signify beginning teacher.

Induction Programme

In its intended implementation, induction is a highly organised and comprehensive form of staff development, involving many people and components, that typically lasts the first two to five years of a teacher's career (Wong, Britton, & Ganser, 2005). As will be discussed in the literature review, induction programmes can be based on continuous learning and self-development via reflective practice. Also, mentoring is often a component of the induction process. In New Zealand, during the first two years of teaching before a BT can be fully registered, BTs are supervised by registered teachers (commonly referred to as "tutor teachers"). Programmes vary with the character and size of the school, but often include individualised teacher support, participation in professional development groups, reflection, and observation of other teachers. A comprehensive induction system involves substantial logistical planning by principals, government inspectors (in New Zealand, a branch of government independent of the Ministry of Education known as the Education Review Office), and initial teacher education institutions.

Critical Question

Education researcher and historian Larry Cuban (2001) wrote that framing a problem is often more important than finding a solution. By investigating induction and BTs in low-socioeconomic primary schools, this thesis attempts to answer the question: "How does the New Zealand teaching profession induct its newest members in low-socioeconomic primary schools?" The research results are drawn from reviews of the literature, interviews with teachers and experts, observations, student data analyses, case studies, and surveys. These results are synthesised into a critical examination of the components of effective induction. The research brings findings from low-socioeconomic New Zealand primary schools into the current international induction dialogue. Methods and findings from this study can serve as models for future multinational longitudinal studies.

Key Assumption: Induction Is Valuable and Beneficial

Before investigating induction in the New Zealand setting, it is important to make explicit a key assumption underlying this research; namely, that induction is both valuable and beneficial. As Cuban wrote, "The preparation, induction, and career development of teachers

remain the Archimedean lever for both short- and long-term improvement of public schools" (2003, p. 1). It is clear from a synthesis of the findings of other researchers (Bartell, 2005; Bubb, 2002; Johnson, Harrison Berg, & Donaldson, 2005; Strong, 2006a) that underlying their research is the assumption that teachers benefit more from a planned, coherent, integrated programme of induction than from scattered attempts by many groups and individuals. This assumption is based on other research that indicates strong induction programmes diminish both teacher migration within and departure from the profession in the initial years of employment (Blackwell, 2002; Guarino, Santibanez, & Daley, 2006; Smith & Ingersoll, 2004; Tushnet, Briggs, Elliot, Esch, & Haviland, 2002; National Center for Education Statistics, 1997), although there has only been one control-group study testing this hypothesis (Lopez, Lash, Schaffner, Shields, & Wagner, 2004). In addition to analysing departures, other researchers have linked induction to higher retention rates (Grant, 2004; Horn, Sterling, & Subhan, 2002; Wilson, Hall, Davidson, & Lewin, 2006). Moreover, considering the money saved on teacher retention, providing BTs with induction programmes was found to be cost-efficient (Fullan, 1993; Hanushek, Kain, & Rivken, 2004).

The assumption that induction is beneficial is also based on research concerning teacher performance. Feiman-Nemser (2001) wrote, "The conditions under which a person carries out the first years of teaching have a strong influence on the level of effectiveness which that teacher is able to achieve and sustain over the years" (p. 1026). At its most basic level, teacher quality can be determined by changes in class-level student achievement (Moir, 2006); however, the relationship between teaching and learning is one of the most difficult to establish in all educational research (Hattie, 2006). Linking teacher practice to pupil outcomes presents various problems including: substantial intervening variables, questions about appropriate measures of student learning, issues regarding the lack of test standardisation between schools, problems in the mechanics of tracking candidates, and difficulty in accessing data (Wineburg, 2006; Zeichner & Conklin, 2005). For example, despite many attempts by the Educational Testing Service to demonstrate the validity of the National Teacher Examination in predicting ratings of teaching competency and/or student achievements, no predictive validity has been found (Haney, Madaus, & Kreitzer, 1987). The elusive nature of "effective practices" in schools has prompted several researchers to conclude that the lack of empirical, quantitative data leave conclusive, data-rich analysis of the impact of induction beyond reach (Feiman-Nemser, 1996; Ingersoll & Kralik,

2004; Lopez, Lash, Schaffner, Shields, & Wagner, 2004; Reynolds, 1992; Serpell & Bozeman, 1999; Whisnant, Elliot, & Pynchon, 2005). Nevertheless, some—although perhaps not enough—attention in the international literature has been given to the positive relationship between induction and student achievement (Fletcher, Strong, & Villar, 2005; Huling, 1999; *Quality of Year Two*, 2004; Strong, 1998a; Whisnant, Elliot, & Pynchon, 2005), including the recent *Teachers for a New Era* project, which has been tracking graduates from several major United States universities (http://www.teachersforanewera.org). In addition, the United States Department of Education has funded the only randomised-control, large-scale study of the impact of induction, the results of which will be available in late 2008 (Wayne, Youngs, & Fleischman, 2005).

As an alternative to the focus on student achievement, Zeichner (2003) described a shift towards the agenda of professionalisation, in which teaching becomes the focus of successful induction programmes. Given the nascent nature of the research links to student achievement, this professionalisation model frames the research presented here. In other words, this study will examine induction in light of its impact on teacher effectiveness. Thus, on the assumption that induction is beneficial and necessary, the following chapters review the literature on effective induction.

Overview of Thesis Chapters

The second chapter reviews the international literature on effective induction components, finding that effective induction involves the integration of pedagogical development, socioemotional support, professional agency and structured balance components. The third chapter describes the contexts in which the study is nested: internationally, within New Zealand, and in low-socioeconomic schools. Literature is reviewed to illustrate how this study can make powerful contributions to research and policy within each of these contexts.

Next, survey and case study methods are described. Following the methods chapter is an overview of the data: survey demographics and case study site descriptions. In the sixth chapter, survey and case study data are analysed. The analyses begin with an overview of integrated induction, and are then organised according to the four induction components: pedagogical development, socioemotional support, professional agency, and structured balance. The seventh chapter contains a discussion of the induction component model in light of a Māori model of

balanced development, the success of the model in low-socioeconomic contexts, and variations in the effectiveness of the model based on teacher demographics. The final chapter consists of a summary, a discussion of contributions to the field, and suggestions for future research.

CHAPTER 2. INTERNATIONAL LITERATURE REVIEW: INDUCTION COMPONENTS

Literature Review Process

This chapter reviews the induction literature regarding the components of effective induction. To conduct this literature review, ERIC, A+, ProQuest, Te Puna and Infosearch databases were searched using the keywords "beginning teacher," "induction," "advice and guidance," "new teacher support," and "New Zealand + teacher." Scanning the 585 abstracts thus found enabled the selection of 108 potentially relevant texts. The references in these texts, particularly the literature reviews on induction, led to further sources, and an EndNote database was created. The references were cross-checked, and papers and literature recommended by fellow researchers were added. At completion, the database contained 273 journal articles, 191 books, 74 conference papers, 73 reports, 14 Web sites, 14 theses, and 5 unpublished works, including 41 induction articles or reports by New Zealand authors. After this literature had been read, a concept map was created linking the 644 EndNote entries. This concept map facilitated the organisation of the effective induction components discussed below.

Integrated Theories: Effective Induction Components

By definition, structures serve as complex rule-and-relationship systems which influence, shape, and constrain human thought and action "with a view to explanation, evaluation and change" (Gibson, 1984, p. 136). Induction structures have taken many forms, many of which involve integrating multiple frameworks. The frameworks reviewed in Table 1 all included pedagogical development, using the terms *cognitive, mental, technical, problem-based, professional learning*, and *occupational*, or, as in the case of Achinstein and Bruner, the entire model was described as *pedagogical*. Six mentioned social development via the terms *collaboration*, *social*, *socioemotional*, or *sociocultural.* Seven mentioned personal growth, using the terms *personal*, *capacity*, *agency*, and *spiritual*. Lastly, the terms *structured*, *organisational*, and *physical* were used in four of the frameworks. Although the related terms are not perfectly interchangeable, they are nevertheless similar enough to create broad categories of themes of effective induction.

Table 1

Integrated Professional Development and Induction Frameworks

Theorist (Year)	**Dimension Examined**	**Components to Framework**
Achinstein (2001)	Pedagogical induction	Collaboration, inquiry, purpose, and capacity
Bell & Gilbert (1996)	Professional development frames	Personal, social, and occupational
Boatman (1998)	Development	Physical, mental, socioemotional, and spiritual
Bruner (1996)	Development	Agency, reflection, collaboration, and culture
Hatch, White, & Capitelli (2005)	Induction frames	Cognitive development, sociocultural learning, and organisational development
Jones (2002)	BT support	Technical/structured, personal/pastoral, sociocultural
Stansbury & Zimmerman (2002)	BT support	Personal and emotional, task/problem-based, critical reflection on teaching practice
Whisnant, Elliot, & Pynchon (2005)	Induction themes	Structure, professional learning, and collaboration
Williams (2002)	BT support	Professional, pedagogical, and personal

Boatman (1998) used the term "integration" to describe the overlapping and interactive nature of the components, a concept that will be revisited later in this thesis. The four broad categories mentioned above were used to frame the subsequent literature review. As the literature was reviewed, the categories became more defined as (a) pedagogical development, (b) socioemotional support, (c) professional agency, and (d) structured balance. Although these are overlapping and integrated, the remainder of this chapter discusses the literature of effective

induction components in light of each of them individually. Examples from exemplar international induction practices are used to illustrate each sub-component of effective induction.

Pedagogical Development: Thinking Strategies, Student Data Inquiry and Professional Portfolios

Serpell (1999) explained that induction programmes have been shifting toward a pedagogical focus, and pedagogical development is now considered a key feature of a strong induction programme. Analysis of the literature showed that pedagogical development includes extending thinking strategies through professional development, engaging in student data inquiry, and fostering a sense of pedagogical achievement in BTs via professional portfolios.

Professional Development to Extend Thinking Strategies

To build professional capacity, induction programmes need to assist BTs in (a) developing their knowledge of underlying theories, (b) applying that knowledge in non-routine circumstances, and (c) cultivating a commitment to what is best for the student (Cooper, 1999). Studies showed that incorporating capacity-building into high-quality induction and mentoring programmes may lower BT attrition and strengthen teacher effectiveness (Huling-Austin, 1990; Odell & Ferraro, 1992). In his large-scale study, Ingersoll (1997) found that BTs receiving high-quality, pedagogically oriented assistance were more likely to indicate commitment to the profession. A recent United Kingdom study found that induction programmes work best when capacity-building is provided to BTs, mentors, and principals (Totterdell, Bubb, Woodroffe, & Hanrahan, 2004).

Researchers suggested that professional development should be organised around a clear vision of teaching (Feiman-Nemser, 2001; Villani, 2002) via intensive, ongoing professional development (Serpell & Bozeman, 1999; Whisnant, Elliot, & Pynchon, 2005). Repeated references were made to the idea that well-designed, off-site professional development courses can help cultivate BT thinking strategies (Bartell, 2005; Earley & Bubb, 2004; Horn, Sterling, & Subhan, 2002; Joerger & Bremer, 2001; Johnson, 2004; Renwick & Vise, 1993; Tickle, 1994; *Top of the Class*, 2007; Totterdell, Bubb, Woodroffe, & Hanrahan, 2004; Wonacott, 2002; Wood, 2005). Several studies commented on the type of learning that occurs during these sessions; most notably, several found that BT pedagogy can be fostered by active learning via

action research projects (Desimone, Porter, Birman, Garet, & Yoon, 2002; Heilbronn & Jones, 1997; Villani, 2002; Way, 2001); learning circles (Villani, 2002); and active, collaborative, whole-school professional development (Beijaard & Papanaoum, 2002; Desimone, Porter, Garet, Yoon, & Birman, 2002; Harrison, 2001; Heilbronn, Jones, Bubb, & Totterdell, 2002; Johnson & Kardos, 2002; O'Brien & Christie, 2005; Williams, Prestage, & Bedward, 2001; Wolfe, Ray, & Harris, 2004).

Professional Development Institutions: France

One example of extensive pedagogical development during the induction phase occurs in France. During their first year after university, French BTs only have one-third of the normal teacher classroom contact time. During their non-contact time, all new teachers are required to attend off-campus sessions at an institution created in 1991 for teacher education and development. Assignments set by the institution are directly related to improving practice in the classroom. All French BTs have pedagogical advisors who provide support in lesson-planning, data analysis and reflection. At the end of their induction period, BTs are required to present a reflective, professional memoir to an examination panel (Wong, Britton, & Ganser, 2005).

Enhanced Problem-Solving Capacity: Inquiry Research

Bartell (1990) remarked that BTs need to develop both the capacity for seeking out resources and a framework for making decisions about their own practice. Since the 1990s, pre-service teacher education has shifted the focus from content and mastery of skills to inquiry and outcomes (Cochran-Smith & Lytle, 1993; Little, 1999; Timperley & Wiseman, 2003). This trend toward teacher-as-researcher has been mirrored during the induction phase (Couse & Russo, 2006; Tickle, 2000a). Engaging in a cycle of inquiry can involve practices such as analysing student learning in a particular subject, refining the practice to target shortcomings, and reflecting on the refinements by re-examining student data (Darling-Hammond & Sykes, 1999; Hyun & Marshall, 2003). As Diamond (2001) observed, supported teachers are more likely to exhibit purpose by maintaining a focus on student learning. In the context of induction programmes, inquiry research should be conducted via implicit, reactive, and deliberate classroom-based teacher learning (Cameron & Baker, 2004; Moir & Gless, 2001; Renwick & Vise, 1993; Thomas & Newton, 2001; Tickle, 1994; Williams, 2003). Ideally, problem-based BT

learning focuses on student learning (Breidenstein, 2002; Steadman, 2005; Timperley & Parr, 2004; Timperley & Wiseman, 2003; Wong & Asquith, 2002). Inquiry using student data can take place during staff meetings, syndicate meetings, BT meetings, professional development courses, and conversations with tutor teachers. Hawley and Valli (1999) noted that this data-rich, inquiry-based professional development prevents induction from being shallow and fragmented.

Inquiry Exemplar: Japan

The Ministry of Education, Science and Culture introduced Japan's induction system in 1989. This compulsory, one-year programme consists of: no fewer than 60 days of in-school training (generally two days a week), no fewer than 30 days at the prefecture education centre (generally one day a week), and a five-day, four-night residential workshop (Myint Myint, 1999). Provisions of the law include the use of guidance teachers and relief teachers to ensure that schools have adequate staffing to compensate for time devoted to BT training. All BTs complete an action research project, which is planned and observed by their grade-level team. This project is usually about 35 pages in length and includes substantial analysis of student work. The project is submitted to the prefectural education office, although no formal feedback is provided (Wong, Britton, & Ganser, 2005). Frequently, there are open houses at national schools to share research, and teacher rotation is a common practice (Fernandez, 2002).

Fostering a Sense of Pedagogical Achievement*: *Professional Portfolios

A sense of achievement can be fostered via: positive, collaborative, formative assessments of BTs; observations of teaching practice; and documenting student achievement (*Ethic of Care*, 2002; Feiman-Nemser, 2001; Gilbert, 2005; Renwick, 2001; Serpell, 1999; Tickle, 1994; Totterdell, Bubb, Woodroffe, & Hanrahan, 2004). There is widespread consensus on the value of reflection as a professional practice (Brown & Wiggins, 2004; Danielson, 1999; Dewey, 1963b; Harrison, Lawson, & Wortley, 2005; Odell & Huling, 2000; Schön, 1987; Villani, 2002; Whisnant, Elliot, & Pynchon, 2005; Wilson, Hall, Davidson, & Lewin, 2006; Wonacott, 2002). Tickle (1994) defined reflection as the thoughtful deliberation of practice via the self-construction of techniques or reconstruction of self. To be an effective induction component, such reflection needs to include reiterative analyses of teaching acts and their impact on student achievement. In essence, reflection helps BTs develop schemata for making sense of

classroom practices (Bartell, 2005; Dewey, 1963b; Reynolds, 1992), and without it current practices tend to stagnate (O'Brien & Christie, 2005). In her study following New Zealand pre-service teachers through their first year, Kane (1994) found that reflection assists BTs in interpreting and modelling the thinking and intentions that drive expert practice. Internationally, portfolios are a common method of scaffolding BTs' reflection on their pedagogical achievements (Brown & Wiggins, 2004; Feiman-Nemser, 2001; Kajs, 2002; Portner, 2005).

Reflective Pedagogical Portfolios: Connecticut

In Connecticut, there is a structured, two-year induction programme for BTs. District support consists of portfolios, release time, and mentor support. Inductees create a portfolio containing a seven- to ten-day unit, daily lesson logs, videotapes of two lessons, examples of student work, and reflective commentaries. The portfolios are examined and evaluated by pairs of experienced educators with 50 hours of training. BTs are also given eight half-days of release time to observe, be observed by their mentors, or attend professional development activities. These activities are all documented in portfolios. The mentors—who are district-selected, accomplished teachers in the same grade and/or discipline as the BTs—complete a training programme that enables them to assist the BTs in developing their portfolios (Horn, Sterling & Subhan, 2002).

Summary of Pedagogical Development

A review of the literature shows that pedagogical development is a critical component of effective induction practices. Three sub-components surface as common themes in the literature. First, effective induction includes professional development of thinking strategies, as illustrated by the French connection to pre-service education. Second, the problem-solving capacity of BTs in an effective induction programme is enhanced via inquiry research, as exemplified by the action research project required for all Japanese teachers. Fostering a sense of pedagogical achievement via professional portfolios is a third component of pedagogical development. The programme in Connecticut serves as an example of the use of portfolios that include critical analysis of teacher performance and student learning. Although pedagogical development is a necessary component of induction, on its own it is considered insufficient. Other components

surfaced during the literature review. The most prevalent was socioemotional support, which is explored in the following section.

Socioemotional Support: Collaboration, Networking, and Personal Support

Feiman-Nemser (2001) explained that "The ongoing study and improvement of teaching is difficult to accomplish alone" (p. 1027). In her New Zealand research, Turnbull (2002) described this co-presence and mutual knowledge as a strong induction component. Just as there is a multiplicity of pedagogical approaches to induction, so socioemotional support differs from one location to another, as there are a myriad of ways in which teachers can interact as a community. This section focuses on the five themes that were most commonly reported in the literature: collaboration, networking, mentoring, management support, and orientation.

Collaboration

Socioemotional support includes the social construction of knowledge to create structures for a culture for learning (Vygotskii & Kozulin, 1986). Numerous researchers have connected teacher collaboration and support with student learning (e.g., Atweh & Heirdsfield, 2003; Darling-Hammond & Sykes, 1999; Hertzog, 2002; M. Jones, 2002; Kane, 1994; Lieberman, 1988; Tickle, 2000a). Based on this connection, other researchers have found that fostering a culture of mutual help (Williams & Prestage, 2001) and expectations (Bruner, 1996) via collaboration is a critical component of induction success (Bartell, 2005; Feiman-Nemser, 2001; Hertzog, 2002; Horn, Sterling, & Subhan, 2002; Ingersoll & Smith, 2004; Joerger & Bremer, 2001; O'Brien & Goddard, 2006; Odell & Huling, 2000; Portner, 2005; Steadman, 2005; Stockard & Lehman, 2004; Whisnant, Elliot, & Pynchon, 2005). In contrast to the historical notion that professional practice is private, tacit, and ephemeral (Argyris & Schön, 1974), quality induction programmes integrate BTs into a professional community (Allen & LeBlanc, 2005; Anderson, Balding, Schuck, & Segal, 2000; Hargreaves, 2003; Hopkins & Stern, 1996; Raymond, Butt, & Townsend, 1992; Stansbury & Zimmerman, 2000; Sykes, 1999; Williams, Prestage, & Bedward, 2001). At its most basic level, collaboration may be as simple as observing another teacher (Allen & LeBlanc, 2005; Arends & Rigazio-DiGilio, 2000; Dagenais, 1996; *Ethic of Care*, 2002; Gilbert, 2005; Wong, 2005; Renwick & Vise, 1993; Serpell, 1999; Totterdell, Bubb, Woodroffe, & Hanrahan, 2004; Wood, 2005). In a survey of 567 BTs, the

induction activity rated most highly by all respondents was lesson observation (Heilbronn, Jones, Bubb, & Totterdell, 2002). Similarly, combining case studies of 24 schools and questionnaires to 150 Local Education Authorities (LEAs), Bubb (2002) found that the most cost-effective induction activity was lesson observation and the least cost-effective was induction courses.

Although observations may be beneficial, the research showed that to be effective, collaboration needs to extend beyond mere observation. In essence, creating a successful induction programme involves blending collegiality and autonomy (David, 2000; Earley & Bubb, 2004; *Ethic of Care*, 2002; Rowley, 2005; Wonacott, 2002). Collaboration may occur during common planning time (Gilbert, 2005; Ingersoll & Smith, 2004; Joerger & Bremer, 2001; Johnson, Harrison Berg, & Donaldson, 2005; Portner, 2005; Whisnant, Elliot, & Pynchon, 2005) and visits to other schools and classrooms (*Ethic of Care*, 2002; Odell & Huling, 2000; Tickle, 1994). Collaborative support can occur via: critical friends groups in which members collaboratively examine student work and teacher practice (Gilbert, 2005; Meyer & Achinstein, 1998; Phipps, 2001; Sizer, 1984; Whisnant, Elliot, & Pynchon, 2005); guided peer-coaching (Allen & LeBlanc, 2005; Carter, 1994; Hertzog, 2002; Joyce & Showers, 2002; Valli, Raths, & Rennert-Ariev, 2001); study groups (Carroll, 2002; Desimone, Porter, Birman, Garet, & Yoon, 2002; Portner, 2005; Zeek, Foote, & Walker, 2001); school-based professional learning communities (Cochran-Smith & Lytle, 1999; Hargreaves, 2003; Timperley & Parr, 2004); professional conferences (*Ethic of Care*, 2002); and collegial conversation (Hargreaves & Dawe, 1990; Whisnant, Elliot, & Pynchon, 2005). By creating communities of practice (Lave & Wenger, 1991), induction programmes create cultures that foster openness, collaboration, and help-seeking (*Ethic of Care*, 2002; Tickle, 1994).

Collaborative Support: Shanghai, China

Many Chinese induction systems are based on systems of communal support. For example, in Shanghai there are school-based mentors plus district workshops and study groups. Districts are required to offer 100 hours of support to all new teachers. Each teacher, new or experienced, is required to observe at least eight lessons a semester, and most teachers observe more. BTs participate in weekly meetings of lesson preparation groups and teacher research groups, while sharing communal offices. Municipal involvement in induction ensures support is system-wide, rather than limited to districts with sufficient resources. This concentrated support,

however, is accompanied by intense pressure. BTs enter teaching competitions in which lessons are videotaped and archived for future use (Britton, Paine, Pimm, & Raizen, 2003; Wong, Britton & Ganser, 2005).

Teacher Networks

Looking at the social geographies of professional learning, Hargreaves (2000) noted that increased teacher networks are connected to deeper student learning. In induction programmes, collaborative networks can form via team teaching (*Ethic of Care*, 2002; Renwick & Vise, 1993; Wood, 2005), mentoring teams (Fletcher, Strong, & Villar, 2005; Scherer, 1999), syndicate or team meetings (Angelle, 2002; Hopkins & Stern, 1996), BT meetings (Achinstein & Meyer, 1997; Earley & Bubb, 2004; *Ethic of Care*, 2002; Hertzog, 2002; Murray, 2006; Nias, 1998; Renwick, 2001; Rogers & Babinski, 1999; Tickle, 1994; Wonacott, 2002; Wood, 2005), and networking with teachers outside school (Desimone, Porter, Birman, Garet, & Yoon, 2002; *Ethic of Care*, 2002; Ingersoll & Smith, 2004; Odell & Huling, 2000; Portner, 2005; Saffold, 2006; Whisnant, Elliot, & Pynchon, 2005). Networks may include: buddy teachers (Sparrow & Frid, 2001); teacher aides (Ingersoll & Smith, 2004; Johnson, Harrison Berg, & Donaldson, 2005; Tickle, 1994); support staff members (*Ethic of Care*, 2002; Joerger & Bremer, 2001; Tickle, 1994; Zeichner, 1979); reliever teachers[1] (Earley & Bubb, 2004); and support from parents and the wider community (Bartell, 2005; DeBolt, 1991; Joerger & Bremer, 2001; Johnson, 2004). Several scholars addressed the fact that, in many communities, the diversity in learning and culture renders collaborative support of minority group BTs particularly important (DeBolt, 1991; Villani, 2002; Whisnant, Elliot, & Pynchon, 2005; A. Williams, 2003; Zeichner, 1993).

Networking: New Brunswick, Canada

One induction programme that successfully incorporates networking is in New Brunswick. The programme has six general goals: (a) orientation, (b) support, (c) acquisition and refinement of teaching skills, (d) development of a philosophy of education, (e) self-assessment and self-evaluation, and (f) retention of BTs. To accomplish these goals, district coordinators hold orientation workshops for BTs and training workshops for mentors at the beginning of

[1] Reliever is the New Zealand term used for the substitute teacher that assumes responsibility for a classroom during a teacher's absence.

every school year. Following the initial workshops, districts organise additional meetings and workshops, which are rated by virtually every BT as "very useful" (Scott 2002). In addition, there are nine district coordinators who facilitate networking and mentoring and conduct additional mentor training. The programme is evaluated annually by principals, mentors, BTs, and district coordinators, all of whom rate it as very useful (Scott, 2000, 2001, 2002).

Quality, Structured Mentoring

Quality, structured mentoring is mentioned in over 260 pieces of literature as a key induction component (e.g., Bartell, 2005; Black, 2001; Cuthbertson & Schalock, 2002; Darling-Hammond & Baratz-Snowden, 2005; Desimone, Porter, Birman, Garet, & Yoon, 2002; Earley & Bubb, 2004; Gilbert, 2005; Gratch, 1998a; Horn, Sterling, & Subhan, 2002; Moir & Gless, 2001; Portner, 2005; Serpell, 1999; Stansbury & Zimmerman, 2000; Thomas & Newton, 2001; Tickle, 1994; *Top of the Class*, 2007; Whisnant, Elliot, & Pynchon, 2005; Wonacott, 2002; Wood, 2005; Worthy, 2005). Quality mentoring involves interactions with a tutor teacher ("mentor") who is carefully selected (Ballantyne & Hansford, 1995; Freiberg, 1996), has received professional development (Black, 2001; Braund, 2001; Carroll, 2002; Claycomb & Hawley, 2000; *Ethic of Care*, 2002; Feiman-Nemser & Parker, 1992; Johnson, Kardos, Kauffman, Liu, & Donaldson, 2004; Kajs, 2002; Portner, 2005; Schuck, 2003; Scott, 2000a; Serpell, 1999; Villani, 2002), and is compensated for his or her time (Dagenais, 1996; Danielson, 1999; *Ethic of Care*, 2002; Pettigrew, 2004; Totterdell, Bubb, Woodroffe, & Hanrahan, 2004; Zeichner, 2003). Quality mentoring requires skills such as counselling, being emotionally available, observing, evaluating, and providing feedback (Danielson, 2002; Feiman-Nemser, 2001; Pettigrew, 2004; Timperley, 2001; Villani, 2002; Vonk, 1994; Young, Bullough Jr., Draper, Smith, & Erickson, 2005). Schön (1987) added that being rational, reflective, and willing to take cognitive risks are also beneficial attributes.

A review of the literature on mentoring reveals that multiple approaches to the mentoring relationship have been found to be effective. Most commonly, mentors adopt the role of local guides (Angelle, 2002; Feiman-Nemser & Parker, 1992; Harper-Knight, 2001; Roberts, 2000; Schön, 1987; Strong, 2006b), educational coaches (Feiman-Nemser & Parker, 1992; Little, 1990; Vonk, 1994), agents of cultural change (Achinstein, 2006; Achinstein & Barrett, 2004; Feiman-Nemser & Parker, 1992; Young, Bullough Jr., Draper, Smith, & Erickson, 2005), or a dynamic

combination of these roles (Achinstein & Villar, 2002). Regardless of the approach adopted, the mentor's skill plays a large role in the success of a mentoring programme. A 1996 review of United States studies on teacher effectiveness by the National Commission on Teaching and America's Future concluded that poorly designed mentoring programmes contribute to higher rates of new teacher attrition and lower levels of effectiveness among teachers who remain in their jobs (*What Matters Most,* 1996). Two independent Australian studies investigated the experiences of 262 teachers in their first and second years of teaching and found that unsupported mentoring did not prevent teacher burnout (O'Brien & Goddard, 2006). Instead of being left to create their own programmes, tutor teachers need to be carefully selected and supported by training (Bartell, 2005; Odell, 1987; Rolley, 2001), allocated time to perform their roles (*Ethic of Care*, 2002; Evertson & Smithey, 2000; Little, 1990; Martinez, 2004; Riggs & Sandlin, 2002), and supported by multiple members of the school staff (Earley & Bubb, 2004; Kajs, 2002). Mentor preparation should include instruction in: (a) adult learner styles; (b) stages of teacher development; (c) clinical supervision, classroom observation, and conferencing; (d) teacher reflection; and (e) fostering self-esteem and self-reliance in BTs (Villani, 2002). One study estimated that 1,000 hours of professional development were needed for a mentor to be "relatively proficient," but a mentor could become "good enough" with just six days of professional development (Megginson, 2000). Another study found that mentors with higher self-efficacy devoted more time to the mentoring process (Riggs, 2000).

Mentor Support: Victoria, Australia

Registration for Victorian teachers depends on successful completion of a period of provisional registration supported by a mentor. By the end of this period, graduate teachers are expected to provide evidence that their practice meets standards of performance established by the Victorian Institute of Teaching. Two half-day seminars in nearly 30 centres provide training in the standards and methods for gathering evidence of their performance. Additionally, there is a two-day statewide training and support programme for teacher mentors and mentor coordinators. In 2007, an evaluation of the Victorian Institute of Teaching's Supporting Provisionally Registered Teachers Program was completed by 792 BTs, 818 mentors, and 92 principals. In the results, 84% of BTs agreed or strongly agreed that they had made significant improvements in their classroom work as a result of guidance and feedback from their mentors and other

colleagues, and 76% of BTs said they met regularly with their mentor to discuss their progress as teachers (Ingvarson, Kleinhenz, Khoo, & Wilkinson, 2007).

Orientation

Orientation programmes are a common way to include BTs in the culture of a school (Earley & Bubb, 2004; *Ethic of Care*, 2002; Horn, Sterling, & Subhan, 2002; Joerger & Bremer, 2001; Wong, 2005; Serpell, 1999; Stansbury & Zimmerman, 2002; Tickle, 1994; Whisnant, Elliot, & Pynchon, 2005; Wonacott, 2002; Wood, 2005). Programmes can entail end-of-year meetings, student orientations, summer workshops, tours of the local area, and/or introducing new teachers to other new and existing staff (Sargent, 2003). Schools with effective induction programmes in the United Kingdom give careful consideration to how orientation is structured (Bubb, Earley, & Totterdell, 2005) and present information in clear ways (often in the form of a handbook) to foster BTs' understanding of complex school systems and policies (Joerger & Bremer, 2001; Tickle, 1994; Wonacott, 2002).

Highly Developed Orientation: Northern Territory, Australia

The need to recruit teachers unfamiliar with living in the Northern Territory led to the initial development of a teacher induction programme in 1972 and its subsequent expansion in 1985. The Australian Department of Employment and Education reports that teacher induction programmes in the rest of Australia are not as well developed as those in the Northern Territory. This difference is attributed to the fact that the Northern Territory relies heavily on BTs trained in other states, whereas other states train 95% of new teachers locally. In the Northern Territory, teacher induction includes orientation, peer probation, and support for Aboriginal teachers. Orientation consists of three parts: (a) a one-week pre-service introduction; (b) a recall to reinforce basic orientation; and (c) school-based support via advice, coaching, mentoring, and counselling at the school site by school-level and central-office staffs. Peer probation mainly assists teachers new to the Northern Territory with their teaching skills and their adaptation to living in an isolated Aboriginal community (Moskowitz & Stephens, 1997).

Support from Management

The principal and other members of the management team are important members of a BT's social network (Bartell, 2005; Portner, 2005; Stockard & Lehman, 2004; Wonacott, 2002). Management can integrate new teachers into school-wide learning opportunities (Walsdorf & Lynn, 2002; Wood, 2005), promote learning during evaluations (Wayne, Youngs, & Fleischman, 2005), and work closely with mentors (Angelle, 2002; Bartell, 2005; Barth, 1991; Boss, 2001; Carter, 1994; Danielson, 1999; David, 2003; *Ethic of Care*, 2002; Feiman-Nemser, 2001; Gallegos, 1995; Ganser et al., 1994; Joerger & Bremer, 2001; Johnson, Harrison Berg, & Donaldson, 2005; Johnson & Kardos, 2002; Kardos, 2005; Lyman & Villani, 2004; Marable & Raimondi, 2007; O'Brien & Goddard, 2006; Portner, 2005; Reiman & Thies-Sprinthall, 1997; Tickle, 1994; Wonacott, 2002; Wong, 2005; Youngs, 2002). Management plays a strong role in promoting a culture of collaboration (Nias, Southworth, & Yeomans, 1993) and respect for BTs as new colleagues (Chauncey, 2005; Kardos, Johnson, Peske, Kauffman, & Liu, 2001).

Despite the importance placed on the role of management, studies indicated a gap between principals' perceptions of the professional learning opportunities and support in their schools, and the reality experienced by their BTs (Cameron & Dingle, 2006; Hendrick & Childress, 2002). In Mansell's (1996a) study, New Zealand BTs rated principals very low on the scale of sources of help (see also Kingston, 1983). Mansell hypothesised this was because BTs were not aware of the real influence of the principal (1996a, p. 24). Although many of the above studies surveyed principals, no programme was found which relied on management support as its primary mechanism of new teacher support. Nevertheless, its prevalence in the literature rendered management support a critical piece in the induction puzzle.

Summary of Socioemotional Support

Using British-based research, Tickle (1994) advocated for a "restructuring of education through the growth of a community of reflective practitioners" (p. 227). A review of the induction literature found that many scholars agreed with Tickle, and that collaboration, networking, orientations, mentoring, and management support were all important dimensions of this component. Oftentimes, researchers cited the importance of having multiple dimensions; for example, while researching New South Wales induction programmes, Khoo (2000) found that BTs with mentors were significantly more satisfied than BTs without mentors when mentoring

was included as part of a cooperative, collaborative environment. This concept of multiple, overlapping features within an effective induction component can be seen in all four dimensions, and will be further examined during the discussion of professional agency and structured balance.

Professional Agency: Fostering a Sense of Leadership, Efficacy, and Reciprocity

Nothing is established for all time, nothing is absolute or sacred.

–Frederick Engels

Another characteristic of successful induction programmes is that BTs' sense of professional agency is cultivated; that is, BTs develop a sense of themselves as powerful, purposeful agents in the educational setting (Achinstein, 2001; Trenta et al., 2002). In his writings on fulfilment, Gerwith (1998) explained Rawls' "Aristotelian Principle": all other things being equal, human beings enjoy the exercise of their realised capacities. Gerwith explained that agency involved having the double capacity to reflect on and control what ends or purposes one set for oneself. He concluded that a human being needed rational autonomy in the sense of being a "self-controlling, self-developing agent who can relate to other persons on a basis of mutual respect and cooperation, in contrast to being a dependent, passive recipient of the agency of others" (Gewirth, 1998, p. 208). Literature about BT agency included references to enhancing teacher efficacy, enabling BTs to hold leadership roles, and promoting a reciprocal status for BTs within an integrated culture.

Building Professional Agency by Enhancing Teacher Efficacy

In the induction literature review, 33 references to teacher efficacy were found (e.g., Chester & Beaudin, 1996; de la Torre Cruz & Casanova Arias, 2007; Murshidi, Konting, & Elias, 2006; Riggs, 2000). Tschannen-Moran, Woolfolk-Hoy, and Hoy (1998) defined a teacher's sense of efficacy as the teacher's belief in his or her capability to organise and execute courses of action required to successfully accomplish a specific teaching task in a particular context. Teachers' efficacy beliefs helped determine their effort, perseverance, and resilience (Bandura, 1997). Teachers' sense of efficacy has been shown to be positively related to their goals for students, the effort they invest in teaching, their behaviour in the classroom, and student achievement (Goddard, Hoy, & Hoy, 2000; Mulford, 2003; Rust, 2002; Timperley, 2003;

Tschannen-Moran & Woolfolk-Hoy, 2001; Valli, Raths, & Rennert-Ariev, 2001). Researchers found links between efficacy and retention (Darling-Hammond, 2006; Darling-Hammond, Chung, & Frelow, 2002). Highly efficacious BTs were found to have high satisfaction in teaching, thus they had a more positive reaction to teaching and experienced less stress (Murshidi, Konting, & Elias, 2006). When teachers' self-efficacy was threatened, they taught and expected less (Johnson, Harrison Berg, & Donaldson, 2005).

The literature indicated several dimensions to teacher efficacy, including personal vision (Hammerness, 2006; Villani, 2002), confidence (Odell & Huling, 2000; Roberts, 2000; Saffold, 2006), risk-taking (Hopkins & Stern, 1996), self-actualisation (Gewirth, 1998; Roberts, 2000), and self-direction (Argyris & Schön, 1974; Clark, 1992; Raymond, Butt, & Townsend, 1992). The literature also indicated a number of influences on BT efficacy, including assistance with problem-solving (Block, Mangieri, & Barnes, 1994), relationships within a school (Peeler & Jane, 2003), and a BT's verbal persuasion, exposure to modelling, and personal mastery experience (Vandenberghe & Huberman, 1999). An Internet survey of 542 Australian teachers found efficacy was related to student academic achievement and growth (Lokan, 2003). Some studies found that a teachers' ethnicity was an influence on efficacy; for example, in a survey of 328 Malaysian teachers, Murshidi (2006) found the historically more adaptive Ibans reported a higher sense of efficacy and less stress. However, in their study of teachers' sense of efficacy, Tschannen-Moran and Hoy (2001) found no difference in efficacy beliefs in relation to a teacher's ethnicity. In New Zealand, Timperley and Parr (2004) conducted research on teachers and efficacy. They defined teacher self-efficacy as understanding what needs to be learnt. Their research team examined how New Zealand teachers' expectations of low-income students' achievement changed during a six-month professional development in literacy effort. Pre- and post-survey and interview data in the small-scale study highlighted changes in teachers' expectations and self-efficacy as compared to student reading scores (Timperley & Phillips, 2003).

Enhancing Efficacy by Rejecting a Deficit View: Switzerland

The Swiss philosophy rejects a deficit model of induction that assumes BTs lack training and competence, and instead relies on an individualised, developmental induction programme (Wong, Britton, & Ganser, 2005, p. 380). BTs' efficacy is examined and enhanced as they

engage in critical reflection on curricular practices as individuals, in BT groups, and with their tutor teachers. Many Swiss BTs participate in voluntary counselling programmes, and practice groups conclude with a form of self-evaluation that emphasises a holistic approach to developing efficacy as a teacher. Altogether, BTs are seen as professionals with a high degree of curricular and pedagogical choice (Wong, Britton, & Ganser, 2005).

Leadership Roles: Formal and Curricular

In addition to enhancing efficacy, a second component of cultivating BT agency is fostering leadership. Leadership has been cited as an important component of a strong induction programme (Achinstein, 2001; Goode, Quartz, Barraza-Lyons, & Thomas, 2004; Johnson, Harrison Berg, & Donaldson, 2005; Moskowitz & Stephens, 1997; Rosenblatt, 2001; *Unfulfilled Promise*, 2004). Although there has been limited research specific to BTs, all teachers undertaking leadership roles are more committed, report higher levels of job satisfaction and commitment (Firestone & Pennell, 1993), and are less likely to leave both particular schools and the teaching profession (Ingersoll, 2001) when they perceive themselves as having more influence over school-wide policy. Using structured equation modelling, Rosenblatt (2001) found that teachers who held multiple roles reported significantly higher organisational commitment than those who did not. It is important to note that some scholars suggested that leadership roles within the school were balanced with support so that the BT was not "overwhelmed," as measured by data on stress levels and work rate (Kardos, 2005; Pettigrew, 2004).

Muijs and Harris (2007) wrote that the concept of "teacher leadership" comprises both formal leadership roles and informal roles such as peer-coaching and setting up action research groups. As curricular leaders, BTs can create new channels of communication, thereby changing the instructional climate of a school (Fletcher & Barrett, 2003). BTs have been found to have adaptive expertise in the field of pedagogy (Darling-Hammond & Baratz-Snowden, 2005). Moreover, "their capacity to handle uncertainty and bring about change—given appropriately supportive circumstances—can be equal to or better than more senior colleagues" (Tickle, 2000a, p. 15). Effective induction programmes enable BTs to take cognitive risks (Schön, 1987) and challenge existing beliefs, particularly in curriculum areas (Timperley, 2001). Some literature reported that BTs' fresh approach to teaching was often treated as deficient by principals and

experienced colleagues. These colleagues were described as critical co-workers who employed occupational perpetuation of existing practices and patterns of inequitable outcomes for children (Martinez, 1994, 2004). However, BTs can be viewed as knowledgeable, imaginative problem-solvers, leaders, and curriculum innovators (Tickle, 2000a). Tickle (2000b) believed that BTs should become curriculum subject coordinators with leadership responsibilities, and that with appropriate induction they could be equipped to lead the way for a research-based profession. For example, BTs' recent training could help them assist more "expert" teachers, making them an asset to any collaborative action research endeavour (Winkler, 2002). Reconceptualising BTs as "thinkers" (Duffy, 1994) enhanced their "professional capital" (C. Williams, 2002) while challenging the survival orientation of traditional induction programmes (Tickle, 1994).

Because learning and development are culturally mediated (Hayes, 2001; Vygotskii & Kozulin, 1986), having BTs as information brokers is critical in schools with complex sociocultural backgrounds. Corson (1998) found that schools in low-socioeconomic settings can experience rapid changes, and that BTs assist in the annual re-creation of policy responsive to these schools' dynamic, social, cultural, and political contexts. Indeed, the high teacher attrition in these schools may confer benefits as "new blood" continually revitalises them (Herrington, Herrington, Kervin, & Ferry, 2006).

BTs as Action Research Leaders: Queensland, Australia

Researchers at Australia's Queensland University of Technology conducted a study to develop, trial, and evaluate participatory action research as a way of supporting BTs. Participant teachers collaborated with each other and with staff from the university in action research projects within their schools. Five of the BTs were located in rural and outer suburban Queensland schools, two were in the Northern Territory, and one was in New South Wales. Hence, most of the BTs were separated from each other and the university staff by two to three thousand kilometres. BTs chose to become research leaders in one of three areas: (a) inclusivity, (b) assessment, and (c) gifted and talented. Network meetings took place before the school year began, after one month and after one term. Email and telephone meetings were also used. In their schools, BTs gathered data related to their topics and took leadership roles in implementing the new techniques (Ginns, Heirdsfield, Atweh, & Watters, 2001).

Dynamic Dyadic Status in an Integrated Professional Culture

Some of the induction literature suggested that enculturation implied passive adjustment (Feiman-Nemser, 2003). For example, Zeichner and Gore (1990) wrote that influences on BT agency extended beyond the mentoring relationship: "…policies, traditions, power and personalities work to construct a school culture that provides further challenges to the beginning teacher." At the school level, BTs often engaged in socially constructed interactions in which established teachers exerted and maintained their senior position (Rippon & Martin, 2006a). Hargreaves and Fullan (1992) wrote that "…this danger of control masquerading as care is an ever-present one that requires continued vigilance" (p. 13). Mentorship may have a conservative aspect propagating obsolete models of practice which impede BT growth (Beck & Kosnik, 2002; Cochran-Smith & Lytle, 1999; Feiman-Nemser, 2001; Ingersoll, 2004a; Levine & Moreland, 1991; Maguire, 2001; Rippon & Martin, 2006b; Whisnant, Elliot, & Pynchon, 2005; C. Williams, 2002; Young, Bullough Jr, Draper, Smith, & Erickson). The term "collateral damage" can be used to refer to the negative impact on both the mentor and the BT during the mentoring process (Kilburg & Hancock, 2006). Similarly, Kane (1994) used stimulated recall interviews and personal journals from two BTs to observe how they bypassed engaging in reflective, pedagogical practices by cloning the behaviours of "more knowledgeable" teachers.

In contrast to the aforementioned conservative dynamic, Lather (1986) adopted a stance of BT agency via reciprocity, dialectical theory-building, and praxis-oriented research in which BT relationships were not all based on collateral damage. Dewey (1963b) wrote that development occurs through reciprocal give and take, and other scholars have concurred with the view of mentoring as a dynamic, reciprocal, dialectical relationship (Carter, 2001; Riggs, 1997; Schön, 1987; Valsiner, 1987; Vonk, 1994). Dever, Johnson, and Hobbs (2000) developed the concept of a "dynamic dyadic status" in which both parties in a mentoring relationship engage in a balance of support and growth. Several small-scale research projects explored this concept. One in-depth study of four California mentoring pairs found that BTs who experienced a reciprocal mentoring relationship measured higher on California's BT standards (Achinstein & Villar, 2004). In her Auckland-based study interviewing student teachers about agency, Turnbull (2002) noted an effective framework for induction utilises the principles of adult learning. She found that effective support structures are reflective, equitable, and inclusive while incorporating effective teamwork and self-directed learning. A study by Wildman, Niles, Magliaro, and

McLaughlin (1990) conducted on 15 pairs of BTs and veteran teachers found that collaborative reflection resulted in the veteran teachers improving their own teaching. Bobek (2002) observed that other factors, such as resilience, may be enhanced if BTs experience a sense of ownership of their careers as they solve problems, make decisions, set goals, and help students. During interviews with 11 teachers, McCann and Johannessen (2004) found that reciprocity included BT involvement in scheduling meetings and selecting mentors. In four cross-case comparisons of education strategies in diverse communities, specific instances of dynamic dyadic status were noted by Corson (1998). Corson found that the professionals were often the novices in these communities, and the expertise needed to be a successful teacher in a multicultural school extended well beyond traditional professional pedagogy: it required the depth of insight into the local community and its cultures that experts in those cultures possessed. Although all of these studies found value in reciprocity, they were all small-scale, qualitative, and based in America.

One large-scale research project on reciprocity in induction programmes conducted by Johnson, Kardos, Kauffman, Liu, and Donaldson (2004) described an "integrated professional culture" in which: "mentoring [was] organised to benefit both the novice and the experienced teachers, and structures [were] in place that further facilitate teacher interaction and reinforce interdependence" (p. 159). The "novice status" was held in high regard, and novices and experienced teachers shared responsibility for growth. In this type of culture, BTs adjusted without complete internalisation of the status quo. This adjustment was facilitated by the context, peers, and the induction process (Tisher, Fyfield, Taylor, & Dunn, 1979) and extended beyond tokenistic BT involvement in group meetings (*Ethic of Care*, 2002).

Integrated Professional Culture: Boston, Massachusetts

In the Harvard-based *Project on the Next Generation of Teachers*, researchers interviewed 50 Boston-area BTs as they began their teaching career. In general, teachers were more likely to stay in schools with integrated professional cultures organised around collegial efforts rather than schools organised around veteran- or novice-oriented activities. In these schools, BTs were provided with sustained support and ongoing exchange across experience levels for all teachers: there were no separate camps of veteran and novice teachers (Kardos, 2004, p. 4). Findings from Kardos's (2005) survey posted to BTs in four states showed that mentoring itself had no statistical relationship to BT job satisfaction; however, working in a

school with an integrated professional culture was strongly and positively related to BT job satisfaction (Johnson, Harrison Berg, & Donaldson, 2005; Johnson & Kardos, 2002, 2005; Johnson, Kardos, Kauffman, Liu, & Donaldson, 2004; Kardos, 2005; Kardos, Johnson, Peske, Kauffman, & Liu, 2001).

Summary of Professional Agency

Achinstein wrote "ultimately, the goal of mentoring is to produce independence and a sense of agency in the novice" (2004, p. 336). The literature showed that an effective induction programme would be less hierarchical, less individualistic, and more inclusive: "the old model of mentoring, where experts who are certain about their craft can pass on its principles to eager novices, no longer applies" (Hargreaves & Fullan, 2000, p. 52). A review of the literature on professional agency indicated multiple parameters. First, studies noted multiple influences on teacher efficacy, which has been linked to student achievement. Most saliently, in their review of the literature, Muijs and Harris (2007) noted that one of the main ways to increase agency was to improve teachers' self-confidence, as exemplified by the Swiss induction programme. Second, both formal and informal leadership roles were important for enhancing BT agency. This included being curricular experts in action research projects, as described in Queensland, Australia. Lastly, as Harvard's *Project on the Next Generation of Teachers* found, professional agency was developed when BTs held a reciprocal status within an integrated professional culture. In other words, as the founder of one Chicago induction group asked, "How can teachers question the status quo and alter it based on their new learning?" (Parker, 2003). Having established the importance of professional agency in the literature, the next section examines the final component of structured balance within the induction programme.

Structured Balance: Workload, Life Balance, and Programme Coherency

In addition to development, support and agency, the review of the literature indicated that structuring the balance of an induction programme is important. Structured balance included a reduced workload, a clear programme vision, and programme evaluation balanced by an emphasis on the personal life and well-being of the BT.

Reduced Workload

In 1979, the first Australian national study of BTs found that a reduced workload could include shorter teaching time, reduced range of teaching content, reduced class sizes, and a reduction in non-teaching duties (Tisher, Fyfield, Taylor, & Dunn, 1979). The most prominently cited examples of reduced workload were a reduced teaching load (Darling-Hammond & Baratz-Snowden, 2005; *Ethic of Care*, 2002; Horn, Sterling, & Subhan, 2002; Ingersoll & Smith, 2004; Serpell & Bozeman, 1999; *Top of the Class*, 2007; Wood, 2005; Zeichner, 1979) and additional release time (Horn, Sterling, & Subhan, 2002; Joerger & Bremer, 2001; Portner, 2005; Serpell, 1999; Timperley & Wiseman, 2003; Villani, 2002; White, 2005; Wonacott, 2002; Wood, 2005). It was also found that high workload demands with low time allocation led to programme failure (Peeler & Jane, 2003). Researchers found benefit reducing both the total contact hours and increasing the duration of induction activities over time (Bartell, 2005; Desimone, Porter, Birman, Garet, & Yoon, 2002; Garet, Porter, Desimone, Birman, & Yoon, 2001; Johnson, Harrison Berg, & Donaldson, 2005; Odell & Huling, 2000; Tickle, 1994).

Induction Integrated with Pre-Service: Scotland

Within a standardised framework, Scotland has designed an induction system that incorporates a reduced workload. In the late 1990s, support for new teachers became a priority of the Scottish Executive Education Department through the "excellence fund" scheme, used by local authorities to introduce a variety of induction programmes and practices (McNally, 2002). This support began a tradition of multi-support systems with coordination between levels (O'Brien & Christie, 2005). In 2002, the new Teacher Induction Scheme began a one-year, government-funded training placement for all new teachers. The scheme was mandatory for all new teachers who wished to attain full registration with the national professional body and become eligible for permanent employment in Scotland's public schools. Each new teacher was placed with one or two schools to undertake 0.7 of a normal timetable. The new teacher was expected to attend weekly meetings with the induction supporter to receive feedback from observations and to plan development targets. For one-and-a-half days per week, each new teacher was freed from timetabled commitments to take part in a range of development activities individually, with other new teachers, and with colleagues. On-site teachers were funded and released from their role as tutor teachers (Rippon & Martin, 2006a).

Life Balance to Reduce Stress

The literature showed that it was important for induction programmes to assist BTs in managing stress. Stressors for BTs included accountability, being unprepared to work together (Power & Hine, 2003), and timetables that did not allow teachers to meet (*Prisoners of Time*, 1994; Scott, 2000a). References to stress management included appropriate assignments and/or less challenging classrooms (Claycomb & Hawley, 2000; Feiman-Nemser, 2001; Gilbert, 2005; Ingersoll & Smith, 2004; Tickle, 1994; Zeichner, 1979), providing instruction on effective time management (Joerger & Bremer, 2001), limiting the number and scope of extra teaching duties (Joerger & Bremer, 2001), and attending stress-reduction workshops (Wilkins-Canter, Edwards, Young, Ramanathan, & McDougle, 2000). Stress was reported to fluctuate over the course of the year (Grudnoff & Tuck, 2005), with comments made during the second term being by far the most negative (O'Brien & Goddard, 2006).

Measuring Stress and Anxiety: The Netherlands

One Dutch induction scheme, run by the Teacher Training Institute of the University of Utrecht in five secondary schools, divided BTs' first year of teaching into three phases. First, during a four-week logbook phase, no classroom observations were made and supervision interviews were held on the basis of the material provided by the BT. These discussions were intended to mitigate stress and anxiety felt by the BTs. In addition, the new teachers were helped by formal discussions with a mentor and other new teachers. During a six-week lesson observation phase, BTs visited one another's classrooms, and the mentor observed lessons of the beginning teacher. All observed lessons were followed by formal discussions intended to reduce anxiety and increase performance. Lastly, as part of a six-month individual guidance phase, the mentor attended to the weak points in the new teacher's teaching. In this phase mentor and beginning teacher made a contract about the supervision process. Mentors received three days training and their performance was evaluated by BTs and the university. Interview and survey data were collected in regards to stress, anxiety, and teaching behaviours. Results indicated that BTs' self-confidence was higher than non-mentored peers and, although the influence on teaching behaviours was not clear, mentored BTs reported being less emotionally disturbed by the difficulties they encountered (Wubbels, Creton & Hooymayers, 1987).

Programme Coherence: Vision and Evaluation

Not only do BTs need a clear sense of purpose, but programmes do as well. Successful induction programmes have a clear rationale (Bartell, 2005; Moir & Gless, 2001; Odell 1987; Thomas & Newton, 2001). Purpose is achieved via a coherent, planned structure (Claycomb & Hawley, 2000; *Ethic of Care*, 2002; Portner, 2005; Roberts, 2000; Serpell, 1999; Wonacott, 2002) that is piloted and refined (Totterdell, Bubb, Woodroffe, & Hanrahan, 2004). Programmes should take place for multiple years (Boss, 2001; Darling-Hammond & Baratz-Snowden, 2005; Feiman-Nemser, 2001; Horn, Sterling, & Subhan, 2002; Portner, 2005; Simmons; Totterdell, Bubb, Woodroffe, & Hanrahan, 2004; Trenta et al., 2002) and programmes should include evaluation (Bartell, 2005; Claycomb & Hawley, 2000; Dagenais, 1996; *Ethic of Care*, 2002; Portner, 2005; Serpell & Bozeman, 1999).

Evaluating Mentor Support: Santa Cruz's Beginning Teacher Support and Assessment (BTSA) Programme

California legislation SB2042, passed in 1998, required a two-year induction programme for a clear professional licence with the key outcome of developing reflective practitioners. A statewide assessment system created a common vocabulary for professional standards and a description-of-practice rubric (Olebe, Jackson, & Danielson, 1999). BTs were supported by a mentor who had been trained for 60 hours in how to mentor, how to use the state standards, and how to engage in BT assessment. BTs were assessed twice in their first year. BTSA programmes expanded to encompass the entire state, but they varied by region. In Santa Cruz, the BTSA programme focuses on providing full-time mentors for BTs; the New Teacher Center trains and supports full-time mentor teachers for the surrounding districts. The research division of the centre focuses on evaluating the programme's success. Researchers at the centre have designed an on-line survey for the BTs in the programme (Barrett, 2005) and use state standardised tests to attempt to find a positive relationship between BT support and teacher retention (Strong, 2006a; Strong & St. John, 2001; Villar & Strong, 2005). Their researchers have analysed the link between induction and the financial benefits of teacher retention (Villar & Strong, 2005), and they are attempting to link mentoring practices and student achievement (Strong, 1998b). Results, although relatively small-scale, look encouraging in linking the achievement of students in the classrooms of California BTs with the BTSA mentoring programme.

Summary of Structured Balance

Reducing the workload and ensuring the work-life balance of BTs were shown to be successful practices when coupled with a clear programme vision. Constant evaluation and refinement ensure that programmes are updated according to the needs of BTs. By designing a structured and well-balanced programme, schools assist BTs in maintaining balance during their growth as professionals. As with the other components, the various practices are interdependent both within and between components.

Conclusion to Integrated Induction Components: Overlapping Support Systems

Once it had been established that the four individual components of integrated induction often overlap, the literature was reviewed to investigate the nature of overlapping support systems. The review of the literature suggested that there are a myriad of effective induction practices. The literature suggested that these practices are complementary and overlapping (Hodkinson & Hodkinson, 2005; Ingersoll & Smith, 2004; Johnson & Birkeland, 2002; Stansbury & Zimmerman, 2000; Wong, 2005). This study can contribute to the research by investigating the development of pedagogical development, socioemotional support, professional agency, and structured balance in the New Zealand induction setting.

Within any one of the four components, induction practices can complement one another. For example, Kardos (2004) found that having a mentor in itself had no statistical relationship to BT job satisfaction, whereas working in a school with an integrated professional culture was strongly and positively related to job satisfaction. She noted that "Our work suggests schools would do better to rely less on one-to-one mentoring, and, instead, develop school-wide structures that promote integrated professional cultures with frequent exchange of information and ideas across experience levels" (p. 28). Kardos, Johnson, and Birkeland recommended that socioemotional components—such as seminars, subject-area coaching, and grade-level teams—fit with school culture (Johnson & Birkeland, 2002).

The literature also suggested that certain practices within a component may be more effective than other practices. In their review of induction practices, Stansbury and Zimmerman (2000) coined the terms "high-intensity" and "low-intensity" induction programmes. They found that high-intensity induction programmes contained components such as training and supporting

tutor teachers, providing release time, examining student data, formal mentoring, and programme evaluation. Low-intensity programmes simply oriented new teachers, matched BTs with veteran teachers, and promoted collegial collaboration. As schools are designing induction systems, it is important they bear in mind that high-intensity practices may have a greater impact than low-intensity practices on induction effectiveness and BT development.

In addition to noting the need to balance practices within components, several scholars have noted the interdependent nature of the elements across a balanced induction programme. Most notable of these scholars is Ingersoll. Ingersoll and Kralik (2004) conducted reviews of the literature on mentoring and teacher retention, and Ingersoll's meta-analysis of 46 U.S. studies found that mentoring and induction programmes appeared to play a prominent role in teachers' decisions to quit or remain on the job. The types of induction support that had the strongest positive association with retention were (a) having a mentor in the same field, (b) having common planning time with other teachers of the same subject, (c) having regularly scheduled collaboration with other teachers, and (d) being part of an external network of teachers. Analysing a nationwide database, Ingersoll found that having a mentoring programme per se did not lead to increased teacher satisfaction. However, where assistance was acknowledged as effective there was a 92% lower chance of BT attrition. Smith and Ingersoll (2004) distinguished between having a mentor ("basic induction"), basic induction plus collaboration ("enhanced induction"), basic induction plus collaboration plus teacher network plus extra resources ("comprehensive induction"). Only 1% of BTs in their data had comprehensive induction, while 26% had an enhanced induction, 56% had basic induction, and 3% had no induction at all. Ingersoll and Smith found that the comprehensiveness of induction programmes could be used as a predictor of the probability of turnover after the first year: the turnover rate was 41% for teachers receiving no induction, 39% for teachers receiving only mentor and principal support, and only 18% for teachers receiving all the components of a comprehensive package (Ingersoll & Smith, 2004). In other words, by integrating multiple components in an induction programme, its effectiveness appeared to be increased.

A Working Model of Effective Induction

An integrated model of effective induction and its four components was created based on the literature (Figure 1).

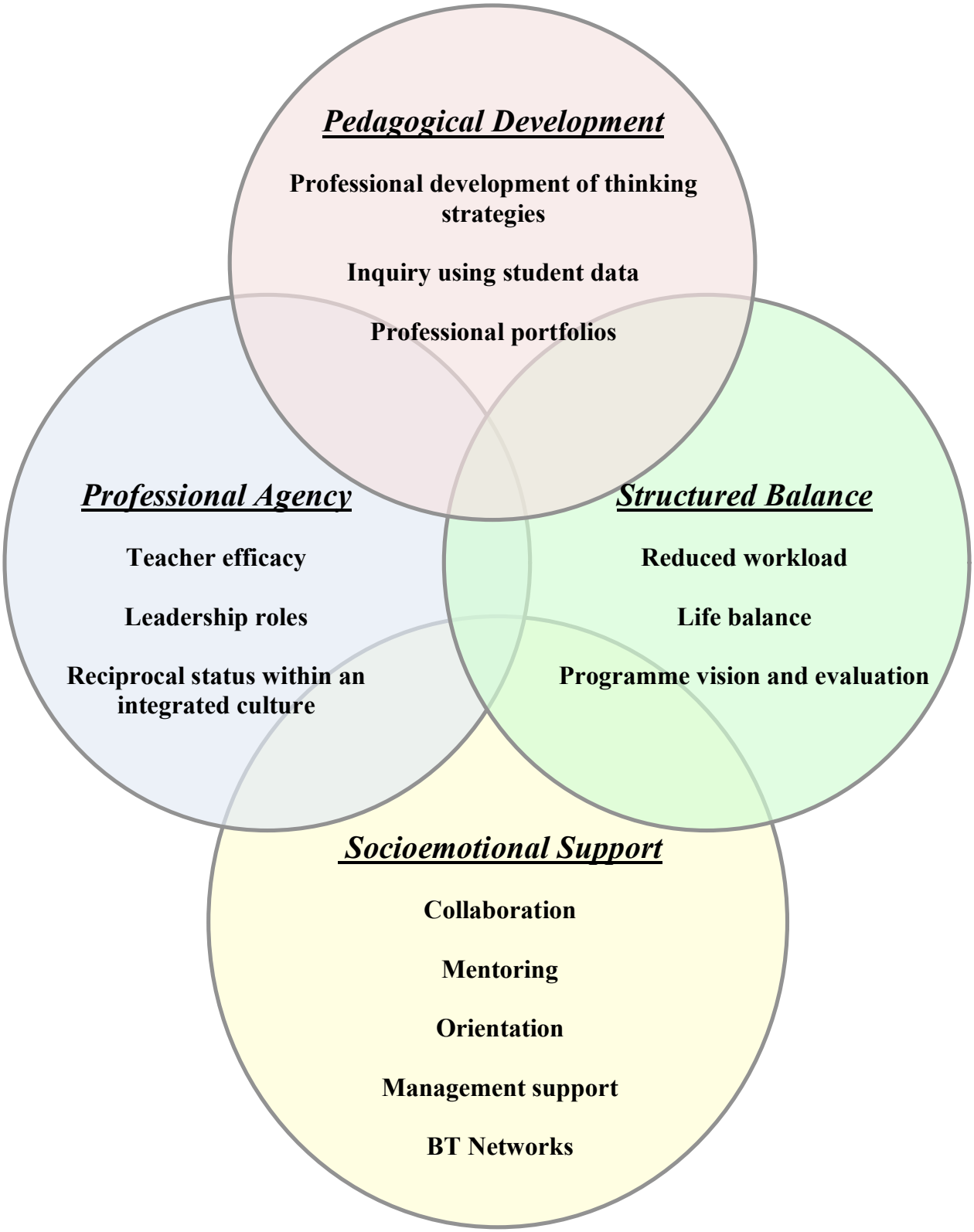


Figure 1. Induction components framed by an integrated model

This working model will be explored further in this thesis. Although there are multiple examples of successes in any one component, there are few countries that boast strong practices in all four areas. As will be discussed in the next chapter, New Zealand schools, and in particular New Zealand low-socioeconomic primary schools, present a model of an effective integrated induction system that includes four, strong overlapping components. This model may prove useful as international researchers seek to enhance induction programmes in their countries.

CHAPTER 3. CONTEXT

In the discussion of the various induction components, case examples such as Japan, Connecticut and Scotland were cited as exemplars. Although these examples were strong programmes, they were not necessarily integrated programmes. For example, as part of New Brunswick's annual programme evaluation, Gill (2005) asked BTs to report if they engaged in low-risk activities (e.g., making informal contacts with their mentors and discussing classroom management techniques) or high-risk activities (e.g., receiving feedback about teaching from their mentors and observing other colleagues teaching). The study found that a large percentage of BTs were not participating in higher-risk activities; in other words, the programme, while strong in socioemotional support and structured balance, was not engaging in activities that enhance the pedagogical development of BTs. Worldwide, there are few, if any, examples of induction programmes that integrate all four components. It is hypothesised that New Zealand can serve as a case example of effective induction components. As discussed below, New Zealand features prominently in several international comparisons and has a support structure that incorporates each of the four components. In the final section, the framework for the low-socioeconomic focus is discussed.

International Context

Before the case example of New Zealand is discussed, it is helpful to contextualise the international induction scene. Despite the pockets of success highlighted in the second chapter, for the most part, the induction attempts of most countries are reported to be weak, under-supported, un-coordinated, ineffective, or some combination of the above. This section discusses the weaknesses of some international induction programmes and then discusses reviews of New Zealand in major cross-national induction comparisons.

International Difficulties

In their comparative research, Moskowitz and Kennedy (1997) found information on funding levels for teacher induction to be scarce; in general, Asia-Pacific Economic Cooperation members spent less than 1% of their education budget on induction. The review of the literature showed that induction in most countries has only recently begun to receive funding and attention,

and programme evaluations indicate that many refinements are necessary. As presented above, there have been some instances of success, but the following is an overview of the induction problems in the United Kingdom, the United States, Australia, and the European Union.

United Kingdom: Weak Evaluations of the Structured Balance

A 1972 parliamentary motion to decrease BTs classroom time to 75% went into effect during the late 1980s. From the 1990's, there were only isolated instances of strong induction practices. In fact, from 1992 to 1999, there were no national induction regulations. Induction was made statutory after May 1999. The main features of the three-term-long induction are: the Career Entry Profile sets the agenda for development, a reduced (90%) timetable for BTs, teaching is observed at least six times, meetings are held every two months to review progress and set targets, and BTs are assessed via a formative assessment with fixed-point reporting three times per year (Heilbronn, Jones, Bubb, & Totterdell, 2002).

One large-scale research project reported that the vast majority of BTs, head teachers, induction tutors, and representatives from LEAs believed that statutory induction was beneficial in helping BTs become more effective teachers (Totterdell, Heilbronn, Bubb, & Jones, 2002); however, the same study also found that approximately 20% of newly qualified teachers in England described their induction experience as less than satisfactory (Totterdell, Heilbronn, Bubb, & Jones, 2002). Three years later, a fifth of BTs reported that they did not receive their reduced timetable throughout the year, a fifth did not think their induction tutor gave useful advice, and one in eleven had not observed any other teachers (Bubb, Earley, & Totterdell, 2005). Bubb and Earley (2006) described the uneven implementation of induction as "educational vandalism" that is eroding teachers' professional development at the policy, school, and teacher levels. Tickle (2001) commented that the focus on the Career Entry Profile and Induction Standards "…is assessment led, based on a regulated range of teaching behaviours, and specific definitions of teaching quality—and that presents a problem" (p. 53). This problem is evident elsewhere in the British Isles: although Scotland has strong university-backed induction, research in Northern Ireland, the Republic of Ireland, and Wales indicates that the majority of BTs report less-than-satisfactory first year support (Abbott, 2007; Harper-Jones, 1994; Killeavy, 2001).

The United States: Federalised Variation of Support Levels

Most United States experts concur that effective induction programmes are rare (Fletcher, Strong, & Villar, 2005; Fullan, 1982; Levine, 2006; Patterson, 2005). Darling-Hammond and Baratz-Snowden (2005) summarise this predicament when they write that "Unfortunately, given the hodgepodge of policies, the lack of resources in many districts, and the fragmentation of design of factory model schools, these [strong induction] conditions are absent in many U.S. schools" (p. 68). In a literature review, Sparks (1999) found that "the American school system fails to provide sufficient staff development… Only 19 percent of teachers had a mentor teacher and two-thirds did not participate in a formal induction program during their first year on the job" (para.14). Programmes tend to rely on mentors and/or occasional in-service courses. The programmes vary considerably from formal to informal (Klug & Salzman, 1991), from comprehensive support with a full-time, highly trained mentor to an informal buddy system of support from an assigned fellow teacher who receives no release time, compensation, or training (Ashdown, Hummel-Rossi, & Tobias, 2006; Hayes, 2001; Serpell, 1999; *Taking the Next*, 2000).

In 1992, the Interstate New Teacher Assessment and Support Consortium (INTASC) released its model core standards and achieved some consensus around what BTs should know and be able to do. INTASC recommended a candidate pass a test of content knowledge and a test of pedagogical knowledge, and submit a portfolio, before being issued a permanent license (Paradise, 1998). Despite the regulations, the number of states with programmes dropped to 26 by 1998 as states eliminated programmes because of reduced funding (Joerger & Bremer, 2001). Standardisation continued with the 2002 federal No Child Left Behind Act, which requires that all teachers be highly qualified in the core academic content area(s) they teach. In many states, newly hired and veteran teachers are required to pass standardised assessments (*2005–2006 Highly Qualified*, 2005), but this added pressure has not necessarily been accompanied by a formal support programme. Also, despite these regulations, and in contrast to Scotland and France, only 3% of teacher training institutions mentor graduates after graduation (Levine, 2006).

Australia: Regional Variety in Pedagogical Development

State variation persists in Australia, and in the absence of clear policy, some regional supervisory structures are reported to be less than adequate (Quartz, 2003). Despite strong

practices in some states—New South Wales, Victoria, and the Northern Territory—the predominant sentiment is that the current systems work against providing BTs with an appropriate level of support, especially as many become relievers—who receive no official support—during the year following their graduation (*Top of the Class*, 2007). Data from an Australian study that followed the involvement of BTs in participatory action research suggested that their action research focused on classroom management rather than critical thinking (Wilson, Hall, Davidson, & Lewin, 2006). Carter (2001) surveyed 220 New South Wales BTs and 245 supervisors and found that only 36 BTs identified formal mentors and 107 did not identify any mentor. More recently, an Australia-wide survey of 697 BTs reported that although half of them rated observing other teachers' lessons as an essential strategy, this was an experienced enjoyed by fewer than 25% of them (*Ethic of Care*, 2002).

European Union: Lack of Induction Initiatives

A pan-European survey by Le Metais (1997) found that induction is often a distinct phase in the professional development scheme of European teachers. However, Coolahan (2002) wrote, "There are not many examples of really good practice in the induction area" (p. 25). Vonk (1994) cited the lack of major European induction initiatives since the 1980s and remarked that, in Europe, BTs were viewed as autonomous, self-directing professionals and induction depended on the school context. Within the European Union, most induction programmes are run solely by institutions for initial teacher education. There is a tendency for induction expenditures to be devolved to school or local level (Wilson, Hall, Davidson, & Lewin, 2006). The largest BT research project involved the comparison of Organisation for Economic Co-operation and Development (OECD) countries (McKenzie, 2005), and noted that France, Israel, and Switzerland were the only OECD countries which had formalised tutor teacher training programmes. Although the Netherlands is reported to have strong induction, research on the majority of smaller European Union countries reveals that support and guidance is far from responsive to BTs' needs. For example, in case studies of Portuguese schools, Flores (2001) found there are often no formal induction programmes. She recommended that more attention be paid to mentor training and that there be stronger investment in induction.

New Zealand: Exemplary in Cross-National Studies

The dismal picture painted by the previous summaries is mitigated by pockets of strong success, many of which were mentioned in the second chapter. Indeed, there have been three prominent cross-national comparisons of successful induction programmes, all of which have featured New Zealand. The first, conducted by Moskowitz, Stephens, Kennedy, Whitmore, and Nohara (1997), examined policy and practices of teacher induction in 11 participating Asia–Pacific Economic Cooperation members. Methods included a survey and three case studies. The survey asked experts in each country about strategies, programmes and practices, participation, mentors, guidance teachers, government policies, financing, outcomes, and future plans. The case studies examined teacher induction programmes in Australia, Japan, and New Zealand. The three programmes all operated within a culture of shared responsibility and mutual support of new teachers. The programmes used multiple support strategies, including mentoring, modelling, orientations, and professional development. In addition, programmes in these three exemplar areas were found to focus on assisting rather than assessing new teachers. Moskowitz and Kennnedy (1997) noted six characteristics common to the successful programmes: (a) a culture of shared responsibility and support; (b) interaction of new and experienced teachers; (c) a continuum of professional development; (d) down-played assessment; (e) clearly defined goals; and (f) adequate political, financial, and time commitments by relevant authorities.

The second cross-national comparison of induction programmes was conducted by Britton, Paine, Pimm, and Raizen in 2003. France, Japan, New Zealand, Shanghai, and Switzerland were chosen as induction systems because they were deemed to be (a) ambitious, in that all BTs were served, (b) substantial, in that there were no unfunded mandates, and (c) established for 10–25 years and continuing to improve. Extensive case studies describing induction in these five locations were described, although they "…do not claim to provide such an [empirically grounded] theory" (p. xii) connecting the cases. They do conclude by remarking that induction should be viewed as a system with themes that resonate across the successful cases: policies are funded, national programmes are dynamic, and strong leadership often guides the programmes. In a companion study, Wong, Britton, and Ganser (2005) noted that strong induction programmes all had a high degree of structure, a focus on professional learning, and an emphasis on collaboration that fostered BT growth and professionalism. Wong (2005) used data from these cross-national cases to posit that, at the school level, an effective induction

programme should be coherent, comprehensive, sustained, and focused on student learning, and should include the principal.

The third cross-national comparison, conducted by McKenzie and Santiago (2005), was sponsored by the OECD. Twenty-five countries were reviewed with the assistance of over 150 people and organisations. The study focused on attracting, developing, and retaining teachers. Rather than focusing on case studies, the study relied on survey and demographic information to recommend policy for member countries. Policy recommendations included transforming teaching into a knowledge-rich profession and viewing teacher education as a continuum.

In addition to these three studies, in the past five years several departments of education, (e.g., Canberra, (*Ethic of Care*, (2002)), universities (e.g., Harvard's *Project on the Next Generation of Teachers* (Johnson, Harrison Berg, and Donaldson, 2005)), and education consortiums (e.g., the Center for Strengthening the Teaching Profession (Whisnant, Elliot, and Pynchon, 2005)) have conducted literature reviews of the induction field. In addition, several of the studies mentioned in chapter two (e.g., Dangel, 2006; *Ethic of Care*, 2002; Portner, 2005; Robinson, 1998; Strong, 2006a) drew conclusions based on cross-case comparisons. Altogether, international case studies, literature reviews, interviews, and survey analyses were laudatory about the New Zealand induction experience:

> *The current teacher induction program in New Zealand appears to meet its objectives of quality, acculturation, and support.*
>
> –Moskowitz and Kennedy (1997, part 3, section 6, para.6)

> *New Zealand matches its rhetoric by supporting professional development with substantial funding. The .2 funding equates to approximately US$3,000 for each new teacher.*
>
> –Moskowitz and Kennedy (1997, part 3, section 7, para.5)

> *New Zealand had the highest percentage of teachers who attended professional development in the previous three months. [70% on graph]*
>
> –McKenzie and Santiago (2005, p. 126)

> *The New Zealand approach was highlighted as an example.*
>
> –Canberra DEST (*Ethic of Care*, 2002, p. 34)

> *Throughout the education system in New Zealand, there is a universal commitment to support beginning teachers.*
>
> –Wong, Britton, and Ganser (2005, p.381)

What is most relevant to the international community is New Zealand's incorporation of all four of the induction components in the integrated model. Moreover, the self-managing nature of the schools provides multiple examples of induction programmes that incorporate pedagogical development, socioemotional support, professional agency, and structured balance. Analysis of these models, including their shortcomings, is useful for programme designers, policy-makers, and practitioners worldwide.

Contribution to the Field: Combating the Kiwi Psyche

> *Kiwi rivers are graded harder than American or European ones, but that's the Kiwi psyche for you. If it originated over there, they must be better at it. We couldn't possibly be as good as them. We're so down on ourselves. That's why we have such solid industry standards.*
>
> –Ben, top international New Zealand kayaker

In addition to contributing to the international body of induction knowledge, this research project has a second aim of highlighting the successes of the well-established, well-designed, and continually refining induction system within New Zealand. To date, internal research concerning induction has been overly self-critical. For instance, a national Australian report proudly stated: "When asked in general terms about their level of satisfaction with the induction they had experienced, an average of 62.2% of teachers indicated they had received 'reasonable' or better support over their first year…a positive outcome." A similar report from New Zealand, meanwhile, lamented that "…a large proportion of [BTs] in all sectors considered that it was up to them personally to seek out assistance…14% of primary teachers considered that they had been left alone to 'sink or swim'" (p. xiii). Basic mathematics and careful checking of the sub-tables reveals far greater satisfaction among New Zealand primary BTs than among their Australian counterparts (86% compared with 62%). However, culturally, even a little discontent is a big problem. Thus, analysis of case studies, literature reviews, interviews, survey data, and demographic information reveals that recent national literature on induction paints a dismal picture despite strong results by international standards. For instance, the Ministry of Education released a report in 2006, *Initial Teacher Education,* that questioned "…the 'variable effectiveness' and lack of 'the necessary rigour, validity and consistency' to provide adequate guarantees that [BT]s are ready to move to full registration status," including the practice of

employing BTs on fixed-term contracts (2006, p.7). In *Learning to Teach: A Survey of Provisionally Registered Teachers in New Zealand*, Cameron, Dingle, and Brooking (2007) acknowledged that New Zealand is a leader in induction funding, but followed with statements such as "[BT]s did not have frequent opportunities to observe their mentor teaching" (p. xv) and "limited numbers of teachers participated in external professional learning opportunities" (p. xvi). Therefore, one objective of this research is explicitly to highlight the positive aspects of New Zealand's induction system for the New Zealand research community.

Summary of International Context

Cross-national case studies have shown New Zealand to have a well-designed, well-established, and comprehensive system of induction. Exemplar practices, including their successes and shortcomings, may be of interest to international audiences as they search for models of induction that incorporate all four of the integrated components. Additionally, highlighting the successes of the programmes might assist in combating the overly self-critical Kiwi psyche. The next section provides background to this successful New Zealand induction context.

New Zealand Context

The strong international reputation of New Zealand's induction system having been established, this section reviews the demographics, the general induction programme, government support structures, and policies in light of the integrated components. The review contextualises the survey and success cases while providing international readers with an overview of the policies, systems, and structures that frame New Zealand's induction policy.

Demographics

In 2006, the Ministry of Education reported that there were 2,344 first-year BTs employed in New Zealand schools: 1,363 in primary schools and 981 in secondary schools. At least one BT was employed in 40% (925) of all primary schools, in contrast to 81% (272) of all secondary schools (Table 2). BTs accounted for approximately 5% of the entire teacher workforce, and 59% of the provisionally registered primary BTs were under 30 years old (Murray, 2006).

Table 2

Number of BTs by School Type

	School Type[2]			
Number of BTs	**Primary**	**Secondary**	**Composite**	**Special**
None	1,239	61	41	33
One	503	61	24	10
Two	198	55	14	2
Three	93	37	5	2
Four	31	28	3	0
Five to Ten	14	76	2	0
Total Schools with BTs	839 (40%)	257 (81%)	48 (54%)	14 (30%)

Teachers can be hired on either fixed- or permanent-term contracts. Despite union regulation defending permanent appointments, there has been an increasing trend for schools to employ BTs on fixed-term contracts. In 1998, 35% of BTs were employed on limited-term contracts compared with 48% in 2002 (Elvidge, 2002) and 51% in 2006 (Cameron, Dingle, & Brookings, 2007). This statistic stands in contrast to the rest of the primary teacher workforce, in which just over a fifth (20.7%) are employed on limited-term contracts (*Education Counts*, 2007).

Over the past five years, there has been an increase in data collection concerning induction and teacher retention. The Ministry of Education reported that approximately 6% of BTs were no longer teaching after their first year on the job. Each subsequent year around 8% of each BT cohort—in contrast to 10% of all permanent teachers—were no longer teaching in state schools, with a steady rate of attrition. In other words, after four years, only 60% of teachers who began teaching would still be employed in the state school sector (Matos, 2002). A recent study listed going overseas as the most common reason for leaving, accounting for approximately half of the losses of BTs in their second and third year of teaching. Many of these teachers returned after three to five years. Leaving for personal and health reasons, or to go to another profession, was more common for BTs over the age of 30 than for their younger counterparts. Leaving to go to another profession was highest for BTs who left after one year of teaching (Murray, 2006).

[2] Intermediate schools (years 7-8), by definition, are incorporated into the primary schools (years 1-8).

While analysing demographic data, one should note that the Ministry of Education and other administrative organisations have dedicated resources to collecting data, an indicator of the priority placed on induction support. Just as there has been an increase in the collection of retention data, so has there been a stronger focus on socioeconomic statistics. As discussed in the following chapter, New Zealand schools are divided into 10 socioeconomic deciles. Studies have shown that BTs are more likely to be teaching in lower-decile schools with a larger concentration of Mäori students. In decile 1 schools, 6% of teachers are BTs, whereas in decile 10 schools 3.5% of teachers are BTs. To frame these data another way, experienced teachers in low-decile schools outnumber BTs by about 18:1, while in high-decile schools they do so by 22:1. BTs in low- and medium-decile schools are more likely to move to other schools with a higher socioeconomic ranking, but there is no significant lateral movement of BTs from high-decile schools to low-decile schools. BTs are more likely to gain employment in poor, rural regions (Murray, 2006). However, the latest loss rate data show that 5.3% of BTs in low-decile primary schools left teaching after one year, compared with 6.9% and 6.1% in medium- and high-decile schools, respectively (Elvidge, 2002). This higher retention rate suggests that low-decile schools may be designing more effective induction programmes for BTs, making the examination of induction programmes in low-decile schools a critical component of any study of New Zealand's induction programmes. This low-socioeconomic lens is further expanded in the following chapter.

Induction Programme

New Zealand's national system of 2,579 schools is resourced primarily by central government and managed at the school-site level by locally elected boards of trustees. All BTs are formally known as "provisionally registered teachers" until registration is approved by the New Zealand Teachers Council. The Teachers Council lists the following as typical components of a strong induction programme (*Teachers Council*, 2006):

- A fully registered tutor teacher;
- Observation and appraisal of BTs' teaching by colleagues, with reference to the satisfactory teacher dimensions and encouragement to reflect on teaching practice and to take action to enhance teaching;
- The opportunity to observe and discuss the work of other teachers;

- Professional discussions with colleagues focused on students' learning;
- Participation in appropriate courses and meetings arranged by School Support Services, staff of Teacher Education Centres, and/or principals' groups; and
- A written record of advice and guidance programme, including professional discussions and appraisal, with planning for further support and development.

Since 1985, schools have received funding of 1.2 times the base salary of each new teacher. In secondary schools, this funding goes directly towards providing release for the BT. At the primary level, the principals have been granted to authority to establish how the money is distributed. As a consequence of union collective agreements, Year 2 secondary BTs have had reduced workloads since July 2002, and Year 2 primary BTs since 2004, equivalent to 0.1, or half that of a first-year BT. Most schools use the funds to pay for a relieving teacher to teach the BT or tutor teachers' classes while they engage in induction-related activities. However, schools are not legally obligated to use the 0.2 funds for induction, and audits of induction programmes are generally cursory (Moskowitz & Kennedy, 1997). In summary, in New Zealand, support for BTs "…enlists several complementary sources of support that use a variety of induction activities" (Britton, Paine, Pimm, & Raizen, 2003, p. 192). In schools, the tutor teacher, syndicate team, principal, induction coordinator, other BTs, support personnel, board of trustees, and nearby schools can assist—in varying degrees in various locations—in creating a comprehensive network of support that would be of interest to international researchers.

Government Support Structures

Just as there are support mechanisms for BTs at the school level, so, too, is there a national system of educational checks and balances, including the Ministry of Education, the Education Review Office, and the New Zealand Teachers Council.

The Ministry of Education

BT support began to receive formal national attention in August 1972 at a Department of Education-led government conference attended by over 300 education professionals. The conference categories included improving teaching and learning, with a subsection dedicated to teacher education and training. The Ministry of Education, which replaced the Department of

Education in 1989, now provides policy advice, establishes national curriculum objectives, and broadly oversees the implementation of approved induction policies. The Ministry of Education ensures the optimum use of resources allocated to education including the national salary schedule. For teacher induction, the Ministry funds school-based and regional support programmes (Moskowitz & Kennedy, 1997), as well as the literacy, numeracy, and other professional development contracts (Alton-Lee, 2003).

The Education Review Office (ERO)

New Zealand's ERO serves as the national, independent evaluative branch of the Ministry of Education that replaced the Inspectorate in 1989. The ERO is responsible for evaluating schools against legislation, school charters, and other policy requirements. Descriptions of its evaluations are published in an on-line database (http://www.ero.govt.nz). Although the ERO includes BT induction procedures in its evaluation, it asks only whether, at any given school, there is an induction programme, not what type it is (Britton, Paine, Pimm, & Raizen, 2003). Occasionally, the ERO releases research reports based on the data it has collected. For example, in 2004, the ERO used its *Evaluation Indicators for Education Reviews in Schools* to survey second-year BTs working in schools that were being reviewed that year. The ERO used the data to create *The Quality of Year Two Beginning Teachers* report. The ERO found that, with some notable exceptions, most second-year BTs were valued and well supported, and that 71% (84) of "primary and secondary schools' support arrangements for beginning teachers met, and in some cases exceeded, expectations of effectiveness" (p.1). The ERO reported that 32 out of the 119 sampled primary schools exceeded induction expectations. At these schools, the ERO noted a team of BTs, BTs playing a positive role, and particularly strong school-wide support arrangements.

The ERO used its research findings as a basis for policy recommendations for improving the system of induction in New Zealand, including: (a) strengthening the tutor teacher's role as a step on the senior teacher career ladder, (b) providing more targeted professional development for tutor teachers, (c) increasing time allowance during BTs' second year of teaching to 0.2, (d) increasing professional development opportunities for BTs, (e) facilitating the establishment of and access to support groups for all BTs, and (f) investigating the practice of some schools which employed BTs on a temporary basis as de facto probationers. A follow-up report in 2005 noted

several key practices in successful induction programmes, including: (a) collegial support, (b) time allocated for a well-planned programme of mentoring and support, (c) a positive relationship with the tutor teacher, (d) observation of other BTs, and (e) interaction with other BTs. The report also detailed factors which had a negative impact, including: (a) poor support and guidance, (b) low tutor teacher quality, (c) insufficient release time, and (d) unreasonable expectations (*Voices*, 2005).

The New Zealand Teachers Council (NZTC)

Based on recommendations from the 1988 *Task Force to Review Education*, New Zealand dissolved the entire national education system and shifted to self-managing schools in 1989 (Fiske & Ladd, 2000). The restructuring created locally elected school boards of trustees to govern each primary and secondary school and be responsible for hiring and employing all school staff. During this shift, the 0.2 allowance for BT induction remained intact. However, with the change to self-management, teacher induction came to vary between schools throughout the country. For instance, in 1993, only 66% BTs in of Auckland reported receiving their full release time, compared with 82% of BTs in Christchurch (Renwick & Vise, 1993). To mitigate this variation, the Teacher Registration Board (TRB), a Crown Entity established under the Education Act 1989, began to act as a teacher quality assurance agent. The NZTC was established under the Education Standards Act 2001 and replaced the Teacher Registration Board on 1 February 2002. The NZTC maintains a register of teachers, determines the policies under which teachers can be registered, approves registrations, decides if a teacher's name should be removed from the register, and provides school boards of trustees with the names of teachers with cancelled registrations (Moskowitz & Kennedy, 1997). The NZTC plays a prominent role in registration, including the recent publication of a national handbook clarifying the registration process (*Towards Full Registration*, 2006) and a Web site outlining the role of the supervising teacher (*Information*, 2006).

Although the registration process has been viewed as highly supportive (*Ethic of Care*, 2002), "The appraisal of primary teachers in New Zealand involves fuzzy standards and leaps of faith" (Grudnoff & Tuck, 1999, p.9). This lack of clear appraisal policy is exacerbated by the fact that the NZTC does not have the budget to review the submitted BT portfolios. The NZTC acknowledges this shortcoming and has been addressing it via research, standards, and

conferences (A. Gruner, personal communication, March 3, 2007). In 2006, the NZTC commissioned an extensive literature review, followed by a nationwide BT survey and focus groups. After analysing the data, Cameron (2007) advised the NZTC to ensure that BTs were aware of their responsibilities and entitlements, to strengthen employer accountability, to provide stronger training for tutor teachers, and to strengthen documentation standards. The NZTC also hosted a series of meetings that focused on disseminating induction research findings (March 2006, October 2007, Wellington).

New Zealand Features: Innovation and Support in the Integrated Areas

As described below, researchers have revealed that New Zealand has specific practices within the integrated induction model that would be of interest to international induction researchers. These practices include: (a) an emphasis on pedagogy, including the requirement that BTs submit (non-assessed) reflective portfolios, (b) a culture of support, (c) policy that empowers BTs, and (d) a national provision for BT workload reduction. Additionally, support from institutions such as the education union, pre-service institutes and universities, and School Support Services are incorporated into the model. To provide an overview of induction structures in New Zealand, this section outlines these unique features.

New Zealand Feature: Pedagogical Development

A review of the literature indicated that there has been an increase in the pedagogical emphasis in New Zealand's BT support over the last few decades. Three decades ago, Campbell (1977) interviewed over 600 BTs and reported that they showed no significant signs of growth during their first two years. Campbell cited little in-service advice and guidance as the underlying problem. Support was relegated to biannual visits from the Inspectorate. The *New Zealand Herald* newspaper reported that "entry into the teaching service was the weakest area of teacher training" (*Blackboard Jungle,* 1979, p. 12).

By the 1990s, Moskowitz and Kennedy were reporting that most induction programmes included monthly reports to the principal or deputy principal that identified the strengths and needs of new teachers. Even in cases where personal rapport was not particularly good, BTs still found that tutors provided sound professional advice during weekly meetings and classroom observations. About half of the tutor teachers interviewed had participated in voluntary tutor-

training sessions offered by pre-service education providers and School Support Services. In many regions, BTs also participated in monthly School Support Services workshops for BTs (Moskowitz & Kennedy, 1997).

More recently, the ERO reported that induction programmes should be supported by school policies and practices that "link with and facilitate effective professional development opportunities for the beginning teacher," including extension of content knowledge, pedagogical knowledge, and pedagogical skills (*Quality of Year Two*, 2004, p. 49). Using evaluation *Indicators for Education Reviews in Schools*, the ERO compiled data from over 119 schools and found that the quality of a school's support arrangements was a significant factor in the effectiveness of BT teaching in Year 2. The strength of the relationship between the quality of support and effective teaching was examined using the Pearson correlation statistical test, and it was found that the correlation coefficient in the primary sector was r sq linear = 0.214 and in the secondary sector r sq linear = 0.318 ($p<.001$). Repeating the findings of Murdoch (1979b), the ERO also found that the tutor teacher–BT relationship was a significant influence on the quality of the Year 2 BT's teaching. Additionally, the ERO found that tutor teachers possessed the pedagogical skills and knowledge for carrying out the role effectively (ERO 2004, p. 29).

The *Perceptions of Teachers and Teaching* research project was commissioned by the Ministry of Education and the NZTC to examine the relationships between key groups' perceptions of teachers and teachers' work, recruitment, retention, and performance, including their induction programmes. As part of this national study, Kane and Mallon (2006) administered questionnaires to 790 teachers and principals working in schools from a range of deciles. Analysis of questionnaires examined the frequency of responses to individual items within each scale, factor analyses of scales, and statistical analysis of scales across different key group attributes such as gender, sector, school decile, age, and years of experience. Analysis of interview transcripts was content-based focusing on the identification and coding of categories. In the area of induction, the researchers found that 89% of the teachers were satisfied with their degree of development and acquisition of professional skills since they had begun teaching. The researchers found that teachers with fewer years of service were the most interested in receiving feedback, rating feedback considerably higher than any other experience grouping.

University links: collaborative research projects. In July 1962, the Currie Report, which was dedicated to the subject of teacher training, recruitment, and working conditions, stated that

there must be an active relationship between teaching and research in order to promote sound learning and BTs' acquisition of new skills (*Report of the Commission*, 1962). Today, university-sponsored projects such as asTTle, Starpath, the National Educational Monitoring Project, the Wilf Malcolm Institute of Educational Research, and the Woolf Fisher Research Centre are contributing to assessment and development of education in New Zealand (J. Hattie, personal communication, April 10 2006; Older, 2007; Timperley & Parr, 2004). Additionally, the six major New Zealand teacher education institutions have amalgamated with their neighbouring university, thereby enhancing the potential for university-based research within the education sector.

Registration portfolios. In 2006, when this thesis study began, the NZTC audited 10% of all registration applications, asking all BTs to send in complete documentation. By 2008, this practice lapsed for financial reasons. Despite this change, BTs are still required to maintain up-to-date records of progress including professional activities, support made available to them, discussions and appraisals, a self-reflection record, and planning for further support and development. The ERO wrote that this documentation should demonstrate a programme that "meets the individual development needs…[and] is flexible, and reviewed regularly to meet the [BT]'s changing developmental needs and concerns over time" (*Quality of Year Two*, 2004, p. 49). This documentation may be of interest to countries that are developing standards for registration portfolios.

New Zealand Feature: Culture of Care

Another feature of New Zealand's induction programme is the culture of support within the primary and early childhood settings (Aitken, 2005; Cameron, Garvey Berger, Lovett, & Baker, 2007; Portner, 2005). Before the 1980s, despite the large-scale in-service efforts, school-site level induction was largely a patchwork of scattered efforts from individual teachers and principals. The odd tutor teacher surfaced in the 1970s, but for the most part BTs were left to their own devices to seek help (Cumming & Cumming, 1978). Surveying 265 primary BTs, Murdoch (1979a) found 51% did not have advisor assistance, and two-thirds cited a lack of support from senior colleagues. Murdoch's report for the Christchurch College of Education mused that "Even the year one teacher is viewed as a fully prepared professional, perhaps with a few rough edges to tidy up, rather than an intern requiring considerable further help and support"

(Murdoch, 1978, p. 1). In 1981, Battersby completed his doctoral thesis at the University of Waikato by chronicling the experience of 38 BTs and deriving a theory of socialisation for BTs. Battersby also observed that although induction was piecemeal, there was high satisfaction with tutor teachers, and he acknowledged the importance of a significant colleague (Battersby, 1981). Three years later, the government formalised the role of the tutor teacher. By 1997, Moskowitz and Kennedy found that tutor teachers were spending about five hours a week on induction-related activities. Tutor teachers scheduled meetings, made formal and informal visits to new teachers' classrooms, and recorded the advice and guidance given. A great deal of time was spent providing informal observations, emotional support, and advice. Although most BTs did not choose their tutor teacher, most primary-sector BTs were happy with the relationship (Cameron, Dingle, & Brooking, 2007; Kane, 1994; Kane & Mallon, 2006; Mansell, 1996a; Moskowitz & Kennedy, 1997; Renwick, 2001). In her recent doctoral thesis, Grudnoff (2008) investigated the transition of 12 BTs from pre-service to in-service, noting that both the frequency of social interactions and the emotional support provided by tutor teachers appeared to be components of induction programmes in New Zealand primary schools. Britton et al. noted that:

> *National officials…took a dim view of the school administrator who fails to support BTs, because they are failing to maintain and advance the professionalism of teaching in NZ. In other words, some interviewees expressed the view that supporting BTs is an important part of the definition of being an education professional.* (2003, p. 185).

Research on induction at the early childhood level also reported that strong induction programmes provided opportunities for BTs to come together. Aitken (2005) noted that relationships, shared goals, and a cooperative team were critical to well-functioning communities of practice. However, she found that most early childhood BTs were not engaging in professional development so much as responding to interruptions, attending to administrative responsibilities, and taking on further responsibility.

School Support Services (SSS). One unique feature of New Zealand's support for BTs is the contract work provided by the School Support Services attached to each university. After assessing the situation of BTs in the late 1970s, Murdoch suggested three measures to improve the quality and quantity of BT support. First, he recommended a concerted effort to focus on improving BT support. Second, noting that 56% of the interviewed teachers did not have any in-service course, he delivered a strong call for the teachers' colleges to offer curriculum courses to

BTs and cultivate a working partnership with the national inspectorate. Third, he postulated that there needed to be a cohesive inter-agency plan that included consultancy teams and NZEI counselling (Murdoch, 1979b).

Presently, in addition to the support received from tutor teachers, many BTs have access to courses provided through School Support Services (SSS). The Ministry of Education contracts with each university to provide in-service professional development courses. Each SSS branch offers courses, in-school workshops, individual support, and regional programming in academic areas, principal support, tutor teacher training, and BT support (Britton, Paine, Pimm, & Raizen, 2003; Joseph, 2006). Timperley and Phillips (2003) found that such external professional development could potentially increase teacher expectations and student achievement. Being attached to a university facilitates SSS providers' constant self-evaluation and access to the latest research (Higgins, 2002).

Participation in SSS courses is voluntary; thus, for example, of the 1,330 BTs in Auckland, 670 have participated in the SSS BT programme. A national survey found that 32% of all BTs participated in an SSS course (Cameron, Dingle, & Brooking, 2007), and research from the 1990s noted that about half of all tutor teachers at that time had participated in tutor-training sessions offered by SSS (Moskowitz & Stephens, 1997). Other research found little in the way of New Zealand data, other than anecdotal evidence, on which SSS personnel could base planning for these programmes (Lang, 1999). Occasionally, as the ERO does not audit induction programmes, SSS personnel visit schools where they suspect BTs are not receiving support. In an advisory capacity, they look for an induction policy, proof of action on that policy, regular meetings with tutor teachers, opportunities to observe and to give and receive feedback, a collegial school culture, occasions to meet with other BTs, and recognition of BTs as valued staff members. If a school is lacking in these respects, SSS supports them in implementing a viable induction programme (S. Joseph, personal communication, April 10, 2006). There is no nationwide formal evaluation of the SSS, although most universities conduct internal evaluations of their programmes.

The New Zealand Educational Institute (NZEI). The New Zealand Educational Institute (Te Riu Roa), New Zealand's largest education union, also supports BTs. It has more than 46,000 members, including teachers and support staff working in primary schools, area schools, early childhood centres, specialist education services, and colleges of education. Over 90% of all

primary teachers are members of the NZEI. The institute provides targeted support for BTs and tutor teachers, including posting rights and responsibilities via the NZEI Web site and regional informational meetings. The NZEI was responsible for negotiating the collective agreement for the $2,000 per annum tutor teacher allowance. In 2008, the NZEI began discussing the knowledge, skills, and attitudes needed to make "tutor teacher" an official step on the career ladder (F. Nelson, personal communication, April 26, 2007).

New Zealand Feature: National Policy of BT Agency

During the 19th century, education matters were relegated to regional authorities. In 1857 Canterbury created the Dominion's first inspectorate, and in 1862 Otago followed suit. Annual inspector visits focused on examining students and assessing teachers. Although the annual examinations of teachers became common practice, ministers such as Sir George Grey shuddered at the thought of "one class of teachers, all trained in the same class, imparting but one set of ideas, and their teaching regulated according to the wishes of inspectors who, also, were of one mind" (Cumming & Cumming, 1978, p. 94). In the 1970s, the Department of Education established a residential in-service training institute at Titirangi, which could be seen as the incarnation of Sir George Grey's fears (Cumming & Cumming, 1978). Twenty-seven years ago, Battersby (1981) reported that BTs had a sense of reduced agency and felt under pressure to conform; however, the following year, the Wellington Inspectorate compiled a book of ideas, advising that "The role of the principal and senior teacher is a catalysing rather than a directing one" (*Induction of Beginning Teachers*, 1982, p. 1).

Despite Battersby and Ramsey's (1990) observation that the present induction scheme politically domesticates teachers and "serves to direct the institutional socialisation of beginning primary teachers in New Zealand" (p. 30), the current policy in New Zealand reflects an emphasis on developing the professional agency of BTs. New Zealand's policy values reciprocal mentoring relationships that promote collaborative enquiry, cooperative practice, and reflection. For instance, the ERO wrote that a school should "effectively promote the beginning teacher's development of constructive professional relationships within the school community [via]…collaboration and shared inquiry, rather than an expert-tells novice form of relationship" (*Quality of Year Two*, 2004, p. 50).

This "pedagogic partnership" (Williams, Prestage, & Bedward, 2001) is in line with the concept of enhancing the professional agency of BTs. In New Zealand, where a higher percentage of BTs than of veteran teachers have degrees (Moskowitz & Stephens, 1997), it may well be the BTs who serve as information brokers. Furthermore, having a liberal induction policy—for example, the ERO wrote that strong programmes provide opportunities to engage in risk-taking, decision-making, and questioning and challenging taken-for-granted practices—may encourage BTs to challenge the status quo. Compared to other OECD nations, New Zealand has the fewest years from starting salary to highest salary (McKenzie and Santiago, 2005), and Cameron and Baker (2006a) reported that BTs begin their careers feeling confident about their capabilities. Furthermore, concerning leadership, BTs are often responsible for organising their induction and the effective use of the 0.2 release time.

In a related study, Grudnoff and Tuck (2003, 2005) followed two cohorts of 20 primary BTs during their first two years of teaching. They chronicled the move from outsider to insider, noting the reciprocal professional relationship between BTs and their new co-workers. As the BTs transitioned from new to "savvy" teacher, tensions surfaced between the models of teacher education held by teachers and teacher educators. There was also tension in the role of the schools in facilitating the professional development of new teachers. Indeed, as the work of Battersby and Ramsey (1990) also illustrates, the alignment of policy and practice can be viewed as contentious. Despite this tension, the national policy of encouraging BT agency remains a strength of New Zealand's induction system.

New Zealand Feature: Reduced Workload

Another national induction policy that receives international attention is the 0.2 funding allotment (Britton, Paine, Pimm, & Raizen, 2003; Clement, 2000; Moskowitz & Kennedy, 1997; Wong, Britton, & Ganser, 2005). In November 1984, a new system of induction was initiated. BTs were appointed to a provisional certificating position for two years, during which time schools were required to provide a programme of advice and guidance. This system commenced in February 1985 and included a 0.2 staffing supplement to schools for first-year teachers in exchange for documented use of the allowance, a monthly report on the BTs' progress, plus two formal inspectorate visits during the first year. There was no requirement that the allowance would go solely to the BTs, as assistance could take a myriad different forms. At the end of their

two-year provisional appointment, BTs were guaranteed permanent appointments (Battersby, 1989b). In *An Evaluation of the New Requirements for Certification*, a three-year (1985–1987) research project funded by the Department of Education and the NZEI, Battersby reported several advantages to the new system: (a) the standardised 0.2 allowance, (b) the documentation of advice and guidance programmes, and (c) the insurance of a permanent position upon full registration. The study followed 69 BTs during their induction period and described innovations in different schools. For example, some schools used the funding for BT full-day visits to other schools, while some schools used the allowance for reducing BT class size (1989b).

Like any system, the 0.2 allowance was not without its shortcomings. Ambiguities in the legislation led to inconsistencies in its implementation. Some regional boards provided their teachers with formatted templates for their monthly reports, others did not; some BTs co-wrote their reports, some saw their reports, others did not. BTs themselves reported varied levels of satisfaction, and 66% reported receiving less than three hours per week release per term, although some of the shortfall may be accounted for by time used by tutor teachers. BTs cited quality of supervision as a significant variable in their level of satisfaction. Moreover, inspectorate turnover was high (50%), leading to gaps in the support programmes. In response to these shortcomings, Battersby (1989a) recommended the establishment of national guidelines for the 0.2 allowance, that the allowance be extended to second-year teachers, that tutor teachers should be trained, and that the role of inspectors be split into the evaluative and the pastoral.

In response to Battersby's evaluation and union negotiations, in the 1990s funding was extended into the second year for secondary and primary teachers. The release time funding drops to 0.1 in the second year, and in many cases the intensity of the induction programme also declines (Britton, Paine, Pimm, & Raizen, 2003; Cameron, Dingle, & Brooking, 2007; Kane & Mallon, 2006; Moskowitz & Kennedy, 1997). Although the decline in intensity is troubling, it is worth investigating, as New Zealand is one of the only countries that subsidises BT support for a second year.

New Zealand Research: Highlighting Primary–Secondary Divide

There have been both large-scale and small-scale studies of New Zealand induction by New Zealand researchers. Overall, research indicates that BTs are satisfied with the support they receive, but that support is stronger in the primary sector than in the secondary and varies greatly

from school to school. There have been three national surveys of BTs. The first, conducted by Mansell (1996a), surveyed 1,403 BTs (41% response rate) regarding their induction programmes and use of the 0.2 time. She found primary BTs were twice as likely as their secondary counterparts to spend release time working with students and/or observing. Most BTs reported having a tutor teacher (Mansell, 1996b). BTs reported using release time for assessing their students (84%), updating records (83%), creating resources (77%), having discussions with other staff members (73%), working with students (71%), and attending professional development (70%). Respondents reported low ratings for principals and literature as sources of help. There was an increase in confidence by the end of the second year, with a decrease in the frequency of meetings with tutor teachers and in attendance at SSS courses. Specifically, the percentage of BTs who visited other classes dropped from 81% in the first year to 70% in the second, while the percentage of those who observed other teachers dropped from 67% to 54%. The frequency of visits to other schools, on the other hand, increased from 28% in the first year to 51% in the second. Reported frequencies for maintaining a written record (70%, 68%) and for keeping balance in life (53%, 55%) remained much the same from the first to the second year (Mansell, 1996a).

The second national survey, conducted by Renwick (2001), surveyed a random sample of 25% of BTs in primary schools (n=291) and 40% of BTs in secondary and composite schools (n=265), with a response rate of 80%. There was a response rate of 79% of 229 primary BTs and 86% of 229 secondary BTs. The questionnaire asked BTs a series of questions designed to determine the amount and kind of support they received. Like Mansell, Renwick found that support for primary BTs was stronger than support for secondary BTs. Almost all of the primary BTs said they had a tutor or supervising teacher (n=225), and 71% of primary BTs compared with 53% of secondary BTs indicated they received an hour or more support each week. A higher proportion of primary than secondary BTs considered their tutor or supervising teacher to be effective, 64% compared with 43%. More than 50% of primary BTs rated nine of the possible twelve professional development activities as effective. Most effective were assessing student learning (77%), discussing student work (76%) and studying professional material (67%). Observing other teachers in another school was the activity least likely to be ranked as effective by both primary and secondary teachers. Renwick reported that the majority of BTs were satisfied and perceived their support as effective or partially effective, although there was

variation between schools. Renwick's study supported the findings of Mansell and highlighted the need for greater understanding of the personal and professional skills required to support BTs. The study also urged schools and providers of initial teacher education to develop a shared understanding of their roles. The survey in this study intends to investigate similar items, but with an emphasis on case studies of low-decile schools to help explain some of the differences, including the difference between support for first- and second-year BTs.

In November 2006, the NZTC commissioned a third national survey, followed by case studies in early-childhood and Mäori-medium setting in 2007. Cameron, Dingle, and Brookings (2007) posted a survey to 1,834 primary- and secondary-sector BTs and 908 BTs in early childhood settings. The response rate was low, just 23%. The researchers held focus groups in major urban areas and conducted telephone interviews with Mäori participants (n=2). While they found that BTs were uncertain of registration requirements, the majority felt valued, with 86% reporting support and only 5% of the primary teachers reporting no tutor teacher. Overall, primary BTs experienced stronger induction than secondary BTs, and their induction programmes were more integrated into the professional life of the school. Primary teachers were observed by their colleagues the most often, while only half of all teachers reported observing their tutor teacher teach. Most BTs used the 0.2 for planning, preparation, and student assessment. The survey found that 72% of the primary BTs reported receiving assistance with analysing student assessments. Second-year BTs reported a decline in pedagogical activities, such as discussing student work with their tutor teacher and observing other teachers teach. Cameron, Dingle, and Brookings also noted that school size could dictate who—that is, a principal, deputy principal, or separate induction coordinator—had responsibility for the induction of BTs. Small school size was an impediment to the establishment of good-quality induction programmes in low-decile, rural schools as qualified relievers and tutor teachers were often in short supply.

The *Teachers of Promise* project, a longitudinal study of 57 promising New Zealand BTs, parallels Harvard's *Project on the Next Generation of Teachers*, a study of 50 new teachers in Massachusetts. Currently in its sixth year, the study asks, "What helps these promising BTs develop their teaching?" Overwhelmingly, teachers identify the opportunity to learn with colleagues as helping them become better teachers (Cameron & Baker, 2006b). The researchers have found that support for primary-school BTs is stronger than that for secondary-school BTs—

the former are more likely to report being part of supportive professional communities and have more access to tutor teachers and formal professional learning. One interesting point that the study has raised is BTs' desire to develop their teaching expertise beyond the bounds of their current school (Cameron, Garvey Berger, Lovett, & Baker, 2007).

Small-Scale Research Projects Also Highlight Variations

Small-scale research at the secondary level confirms the weaker level of support at the secondary level. In his master's thesis, Kingston (1983) embarked on an in-depth systematic investigation of 18 Auckland-area secondary BTs while developing a "reality model" of the stages of induction. He concluded that "BTs do not receive sufficient professional guidance and support after they leave college" (p. 298) and recommended implementing courses in guidance and supervision of BTs. Dewar, Kennedy, Staig, and Cox (2003) interviewed staff in 20 New Zealand secondary schools and found that BTs in those schools reported that, apart from an initial orientation process, their advice and guidance programmes appeared rather ad hoc. While school personnel acknowledged the importance of mentoring BTs, they lamented that they were seldom able to provide the support entitled to BTs. Similarly, Hansen, Haigh, and Ashman (2003) followed three secondary BTs in southwest Auckland, noting that the BTs did not find their schools' systems for induction and mentoring particularly helpful. By the third term of their first year, all three BTs exercised professional agency by self-selecting a mentor as they had not found the formal mentoring system effective. Pettigrew (2004) interviewed five secondary teachers and found that support came primarily from within the department, and no BT felt particularly well supported by school leaders. Assistance tended to be responsive rather than proactive or planned, and observations were conducted primarily for evaluative rather than growth-oriented purposes. Pettigrew concluded that secondary BTs needed an experienced teacher in their department with time, training, and some financial reward to support them for at least two years. She recommended further study concerning the support for Mäori teachers. In a related master's thesis, Goold (2004) recorded BT focus groups in five secondary schools and counted the use of the word "support" in a positive context. Goold noted differences between schools in the support they offered: some had well-planned schemes, others were slightly more ad hoc in their approach, while others offered no support at all. BTs reported pedagogical content

knowledge to be the biggest area of need, with support and building of relationships and trust appearing to reduce this problem.

Based on the findings of these studies, it was determined that primary schools would make better sites for success case investigations. At the primary level, BTs tended to report strong, multilayered support, particularly during their first year of teaching. The strength of primary support was also found by Langdon (2008) in her recent doctoral research project. Langdon investigated induction programmes in seven primary schools. She reported evidence, based on interview and focus-group data, of educative mentoring and high expectations at the primary school sites with successful induction programmes

Smaller-scale research projects have also reported a difference between first- and second-year BTs. In her master's thesis following seven Waikato BTs, Lang (1999) suggested that research on stages of teacher development could assist both schools and SSS develop induction programmes. She found sources of support to be planning with a group, tutor teacher support, keeping up-to-date with administrative tasks, and getting sleep. She hypothesised that the survival stage becomes easier after six months. Later, Lang (2001) noted that BTs' desire for support lessened in their second year. In her masters thesis interviewing 22 BTs in the Auckland area, Matos (2002) found a difference between first- and second-year BTs: first-year BTs tended to focus on behaviour and resources during their release time, whereas second-year BTs focused more on assessing and monitoring students and visiting other classes. Overall, 77% of the BTs rated their release time as extremely or very useful. To further investigate this apparent discrepancy, data from first- and second-year BTs was collected during this research project.

Summary of New Zealand Context

The literature reveals a tradition of support for New Zealand primary BTs. The minimum induction structure includes a reduced workload, collaboration, pedagogical development, and individualised reflection. Additionally, there are a host of interconnected organisations supporting schools and BTs. However, research has shown that issues remain. For example, studies reported that the second year of the induction programme becomes increasingly informal, potentially missing precious pedagogic opportunities. In addition, recent literature reviews have been published that found New Zealand BTs to be well-supported, but with uneven programme implementation (Cameron, 2006; Trevethan, 2006). Although there are multiple support

agencies, no one agency is accountable to ensure that the 0.2 funds are properly used by the schools; nor are schools legally obligated to use the 0.2 funds for induction. This seems to be particularly problematic at the secondary level, where the fate of BTs tends to be determined by the quality of their department. Nevertheless, the literature indicated that the answer to the question "Can research on New Zealand induction contribute to international research and policy?" is "Yes." Britton and Paine (2003) noted that the guaranteed funding did not always equate to guaranteed support, but the overall structure of the programme could "catalyze the global trend of empowering more BTs to reach their potential and spark specific, new ideas for doing so" (p. 237).

Given the abundance of induction research, it was important that this study highlighted an under-researched area. It was for this reason that the low-socioeconomic focus was selected. The self-managing nature of New Zealand schools renders this research particularly interesting for charter and other independent schools looking to design effective induction programmes. The insights, however, could still apply to programmes designed by districts, states, provinces, and countries with nationally managed school systems. Moreover, the presence of strong minority cultures in New Zealand may facilitate comparisons with other multiethnic locations such as London, Los Angeles, and Sydney. Literature concerning the framework for analysing induction components in low-socioeconomic schools is discussed in the next section.

Low-Socioeconomic Context

The literature concerning induction in low-socioeconomic schools was widely varied and stemmed from many theoretical and sociological viewpoints. To facilitate the organisation of this literature, adaptations were made to Cummins's (1986) continua to create a view of induction in light of (a) pedagogical development, (b) socioemotional support, (c) professional agency, and (d) balanced structures. Literature showed that low-socioeconomic schools could be viewed as either remedial or enriched in all four parameters. The research supporting this thesis explicitly adopts an enriched standpoint for viewing induction programmes in low-socioeconomic schools.

Technical Definition of Low-Decile Schools

The decile rankings of New Zealand schools facilitate research on programmes in low-socioeconomic schools. The New Zealand Ministry of Education created a decile system to

categorise schools by socioeconomic status. Schools are ranked in deciles based on the following five factors:

(a) *Household income:* percentage of households with income in the lowest 20% nationally.
(b) *Occupation:* percentage of employed parents in the lowest-skilled occupational groups.
(c) *Household crowding:* number of people in the household divided by the number of bedrooms.
(d) *Educational qualifications:* percentage of parents with no tertiary or school qualifications.
(e) *Income support:* percentage of parents who received a benefit in the previous year.

The higher a school ranks in these five parameters, the lower its decile ranking. In other words, decile 1 schools have the greatest number of socioeconomic factors working against them, whereas decile 10 schools have the fewest. Decile rankings are used to determine funding to state and state integrated schools. The lower a school's decile, the more funding it receives. In 2005, decile 1 schools received $710.98 per pupil in Targeted Funding for Educational Achievement, decile 2 schools received $330.09, decile 9 schools received $22.70, and decile 10 schools received none of this additional targeted funding. For the purposes of this research, a low-decile school is defined as a school receiving greater than $300 per pupil. Stated simply, in this thesis, decile 1 and decile 2 schools are low-decile schools.

Theoretical Foundations for the Low-Decile Focus

The definition of "low-decile" can be argued to be wider than the technical classification offered by the Ministry of Education. In exploring the concept of low-decile, it is necessary to examine theoretical and sociological viewpoints underlying the concept of poverty. Haberman (1991) coined the term "pedagogy of poverty" to refer to the way in which teaching in impoverished schools essentially becomes a form of hegemonic dominance. For example, he states that teaching entails giving information, monitoring seatwork, and other acts of dominance. Haberman explained that pedagogy of poverty appeals to those who fear, and have low expectations for, minorities and the poor. Reay (1995) wrote that lower-class students often form a habitus via being a community of helpers. She used Bird's (1992) New Zealand study to illustrate how student learning is based on assisting others, and argued that in New Zealand

working-class schools facilitating the growth of others is an integral part of the hidden curriculum. Viewpoints such as the pedagogy of poverty and hidden curricula geared towards worker submission are often found in the literature surrounding teacher professional development, including induction, in low- socioeconomic schools. This research intentionally and explicitly adopts an alternate framework, as explained in the following sections.

A Spectrum for Viewing Practices in Low-Socioeconomic Schools

Cummins (1986) wrote that our present societal context creates both a dominant group and a dominated group. Rather than seeing the dominated group solely through a deficit lens, Cummins suggested continua. For example, cultural-linguistic differences could be viewed as either additive, enriching a class with multiple viewpoints, or subtractive, consuming both time and resources to assimilate "deviant" students into the mainstream. Cummins (1986) devised several other continua (Figure 2).

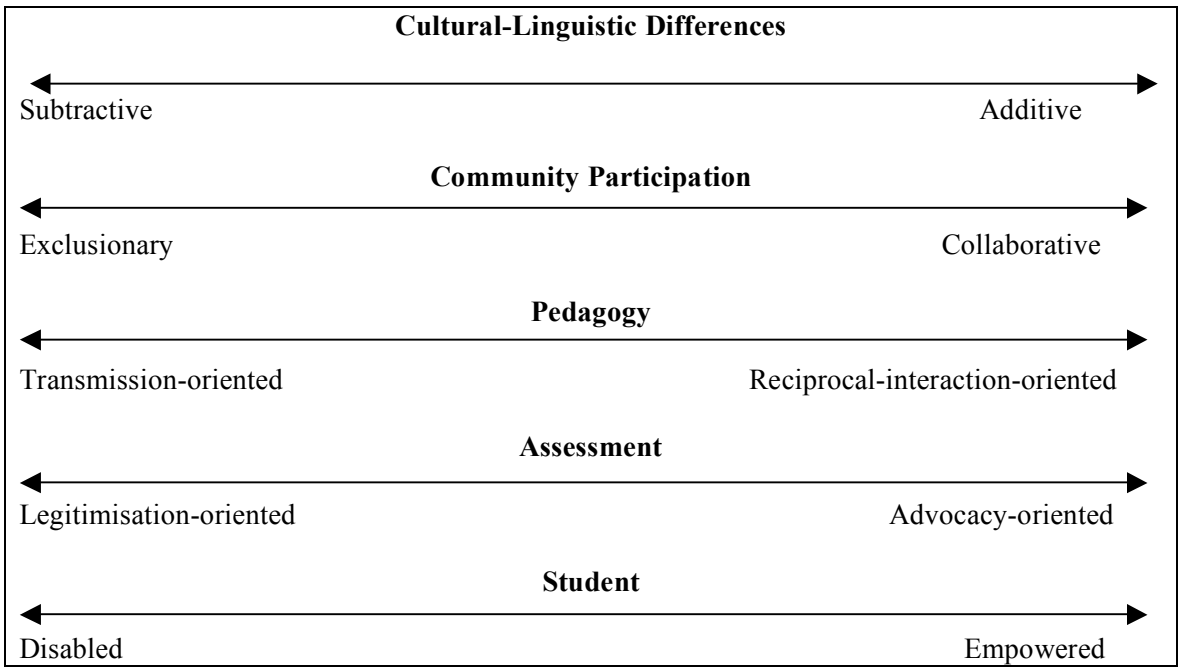


Figure 2. Cummins's (1986) continua of societal context

Based on this concept of a continuum, induction programmes in low-decile schools may be viewed as either remedial or enriched. The literature discussed below examined research from both standpoints. This review of the literature, and, in fact, the entire study, argues that the induction programmes in low-decile New Zealand schools may be more enriched than currently

acknowledged by most scholars, educators, journalists, and policy-makers. This literature review is organised according to the four induction components. At the enriched end of the continuums, this includes: (a) increased pedagogical development opportunities, (b) socioemotional support from a cross-cultural context, (c) BT leadership opportunities that enhance professional agency, and (d) expertly balanced structures that facilitate recruitment and retention (Figure 3).

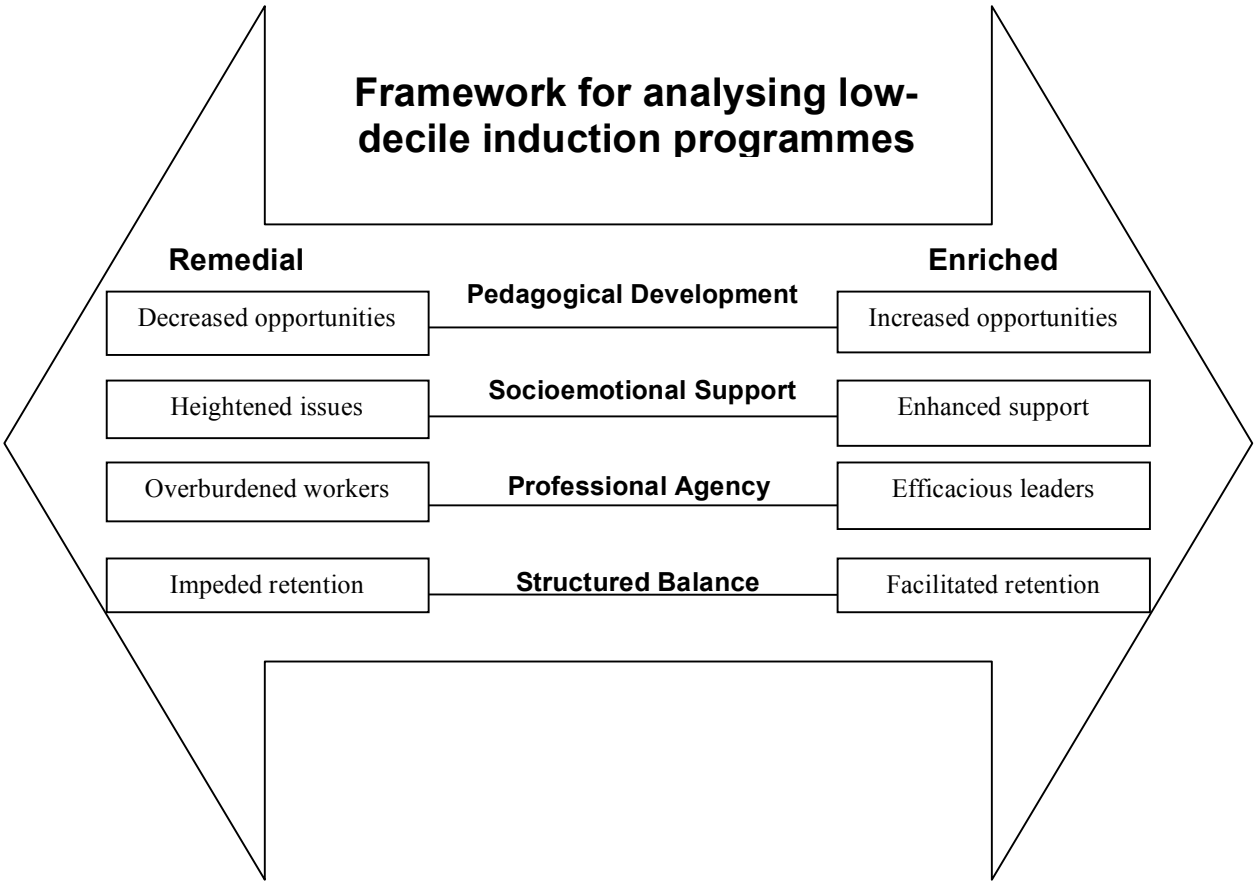


Figure 3. Framework for analysing low-decile induction programmes

Pedagogical Development: Increased or Decreased Opportunities?

In an attempt to shift the view of induction programmes in low-decile schools away from a deficit model, this section reviews the literature on professional development in low-decile settings. The remedial standpoint argues that professional development opportunities for BTs are reduced because of student learning issues. In contrast, the enriched standpoint contends that BTs in low-decile schools benefit from working with the same children.

Remedial: Heightened Issues Decrease Professional Development Opportunities

Scholars adopting a remedial standpoint argue that students from low-socioeconomic settings can bring a host of poverty-related issues—malnutrition, poor health, and violent neighbourhood to name a few—to their academic endeavours (Kozol, 1991, 1993, 1995; Lareau, 1989; Lyman & Villani, 2004). In turn, these students often display a lack of trust in adults, violence, hopelessness while being dominated by bureaucracies, and subservience in a culture of authoritarianism (Haberman, 1995). Viewing these attributes from the remedial end of the spectrum, educators may contend that it is a challenge to support students and teachers in reaching academic success. Bourdieu (1977) explained that social stratification is like a card game that depends on the quality of the cards one is dealt and the skills of the player. To extend this metaphor, scholars closer to the remedial end of the spectrum focused more heavily on the cards dealt, almost to the detriment of the skill of the players. One analysis of 363 United States districts found high-poverty districts provided higher-quality professional development, and "low-poverty districts ha[d] fewer continuous improvements than high-poverty districts" (Desimone, Porter, Birman, Garet, & Yoon, 2002, p. 1284). Within New Zealand, the ERO report *Good Schools, Poor Schools* concluded with this viewpoint:

> *There is no doubt that in many respects the task facing decile 1 schools is harder than that of higher SES schools. This is partly because of the greater degree of disadvantage in students' family and social backgrounds… Consequently decile 1 schools may face extra difficulties in meeting student learning needs. (section 7, para. 3)*

More recently, Kane (2006) used narrative inquiry to chronicle the experience of Mäori BTs. In her study, the BTs reported varying support, and all the teachers related that, regardless of the level of support available, the responsibility for seeking assistance rested primarily with them. Informal support networks were most commonly identified as peers from the *wänanga* (teacher preparation) programme, or *whänau*[3].

Enriched Perspective: Increased Professional Development Opportunities for BTs

At the enriched end of the spectrum there was a heavier emphasis on the skill, particularly the communal skill, of BTs. Students' needs were viewed as opportunities to build collaborative, professional cultures. Several studies incorporated elements of this enriched viewpoint into their analyses. For example, Catapano (2006) found those who chose to work in

[3] Extended family, kinship network

low-socioeconomic schools were prepared to apply advocacy strategies to help make changes. Similarly, after interviewing over 1,000 "star" teachers in high-poverty schools, Haberman (1995) found that these teachers read students non-judgmentally, had high expectations of every child, and extended their classrooms into, and drew from, the wider community. Lareau (1989) noted that parents in upper-class schools did not respect the advice and action of principals, whereas teachers working in lower-class schools had professional autonomy in academic matters. Drawing on these positive themes found in research, an enriched standpoint is adopted during the investigation of BTs' pedagogical development in low-decile New Zealand schools.

Socioemotional Support: Heightened Issues or Enhanced Support?

Within New Zealand, it is acknowledged that socioeconomic theories are constantly changing, particularly as class theorists challenge the dominant paradigm (Carpenter, Dixon, Rata, & Rawlinson, 2001). Rata (2001) wrote that class theorists criticise the culturalist approach for using biological criteria to explain social divisions; they have a commitment in critical theory towards searching for and working towards transformation of those injustices. In an attempt to shift the view of induction programmes in multicultural, low-decile schools away from a deficit model, this section reviews the literature on socioemotional support. The remedial standpoint argues that BTs in low-decile schools face heightened issues owing to the cross-cultural context. In contrast, the enriched standpoint views low-decile schools as benefiting from the same cross-cultural context.

Remedial Lens: Heightened Cross-Cultural Issues

Bourdieu and Passeron (1977) hypothesised that education systems reproduced a culture's power formations: "All pedagogic action is, objectively, symbolic violence insofar as it is the imposition of a culture by an arbitrary power" (p. 5). They wrote that the dominant pedagogical authority had been misrecognised as objective truth and had imposed the dominant culture while concealing its foundational power relations. In essence, this cultural capital was based on ethnocentrism, and the "cultivated man" represented a product of the dominant society. Lower-class students were framed by a deficit model because lower-class education required more intensive conversion (Bourdieu & Passeron, 1977).

Building on this idea of cultural power, Achinstein and Barrett (2004), when analysing trends in induction research, identified a cultural mismatch between students and new teachers that resulted in perceptions of diversity as a problem, which led to negative characterisations of students. Prospective teachers, often from middle-class European backgrounds, treated diversity as a decontextualised problem, and negative assumptions about diverse students resulted in lowered expectations and limited practices (Barry & Lechner, 1995; Guskey & Passaro, 1994). New teachers may be "dysconscious" of their negative assumptions and varied expectations based on race, ethnicity, class, and language (King, 1991). Research showed that even the method of teaching—didactic, practical, and Socratic—varies with the socioeconomic status of a school, resulting in difficulty in overcoming the middle-class apprenticeship of observation (Anyon, 1980; Lortie, 1975). Delpit (1995) summarised this dilemma when she wrote, "The worldviews of those privileged positions are taken as the only reality, while the worldviews of those less powerful are dismissed as inconsequential" (p. xv).

Some United States studies found that impoverished schools that serve greater proportions of minority students have greater difficulty retaining teachers than high-achieving, low-minority schools (Boyd, Lankford, Loeb, & Wyckoff, 2005; Guarino, Santibanez, & Daley, 2006; Hanushek, Kain, & Rivken, 2004), and cited evidence of the impact of community context on the teachers' classroom lives (Johnson, Kardos, Kauffman, Liu, & Donaldson, 2004; Murphy & Huling-Austin, 1987). In New Zealand, Jones (1991) remarked on the deeply political "...inevitability of unequal patterns of educational outcomes in an inequitable society" (p. 7). In her ethnography of day-to-day classroom life, she observed that even the level of difficulty of schoolwork was different for various New Zealand socioeconomic classes. More recently, Kane (2006) adopted Bourdieu's "symbolic violence" to characterise situations where border crossers—particularly BTs—found that their current understandings and ways of operating were not viable in the new culture.

Enriched: Enhance Cross-Cultural Support

At the other end of the continuum, deficit thinking about minorities is viewed as erroneous and educator belief systems are central to achievement in high-poverty schools. This attitude reflects an empathetic standpoint that values every culture's contribution. In essence, cultural diversity is viewed as a moral craft with culturally inclusive pedagogy that values

collegiality over congeniality (Hall & Bishop, 2001). When discussing African-American children, Ladson-Billings (1994) argued against the culturally deprived, deficit mode. She explained, "When students are treated as competent, they are likely to demonstrate competence" (p. 123). In line with this thinking, many teacher education institutions adapted an enriched standpoint of multicultural education (e.g., Catapano, 2006; Ladson-Billings, 1994; Quartz, 2003; Zeichner, 1993). For example, after reading Ingersoll's (2001) study, the creators of one United States programme, Center X in UCLA, stated, "Given this link between deficit conceptions and urban teacher attrition, we suggest conversely that non-deficit conceptions may be a crucial factor in retaining good urban teachers" (Quartz, 2003, p.106). This seems especially urgent as fewer than 1% of teacher educators have taught in urban schools for three years or more (Quartz, 2003).

Representing a viewpoint from the enriched end of the spectrum, Lyman and Villani (2004), in their study of northern California induction programmes, found that high-poverty schools with diverse student enrolment can have professional development that supports teacher self-inquiry and reflective learning. Haberman (1995) wrote that star teachers in high-poverty, multicultural situations reflect on their experiences, focus on their role as teachers, and use information about underachievement to make their teaching more relevant. Ladson-Billings and Darling-Hammond (2000) analysed results from a literature review and hypothesised that successful teaching occurs when teachers and students share background and cultural experiences. They found that culturally savvy teachers demand academic success from all students and work deliberately to blur the borders between themselves and their students while helping students challenge the status quo (Ladson-Billings & Darling-Hammond, 2000). Murrell (2000) added to this dialogue by advocating that urban schools need to develop and mobilise communities of practice with multicultural competence and community incorporation.

Ingersoll (2004a) found three factors that stand out as not being major reasons for turnover in high-poverty rural and urban schools: (a) large classes, (b) lack of opportunity for professional advancement, and (c) poor student motivation to learn. Given the reduced influence of these factors, Ingersoll suggested a stronger focus on more influential factors such as the internal organisation and management of schools. Other studies found that teacher turnover was independent of student racial composition (Hanushek, Kain, & Rivken, 2004).

Ethnicity has also been a part of New Zealand's educational research (e.g., Bishop & Glynn, 2004; Carpenter, Dixon, Rata, & Rawlinson, 2001; Carpenter, McMurchy-Pilkington, & Sutherland, 2002; Jones, 1991; Thrupp, 2001). For instance, the ERO (*Good Schools*, 1998) found that decile 1 schools performed more strongly than decile 10 schools against the indicator of positive educational provision for Mäori students, perhaps as a result of having stronger Mäori communities within decile 1 schools. Cameron and Dingle (2006) noted that low-decile schools were more likely to have bilingual leadership positions and coordinators for cultural groups such as *kapa haka*[4].

Despite the research agreeing with the enriched viewpoint of multicultural schools, it is a contentious topic. Nonetheless, as Freire (1985) argued, enhancing the power of non-dominant cultures contains benefits beyond a humanitarian gesture towards the underprivileged. It is argued, therefore, that low-decile schools could prove fertile ground for an investigation into effective induction practices as teachers in these schools value the contributions of minority races as enhancing a communal voice that ultimately enriches all members of the school community.

Professional Agency: Overburdened Workers or Efficacious Leaders?

This section reviews the literature on professional agency. The remedial standpoint argues that BTs working in low-socioeconomic schools will be dominated by authority figures and overburdened by additional responsibilities. In contrast, the enriched standpoint contends that a low-socioeconomic setting presents BTs with opportunities to become efficacious leaders.

Remedial Perspective: Overburdened Workers

Authors viewing low-decile schools through a remedial lens posit that teachers are more likely to leave high-poverty schools because of working conditions—inadequate administrative support, poor student discipline, undesirable policies and practices, and limited authority to make key decisions (Berry & Hirsch, 2005; Claycomb & Hawley, 2000; Darling-Hammond, 2003; Easley, 2000; Freiberg et al., 1994; Guarino, Santibanez, & Daley, 2006; Hanushek, Kain, & Rivken, 2004; Herrington, Herrington, Kervin, & Ferry, 2006; Ingersoll, 2001a, 2002; Luft, Roehrig, & Patterson, 2003; Worthy, 2005). Research by the United States National Center for

[4] Mäori performance groups

Education Statistics (2004) found that teachers—particularly in high-poverty, urban schools—cited poor leadership and lack of decision-making authority as critical in their decisions to leave schools. The study also found that these agency factors had a greater influence than salary.

Enriched Perspective: Efficacious Leaders

In *Perceptions of Teachers and Teaching*, Kane and Mallon (2006) documented a consistent pattern that provides evidence that teachers from low-decile New Zealand schools typically report more positive views about teaching and their levels of satisfaction with their work. Most significantly, low-decile teachers tended to (a) be more positive about challenge, (b) report higher degrees of professional culture within their schools, and (c) further their own learning. Comments regarding the challenges provided by relationships with pupils and parents were evident across all sectors and school deciles. Kane and Mallon remarked that teachers in low-decile settings agreed more with items related to professional recognition than colleagues in high- or medium-decile schools, and those in medium-decile schools reflected considerably more disagreement. Kane and Mallon also wrote, "The tendency of participants from low-decile schools to report consistently higher levels of satisfaction and perceptions of respect needs further examination" (p.xvi).

The enriched belief was used in the professional development programme designed by Timperley and Phillips (2003) for teachers in low-decile schools near Auckland. They examined how New Zealand teachers' expectations of low-income students' achievement changed during a six-month professional development in literacy effort, noting how this change was sustained over a year. Student reading data, as well as pre- and post-survey and interview data highlighted changes in teachers' expectations and self-efficacy. Most teachers changed their expectations of how well students from low-income communities could achieve. Although these programmes in low-decile schools may have been born of necessity, these schools now have valuable induction insights and skills to offer their more well-to-do—and perhaps more complacent—counterparts.

Balanced Structures: Facilitate or Impede Recruitment and Retention?

This section reviews the literature on programme structures. The remedial standpoint argues that low-decile schools will find it difficult to recruit and retain qualified staff. In contrast, the enriched standpoint views low-decile schools as "induction experts."

Remedial: Hard to Recruit and Retain Qualified Staff

Feiman-Nemser (2001) explained that "Up to one-third of new teachers leave the profession within three years, a fact that falls heaviest on urban schools" (p. 1030). International literature is rife with examples of low-decile schools falling on the remedial end of the recruitment–retention spectrum. Literature reviews and studies from the United Kingdom and United States offer statistics to illustrate that high-quality induction programmes are less prevalent in low-income schools (Johnson, Harrison Berg, & Donaldson, 2005; Johnson, Kardos, Kauffman, Liu, & Donaldson, 2004; Luft, Roehrig, & Patterson, 2003; Moskowitz & Stephens, 1997; *Unfulfilled Promise*, 2004; Whisnant, Elliot, & Pynchon, 2005). Moskowitz wrote (1997), "Often, wealthier jurisdictions and schools are able to provide more teacher induction activities than are poorer communities." One study found that facility quality was an important predictor of the decision by teachers to leave their current position (Buckley, Schneider, & Shang, 2004). Some scholars stated that the high teacher attrition in disadvantaged areas necessitated policy to "ensure that new teachers are not concentrated in the more difficult or unpopular locations" (i.e., McKenzie, 2005, p. 206).

Since New Zealand schools are divided into deciles according to the socioeconomic backgrounds of the students who attend them, the prevailing sentiment is often that lower-decile schools are less desirable places for BTs. In 1999, Lang interviewed a BT who mused that "being in a middle ranked school is probably easier for a beginning teacher" (Lang, 1999). The Ministry of Education (Murray, 2006) reported that experienced teachers in low-decile schools outnumbered BTs by about 18:1, while in high-decile schools the ratio was 22:1. The ERO report *Good Schools, Poor Schools* examined demographic information for all 264 decile 1 and 263 decile 10 schools. The evaluation concluded that there were wide variations in the performance of both decile 1 and 10 schools, but standards of governance, management, and curriculum delivery were lower in decile 1 schools (*Good Schools*, 1998). According to this report, decile 10 schools performed stronger than decile 1 schools against a large number of indicators, including: compliance with legal requirements, provision of a balanced curriculum, effective assessment of student achievement, effective fulfilment of good employer requirements, effective financial management, and effective self -review. The ERO identified the following factors as barriers to the recruitment and retention of staff: the location of the school,

the learning needs of the students, the physical working conditions, and the public reputation of the school. The report then stated that "All these factors are more likely to be manifest in low SES schools than in high SES schools" (*Good Schools*, 1998). Regardless of its veracity, this statement serves as an example of what Bartell (2005) termed a "deficit model" of thinking about urban and poor rural schools.

Enriched: Expertly Balanced Structures that Facilitate Recruitment and Retention

Contrary to the deficit model, some literature noted that low-socioeconomic schools had comprehensive experience in supporting new teachers that could be viewed as a competitive hiring gambit (Villani, 2002). In other words, low-decile schools, by virtue of their high staff turnover, are well practiced in the art of induction (Mills, Moore, & Keane, 2001; Tickle, 1994; Truscott & Roden, 2006). Furthermore, their induction programmes are a "highly visible 'selling point' for the campus[es]" (Eberhard, Reinhardt-Mondragon, & Stottlemyer, 2000, p. 68). Ingersoll (2004a) found that the presence of a positive sense of community, belonging, communication, and cohesion among members has long been held by education theory and research to be one of the most important indicators and aspects of effective schools.

The literature in the previous section appeared to under-acknowledge the evidence that induction programmes are effective in low-decile schools. BTs in New Zealand are evenly spread across the deciles (Murray, 2006), but, owing to numerous small, low-decile schools, they are more likely, as a proportion of all teachers, to be teaching in low-decile schools (Ng, 2006). Despite hiring more BTs—and contrary to United States trends (Ingersoll, 2004a; Quartz, 2003)—primary and secondary teachers in New Zealand low-decile schools have lower loss rates than those in medium- and high-decile schools (Galvin & Murray, 2005). Cameron and Dingle (2006) reviewed the literature on induction in New Zealand and reported: "Teachers in low-decile schools almost all experienced supportive induction. This finding contrasts with overseas studies that have found that many schools serving low-income students do not provide new teachers with the support they need to do their jobs well" (p.63). They also noted that low-decile schools were more likely to have coordinators for groups of BTs. Moreover, the aforementioned *Good Schools, Poor Schools* (1998) study found several indicators with regard to which the performance of decile 1 schools was generally adequate or good compared to that of decile 10 schools, including: effective identification and addressing of barriers to learning, positive

working relationships, effective leadership and vision, and recognition of the learning needs of different cultures. There is a developing body of evidence, particularly in New Zealand, to support the "selling point" end of the induction continuum in low-decile schools. It is argued, therefore, that low-decile New Zealand schools could prove fertile ground for an investigation into effective induction practices owing to their success in retaining BTs.

Summary of Low-Socioeconomic Context

In their review of the literature on improving low-decile schools, Muijs, Harris, Chapman, Stoll, and Russ (2004) found effective leadership in low-decile settings involved more initiation than management. They recommended a culture of continuous professional development and active recruitment of high-quality staff. Equally valid was the point made by Johnson et al. (2004), that BTs working in low-income schools need to have broad, substantive support from a range of experienced colleagues. In research on low-socioeconomic United Kingdom schools, Harris and Chapman (2004) found that schools that combined strong internal accountability measures with a collaborative school culture were more likely to be successful. Harris and Chapman believed the main challenge for low-socioeconomic schools was to maintain capacity and sustain improvement in the face of staff turnover, pupil mobility, and external shifts in demographics. Other studies have called for increased cultural awareness and support for senior teachers, particularly tutor teachers (Athanases & Achinstein, 2003; Guyton & Hidalgo, 1995). During the case studies in this research, investigations were made into the nature of the BT support and the influence of the low-decile setting on the induction of BTs. It was argued that low-decile schools would demonstrate that they have enriching, supportive, empowering, and balanced models of induction. One objective of this research is to emphasise an enriched perspective of low-socioeconomic schools by highlighting the achievements of low-decile primary schools within each induction component.

Conclusion to Context

A review of the literature comparing international induction programmes showed that New Zealand has a relatively strong, integrated induction programme. This strength is due to New Zealand's established history in each of the four components, particularly in the primary sector. Although this chapter described many studies, within New Zealand there had not yet

been a specific, targeted examination of induction components in low-socioeconomic settings. Thus, this research attempts to fill that void; the following chapter discusses the methods used to investigate this gap in the literature.

CHAPTER 4. METHODS

Having established that effective induction is integrated, and that New Zealand has an established, reputable induction programme in its primary sector, this thesis now proceeds to investigate induction programmes in low-socioeconomic schools more closely in order to learn more about the implementation of effective induction programmes in these schools. In doing so it examines the nuances of an established induction programme that draws on all four components. Due to its flexible and multifaceted approach, it was decided that a mixed methods approach would provide the most robust method of exploring how BTs are supported in low-decile New Zealand primary schools.

Mixed methods scholars have tended to rely on a pragmatic paradigm for answering research questions (Gorard & Taylor, 2004; Siraj-Blatchford, 2007; Tashakkori & Teddlie, 1998; Tashakkori & Teddlie, 2003), and this pragmatic viewpoint has been adopted in this research. Given the controversial nature of mixed methods, the research methods are explicitly outlined, including the procedures used to investigate the four induction components. In this study, a three-phase design enabled a triangulation of data and methods (Tashakkori & Teddlie, 2003). Phase one centred around a survey of BTs with the subsequent data analysis. Phase two, site selection, involved using survey data and interviews to select the school sites. Phase three encompassed field visits to exemplar schools and data analysis. The final analysis combines the findings from these three phases to investigate the integrated model of effective induction in New Zealand's low-decile primary schools.

Survey Methods

First, a survey was administered, as it was the most practical method to investigate BTs' perceptions of the induction components across low-decile schools. Recent literature provided a wide range of surveys concerning induction programmes (Barrett, 2005; *Ethic of Care*, 2002; Grudnoff & Tuck, 2005; Renwick, 2001; Yuen-Fun, 2003). To create a survey for this study, themes from existing surveys investigating effective induction were used and adapted to investigate effective induction components in the New Zealand context. Specifically, the survey included questions about: (a) the frequency and usefulness of various induction activities, practices, and personnel, (b) BT efficacy and attitudes towards teaching, (c) leadership roles and

influence on mentor teaching, (d) self-reported stress levels and hours worked, and (e) demographic information (Appendix A). Responses, with the exception of those to demographic and leadership questions, were recorded on a Likert scale of 1–5 (from *not beneficial* to *very beneficial* and from *strongly disagree* to *strongly agree*). A draft survey was piloted on 12 primary BTs in a South Auckland community on 30 May 2006. Feedback from the pilot BTs prompted the inclusion of open-ended space for comment and three questions (42–44) regarding teachers' perceptions of their students' achievement. Collaborative efforts in September 2006 allowed the researcher to provide feedback—including some parallel question design—for the nationwide, decile-wide NZCER BT survey (Cameron, Dingle, & Brooking, 2007). Results from the NZCER survey enabled comparisons between low-decile schools and national norms.

Survey Mailings via the BTTA Database

In this study, BTs are defined as first- and second-year teachers listed on the Ministry of Education BT Time Allowance (BTTA) database. The BTTA provides a subsidy to state schools that employ BTs, giving schools an extra 0.2 full-time teacher equivalent for each first-year BT and a 0.1 full-time teacher equivalent for each second-year BT employed via Teacher Salaries. To be listed on this database, teachers must be appointed to a position for at least 10 weeks and for at least 0.5 time. Given that the database was downloaded on 10 July 2006, some of the more recently appointed BTs may have been excluded from the survey, which was mailed on 28 July 2006. Furthermore, some schools pay BTs out of their general bulk grant funding rather than through Teacher Salaries, which means they are not eligible for the BTTA. It has been estimated that 90% of first year BTs are in the BTTA database (Murray, 2006).

With the help of this database, surveys were mailed to all 467 BTs in 212 New Zealand decile 1 and decile 2 primary and intermediate schools. By means of contact data from the Ministry of Education database, initial phone calls were made simultaneously with the initial mailing. Surveys were posted to principals, who were asked (following the university's ethics procedures) to give informed consent and distribute the surveys to the BTs in their schools. Twenty-nine BTs (6%) from 11 schools did not receive the survey because their principals did not consent to their schools taking part because of ERO review commitments, survey inundation, and school-wide tragedies. Surveys were returned directly to the researcher by BTs via postage-paid envelopes. The first round return rate was 22% (n=103). Three weeks later, follow-up phone

calls were made, which increased the response rate to 31% (n=146). Surveys were re-posted to schools that had not replied by 6 September 2006. This second mailing produced 57 more responses, giving a final response rate of 44% (n=207; i.e., 47% of the BTs who received the survey from their principal). This percentage is just under the 48% norm for educators found by Green (1997) in her meta-analysis of mail survey response rates.

Relying solely on the BTTA database excluded approximately 10% of BTs who may have been under-supported owing to alternate funding means. Non-responding BTs may have viewed the survey as time consuming. Thus, it is possible that data may have been skewed by the non-random response pattern of surveys being returned by less-stressed BTs. Lastly, because of the potential lack of anonymity at many schools (72% of schools had two or fewer BTs and the surveys were distributed by the principals), some BTs may have felt pressured to respond positively to survey items.

All research conducted through the University of Auckland involving human participants must first have the approval of the University of Auckland Human Ethics Committee. Approval of the ethics application for the first two phases of research was granted in July 2006 and approval for the third phase was granted in September 2006. As part of the ethical procedures, all data were kept in a locked cabinet and surveys were coded by numbers assigned to each school, thereby safeguarding the identity of individual BTs. Obtaining ethical approval both exacerbated and mitigated the potential pitfalls. For instance, as part of the ethics process, in the Participant Information Sheet, confidentiality was guaranteed, which may have reassured participants that their identity was safeguarded. On the other hand, the tension between the ethical principle of informed consent and high response rates surfaced when the internal ethical review committee deemed that principal approval was a necessary step. In other words, requiring principal approval may have prevented some potential respondents from receiving their surveys.

Statistical Procedures: MANOVA, Cluster, and Factor Analyses

During October 2007, the data from the 207 respondents were processed via ANOVA, MANOVA, cluster, and factor analyses. The first step was to collapse certain scale variables—age, months of teaching experience, year level of students taught, and training institutions—into scaled categories. Categories were created by looking at natural clusters in the data that led to approximately equal cells. The mean age was 30, so age was divided into *under 30* and *30 and*

over. Length of teaching experience was categorised as *0–8 months, 9–16 months,* and *17–24 months*. As the survey was administered in October, this represented first-year BTs, BTs who began after the beginning of the previous school year, and BTs who began teaching in the first term of the previous school year. Year level of students taught was divided into *0–2, 3–5,* and *6–8,* with combination years joining the lower group. Lastly, teacher education institutions were categorised in terms of their geographic region. Later analyses looked at individual teacher education institutions without the clustering; however, several institutions had fewer than 30 respondents, a sample size too small to allow for powerful analyses.

A maximum-likelihood oblimin factor analysis with oblique (oblimin) rotation led to factoring the independent variables into six themes. These themes were related to the components of effective induction. ANOVA and MANOVA analyses were used to ascertain statistically significant mean differences ($p<.05$) between the factor themes and demographic data, such as the age and experience of a BT. Additionally, dendograms were created to enable cluster analyses of three of the factor themes. These cluster groupings were used to distinguish variations within the induction component. The remaining three factor themes were composed of only two items, and therefore variations in sub-items were analysed via means in simple two-by-two matrices.

Limitations of Statistical Analysis

Statistical analysis, despite the seemingly objective nature of columns of numbers, relies on personal judgment (Gorard & Taylor, 2004). For instance, when coding responses, several candidates darkened adjacent circles, so judgment was used in selecting the higher of the two responses. Also, all recoding and factor analysis groupings were based on judgments that were not completely objective. Another personal judgment arose during the decision to use parametric tests with the Likert scale. Valsiner (1987) wrote that consensual ignoring of scale types served as a good example of syncretism, a universal feature of human dialogical communication: “The researcher knows that a particular scale cannot be transformed into another one, and the general reasons why this is not possible, but then discounts this knowledge and performs the transformation anyway” (p. 81). Nevertheless, it has been contended that if one assumes the scale underlying the Likert categories is normally distributed and the sample size is sufficiently large, then maximum-likelihood methods based on Pearson-based co-variances can be used

(Hattie, 2007). Given the normal distribution of the data and the adequate sample size, it was determined that parametric tests were the most robust way to proceed with data analysis.

Case Study Methods

After creating a national overview of induction in low-decile schools via survey data analysis, five exemplar case sites were selected to investigate further the nature of specific practices of the overlapping induction components. To accomplish this objective, case study analysis involved multiple methods. First, Brinkerhoff's (2003) Success Case Method (SCM) was used to determine what was occurring in the schools. This method involved interviews with teachers and principals and document analysis. Second, nuances of interactions were investigated via discourse analysis. BTs were shadowed during the third round of visits and their interactions with staff, particularly at meetings, were recorded. Lastly, grounded theory method achieved the basic goal of linking generalisations, suppositions, and hunches into systematic networks of propositions to help explain induction phenomena (Battersby, 1981, p. 22; Strauss & Corbin, 1990). During field visits, the various case study methods overlapped and interwove, thereby enabling more rigorous analysis via systematic triangulation of data. However, for the purpose of explaining the procedures and rigour, the components are described separately in this methods chapter.

Investigating Induction in Exemplar Low-Decile Schools: Brinkerhoff's Success Case Method

Teddlie and Reynolds (2000, p. 26) identified a strand of school effectiveness research in which the processes of differentially effective schools are studied using outlier and case study approaches. This research adopted this approach, and cases were built via prolonged engagement in the field and data collection from different sources and participants. Within this case approach, the specific method used to research integrated induction practices was the *Success Case Method* (SCM), which was designed by Brinkerhoff (2003) to study successful businesses. In SCM, the specific procedure involves: (a) creating criteria for success, (b) identifying successful cases, (c) interviewing personnel, (d) documenting key events, and (e) synthesizing the findings into a picture of success. SCM also entails making recommendations, which, in this study, are incorporated into the thesis conclusion. Brinkerhoff's SCM is designed to confront and leverage reality by asking four key questions: (a) what is happening?, (b) what are the results?, (c) what is

the value of the results?, and (d) how can improvement happen? Exemplar cases are used "so they can be weighed, provided as motivating and concrete examples...and success can be built on and extended..." (Brinkerhoff, 2003, p. 3). In this method, extremes are measured because extremes are often masked when means and central tendencies are used. SCM is similar to Schofield's (1990) suggestion of analytic generalisation of looking for "what could be" via locating cases that are exceptional and ideal. In other words, the findings from this study could be generalised to create a picture of effective induction. Following is an outline of the specific steps taken during the course of this research.

Narrowing the Field: Selecting Potential Sites

The first step in SCM is to create criteria for success. In this case, successful schools were initially defined as those in which the response to the initial BT survey item 'The advice and guidance programme at my school is exceptional' averaged above 4—with no single BT reporting below 4—on the 5-point Likert scale (n=63). After establishing a broad definition of success, site selection was a systematic, careful process of selecting five, though not necessarily the only five, exemplar sites from the original 193 decile 1 and 2 primary schools.

First, in July 2006, all decile 1 and decile 2 primary schools with Year 1 and Year 2 BTs were labelled on New Zealand maps. In August 2006, invitations were e-mailed to the principals in the 63 schools. In September 2006, follow-up e-mails were sent to all non-responding principals. In all, 26 principals responded to the invitations. Two principals withdrew because they had no BTs in 2007. Three other principals withdrew because of time concerns.

The 21 remaining schools were sorted into rural, small urban, mid-sized urban, and large urban categories (Table 3). School size was chosen as a discriminating factor due to studies stating that support providers of different sizes cater to different needs (Geoffrey, 2005; Johnson, Harrison Berg, & Donaldson, 2005). All mid-sized schools were incidentally in rural locations.

Table 3

Induction Information Concerning the 21 Case Sites

School	BTs' Programme Rating	Enrol.	Decile	Reason for Withdrawal
Small Rural 1	5	176	1	
Small Rural 2	5	159	1	
Small Rural 3	5	43	2	Time Concerns
Small Rural 4	5	104	2	
Small Rural 5	4, 5	86	1	
Small Rural 6	4	91	1	Time Concerns
Small Urban 1	5	181	1	
Small Urban 2	4, 4	317	2	
Small Urban 3	4	304	1	
Small Urban 4	4	197	1	
Small Urban 5	4	280	1	Time Concerns
Medium Rural 1	5	247	2	
Medium Rural 2	4	268	1	
Medium Rural 3	4	345	2	
Large Urban 1	5	370	1	No response
Large Urban 2	5	478	2	
Large Urban 3	4	520	2	Time concerns
Large Urban 4	4, 4	547	2	
Large Urban 5	4, 4, 5, 5	520	2	
Large Urban 6	4	722	2	

Round One Visits: Interviewing Management and Collecting Documents

In February 2007, a proposed timetable explaining the visits was e-mailed to principals at the participating 21 schools. Principals from four schools withdrew because of time concerns. The remaining 17 schools were visited in order to locate exceptional programmes. Bassey (1999) described this process as discriminant sampling to maximise opportunity for comparative analysis and propositional generalisations. Data collection during these visits consisted of interviewing principals, collecting induction programme documents, and recording impressions of the overarching school context. During round one, 25 school personnel (16 principals and 9

teachers) were interviewed over the course of 15 working days. Semi-structured interviews were used to glean information relating to the effective induction model, with an emphasis on the documentation (Appendix C). Initial induction programme documents were collected, including formal induction policy statements, orientation information, BT logs, networked documents, and any other documents volunteered by principals. When describing qualitative research, Valsiner (1987) wrote that context is relevant in the investigation of a phenomenon. In keeping with this line of thinking, initial impressions and data concerning the school size, population, location, staff, atmosphere, and curricula were gathered. All interview data were transcribed verbatim and imported into an NVivo database. Demographic attributes of each school and field notes were also recorded in the database.

Selecting the Final Five Sites

Given that the objective of the study was to present sites that were strong in multiple induction components, sites were eliminated if an induction component was exceptionally weak.

a. *Pedagogical Development: Portfolios.* Schools were rated on the following scale:

   1 – reflective documents depended on the tutor teacher or reflective documents from other schools copied by individuals

   2 – NZTC documents with no refinement

   3 – school-wide reflective documents, produced/refined by school

   4 – exceptional/innovative school-wide reflective documents

   All schools with a rank of 1 or 2 were eliminated as potential case study sites as this indicated a possible lack of school-wide consistency. Schools with a 3 were retained in the analysis as the documentation may have been standard but the programmes themselves were potentially innovative. One school had documentation, but it was unclear if it was school-wide. To be cautious, the school was not eliminated in this round.

b. *Socioemotional Support: BT Community.* As the study looked at the school-wide community, it was important that there be more than one BT at a school. Medium Rural 3 had only one BT, who was due to receive full registration in April, so the school was eliminated. Also eliminated was Small Rural 1, which had only one BT.

c. *Professional Agency: Efficacy*. Efficacy responses were averaged from the BT survey. As none of the potential sites averaged under 3.5 on a scale of 1–5, none was eliminated on the basis of having weak BT efficacy.
d. *Structured Balance: Reduced Workload*. One school (Medium Rural 2) did not allocate 100% of the BTTA to induction purposes, therefore this school was eliminated.

In the remaining nine schools, there was clearly an overrepresentation of small, rural schools. Small Rural 5's induction programme had innovative school-wide documentation and weekly meetings with the BTs. Both Small Rural 2 and Small Rural 4 had programmes that incorporated all of the induction components, and were kept as back-up Small Rural sites. Small Urban 1 and Small Urban 2 both incorporated all of the induction elements, albeit via different programmes, so both were included as final case study sites (Table 4). Interview data from principals in all excluded schools were still included in the NVivo database as the programmes in the schools were deemed sufficiently strong and insights from the principal interviews added to the richness of the dataset.

Table 4

Final Case Study Sites

School	BTs' Induction Programme Rating	Average Frequency of Practice	Students Enrolled	Decile	Documentation Rating	No. of BTs
Small Rural 5	4, 5	3.6	86	1	4	2
Small Urban 1	5	4.2	181	1	4	6
Small Urban 2	4, 4	5	317	2	4	4
Medium Rural 1	5	4.4	247	2	3	3
Large Urban 6	4	4.4	722	2	4	8

Round Two Visits: Teacher Interviews

After the sites had been established during the first round of visits, two further rounds of visits were made to collect the success case data (Figure 4). Britton et al. (2003) wrote that "Understanding teacher induction requires looking beyond the ostensible program" and getting to understand the everyday workings of schools—from morning tea to the resource room staff. During round two, six sites were visited, with each visit lasting one to three days, during July and

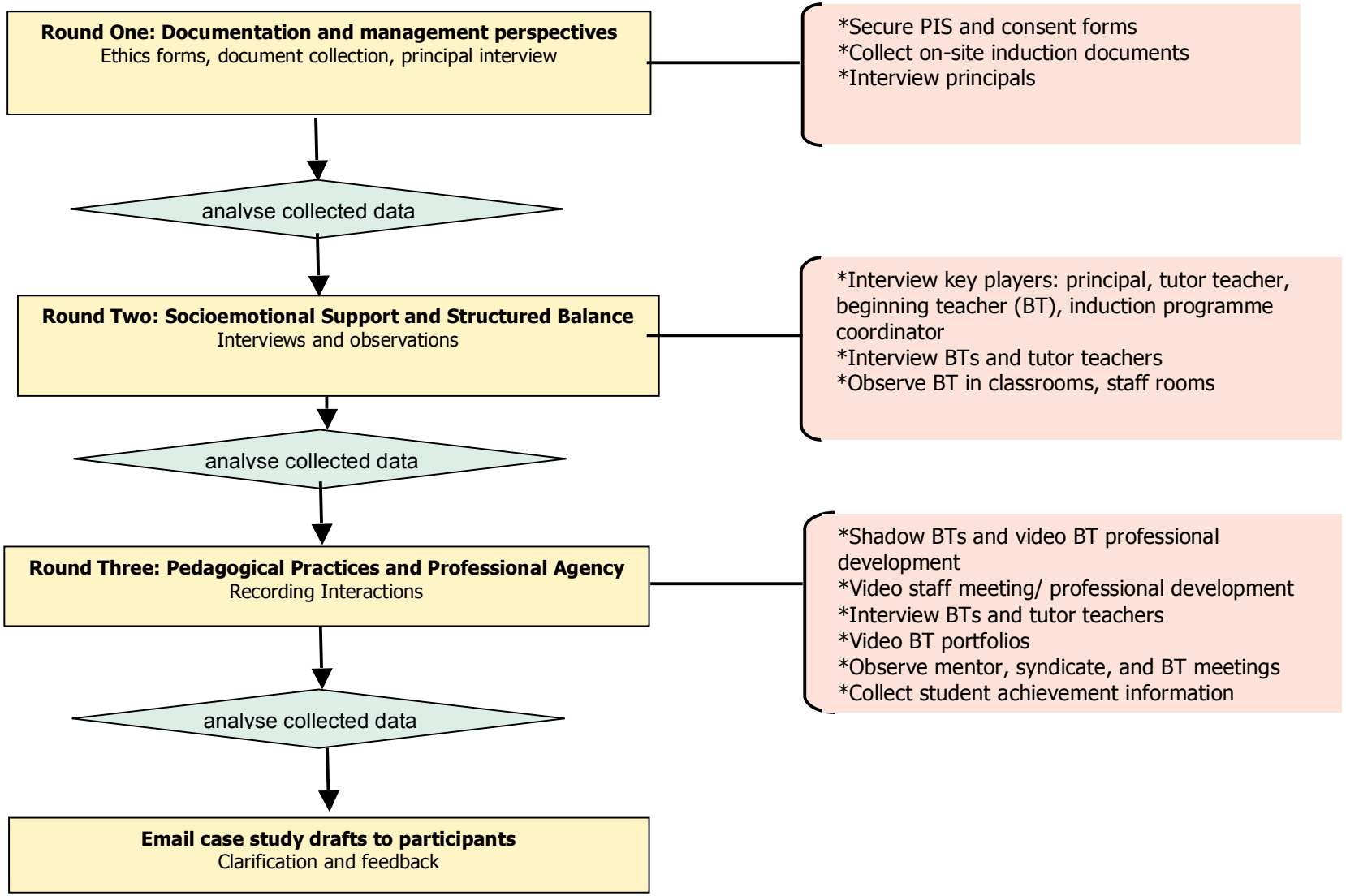


Figure 4. Success Case Method (SCM) field visits

August 2007. As with the interviews in the initial round, second-round interviews were transcribed verbatim and coded using the NVivo software program. As suggested by Kvale (1996), a few minutes were taken after each interview to reflect and record the thematic aspects as well as interpersonal dynamics. During one such reflection it was decided that Large Urban 6's programme was more systemic than Large Urban 5's, with school-wide tutor teacher–BT meetings and documentation; therefore, Large Urban 6 was chosen as the final large, urban case study site.

The primary data-collection method during the second week consisted of audio taping interviews with principals, BTs, tutor teachers, and other teachers or advisors instrumental in the induction programmes. Semi-structured interviews, each lasting 10 to 20 minutes, were conducted with 25 BTs and 22 tutor teachers across the six sites during the course of eight working days. All teachers were asked about their education and work background. The overarching aim of the interviews was to determine the systems and community support of the induction programmes. To this end, the semi-structured protocol was used to facilitate data-gathering while allowing freedom to delve further into a response if doing so might help elicit more rich data, particularly concerning the structured balance and socioemotional support components (Appendix C).

Structured balance. Questions regarding the nature of the support structure were put to BTs and tutor teachers. Tutor teachers were also asked about the nature of programme evaluation and their support. To further analyse the programme structure, BTs were asked to complete a grid outlining induction and professional development activities for a fortnight (Appendix C). These timetables were analysed for themes and patterns. Additionally, documents regarding school induction policy were collected and diagrams of the collaborative systems supporting each BT were made and compared for similarities and differences.

Socioemotional support. In the initial interview BTs were asked to describe the support they received and offer suggestions for improvement. Tutor teachers were asked about the pedagogical-pastoral balance and the support they received. In addition to interviews, round two included a more full immersion in each school context. This consisted more of "shagging around," identifying key informants and conducting informal, non-participant observations (Fetterman, 1984). This immersion included having morning tea and lunch in the staff room at every school site, where details such as the seating arrangements and nature of interactions were

noted. Such immersion in the culture allowed a richer perception of the socioemotional support to be gained and noted.

Round Three Visits: Pedagogical Practices and Professional Agency

In September and October 2007, mostly week-long visits were made to the final five sites. The third and final round of visits entailed 23 days of site visits resulting in over 38 hours (2,336 minutes) of taped interviews, meetings, observations, and recorded documents. The primary focus of the final round was collecting data regarding what was occurring in each induction programme in detail. In looking at inquiry-based practice, Timperley and Parr (2004) found that teachers' feelings of success were unreliable indicators of the realities of student achievement, therefore they examined class and year-level achievement data to create a New Zealand-based definition of effectiveness based on five principles: (a) consideration of curriculum and student achievement, (b) measurement of day-to-day teaching, (c) ongoing collection of evidence, (d) examination of class data, and (e) ensuring that the process is collective and inclusive. Similarly, Kennedy (1999) described four types of approximations for gathering data:

- first-level: standardised tests and classroom observations
- second-level: descriptions of teaching (Kennedy noted about .7 agreement between self-report and teacher observation)
- third-level: interviews (lower correlation of .31 agreement between interviews and teacher observation)
- fourth-level: testimonies about helpfulness of policies

These four levels of approximations were kept in mind as, during the final round of visits, an attempt was made to glean more first- and second- level data from the school sites via the observation of classrooms and meetings and the collection of student achievement data. However, as Kvale (1996) wrote, observations serve as no guarantee of truth, thus a variety of approximations were adopted throughout the process of data collection. Where possible, first-level approximations were used to triangulate second- and third-level approximations.

The main focus of the third round of visits was to gather information regarding the pedagogical development and the professional agency of BTs. BTs and their tutor teachers were

re-interviewed in the final round (Appendix C). Every BT was shadowed for a day and their registration portfolios were videotaped.[5] At every site, at least one staff meeting and/or one professional development endeavour was videotaped. At four of the five sites, BT meetings were videotaped (Small Urban 2 did not have BT meetings). Lastly, at four of the five sites, individual BT–tutor teacher meetings were recorded (Table 5).

Table 5

Recorded Interaction Instances at Case Study Schools

School	BTs	Tutor Teachers	BT–TT Meetings	Planning Sessions	Staff Meetings	BT-only Meetings	TT in BT Class-room	Off-site PD
Small Rural 5	2	1	2	2	2	2	2	0
Small Urban 1	5	2	0	5	0	1	2	1
Small Urban 2	4	4	4	4	1	0	0	0
Medium Rural 1	3	1	3	3	1	1	2	1
Large Urban 6	11	11	1	5	1	1	1	0

Pedagogical development. Data were compiled to answer the SCM question "What is happening at low-decile primary schools with exemplar induction programmes?" Field visits were used to explore further the complexities and dynamics of the pedagogical practices that arose from survey analysis (Ingvarsson & Greenway, 1984). Data concerning pedagogical development in each of the three induction areas were gathered. First, data concerning professional development of thinking strategies were collected by means of shadowing BTs and videotaping instances of professional development. Similarly, information regarding teacher inquiry was gathered by means of observing instances of teacher inquiry and using semi-structured interviews to triangulate the data coded by themes in NVivo. The self-managing nature of the schools meant that each school collected different data in different ways at different times of the year, rendering cross-case comparison difficult; however, case studies highlighted

[5] Only five BTs were shadowed at Large Urban 6. These BTs were selected by the deputy principal. Two of the three who were not selected had taught overseas for a number of years, and the third had a tutor teacher who was not interested in participating in the project.

how exemplar schools were using the data. Lastly, during the third round, worksheets and reflections included in BT portfolios were collected and coded using the same axial coding scheme as used with the interview and meeting data. Portfolios were videotaped and document analysis was performed to analyse what types of documents were being put into the BT registration portfolio. Lists of the documents were compared across schools. Clusters of ideas from each of the three pedagogical development strands were grouped together from structured and semi-structured interviews, observations, and the collection of documents at each case site. Thus, data and methodological triangulation was achieved by combining video analysis, observations, interviews, and document review (Barrett et al., 2002; Darling-Hammond, 2006; Gratch, 1998b; Turnbull, 2002).

Professional agency. To measure professional agency, BTs were surveyed in each case site (Appendix A), and data about their efficacy levels and leadership roles were recorded. While on-site, BTs were shadowed and BT–tutor teacher support activities (i.e., meetings, observations, and feedback sessions) were recorded (Table 5). Meetings were transcribed verbatim and interaction analysis protocols (Fetterman, 1984) were used to detect patterns in how BTs interacted with their tutor teachers. As discussed in the following section, syndicate meetings, BT workshops, staff meetings, and off-site professional development were also observed and recorded and discourse patterns were analysed.

Discourse Analysis: First-Level Approximations of Agency

Dynamic, Reciprocal Relationships: Video Segments

To gain a representative idea of the nature of BTs' agency, two five-minute segments were randomly selected from every tutor teacher–BT interaction. Each BT–tutor teacher and BT–whole staff interaction was divided into five-minute segments. Using an Internet random-number generating programme, two random segments from each meeting were coded by the author and another education doctoral student. Each segment was reviewed twice. First, the segments transcripts were read to note the nature of the topics. The coding schedule distinguished the following types of meeting discussions: pedagogical, administrative, management, and distracters (unrelated topics and unrelated organisational issues). The proportion of time spent for any one code was calculated by using the number of lines per topic as a proportion of the total five-minute segment. Second, the segments were coded according to

the nature of the interaction between BT and tutor teacher. Lipton and Wellman (2003) devised three categories of mentoring stances: consulting, collaborating, and coaching with specific actions for each category (Figure 5). The five-minute segments were reviewed and actions were highlighted on photocopied sheets. Disagreements in coding were discussed and resolved to the satisfaction of both coders.

Discourse Analysis of BTs as Information Brokers: Staff Meetings

Transcripts of whole-staff meetings were also read. Any instance of a BT speaking was highlighted. Highlighted segments were reviewed for both the content (pedagogical, pastoral, classroom management, administrative, and distractors) and the type of interaction (question, statement, response, and read aloud).

Discourse Analysis of Challenging the Status Quo: Transcript Review

All interview and meeting transcripts were reviewed for instances of a BT challenging the status quo. Instances may have been observed first-hand or described in an interview. "Challenging the status quo" was defined as introducing, or attempting to introduce, any new idea concerning pedagogy, policy, or procedures to the school. Information from these discourse analyses was tabulated. In the final analysis, BTs were divided by age (20–29 or 30–59) and experience (first year, mid-year, or second year) so that variations in the nature of the interactions among different groups could be considered.

Consulting	Collaborating	Coaching
Intentions: • To share information, advice, and technical resources about policies and procedures, learning and learners, curriculum and content, and effective practices • To establish standards for professional practice	**Intentions:** • To co-develop information, ideas, and approaches to problems • To model a collegial relationship as a standard for professional practice	**Intentions:** • To support the protégé's idea production, instructional decision-making, and ability to reflect on practice • To increase the protégé's ability to self-coach and become a self-directed learner
Actions: • Providing resource materials and references to research • Demonstrating processes and procedures informally and through model lessons • Offering a menu of options to consider • Providing instructions to building and district resource people as needed • Offering expert commentary on student work samples • Sharing principles of practice by elaborating the "what," "why," and "how" of proposed ways of thinking about issues, proposed solutions, and choice points • Framing presenting problems within wider contexts and providing expert ways to approach issues and concerns	**Actions:** • Brainstorming ideas and options • Co-planning and co-teaching lessons • Sharing and exchanging resource materials • Planning experiments to try simultaneously in each classrooms, and comparing notes on results • Jointly analyzing student work samples • Joining the protégé to offer support and "translate" when building and district resources are presented to provide technical assistance • Jointly noting problem frames and generating alternative ways to think about issues and concerns • Alternating paraphrasing and summarizing oneself with encouraging the protégé to paraphrase and summarise developing ideas • Alternating offering ideas with encouraging the protégé to contribute ideas	**Actions:** • Maintaining a non-judgemental stance with full attention to the emotional and mental processes of the protégé • Inquiring, paraphrasing, and probing for specificity to surface the protégé's perspectives, perceptions, issues, and concerns • Inquiring, paraphrasing, and probing for specificity to surface the protégé's planning, problem solving, and reflecting on practice • Inquiring, paraphrasing, and probing for specificity to surface the protégé's analysis of student work • Inquiring, paraphrasing, and probing for specificity to increase the protégé's self-knowledge and awareness as a teacher, colleague, and professional educator

Consulting (cont.)	Collaborating (cont.)	Coaching (cont.)
Cues: • Using a credible voice • Sitting up straighter or leaning back a bit from the table • Using the pronoun "I" as in, "Here's how I think about issues like that" • Using bookmarking phrases for emphasis, such as "It's important to…," "keep in mind…," "pay attention to…"	**Cues:** • Using a confident, approachable voice.Sitting side-by-side, focused on the common problem or issue • Using the pronoun "we" or "us" • Using phrases like "Let's think about…," "Let's generate…," "How might we…?"	**Cues:** • Using an approachable voice • Attending fully and maintaining eye contact.Using the pronoun "you" as in, "So you're concerned about…" • When responding, using a pattern of paraphrasing, and inquiring to generate open thinking; or probing for specificity to focus thinking • Framing invitational questions to support thinking such as "What might be some ways to…?" "What are some options that you are considering?" and "What are some of the connections you are making between…?"
Cautions: • If overused, the consulting stance can build dependency on the mentor for problem-solving advice without explanation of the underlying choice points and guiding principles, usually does not develop protégé's abilities to transfer learning to new settings or to generate novel solutions on their own.	**Cautions:** • Mentors need to carefully monitor their own actions when they enter the collaborative stance. Their own enthusiasm and excitement for the topic or issues may override the intention to co-create ideas and possibilities. False collaboration then becomes disguised consultation.	**Cautions:** • The coaching stance assumes that the other party has resources for idea generation. If this is not the case, pursuing this stance can lead to frustration on the part of the protégés. You cannot coach out of someone what is not in them.

Figure 5. Three mentoring stances (Lipton & Wellman, 2003)

Investigating Effective Induction Components: Grounded Theory Method

Although the literature suggested that effective induction contained integrated components, there was no specific framework of effective induction components. Grounded theory method was therefore applied to field visit data to develop inductively a theory of the integrated induction components in low-decile New Zealand schools. If well executed, grounded theory, or theory developed inductively from data, will fit one dataset perfectly (Borgatti, 1996). In grounded theory, the collection and analysis of data are carried out in tandem with the development of a theoretical framework. Strauss and Corbin (1990) explained that categories from data analysis and literature are compared via a constant comparative analysis. Categories are developed and properties of these categories emerge via: ongoing, systemic organisation and classification of the data into various categories; the formation of propositions; and the refinement of categories. Grounded theory method involves both deduction and induction of data as analytic codes and categories are developed from the data. Middle-range theories are developed to explain behaviour and processes (Hill, 2000). Diagramming is aided via memo-making, analytic notes (Hill, 2000), categorical matrices (Donaldson, 2005), and concept maps (Strauss & Corbin, 1990).

Coding the Data

Coding data was a key tool for constructing categorical categories. Coding, the process of naming or labelling categories, is normally done quite informally. For example, as new categories are invented, grounded theorists do not normally return to the earlier text to code for the new categories (Borgatti, 1996). After each field visit, the interviews, meetings, and documents[6] were transcribed verbatim and data were manually coded via the NVivo programme into open nodes. Data were coded at the sentence level into open codes. After each round of visits, axial codes were developed relating categories to subcategories. Codes were reorganised and memos were drafted that incorporated the data from all schools into an increasingly rich definition. These analytical memos were used to identify emerging cross-case themes. As a final measure, selective coding was performed to relate all codes under a central umbrella theme (Strauss & Corbin, 1990). To guard against validity threats, data were e-mailed to participants

[6] In an effort to mitigate the environmental impact of this project, induction documents were electronically videotaped. Summaries of the documents and key phrases were transcribed into the NVivo document.

and others well versed in the literature so that interpretations could be checked. Additionally, selective codes were checked against the literature via the creation of a concept map of the literature.

Intentional Reflection and Analysis

Strauss (1990) noted that the quality of a theory can be evaluated by the process by which a theory is constructed—a concept that contrasts with the perspective that the quality of a theory can be determined by its ability to explain new data, not by the quality of the process. To keep a constant monitor on the theory-generation process, daily reflection was used throughout the process. Reflections were entered into the NVivo database to facilitate keyword searches. During the site visits, additional daily notes were composed. Memos regarding the literature, the process, and the findings were drafted throughout the research. These memos were reviewed and used to create the structure for the write-ups. When site visits were completely transcribed, intense cross-case analysis via matrices was used to condense and compare data (Achinstein & Villar, 2002). By the end of the third visit, it appeared that the categories had been saturated (Battersby, 1981) and a grounded theory regarding effective induction had emerged. Additionally, revisiting quantitative results influenced qualitative investigations. These techniques enhanced the validity and substance of the findings. Furthermore, through the mailing of individual case study write-ups to the schools in April 2008, external triangulation and verification were carried out.

Case Study Strengths and Limitations

Strengths of the Case Study Format

The Success Case Method, discourse analysis, and grounded theory method all fall under the umbrella of "case study." The case study format has several strengths (Fetterman, 1998; Fetterman, Kaftarian, & Wandersman, 1996; Wood, 2005). First, this methodology provides detailed information to supplement the statistical analysis. This enables the researcher to deal with creativity, innovation, and context. The format allows research to begin with broad questions rather than attempting to predict every possible outcome. The emphasis on context helps bridge the gap between abstract research and concrete practice by allowing comparison of first-hand observations and the quantitative results obtained through other methods of research

(Becker et al., 2005). Case studies enrich the researcher's understanding of professional culture, which encompasses the complex interplay between individuals, formal structures, social organisations, prevailing beliefs and norms, and the context of the schools (Kardos, 2005). Finally, the case study enables teachers' voices to enter the discussion, an element which researchers have tended to edit out as personal (Goodson, 1992).

Limitations of the Case Study Format

Although case studies were an ideal vehicle for studying school design, the case study methodology carried inherent weaknesses. Researcher bias may have influenced data collection, analysis, and interpretation. The best way to mitigate this bias was honestly to assess predispositions prior to and during research. Gadamer (1975) acknowledged that this bias is human; indeed, investigators' prejudice was viewed as a condition for understanding (Tickle, 2000a). A second limitation is that behaviour can be inconsistent and ambiguous (Alvesson & Skoldberg, 2000; White & Moss, 2003), with observations often highlighting front-stage behaviour, rendering the real action difficult to invade (Valsiner, 1987). Given the subjectivity and context-dependent data generated by the small sample size, it was difficult to generalise findings. Triangulation of data and multiple visits were performed to mitigate this problem.

Sometimes, with a large amount of data, it can be difficult to decide the relevance of specific data (Battersby, 1981). To counter this difficultly, Moghaddam, Walker, and Harre (2003) suggested recording everything and analysing information for frequency within a sample, a technique known as *Frequency Effect Size* (p. 115). Moreover, to tackle the otherwise overwhelming amount of data requiring analysis, planning procedures were employed. Hence, six months were spent planning for the year spent in the field. During this time, NVivo, Excel and SPSS databases were created; organisational matrices were used to check for systematic rigour of data collection; and daily memos were made. Time was set aside before and after each site visit to ensure that data were accurately recorded and organised. A final common problem with case study research is that an investigator changes direction during a study, but remains unaware that the original research design is inadequate for the revised investigation. Thus, the researcher can leave unknown gaps and biases in the study. With this mind, preliminary findings were reported so that the likelihood of bias was reduced.

Conclusion to Methods

To answer the question "How does the New Zealand teaching profession induct its newest members in low-socioeconomic primary schools?" multiple methods were used. Survey data were collected in 2006 to create an overview of induction. Data were analysed via ANOVAs and MANOVAs of factor and cluster themes. In 2007, success case sites were selected and visited in three rounds. During those three rounds, information was gathered via observation, interview, survey, document review, discourse analysis, memo-making, reiterative coding, and cross-case analysis. The methods, while mixed, were rigorous and triangulated with each other to enable the rich data analysis and discussion presented in the following chapters.

CHAPTER 5. DATA OVERVIEW

This chapter provides an overview of the data, including (a) a discussion of the demographic picture of the BTs who responded to the survey and (b) an overview of the induction programmes at the five case sites. These two sections provide the contextual overview for the subsequent analyses of the integrated induction components.

Contextual Overview: Survey Demographics

Demographic and descriptive variables included each respondent's age, experience, year (grade) taught, and pre-service institution. The mean respondent age was 30: 108 (52.2%) BTs were under 30 years old and 78 (37.7%) were 30 years or over. Twenty-one BTs (10%) declined to give their age. The modal age was 23. The age range of survey respondents mirrored the national data for primary-school BTs, being below the overall national average teacher age of 44 (Galvin & Murray, 2005). For all statistical analyses, age was re-coded into two categories based on the median age: *under 30* and *30 and over* (Figure 6).

Figure 6. Respondent ages of BTs in decile 1 and decile 2 primary schools

Respondents were asked how many months they had been teaching. Given the survey date of October 2006, all teachers who began teaching in February 2006 (the beginning of the New Zealand school year) were recorded as having taught for 0–8 months. Of the 207 respondents, 93 (49%) had been teaching for 0–8 months, 51 (27%) had been teaching for 9–16 months, and 47 (25%) had been teaching for 17–24 months. Six BTs did not answer the question.

All year (grade) levels were represented in the survey. Approximately half the BTs taught below Year 4 (age 9), with only 13% teaching above Year 6 (age 11). Fewer BTs are represented in both intermediate (13%) and new entrant (7%) years (Table 6).

Table 6

BT Years (Grades) Taught

Years (Grades) Taught[7]	**Frequency**	**Per Cent**
New Entrant to Year 1 & 2	42	20.3
Year 2 to Year 3 & 4	65	31.4
Year 4 to Year 5 & 6	58	28.0
Year 6 to Year 8	27	13.0
Missing	15	7.2
Total	207	100.0

There are 14 accredited pre-service institutions in New Zealand, 11 of which (including 3 outposts) are represented in this survey. Most BTs who responded to the survey graduated from a college of education that was amalgamated or affiliated with a university. Like age, teacher education was recoded to consolidate the data into more meaningful subcategories. All satellite campuses were merged with their parent university. The non-university programmes were combined into the category *other* (11%), although it is acknowledged that these other campuses may have vastly different programmes and calibre of graduates. The distribution of attendance at the various institutions mirrors the national statistics closely, except that the University of Auckland was over-represented in the response pool (Table 7). This over-representation corresponded with the Auckland region having the highest concentration of low-decile schools.

[7] Ampersands denote mixed ages: for example, 3&4 denotes a combination of Year 3 and Year 4.

Table 7

Pre-Service Institutions Recoded by Parent University/College of Education

University/ College of Education	Survey Respondents	Per Cent	Graduates from Primary Teacher Education Programmes in 2005[8]	National Per Cent
Christchurch	22	11%	458	12%
Waikato	37	19%	334	9%
Dunedin	8	4%	189	5%
Auckland	79	40%	767	20%
Massey	20	10%	687	18%
Victoria	11	6%	92	2%
Other	13	7%	917	23%
Subtotal	192	92.8	3893	100%
Not stated	15	7.2		
Total	207	100.0	3893	100%

Summary of Survey Demographics

In sum, in the national survey there was equal representation of BTs aged 20–29 and aged 30–59. There were equal numbers of BTs in their first and second year of teaching, although approximately half of those in their second year had started after the beginning of the previous year. BTs teaching all year levels were represented, although the majority (59.4%) were teaching children between Years 2 and 5&6. Survey respondents came from 11 different pre-service programmes, with representation proportionate to pre-service graduation averages, except that Auckland—with its high proportion of low-decile schools—was, understandably, over-represented in the respondent pool. The national overview of BTs in low-decile schools having been summarised, the next section reviews the induction programme at each induction site.

Contextual Overview: Case Study Sites

This section describes the context of the five case sites. Data were gathered from interviews and observations during the 2007 school year. Table 8 summarises the demographic information for the five case sites. Each of the five schools is given a pseudonym, starting with

[8] Source: Ministry of Education database created 6 July 2007.

the first letter of the school's real name. In the case of the four schools with Mäori names, words were selected which represent the essence of the schools' induction programmes: "Whiti" can mean "to change, cross over," "Whakarauika" can mean "to gather together," "Harakeke" can mean "interwoven flax," and "Ringarehe" can mean "expert" (www.mäoridictionary.co.nz). "Fieldview" was chosen as the name of the fifth school, as the school's real name begins with the letter F, a letter not used in the Mäori language.

Table 8

Demographic Information for the Five Case Study School Sites

School	School Enrolment	Decile	Location	# Year 1 BTs	# Mid-Year BTs	# Year 2 BTs	Tutor teachers	Total # of teachers	Key feature
Ringarehe	86	1	Rural	0	0	2	1	4	Reflective peer-coaching
Harakeke	317	2	Urban	3	1	0	4	13	Overlapping support structures
Whiti	181	1	Urban	4	1	1	2	9	Full-time tutor teacher
Whakarauika	247	2	Rural	1	1	1	1	14	Kotahitanga (Mäori ethic of care)
Fieldview	720	2	Urban	3	2	3	8	44	On-site professional development

Case Site #1: Ringarehe—Reflective Pedagogical Collaboration

North of Auckland, shipping is a major industry. When the expansion of a nearby oil refinery was completed in 1986, the workers' houses were sold to Housing New Zealand, the government housing department that rents houses to low-income tenants. Located about 10 kilometres from Northland's major urban centre, Ringarehe had 83 (81 Mäori and 2 European New Zealanders) students enrolled with a 79% transience rate. The principal commented that "we've had a lot of gang issues lately because the Black Power boys have just been prospecting—taking the young recruits on." Nonetheless, energy, reflection, and enthusiasm permeated the Ringarehe staff. At the heart of this enterprise was the principal, who described herself as being "mentally obsessed with pedagogy."

The two BTs were both in their second year. One BT was a 27-year-old mother who had just shifted to full-time work. During her first year, she had taught three days a week so as to

have more time with her three-year-old son. The other BT, in her early 30s, conveyed concern over registration, stating that it was a theme that loomed constantly in her mind.

A "High Place for Pedagogy"

The management at Ringarehe placed a strong emphasis on personal development in its overall staff development programme, which in turn created an induction programme replete with reflection, goal-setting, and a "high place for pedagogy." (It was no coincidence that a book of this title was being read at staff professional development meetings.) Professional discussions took place at staff meetings, which were held after school on Mondays and Tuesdays, and at the Wednesday after-school BT meetings. Some of the meeting time was dedicated to the two BTs' endeavour to co-develop a persuasive writing unit. All meetings were documented in BT folders. The small staff size—two BTs on a staff of four teachers—allowed for personalised induction. The programme was formally evaluated once a term in writing, and BTs reported that pressure was high for pedagogical performance. BTs were empowered with curricular responsibility, taught facilitative questioning, assigned critical friends, and reflected heavily on their practice:

> *It's definitely reflective practice, it really is. It's lots of PD, there's still so much to learn. And that's for all of us, registered, experienced, whatever. The learning never stops in this game.*
>
> –Principal, Ringarehe

This reflective emphasis was supplemented by BTs' peer-coaching, in-service course participation, and visits to other sites.

"A Little Community"

In addition to the pedagogical and reflective emphasis, communal support was strong:

> *Our concept here is it takes a village to raise a child. Well, it takes a teaching team to raise a BT as well. We're really bent on that, so we're all involved with it. We were all there once before. I remind everybody about that, the registered teachers, the experienced teachers. You don't get to where you've got to without structures in place.*
>
> –Principal, Ringarehe

> *We're such a little community here. Everyone else helps out.*
>
> –Year 2 BT, Ringarehe

BTs were welcomed to Ringarehe at a two-day summer orientation that included the folder *Ringarehe School Information for a Great 2007*. The two BTs met regularly with the same tutor teacher, who had begun her teaching career at Ringarehe four years previously. The tutor teacher observed the BTs once every three weeks, with a subsequent debrief session. From her presence in observation debriefs to her personal review of BT reflective documents, the principal—a counsellor for the teachers' union—played a strong role in assisting the tutor teacher. Additionally, there was an aide in the classrooms. Staff meetings provided a venue for extra support, as shown in the exchange below, which took place when the principal invited a BT to share a concern that had surfaced in her weekly reflection:

> *Principal: Any suggestions for [BT] with [student]? He's a child who won't verbalise…*
> *BT2: Does he have a buddy?…*
> *BT: That's a good suggestion.*
> *TT: Maybe a sort of self-monitoring—not chart, but you know, some sort of self-monitoring—that he needs to be responsible for.*
> *BT2: Like you've written it up on the board like a checklist.*
> *TT: Like, "Have I asked a question today?" Just simple things, and keep it really simple. He can self-monitor himself to say, "Have I done those things?" He can make an official thing.*
> *BT: Up on the board for the whole class to go, "Oh, hey, [student], you just asked a question. Way to go!"*
> *TT: And that praise, he needs that kind of praise, because you can see him. Sometimes I see him, he needs that sometimes.*
> *Principal: OK, so there's a couple to churn around.*
>
> –Ringarehe staff meeting

This communal support also surfaced during a board of trustees meeting when the principal reviewed spelling assessment results in one BT's classroom:

> *Principal: The teacher has 26 students for term 3. Three students working at the same as term 2, which is below their age, one student who stayed at the same as term 2, and 22 students who made improvement to above their age. That's exciting.*
> *Board parent: Were you expecting that?*
> *Principal: I am expecting that with the work she's putting in.*
> *Board community member: Yeah, yeah.*
> *Principal: It affirms to her as well the work that she is doing and her planning. While you can say, "Aw, it's just a simple spelling test," it goes beyond that when she's using it to inform her practice, which she is. Also, she really feeds it back to her students…*
> *Board parent: …this kind of evidence is real, you can name it, verify it, what you're doing, you know. I personally like it. It's good stuff.*
>
> –Ringarehe board of trustees meeting

Altogether, the reflective pedagogical collaboration that occurs at Ringarehe rendered it an exemplar induction site.

Case Site #2: Harakeke Primary School—Overlapping Support Structures

> *Anyone in this school can be a lead teacher. You don't even have to be good at something. Because what we do is we grow our own expertise. And what we have is what we call professional learning community.*
>
> –Principal, Harakeke

Harakeke Primary School, with its 317 students, is located within a South Auckland suburb that doubles as New Zealand's third-largest city (population 335,000). The suburb became a town district in 1916 and a borough in 1937, and today is a ward of the suburban city. This South Auckland suburb has a long history of attracting Mäori and Pacific Islanders, and the school's demographics reflect this: 37% of students are Pacific Islanders, 36% are Mäori, 15% are New Zealand European, and 12% are primarily from Southeast Asia and India.

Two years ago the school's board of trustees appointed a new principal, and the subsequent staff turnover prompted the principal and her senior management team to apply careful thought to the design and implementation of the BT induction programme. The result was the creation of multiple support structures (O'Brien & Christie, 2005). At Harakeke, support structures such as critical buddies, targeted performance plans, and pastoral care overlap to create a comprehensive induction programme. The principal, a self-identified change agent, and her senior management team stand at the hub of the web of systems:

> *You've got to have structures and systems in place so BTs don't solely depend on tutor teachers. It's impossible...I think the relationship can become almost incestuous, where even if you were offered advice from other teachers, you only listen to your tutor teachers. What we have in place is another layer of professional learning groups.*
>
> –Principal, Harakeke

Critical Buddy Groups and Professional Reading

All four BTs spoke highly of the writing and numeracy "critical buddy" groups that met bi-weekly after school. Teachers, including the four BTs, engaged in professional reading, analysed student writing data, reviewed classroom practice, and deconstructed pedagogies using observation and video. These meetings were separate and distinct from the fortnightly

administrative meetings held by the year-level syndicate. Staff meetings also had a pedagogical orientation:

> *Before every staff meeting, everybody brings their planners. They sit down next to anyone in term one, they sit down and talk about what they've done for the week. "Oh, and here I did this, and here I did this. But next week I'm going to focus on my numeracy groups, they're not working"...people get comfortable with it.*
>
> –Principal, Harakeke

> [*The deputy principal] who was looking at the data pulled out that observation [regarding reading levels in a BT classroom]. We look specifically for kids flat-lining or plateauing.*
>
> –Principal, Harakeke

> *You do meet with the tutor teacher every week or every two weeks, but I would say to first go meet the buddy, because when you come in, or when you are grouping or you are testing, it is nice to go back to the buddy and ask her what she's done and how she's doing it.*
>
> –Year 2 BT, Harakeke

Extensive Documentation via **Performance Action and Appraisal Plans**

The goal-setting and reflection components were equally important. Tutor teachers created induction programmes for each BT each term. During weekly BT–tutor teacher meetings and syndicate meetings, each BT's weekly planning and narrative reflection were checked. During case study visits, it was observed that BTs typed several paragraphs a week reflecting on their actions and setting goals for the future. Most notably, the school-wide *Performance Appraisal and Action Plans* were extensive documentation systems that allowed all teachers, including BTs, to set professional learning goals in each of the priority areas. Specific, measurable objectives were named in each of the *Satisfactory Teacher Dimensions* described by the NZTC, and progress towards these objectives was chronicled each term. Perhaps as a result of this careful reflection and planning, BTs felt confident and empowered, as witnessed by their comfort in voicing opinions and assuming leadership roles during curriculum and planning meetings:

> *I just went through and said, is there anything else you would like to add?...[BT] said, "Can you add in that I'd really like to work with that group and that group?" He's putting his own spin on it as well.*
>
> –Tutor Teacher, Harakeke

A Balance of Support and Pressure

At the beginning of the year, the staff attended a three-day retreat at the Waiheke marae described as part "heads-down" work and part social in which they received a balance of support and pressure:

> *They get the support not just from their tutor teacher but from everyone else in our whänau[9], our whänau circle, that our BTs feel relieved. In the beginning, I know for a fact that a lot of them weren't sharing, weren't quite saying, "Oh, I need help." In term 2, they started to twist.*
>
> –Tutor Teacher, Harakeke

The BTs included a male in his 40s who began teaching in the middle of 2006, a 21-year-old male, a 27-year-old female who began teaching in the middle of 2006, and a female in her late 30s who transferred from another school and began teaching at Harakeke at the beginning of the school year. Every Friday, the staff room was transformed into a social gathering in which the BTs participated. The board of trustees supported BT development by directing surplus funds towards relievers and teachers' aides. BTs received consistent 0.2 release, often working side-by-side in the resource room. The senior staff was extremely conscious of mediating the impact teaching had on the BTs' health:

> *I think everyone—particularly in the middle of the term—people get really tired. This is the winter, there's lots of colds, lots of flu...it can kind of hit them all. She was unwell and she needed quite a bit of time off. There was a couple of days there that she was in tears before school and we just packed her off home and split the class. We know the signs.*
>
> –Tutor Teacher, Harakeke

Altogether, Harakeke's support structures—critical buddies, tutor teachers, and pastoral care—overlapped to create a comprehensive induction that addressed all dimensions of BT well-being.

Case Site #3: Fieldview—Transitioning from External to Internal Support

> *We are tougher on our BTs than most schools.*
>
> –Principal, Fieldview

Fieldview is located in another South Auckland suburb. With nearby Auckland serving as the colonial capital, militia settlements were established there in 1848. In 1912, the suburb

[9] *Whänau* is the Mäori term for extended family.

became a borough, and after the extension of the southern motorway in 1955, the population grew rapidly. In 1989, as part of a nationwide restructure of local government, the suburb was absorbed into Auckland City. The suburb now primarily consists of immigrants, which is reflected in the ethnic composition of the school's 727 students: Tongan 27%, Samoan 23%, Mäori 15%, Indian 14%, New Zealand European 6%, Cook Islanders 6%, Vietnamese 4%, Fijian 3%, and Other 2%.

As one of the largest decile 1 primary schools in New Zealand, Fieldview faced the unique challenge of coordinating an induction programme for 11 of its 44 teachers.[10] In 2007, this task was being headed by the junior-school deputy principal. Over the two previous years, the deputy principal had begun streamlining Fieldview's induction procedures, a task which she viewed as a "work in progress." The school was transitioning from a reliance on external induction courses to an internal programme. Fieldview was creating its own handbook, placing induction documentation on the intranet, compiling its own model BT portfolio, designing tutor teacher forms, and hosting a BT support group:

> *It's actually done a big turn-around, and I think that's evidenced through [induction coordinator] picking up, overseeing the lot. She's not just looking at "Tick it off, you've done it." She's actually looking at offering feedback on things. It's a constant review of it, I think. As well as keeping to the tick-boxes of what's the requirements in the book.*
>
> –Tutor Teacher, Fieldview

During case visits, new observation documents were being trialled and introduced:

> *I'm observing her on Wednesday morning in written language and we're trying out a new format which has been given to us. It's like a new template for the lesson plan and the person observing. It's been given to us by the school, so we are trying it out, trying it on Wednesday morning.*
>
> –Tutor Teacher, Fieldview

The deputy principal had met with BTs and tutor teachers to review the new requirements. The new procedures required that BTs set goals for each term and report on their progress twice a term. The deputy principal also mentioned that she was interested in empowering the BTs, but the BTs did not always feel they were:

[10] By the second term, the number had reduced to eight BTs as a result of mid-year entrants becoming registered.

> *It's a bit hard, especially in the first year because a lot of teachers were established here and it's like you're just a BT, just leave it alone, you don't know what you're talking about, just give it some years.*
>
> –Year 2 BT, Fieldview

During one staff meeting, the BTs, with their recent university education, were observed to be faster at interpreting the new numeracy curriculum than their more experienced counterparts. However, they still sat at the periphery of the room and only discussed the curriculum amongst themselves.

Shifting to On-Site Professional Development

Fieldview was making efforts to shift from off-site to on-site professional development. For example, the school was on a two-year contract funded by the Ministry of Education where an SSS facilitator conducted numeracy workshops at the school site. BTs—as well as all teachers who were implementing the new mathematics curriculum—received additional development:

> *We do that in small groups of three. There's about 20 of us that spend an afternoon with one of the TEAM Solutions [SSS] people going through it and all that sort of stuff. We do that, test the kids, go through the results with them.*
>
> –Year 1 BT, Fieldview

In addition to school-wide professional development, each BT designed his or her own professional development programme, as exemplified by this quote from a second-year BT:

> *In the beginning of the year, [tutor teacher] and I had a discussion and she asked, "What do you think you need to improve on?" I said, "Phonics and writing. Writing, writing, writing…" I'm doing writing on a course… We got a facilitator in to do writing PD, so that was all of the junior syndicate team that went to it. She was actually brought into the school for us… I'm going to get [the deputy principal] to do an observation week seven, writing, then [my tutor teacher] is coming week nine, writing… I spoke to [syndicate leader] about…the next step for writing.*
>
> –Year 2 BT, Fieldview

Overloaded by Numbers

During case visits, teachers were constantly in each other's rooms for meetings, formal observations, and team-teaching endeavours. Relievers were regular and, in at least three cases, had been tutor teachers themselves. However, the larger number of BTs—three first-year BTs, four second-year BTs, two overseas-trained BTs and two BTs who received registration in the middle of 2007—meant that the school lacked trained tutor teachers:

> *I have to say that they're not all that strong, because when you've got 11 BTs in your school, it's very difficult to get good [tutor teachers].*
>
> –Principal, Fieldview

> *I saw yesterday that there's a mentor course at [SSS] coming up and I'm down for that... I'm not going to mention it… Because there's so many BTs, they might say we don't have enough relievers to let 18 people go… Once mine's approved, I might share the love, but I'll make sure mine's signed, sealed, and delivered.*
>
> –Tutor Teacher, Fieldview

To remedy the shortage in trained tutor teachers, the whole staff received training in observation feedback in term two. Also, several tutor teachers were supported in attending afternoon SSS sessions.

One internal innovation was the on-site BT meetings, intended to supplant the SSS BT course. A Year 2 BT coordinated the BT-only meetings, which were held three times per term:

> *We've set up a BT cluster group this year. …But then we pulled out of it. For them to have ownership… They've got an agenda. We've got the minutes from it. …When you've got young teachers like that, you can pass it on to them and they can just run with it. There are so many of them here that they are all well supported. They're a big group and they can lean on each other … I want it to be theirs, not ours.*
>
> –Deputy Principal, Fieldview

Given the large number of BTs, Fieldview would be expected to have some difficulties in maintaining a strong induction programme across the board. However, under the stewardship of the junior-school deputy principal, the programme was growing stronger than in previous years. Although still developing, the programme's move towards school-based support was heading in an innovative direction:

> *We're on a learning curve with this. I've only been here at this school 18 months. I came from the city. I've never been in a school where there's been so many BTs. That's what's really driven us to look at this closely is the fact that a third of this staff are BTs. We've got to make sure that we're doing this properly.*
>
> –Deputy Principal, Fieldview

Case Site #4: Whakarauika Primary—Unity Through Diversity

In contrast to the South Auckland schools, Whakarauika Primary School is situated in a town of 630 people. In the 1950s the New Zealand Government started development in the area for power generation. By the turn of the century, unemployment was high, and in 2007 the town

was listed as an "unemployment blackspot," an area where, if they move to it, unemployed people have their benefits stopped because of the difficulty of finding jobs there.

In 2007, Whakarauika had 247 students with 13.5 classroom teachers, three of whom were BTs. Although the population was 70% European, the school hosted a Mäori-enrichment unit[11] and drew heavily on Mäori philosophy when designing school policy. One BT co-taught in the Mäori-enrichment unit. The principal was supportive in that she encouraged Mäori culture throughout the school. All three BTs were mothers over 30 years old. Like Ringarehe, the school's assistant principal served as the tutor teacher for all three BTs; but she did not have her own class. Whakarauika's induction programme, and the entire school ethos, operated on a philosophy of "kotahitanga," defined by the principal as an ethic of care:

> *For the last four years, we've driven or nurtured and developed the kotahitanga model in the staff. …Yes, for their induction programme they have tutor teachers, but really all teachers are tutor teachers. For the first years, they get very well supported by everyone.*
>
> –Principal, Whakarauika

Kotahitanga: Strong Communal Support

The sense of communal support at Whakarauika was exceptionally strong. First, there was an orientation at the time of hiring and three teacher-only days:

> *Before the interview, she [tutor teacher] just said, "Come and meet me." It was the day of the interview, but before we had it, we went [around the school]. It was quite good, she said, "If you got the job, we'd have a powhiri[12]," and then we do this, and then we do this. She prepared me. It was a whole orientation process that we went through.*
>
> –Year 1 BT, Whakarauika

BTs participated in weekly staff meetings, fortnightly syndicate meetings, and fortnightly BT-only meetings. Once a week, the tutor teacher taught writing to the BTs' students, but also arranged for them to visit other staff, acknowledging that "There's only so much I can model, but there are other teachers at this school." Each BT met weekly with the tutor teacher, completing a reflective form that included comments about student achievement, focus, and goals. The principal was also involved, teaching reading groups in one of the BT's classes. The board of trustees was kept informed via an annual report on induction systems and the role of the tutor

[11] Two multi-age bilingual immersion classrooms often operating in conjunction with one another.
[12] Maori welcoming ceremony.

teacher. The board allocated funding to support the induction coordinator and additional release time.

There was a strong social dimension similar to that at Harakeke:

> *We've had a wananga [retreat] at the marae. What else do we do? Our Friday sessions, down the road. We're quite a social school, too. We get together and have dinners and whatever. But you always end up talking shop.*
>
> –Year 2 BT, Whakarauika

As at Fieldview, the BTs were quiet at meetings. However, the school was experimenting with on-site BT-only meetings in which the BTs had a greater voice. In contrast to the BT meetings at Fieldview, these meetings were facilitated by a different senior teacher each time, and the programme was selected by management:

> *We've had three altogether now. The first two, [principal] took us for e-learning and [senior teacher #1] took us for reading, so it was other teachers within the school. [Senior teacher #2] took us for co-operative learning. What else did we have? The resource literacy teacher took us, that was a really good session. Writing ideas, resources ideas, that sort of thing. Then the last one was with the [school] psychologist.*
>
> –Year 1 BT, Whakarauika

Multifaceted Professional Development

Four times a year, each BT completed an explicit professional development programme that included class observations and support with follow-up. They visited other classrooms and other schools to observe literacy sessions, and they reflected on their observations as a group. They participated in relevant SSS courses, and one BT participated in an environmental education course at Waikato University. The BTs attended cluster-wide training sessions in numeracy with BTs from other schools in the area. Each BT received half a day of release per week, while the other half of the release time was allocated to their tutor teacher so she could observe, work with students, and complete paperwork related to the induction programme. Although the BTs did not rank their conversations with their tutor teacher as exceptionally pedagogical, the following conversation was typical of her BT meetings:

> *Tutor teacher: So who out of all your kids has had the most movement?*
> *BT: As of late, like the last fortnight, [student]'s gone up two levels, she's up to level 8, which is huge.*
> *Tutor teacher: [writes] Up to level 8. So she's reading now, she's in Year 3.*
> *BT: Oh, just pumping.*

Tutor teacher: That's good. Are there any areas in her reading that are causing you any concerns still?
BT: Her comprehension. Comprehension. We'll work on that.
Tutor teacher: It's a weakness, isn't it?
BT: Yeah, and it's not just in reading, it's in all areas. Her being able to retain anything is difficult.
Tutor teacher: Yeah—I'm just jotting that down, "Comprehension—difficulty to retain," so when we look back we have a note of that. So how can you put in place comprehension activities for her?
BT: I've got her drawing and picking a paragraph out of her reader—
Tutor teacher: Did I give you that book that…?

Strong Sense of Professional Agency

The three BTs at Whakarauika reported strong levels of confidence and agency. They co-developed their advice and guidance programme and assumed various roles throughout the school:

> *The leadership roles…now, in a school of this size, everyone has to be a leader. For BTs, rather than going to a big school with more BTs, they can go in and lead things. One of our BTs is leading social studies, another one is leading road safety—it's like a big thing now, like another curriculum area that they're teaching.*
>
> –Principal, Whakarauika

In addition to having efficacious BTs, there was a high degree of reflection at Whakarauika. One document explicitly delineated the induction goals in a target-type manner, beginning with "knowing the resources/systems," encircling "working with people," and culminating with "self-management" as the centre point. Another document outlined how to create "clear, preset goals that provide opportunities for reflection and development." Paralleling this reflective documentation, the tutor teacher also created an extensive evaluation questionnaire for BTs.

A comprehensive programme structure and the ethic of kotahitanga permeated the induction programme from the pre-orientation powhiri to the group reflection following the collective visits to nearby school sites. This Mäori-based influence appeared to strengthen the experience of the three BTs at Whakarauika.

Case Site #5: Whiti Primary—Internal Overload Saved by External Support

Whiti Primary is located in an Auckland suburb in which Pacific Island residents make up more than half of the population—an unusually high proportion. The suburb was established as a county township in 1964. In the 1970s government policies led to dawn raids in search of over-stayers from the Pacific Islands. The area gained a poor reputation because of its youth gangs and high murder rate. In 2007, 70% of the 181 students at Whiti Primary were Pacific Islanders and 28% were Mäori. Prior to the school joining a cluster professional development partnership, most of the students were in the bottom three bands of achievement, well below the national average. Three years into the partnership, most students were in line with the national average (Older, 2007).

Whiti was a case of system redesign under pressure. In the first year of the study, the school had three BTs, all of whom reported support from their tutor teachers, a tight lesson-plan verification system, strong documentation of pedagogical professional development, and collaboration between a dynamic principal and all teachers. Six of the eight teachers on the staff attended a university education course which was half-funded by the school. The principal remarked, "We try and base our professional development where everybody's still learning; we're all in the same boat." In short, Whiti was readily selected as an ideal case site.

In 2007, two of the three BTs remained, and—because of maternity leaves and student number growth—the school hired four additional provisionally registered teachers. Thus, in 2007, six of the nine classroom teachers were BTs:

> *It's been a learning curve for me, because I've never dealt with so many BTs, so that's been a learning curve. My biggest fear is them not having the quality guidance that they need to be able to get them started. And that's what I'm worried about.*
>
> –Principal, Whiti

This high proportion of BTs overloaded the otherwise well-designed system. Release time was sporadic, BTs met infrequently (if at all) with their tutor teachers, and morale was low. However, two terms later, the support systems were up and running again with regular release and regular on- and off- site professional development. The turnaround was achieved by drawing on external resources for assistance.

External Tutor Teacher

During the first two terms of 2007, the induction programme underwent several transformations, including having the principal's wife, a registered teacher, function as a tutor teacher. One of the two other tutor teachers reported receiving no training for the position, and there was a strong feeling of negativity. BTs reported that release time was inconsistent. The school was almost dropped as a case site; however, in term three, management elected to employ a teacher on maternity leave as a "dedicated" tutor teacher three days a week. This completely altered the support arrangements for BTs at Whiti (Table 9).

Table 9

Support Arrangements at Whiti in Terms One and Three

	TERM ONE		**TERM THREE**	
BT	**Tutor Teacher**	**Reliever for BT**	**Tutor Teacher**	**Reliever for BT**
Senior school BT #1	Principal's wife	Principal's wife	Dedicated tutor teacher	Dedicated tutor teacher
Senior school BT #2	Principal's wife	Principal's wife	Dedicated tutor teacher	Principal's wife
Senior school BT #3	Senior syndicate leader	Outside reliever #1	Dedicated tutor teacher	Dedicated tutor teacher
Junior school BT #1	Junior syndicate leader	Outside reliever #2	Dedicated tutor teacher	Outside reliever #2
Junior school BT #2	Junior syndicate leader	Outside reliever #2	Junior syndicate leader	Outside reliever #2
Junior school BT #3	Junior syndicate leader	Outside reliever #2	N/A [BT registered]	N/A

In term three, BTs reported a complete turnaround: the programme had a tighter structure, with weekly release; Tuesday morning BT meetings were held to clarify items reviewed in the staff and syndicate meetings; and overall there was an improved sense of camaraderie:

> *I think as a whole school everything is smoother. I know this sounds silly, but we had this baking competition, and for some reason it just really brought all the staff together. ...Food makes people gel.*
>
> –Year 1 BT, Whiti

At tea breaks, the staff was visibly tight-knit, and this carried over into class time, with BTs visiting each other's classrooms to observe or even to co-teach lessons. All of the BTs attributed the new stability to the dedicated tutor teacher, who acted as a conduit between management and the BTs:

> *Normally, management might come to me and say, hey, look, I've noticed so-and-so, their room's not up to scratch or—and then it's my job to go and support them: "Hey, look, we need to sort your room out," or, "We need to sort your books out."*
>
> –Tutor Teacher, Whiti

In addition to running the BT meetings and conferencing and observing four of the BTs, the new tutor teacher served as a relieving teacher in two of the BT classrooms, a move which increased the stability of classroom release:

> *It's nice because the kids don't treat me like a reliever. Because I've taught here four to five years, I've actually taught most of the kids.*
>
> –Tutor Teacher, Whiti

Although having a dedicated tutor teacher improved morale, there were a few drawbacks. The most notable was that, because the tutor teacher was external and employed only part time, and therefore was not always present, access to her was less than it would have been had she been a full-time classroom teacher:

> *Here, because my tutor teacher is not always on site because she just comes in to help us, it can be hard to ask some of those questions that might come up because she's not always here. It's hard to address certain issues that I want to find out on the spot.*
>
> –Year 1 BT, Whiti

The tutor teacher also stated that she would "rather be in the classroom," as it would have made demonstrating lessons easier.

External Support: Cluster Involvement

Whiti had the advantage of belonging to a strong, active cluster of schools. Cluster-wide professional development focused on an annual theme. In 2007, the project's theme was writing.

During one site visit, teachers brought student work samples to cluster-wide meetings for moderation. The tutor teacher joked: "About the cluster meeting: it's fantastic because it's them getting professional development without me having to organise it." In addition to the moderation session, the cluster-wide professional development provided in-school services and a day-long professional development course during the school holidays.

On top of the external support, the school worked at its own school-wide pedagogies, notably during whole-school weekly curricular meetings. For instance, during the November appraisal observations, the assistant principal planned to videotape teachers so they could analyse their performance. Additionally, and perhaps owing to the small school size, BTs were entrusted with multiple responsibilities: running the library, the culture group, and te Reo Mäori curriculum as well as heading technology. In essence, the extended cluster professional development and the choice to dedicate funds to a full-time tutor teacher allowed Whiti to resume fostering a sense of balanced development in its BTs.

Student reading achievement data from 2007 attests to the success of the programme. Despite there being six BTs on a staff of nine, student achievement in the STAR reading test rose from 4.62 to 4.90, a strong result for a school in which 45% of students were learning English as a second language.[13]

Summary of the Contextual Overview: Integrated Induction

This section has provided a picture of the five exemplar case sites: Ringarehe's collaborative pedagogical reflection, Harakeke's overlapping support systems, Fieldview's shift towards internalisation, Whakarauika's kotahitanga, and Whiti's external support. Each school adapted its induction programme to meet its needs within its context; yet there were common themes of pedagogical and communal development balanced with reflection and funded release time.

Conclusion to Data Overview

This chapter has presented the demographic information from a national survey of decile 1 and 2 BTs. Descriptions of these schools also help to provide the context for the subsequent data analysis and discussion chapters. Chapter six will present survey and case study findings in

[13] STAR scores are measured in stanines. A score of 5 is the national average: decile 1 schools typically score between 2 and 4.

light of the integrated induction components. Chapter seven further discusses the results of data analysis in light of some broader implications of the integrated model.

CHAPTER 6. FINDINGS

Integrated Induction Components: An Emerging Framework

Understanding the nature of the integrated induction components is critical to understanding the nature of induction in New Zealand. Initially, this study was designed as a survey followed by a case study; however, patterns found during case study data analysis framed the final data analysis and write-up. Specifically, the axial codes from the grounded theory analysis provide the organisational structure for this findings chapter. The first section discusses this framework: (a) the emergence of the four grounded theory codes, (b) how themes from the factor analysis were framed by these codes, and (c) a matrix for analysing the specific practices. The subsequent four sections examine the findings in light of each of the four components of this emerging integrated induction framework.

Integrated Induction Components: Grounded Theory Method

Analysis of field visit data via grounded theory method assisted in creating a framework for the effective induction components in low-decile New Zealand primary schools. Initially, it was thought that induction would be primarily pedagogical in nature (Main, 2007). After the March 2007 interviews, the following codes were created based on initial interviews with experts and literature reviews in April 2007 (Table 10). The four pedagogical components were derived from Achinstein's (2001) model.

Table 10

Initial Codes

Induction Component Categories

- Documentation
- Pedagogical
  - Leadership
  - Critical Enquiry
  - Collaborative
  - Capacity-Building
- Pastoral
- External Support
- Evaluation
- Finance
- Personnel
  - BT
  - Tutor Teacher
  - Principal

After the data from the second round of interviews had been coded, there were 70 codes (Appendix D). Not all the codes turned out to be pedagogical in nature. To triangulate the notion of integrated support, interview data were reviewed. As tutor teachers and principals were queried about the percentage of time they spent on pedagogical matters, they would answer the question but with stipulations:

> *The social side, the emotional side, all of that is just as important as the pedagogy in the classroom. You can't do one without the other. It doesn't work. If I didn't give any emotional professional support…they would not develop themselves as a teacher, because really they are the professional.*
>
> –Tutor Teacher, Fieldview

> *The guidance and support has got to have two parts. It's got to have that human side and it's also got to have that "making a difference in the classroom" side. And that "making a difference in the classroom" side has got to have a human side. The intellectual side has the emotional component as well. In my heart, I believe that if you don't get the wairua—the spiritual and the emotional component—sorted out, it's a waste of time trying to do the other stuff.*
>
> –Principal, Northland school

> *There's no 80:20, 50:50. It's that sometimes that's all you're giving them is emotional support to get them through. That is so important. And sometimes it's "This is what you need to get done, you need your running record, this is what we're going to do for you so that you're going to be able to do it." So it might be more focused on teaching… Couldn't give you a percentage, sorry.*
>
> –Tutor Teacher, Harakeke

Further triangulation occurred in cross-case analysis. In a case memo written after the first round of visits, the following vignette was compiled based on observed events:

> *Surrounded by incomplete student assignments, disciplinary reports, half finished lesson plans, and rubbish strewn across the floor, one hard-working BT put her head in her hands as she handed me an appraisal review. Her tutor teacher walked in for their scheduled meeting. She consoles the BT. They begin to dissect the appraisal document—typing facts, responses, and plan-of-actions into a spreadsheet. One hour later, the BT has several concrete strategies in place. They agree she should go home for the day and rest. The next morning, her tutor teacher delivered orange juice while she checks in with the revitalised BT.*
>
> –Memo, May 2007
> [cross-case analysis]

This data triangulation indicated that effective induction was integrated. Thus, a new framework was created. After the second round of visits, interviews with BTs and tutor teachers

were transcribed and manually coded at the paragraph level. The 77 generated nodes were organised using tentative axial coding categories: pedagogical development, socioemotional support, professional agency, and structured balance.

In December 2007, references were again reorganised via axial coding into the four integrated components and three additional selective codes—school descriptions, the research process, and references to BTs receiving weak support—were also created. In all, 110 nodes were organised into the seven primary codes (Table 11; see also Appendix D for complete list of NVivo tree nodes). The data derived from grounded theory seemed to support the proposition of integrated induction components. Data also supported the findings from the literature that socioemotional support, professional agency, and structured balance were key features of the integrated proposition. Other codes included: (a) references to BTs—often in other schools—receiving less-than-ideal support, (b) comments regarding the research process, and (c) general information about the schools.

Table 11

Axial Codes as of December 2007

Integrated Components	**References**
Socioemotional Support	1797
Professional Agency	1082
Pedagogical Development	752
Structured Balance	266
Other Axial Codes	
Exceptions to Support	281
Research Process	71
School Information	174

This axial coding created a framework for further exploration of the data. Analysis of interview and coding data is integrated into the subsequent sections.

Integrated Induction Components: Factor Themes

The four parameters created above helped frame the factor analysis of survey data. First, individual items were grouped into themes via factor analyses; a maximum-likelihood factor analysis with oblimin rotation was used and six factors were able to be meaningfully interpreted. Second, these six factors were arranged according to the four integrated induction components (Figure 7).

Pedagogical Development

1. Pedagogical Practices

- I feel comfortable being observed by my tutor teacher (0.40)
- My tutor teacher helps me analyse student work (0.68)
- My tutor teacher assists me with lesson-planning (0.79)
- During meetings with my tutor teacher, I help my tutor teacher to become a better teacher (0.49)
- Working with my tutor teacher is valuable for my teaching (0.70)
- My tutor teacher helps me to effectively use student assessment data to guide instruction (0.73)
- My tutor teacher and I discuss teaching and/or solve problems together (0.83)
- My tutor teacher helps me to understand more about developing curriculum (0.77)
- Overall, my tutor teacher has helped me to improve my instructional skills and teaching strategies (0.71)
- Meeting with a supervising tutor teacher who is fully registered (rate usefulness) (0.63)

2. Perceived Effectiveness

- Relative to the students of other beginning teachers in New Zealand, I believe that my students are progressing in reading at the same (or better) rate as students in other classes (0.87)
- Relative to the students of all other teachers in New Zealand, I believe that my students are progressing in reading at the same (or better) rate as students in other classes (0.83)

Socioemotional Support

3. *Staff Support*

- Overall, my principal helps me to effectively improve my instructional skills and teaching strategies (0.68)
- Overall, my deputy principal helps me to effectively improve my instructional skills and teaching strategies (0.65)
- Overall, other teachers in the school help me to effectively improve my instructional skills and teaching strategies (0.57)
- My school's support and guidance programme for beginning teachers is exceptionally good (0.43)
- My principal holds my tutor teacher accountable for his/her performance as a tutor teacher (0.41)

4. BT Networking

- Networking, sharing, and learning with other beginning teachers (rate usefulness) (0.92)
- Meeting with a group of beginning teachers at my school site (rate usefulness) (0.44)

Professional Agency

5. Efficacy

- I am a good teacher (0.64)
- I am satisfied with the job that I am doing as a teacher (1.00)

Structured Balance

6. Induction Frequency/Utility

- Engaging in professional discussions with colleagues focused on students' learning (0.40)
- Participating in external professional development experiences (0.48)
- Keeping a written record of advice and guidance programme (0.32)
- Being videoed for professional development (0.67)
- Being formally observed (0.62)
- Observing and discussing the work of other teachers (0.66)
- Watching my tutor teacher demonstrating lessons in my classroom (0.62)
- Networking, sharing, and learning with other teachers (0.58)

Figure 7. Six factor analysis themes arranged by the four integrated components (with pattern loading in parentheses, see Appendix B)

Correlations between the six factors showed that they provided sufficiently unique measures of BT induction experiences. There were two higher correlations (a) between pedagogical practices and staff support and (b) between BT networks and induction utility. The items, however, are sufficiently different to justify separate practices (Table 12). An alpha level of .05 was used for all statistical tests, unless otherwise noted.

Table 12

Bivariate Pearson Correlations of Factor Themes

	Pedagogical Practices	**Efficacy/ Satisfaction**	**BT Networks**	**Perceived Effect-iveness**	**Induction Utility**	**Staff Support**
Pedagogical Practices	1					
Efficacy/ Satisfaction	.16(*)	1				
BT Networks	.27(**)	–.03	1			
Perceived Effectiveness	.11	.29(**)	.04	1		
Induction Utility	.47(**)	–.06	.51(**)	.08	1	
Staff Support	.60(**)	.14	.21(**)	.13	.36(**)	1

* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).

Analyses of individual factor themes are integrated into the subsequent discussion of each induction component. However, the high correlations support the overarching notion that the components, while distinct in theory, overlap in the school setting.

Integrated Induction Components: A Matrix of Specific Induction Practices

To further explore the concept of integrated induction in New Zealand, a matrix analysing the frequency and utility of various induction practices was created. The matrix was created to represent the integration of specific practices into one model that measured the frequency of practices and their perceived utility (Figure 8)[14] Data were based on items used to gauge the frequency (never, once, twice, three to five times, more than six times) and perceived utility (extremely beneficial, very beneficial, beneficial, slightly beneficial, not beneficial) of various induction activities.

[14]As can be seen on the matrix, the utility of induction practices was significantly and positively related to the frequency of induction practices; r^2=0.77 with outlier, written record, removed; r^2=0.55 with all variables included.

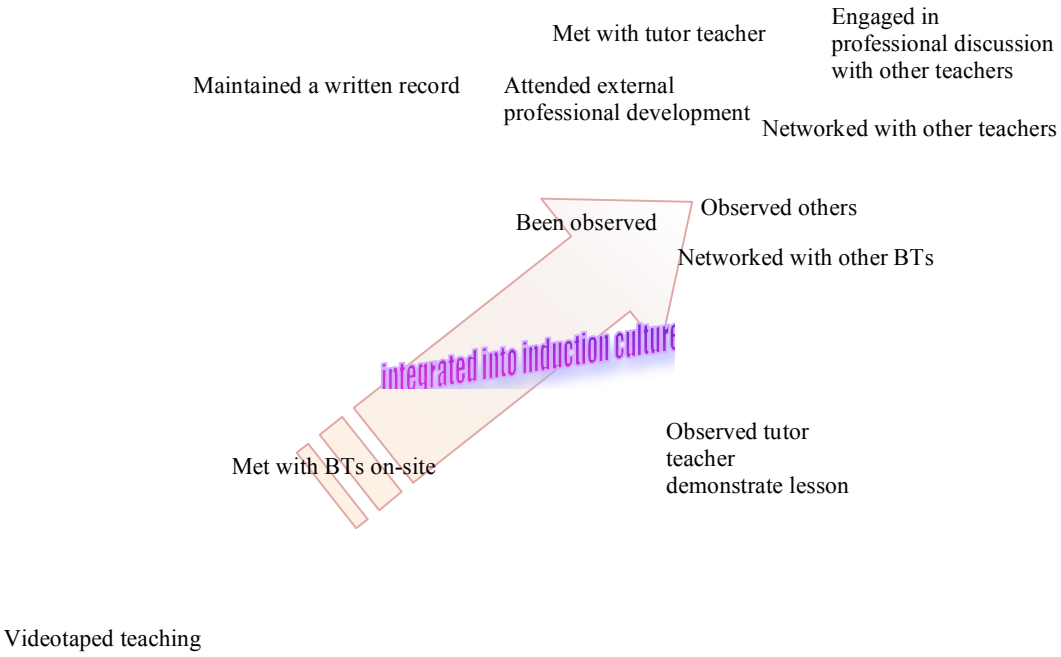


Figure 8. Matrix of frequency and perceived utility of pedagogical induction practices (Main, 2007)

These specific activities represent various, often overlapping, components of effective induction. Overall, BTs reported that they were satisfied with the induction programme they were receiving (M=3.71, SD=1.08), and this matrix shows that most induction activities occurred frequently and were perceived as very beneficial. Discussion of the four exceptions—analysing videotaped lessons, watching a tutor teacher demonstration lesson, meeting with a group of BTs, and maintaining a written record—is integrated into the subsequent sections on the individual induction components. Despite these exceptions, this matrix is a useful tool for illustrating that

induction in New Zealand low-decile primary schools involves multiple, integrated practices which occur with frequency and are perceived as valuable.

Summary of Integrated Components

In this section, data were used to examine the integrated components of the induction model. Grounded theory method supported the existence of four components. Factor analysis confirmed these components (and identified two further sub-factors), with Pearson correlations suggesting distinct entities with some degree of overlap. Lastly, a matrix was created to illustrate the high frequency and perceived utility of specific integrated induction practices. In sum, the data indicated that induction in low-decile primary schools is interconnected and powerful. Although there is clearly overlap, the remaining four sections examine each individual component in light of survey and case study data to highlight specific successful induction practices.

Pedagogical Development

Analysis of field visits data suggests that, although not the only component of induction, the pedagogical component of induction (number of qualitative references=752) is important in successful induction programmes. Echoing the literature, pedagogical discussions (n=69), peer-coaching (n=66), development of curricular knowledge (n=81), and whole-school professional development (n=74) surfaced as the most prominent aspects of pedagogical development. This supports the survey results from BTs in low-decile schools nationwide, in which BTs ranked pedagogical discussions, external professional development, and problem-solving with a tutor teacher as important practices within their induction programme (Table 13).

Table 13

Means and SDs of Pedagogical Survey Items

Item	**Mean**	***SD***
Pedagogical discussions–other teachers	4.87	0.40
External professional development	4.40	0.91
Tutor teacher helps problem-solve	4.36	0.95
I have been observed	3.90	1.09
I have observed other teachers	3.76	1.15
Tutor teacher and I develop curriculum	3.75	1.22
Tutor teacher and I use assessment data	3.70	1.23

Tutor teacher helps analyse student work	3.65	1.22
Tutor teacher assists me with lesson-planning	3.59	1.31
Student reading relative to other BTs	3.04	0.71
Student reading relative to all teachers	2.89	0.75
Observed tutor teacher demonstration lesson	2.32	1.45
Video analysis	1.21	0.60

The remainder of this section focuses on the three areas highlighted by the literature—professional development of thinking strategies, inquiry using student data, and structured professional portfolios—in order to examine these practices across low-decile schools and in the five exemplar schools.

Professional Development of Thinking Strategies

One way to examine professional development of thinking strategies in low-decile primary schools across New Zealand was to use the factor theme *Induction Utility*, which was a composite measure composed of eight items: being videoed, being observed, observing others, watching demonstration lessons, networking, attending external professional development, engaging in professional discussions, and maintaining written reflection (α=0.83). BTs who found these induction practices beneficial also reported significantly higher levels of staff support [$F(4,192)=9.102$, $p<.001$] and more frequent networking with other BTs [$F(4,179)=13.712$, $p<.001$]. BTs reporting high induction utility were more likely to report lower stress levels [$F(4,188)=3.908$, $p=.005$]. In other words, BTs engaging in these practices felt more supported, better connected to other teachers and less stressed—but it was unclear if this was directly affecting their effectiveness as a teacher.

At the case sites, data appeared to suggest that professional development of all staff was critical to the success of the induction programmes. Data from the exemplar sites indicated that, by term three, the BTs reported, on average, attending more than four external professional development workshops, including university courses, school support service workshops, numeracy training, and NZEI workshops. Professional development was also related to school site. For example, Fieldview contracted with SSS to have numeracy workshops on-site throughout the school year. All five schools reported a whole-school professional development

focus (two in writing, two in numeracy, and one in reading). All five principals reported that the board of trustees placed an emphasis on funding the professional development of teachers. Although it was impossible to draw a direct link to teacher effectiveness, all participants reported that their practice improved as a result of these activities, and classroom observations confirmed that practices that were examined in workshops and moderation sessions were focal points of lessons.

Common Case Feature: Relationships with Universities

Perhaps most critical to ensuring that the schools were engaging in best practices were the strong links to university-sponsored professional development reported by four of the five schools. Whiti and Harakeke were involved in a university-sponsored school improvement programmes, Fieldview had a two-year contract to bring University and SSS personnel on-site, and the principal at Whakarauika was formally researching pre-service education at her school site. The one school that did not have such links, Ringarehe, which was located over two hours' drive from the nearest university, was also the one school where teachers were observed learning from a professional development book during staff meetings. When debriefing after university visits, principals and teachers were positive about the professional benefits of the numeracy, reading, writing, and assessment partnerships between school and university:

> *With the [partnership], you're looking at data. Whether or not a strategy is working. If it's not [working], we need to find another strategy. Or where are we going wrong: why are the Year 5 [children] down here and the Year 4s up there? It's good to go to [the meetings], so you know where these kids actually are in the rest of the New Zealand world.*
>
> –Year 1 BT, Whiti

Inquiry Using Student Data

A second factor theme, *Pedagogical Practices*, was a composite measure of six items: working with a tutor teacher to problem-solve, planning lessons, developing curriculum, assessing data, analysing student work, and improving the tutor teacher's teaching skills (α=0.91). BTs who reported engaging in higher levels of pedagogical practices reported higher staff support, stronger BT networks, stronger induction, and higher perceived efficacy than BTs who engaged in lower levels of pedagogical practices (Table 14). They were also more likely to report lower stress levels. MANOVA analysis suggested that BTs under the age of 30 engaged in

pedagogical practices slightly more often (M=3.97, SD=0.83) than BTs aged 30 and over (M=3.85, SD=0.86) (Λ=0.776; F(10,69)=1.99, p=.047).

Table 14

Statistically Significant ANOVA Results for Pedagogical Practices Factor

Factor/Item		df	Mean Square	F	Sig.
Staff Support	Between Groups	4	10.885	18.088	.000
	Within Groups	193	.602		
BT Network	Between Groups	4	4.547	3.935	.004
	Within Groups	179	1.156		
Perceived Effectiveness	Between Groups	4	.989	2.084	.085
	Within Groups	185	.474		
Induction Utility	Between Groups	4	4.834	11.049	.000
	Within Groups	192	.437		
Stress Level	Between Groups	4	2.794	3.881	.005
	Within Groups	189	.720		

One of the lowest ratings came from BTs' perceptions of their students' reading levels relative to the reading levels of other BTs' students (M=3.04, SD=0.71) and other teachers' students (M=2.89, SD=0.75) in New Zealand. In keeping with the self-managing nature of New Zealand schools, teachers reported using reading data from a wide range of sources, including running records (18%), school-based tests (11.6%), formal reading levels (11.1%), asTTle (7.2%), STAR (6.8%), and PROBE (2.9%) to gauge the progress of their students' reading levels, while 12.6% relied solely on personal knowledge to respond to the question.

All five case sites engaged in professional development based on an inquiry model, according to which pedagogical practices are questioned and investigated using student data. Observed practices included pedagogical discussions, peer-coaching, professional learning groups, questioning, and the use of student data. Every school had a school-wide professional development focus that guided the collection and analysis of student data:

> *When we looked at everybody's practice, suddenly teachers thought that questioning wasn't a practice that you do in PE [gym]. You just yell out instructions. It was a pretty interesting finding for our school, actually. As a whole team of critical buddies to pick up [on the yelling technique] of all these other people.*
>
> –Principal, Harakeke

> *We do moderate teams once or twice a term. We look at writing exemplars. It's coming up, week 7 of this term where all the children in their classes will do their writing sample. Then the follow- up team meeting the following week, we will moderate the examples and see where we are all going.*
>
> –Principal, Whiti

> *Principal: Does [student] ask questions in class?*
> *BT1: No*
> *Principal: Does [different student] ask questions in class?*
> *BT2: No.*
> *Principal: Does [third student] ask questions in class?*
> *BT2: No.*
> *Principal: Does [fourth student] ask questions in class?*
> *BT1: No…*
> *Principal: So that's a real goal for us, isn't it? From term 3 on. It's questioning. It's really big. It's really huge. It's what opens doors for children.*
>
> –Ringarehe staff meeting

Case Innovation: Peer-Coaching Focused on Curricular Knowledge

Analysis of case study data revealed an inquiry practice that was not included in the survey—pedagogical peer-coaching (n=66). The strategy was explicitly practised in two schools, where it was referred to as "critical buddies" and "critical friends." Teachers would meet weekly to discuss specific curricular areas:

> *We have a buddy system here, so we have a buddy system for maths, for writing, and for literacy, the main curriculum areas…when you are grouping or you are testing, it is nice to go back to the buddy and ask her what she's done and how she's doing it.*
>
> –Year 2 BT, Harakeke

> *We have critical friends here…somebody does your observations and critiques exactly what's going on in the classroom…for the BTs it's wonderful because they know nothing else.*
>
> -Principal, Ringarehe

Teachers from these schools strongly agreed with the survey item 'Engaging in professional discussions with other teachers in useful' (M=4.71, SD=0.46) at a rate slightly higher than the high national average (M= 4.57, SD=0.73).

Professional Portfolios

The NZTC requires all BTs to hand in two years' worth of documented reflection. As there is no evaluation of these portfolios, the degree and extent of inquiry and depth rests with the BTs. In the national survey, maintaining this written record was the only high-frequency induction activity reported with a mean less than 4 (M=3.45, SD=1.18). Data from ANOVA analysis indicated that BTs who reported that keeping a written record was useful were older (*30 and over*, M=3.51, SD=1.18; *under 30*, M=3.39, SD=1.17) and more likely to report having a principal who held their tutor teacher accountable [$F(4,173)=2.778$, $p=.029$]. BTs who reported keeping a written record more frequently also reported a higher relative performance by their students in reading [$F(4,178)=3.438$, $p=.010$].

The high frequency of written documentation (n=108) was verified at the case sites as all BTs kept an extensive, systematic portfolio containing reflection and documentation of their use of release time and professional development activities. Most maintained their reflection in conjunction with their BT portfolios, a requirement for registration. During the first round of visits, respondents from initial school sites indicated that the paperwork was lengthy and burdensome, as one BT succinctly explained:

> *I find it quite hard all the paperwork you have to do. There is so much going on: paperwork, PD. It's all good, but sometimes I have the feeling I really don't have enough time to prepare work for my class.*
>
> –Year 1 BT, King Country school

In contrast, at the case sites teachers reported that a high degree of structure rendered documentation useful and assisted their professional development:

> *We have a format that we use for end-of-week. Not just them, all of us. At the end of the week, we reflect on our week. It's looking at what kids are achieving, where their needs are. ….We did reflections before, but now it's more structured…*
>
> –Tutor Teacher, Harakeke

> *I find it helpful, really, especially the verification feedback. You can actually go back to your folder and say, "OK, this is what my tutor teacher wants me to improve on. It's an area that we need to work on." Also, in regards to BT release, you know what you've done during that day and what you need to do the next release… It also reflects on the week. What you did good on this week, what to improve on. It's helpful, really.*
>
> –Year 1 BT, Whiti

Interestingly, at the one case school where the reflection was less systematically structured, BTs felt that, while reflection was useful, maintaining a written reflection was more of a bureaucratic burden than a pedagogic endeavour:

> *I find that to be a bit of a hassle to be honest, and I wonder how useful it is. I feel like I'm reflecting all the time anyway. And I make notes on my plans and things I sort of feel, yeah, well, I am doing it for them rather than for me.*
>
> –Year 1 BT, Whakarauika

BT registration portfolios from case sites were analysed and the contents were recorded and compared against the NZTC requirements (Figure 9). Notably, this revealed a strongly pedagogical approach. Many portfolios included student achievement data and exemplar work, teacher goals and action plans, and evidence of structured management feedback, as exemplified by Harakeke's *Performance Appraisal and Action Plans*:

> *This performance management is their job description, their performance expectation and their action plan all in one… Teachers can self-identify what data collection they want… Student evaluations, observations by tutor teacher, reflective journals, planning sighted. Everybody gets their planning sighted every week. What [is] produced here is basically everyday evidence. If you kept up with all your planning and all your requirements, there would be nothing that you had to do extra for your [portfolio].*
>
> –Principal, Harakeke

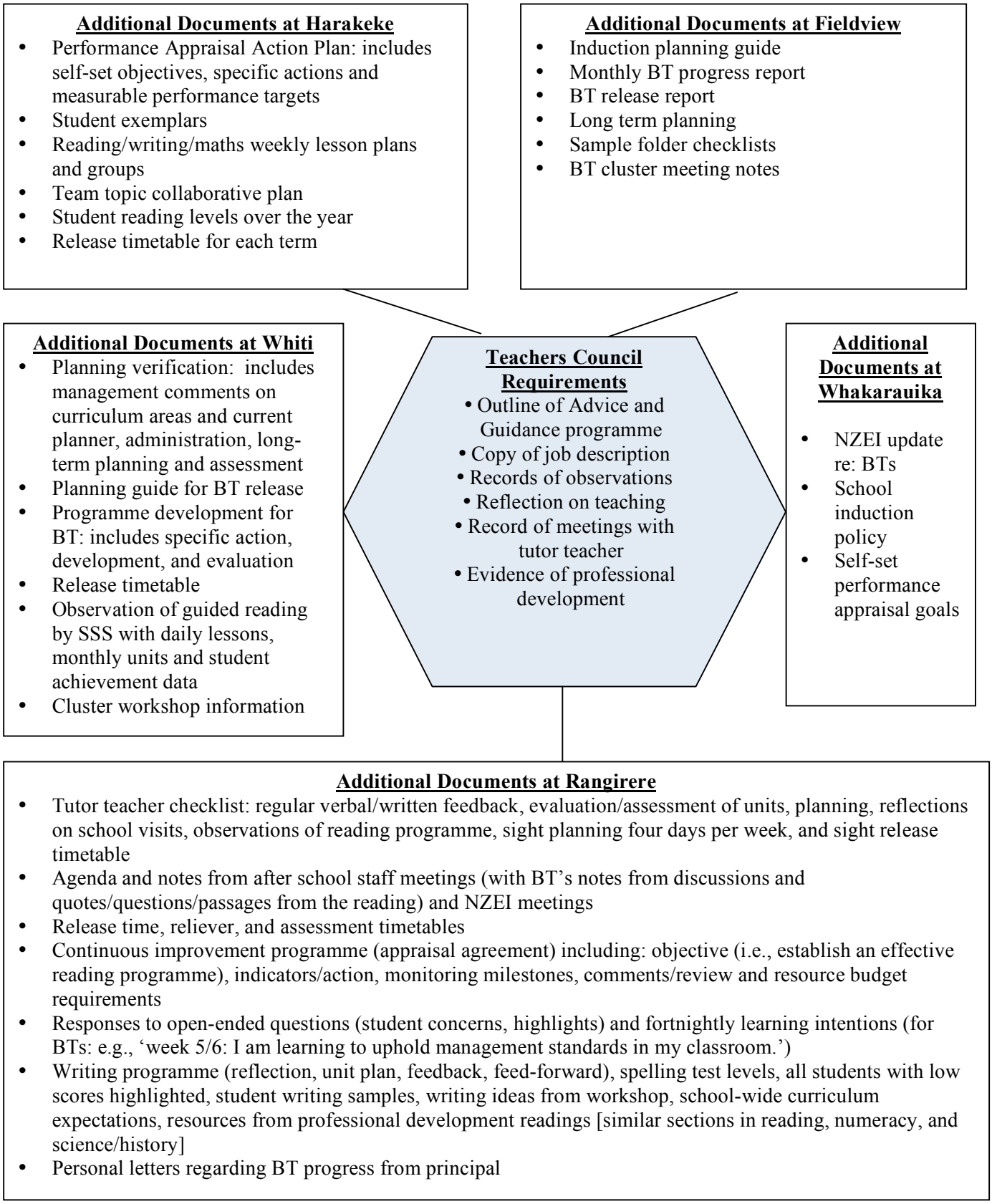


Figure 9. Additional documentation in BT portfolios

Summary of Pedagogical Development

Data indicated a trend that induction in low-decile schools was pedagogically oriented. In terms of professional development of thinking strategies, survey data indicated that pedagogical discussions, external professional development, problem-solving with tutor teachers, and other pedagogical practices were all occurring with frequency and being perceived as beneficial. BTs who engaged in these practices reported feeling more supported and less stressed. At all case study sites, there was a curricular focus for whole-school professional development and strong research relationships with universities.

The self-managing nature of New Zealand schools meant that every school collected different data using different assessment tools; however, the critical link was that data were used in the reflective process. MANOVA analysis of the *Pedagogical Practices* factor theme indicated that younger BTs were slightly more likely to engage in inquiry practices using student data. BTs at all low-decile schools were likely to report perceptions of lower student reading levels; however, at the case sites, practices such as (a) peer-coaching and (b) comparing student data to national norms were employed.

Additionally, document analysis of the professional portfolios of BTs at the case sites indicated that, in addition to the NZTC requirements, they also contained performance goals based on student achievement, collaborative lesson plans, student exemplars, pedagogical readings, well-planned timetables for release, and evidence of management involvement in reviewing lesson plans. In sum, the data appeared to support the notion that the process of focusing on student achievement data was a critical component of pedagogical development in schools where BTs are well supported. Nevertheless, although pedagogical development surfaced as a necessary component, data analysis indicated that it was not the sole component of effective induction, as will be examined in the following section.

Socioemotional Support

The means produced from the survey data suggest strong socioemotional support for BTs across low-decile primary schools. For example, the responses to the items ‘My tutor teacher helps me to improve my teaching’ (M=4.17, SD=1.11) and ‘Other teachers help me improve my teaching’ (M=4.12, SD=0.87) reveal that colleagues play a significant role in the BT support network (Table 15).

Table 15

Means and SDs of Socioemotional Survey Items

Item	Mean	SD
I have met with my tutor teacher	4.85	0.53
My tutor teacher is valuable	4.42	0.91
I have networked with other teachers	4.33	0.99
My tutor teacher helps me improve	4.17	1.11
I feel comfortable being observed	4.16	1.01
Other teachers help me improve	4.13	0.87
I have networked with other BTs	3.95	1.29
My deputy principal helps me improve	3.68	1.19
Principal holds my tutor teacher accountable	3.66	1.13
Principal helps me improve	3.64	1.25
Met with a group of BTs at school site	2.08	1.58

The prevalence of socioemotional support having been established, case study data were used to investigate the nature of this component. Data indicated that BTs at all case sites mixed with other teachers, management, and staff in strong, supportive, and social environments:

> *Very much on the whänau philosophy here, and we very much have the concepts of aroha and awhi here—that's love and support. That's called nurturing and good learning around here. And that for me must apply to my staff as well. That's huge. We model that from the top and we filter it all the way through. It seems to be paying tremendous dividends around here.*
>
> –Principal, Ringarehe

Data suggested that at the exemplar sites the following elements all contributed to the socioemotional development of BTs: collaboration, including observing others (n=108) and strong relationships (n=93); BT networking, including SSS (n=99) and on-site BT groups (n=70); management support (n=94); and tutor teachers (n=78).

Collaboration Deprivatisation via Co-Planning and Observation

As discussed in the section on pedagogical practices, in the survey BTs reported that their tutor teachers helped them develop curriculum and plan lessons. In addition to assigning BTs

tutor teachers, two schools also assigned BTs to critical buddies and all BTs were members of a year-level (grade-level) team. Investigations into the nature of the socioemotional support via the nationwide survey revealed that observing others was reported to occur with a lower frequency than other high-utility practices. In exemplar sites, however, deprivatisation via collaborative planning and observations was common. Even at initial sites, deprivatisation was cited by principals as critical to induction success:

> *Teachers learn best by seeing others in action. What they pick up from observing another teacher. Some of those aspects may relate to them and they can pick that up and apply it to their classrooms. The senior teachers and myself are firm believers that giving those opportunities…*
>
> –Principal, King Country school

The case sites appeared to take this sentiment one step further. Every BT at the five case sites engaged in systematic, documented co-planning. Particularly in syndicates, BTs and other teachers would design and reflect on units, lessons, and events. For instance, at Whiti, BTs' planning was verified every term in an extensive verification system, and BTs were supported in ensuring that their lesson-planning met their school's standards. At Ringarehe, BT lessons were collected on a daily basis and reviewed with the principal and/or tutor teacher:

> *I'm a firm believer that if you can enable people to be really confident about public disclosure of practice, it actually motivates people to change practice. It's not like a hidden story.*
>
> –Principal, Harakeke

During the visits, at least one collaborative planning meeting was observed per week. BTs from four of the schools reported that they had observed other teachers, on average, six or more times. In all five schools, BTs were seen using their release time to observe other teachers:

> *Have you seen the plan that we do? Usually [every fortnight] if I don't get observed, I'll do an observation.*
>
> –Year 2 BT, Fieldview

Case Innovation: Deprivatisation via Video Analysis

One of the purposes of the case visits was to investigate practices that were found to be infrequent or perceived as less useful in the national survey. Survey results had indicated that video analysis was reported as the practice with the lowest frequency and utility (Figure 8). Data in the matrix had limitations, including the absence of a longitudinal sense of directionality. For

example, it is unknown if the perceived utility of videotaping is low because it is under- or haphazardly utilised in its embryonic stage, or simply ineffective in the New Zealand setting. In an attempt to find out, these outliers were further investigated during the case studies. Interview data suggested three reasons for the low frequency of videotaping in comparison with other practices: lack of equipment, lack of time, and personal dislike:

> *Within the school we've got two and we've got communal tapes, so you've got to wait for somebody to take it off the tape for you. I know this shouldn't be an excuse, but...*
>
> –Tutor Teacher, Fieldview

> *The one thing is then finding the time to sit down and watch the video. It's like another added thing on top. You have to go home, set it up, watch it, and give feedback to them. That sort of thing is another issue.*
>
> –Year 1 BT, King Country school

> *Nah. Wouldn't do it. Just wouldn't. It's not me. I wouldn't watch it. I would just watch it and think, "I feel like a dork."*
>
> –Year 2 BT, Fieldview

Only one case site school used videotaping as a school-wide practice. However, 100% of interviewed teachers that had been videoed strongly agreed it was beneficial:

> *Filming, I love it. Anything that will help others or that will help myself to go back and look at: "Oh, my gosh, do I actually do that!" or "Wow! I do that really well," it's a real good evidence base for us to look back, for us to share with other people, for us to share in someone else's practice what they do really well.*
>
> –Tutor Teacher, Harakeke

> *It was fantastic, actually. I was VERY nervous, but it was just awesome and helped me pick up my "potholes" and just work on it and see how I could get better. And feedback from my tutor teacher was very helpful.*
>
> –Year 2 BT, Harakeke

> *Last year [teacher], she didn't realise how she was using her voice. When she spoke to the children, her voice was raised. …When we watched the video, she did the "Oh, my G-d!" We just talked about how to manage some of the things that were going on. And talked about strategies. She did it. She took it on board and she did it.*
>
> –Tutor Teacher, Harakeke

Thus, analysis of the exemplar case site data seemed to suggest that video analysis, once implemented, can be a strong induction practice.

Tutor Teachers: A Traditional Support Structure

Two survey questions dealt with the tutor teacher. As no special qualification was necessary to assume the role, it was instructive to note the formal positions of the tutor teachers. The majority (54%) served in a formal leadership role such as syndicate leader (33%), deputy principal (17%), and assistant principal (4%). A sizable minority (38%) were regular classroom teachers. Six tutor teachers were principals. Principals played the most active role (63%) in tutor teacher selection, with only 3.5% of BTs having input in the selection. BTs with syndicate leaders as tutor teachers reported meeting less frequently ($p<.10$) with their tutor teachers (M=4.76, SD=0.67) than BTs whose tutor teachers had no special position (M=4.90, SD=0.41).

In accordance with the nationwide expectation that all BTs have a tutor teacher, all of the case site BTs reported meeting with a tutor teacher more than six times. Tutor teachers held a variety of positions (Table 16). Ten BTs reported that their principal selected their tutor teachers, three that the deputy principal selected them, one that a syndicate leader made the selection, and the remainder that they did not know how their tutor teachers were selected.

Table 16

Positions Held by Tutor Teachers

Position Held	**Number**
Deputy Principal	7
Syndicate Leader	4
Teacher	5
Assistant Principal	1
Dedicated Teacher	4
Total	21

During initial interviews, principals agreed that finding enough qualified tutor teachers was often a problem:

> *Within a school…you might have one person that would be a really good tutor teacher, two maybe that are pretty good, three…you are getting down the line a little bit. That can be a factor, too, the quality of the tutor teacher and their ability to support.*
>
> –Principal, Wellington area school

It was hypothesised that there would be more professional development for tutor teachers at the exemplar sites; however, this was not the case. Data suggested that only the tutor teachers from Fieldview received specific, external training for the tutor teacher position:

> *Because I've never been a tutor teacher before, I went on a course at [SSS]. It was an afternoon session. And there's one more to go, like a 4 o'clock until 6 o'clock session. That was really to just start learning the requirements of the tutor teacher, the things you need to be looking out for, things you need to be [doing], what's expected of you. That was helpful.*
>
> –Tutor Teacher, Fieldview

Common Case Feature: Observing a Tutor Teacher Conduct Demonstration Lessons

In the survey, observing a tutor teacher conducting demonstration lessons, while reported as being beneficial, occurred with lower frequency across low-decile schools. At the case sites, BTs reported observing other teachers besides their tutor teachers. This was common in schools where the tutor teacher did not have a classroom of his or her own or was in another syndicate:

> *Not my tutor teacher, no. I've never watched him actually, for anything. His class is also different; he's got the extension class. I don't know why, but I've never actually gone in and watched. I've watched [senior teacher]. I'm about to watch [syndicate leader], I've watched [team teacher]. I've watched plenty of other people, but I've not watched my own tutor teacher.*
>
> –Year 1 BT, Fieldview

Teachers also stated that in some instances observation was of a casual nature:

> *Modelling? All the time. I'm confident enough so that they can just say to me on the day that I release them, "Can I come watch?" and I would just do it as I would normally and they take down notes.*
>
> –Tutor Teacher, Whiti

BTs also reported observing their tutor teacher, but in their tutor teacher's classroom. The combination of these variations indicated that the low frequency reported in the national survey may have been due to the wording of the survey item. In all five schools visited schools, at least one instance of a BT observing his or her tutor teacher give a demonstration lesson was noted. Interview data indicated that tutor teachers derived benefit from this practice as well:

> *I think as the tutor teacher it really gives you a perspective on the children and the class and the dynamics. You can pick up on children who are having really particular difficulties.*
>
> –Tutor Teacher, Harakeke

Those BTs who found meeting with a group of BTs useful reported that their tutor teachers were highly valuable [$F(4,92)=3.678$, $p=.008$] and that observing their tutor teacher was useful [$\Lambda=.007$, $F(6,4)=7.186$, $p=.039$]. These items were connected to interpersonal aspects, which raised the question of differentiation among BTs.

Case Innovation: Dedicated Tutor Teacher

A third tension emerged during the case studies around the issue of having a dedicated tutor teacher, which is defined as a teacher whose sole job is to be a tutor teacher. Depending on the number of BTs at a school, this may be a full-time or a part-time position. At Whiti, a former teacher returned from maternity leave three days a week to serve as the tutor teacher. She carried out the BTs' appraisals, met with the BT group weekly to clarify administrative procedures, modelled lessons, and observed BTs. All BTs agreed that her presence improved their support. Four other full-time tutor teachers located in different New Zealand low-decile schools were interviewed. One Northland school appointed a fourth-year teacher as a full-time tutor teacher for the five BTs on the staff. She consolidated induction forms, coordinated the 0.2 time, and arranged for BT professional development. Commenting on the increased number of observations, co-planning sessions, and resources assistance, a second-year BT remarked, "This year I am receiving so much better support with [tutor teacher] around."

However, the tutor teachers themselves had differing opinions on their external status:

> *I remember when I first started, some people said, "Oh, how are you going to do that because you are not working alongside her, you're not seeing her everyday." There is that consideration, I'm not seeing her everyday. I think it did work because of the energy level. I could devote a lot of time to her. And because I knew the school so well, I think that works so well. I was in and out, knew the school.*
>
> –Dedicated Tutor Teacher, Wellington suburb

> *I disagree totally. I would love to be here all the time. I think in a classroom, yup. Because then you get to provide a model if you like. If this was me last year, I think I'd be doing a better job as a tutor teacher. With my own class that they could come in, they could talk to me whenever they want. I would just be there. They wouldn't have to write it down, "Oh, I'm going to have to remember to tell [her]."*
>
> –Dedicated Tutor Teacher, Whiti

Support from Management

Analysis of the factor theme *Staff Support* indicated that management plays a key role in the induction process. *Staff Support* was a composite measure composed of five items (α=0.79). BTs who believed that their principal, deputy principal, and other teachers were improving their teaching in the context of a high-quality induction programme in which the principal held the tutor teacher accountable were more likely to report that their induction was useful [$F(4,193)=9.102$, $p<.001$] and pedagogically oriented [$F(4,192)=18.088$, $p<.001$]. BTs who reported higher levels of staff support also reported higher levels of efficacy [$F(4,197)=3.483$, $p=.009$], less stress [$F(4,189)=4.111$, $p=.003$], and greater job satisfaction [$F(4,196)=3.279$, $p=.013$]. BTs reporting stronger support at their school were less likely to derive benefit from external BT support networks [$F(8,175)=2.324$, $p=.021$], but more likely than their less-supported counterparts to report that their students were progressing in reading [$F(4,185)=3.498$, $p=.009$]. BTs experiencing greater staff support were also significantly more likely to hold leadership roles at professional development meetings, hold leadership roles in a curriculum area, and participate in social committee events.

Three of the *Staff Support* sub-items were directly related to management (principal support, deputy principal support, and principal holding tutor teacher accountable). Cluster analysis of the staff support theme enabled further investigation of variations in these items. A dendogram of survey responses indicated five sub-groups: weak overall support from the programme, management, and other teachers (n=30); acceptable overall support with weak principal (n=47); acceptable overall support with strong teacher support (n=60); acceptable teacher support with strong principal (n=13); and exceptional support from the programme, management, and other teachers (n=33).

BTs who reported acceptable overall support with weak support from their principal reported a lower mean ($M=3.94$, $SD=0.64$) perceived utility of the pedagogical induction practices than their peers with strong principal support ($M=4.25$, $SD=0.55$) [$F(4,45)=5.814$, $p<.001$]. However, BTs with a strong principal who disagreed that their tutor teacher improved their practice reported lower levels of efficacy ($M=3.58$, $SD=0.53$) than BTs who reported exceptional support from both their principal and their tutor teacher ($M=4.05$, $SD=0.71$) [$F(4,57)=2.545$, $p=.041$] (Figure 10). In other words, analysis of the data seemed to suggest that

the involvement of management is a necessary, but not on its own sufficient, component of BT socioemotional support.

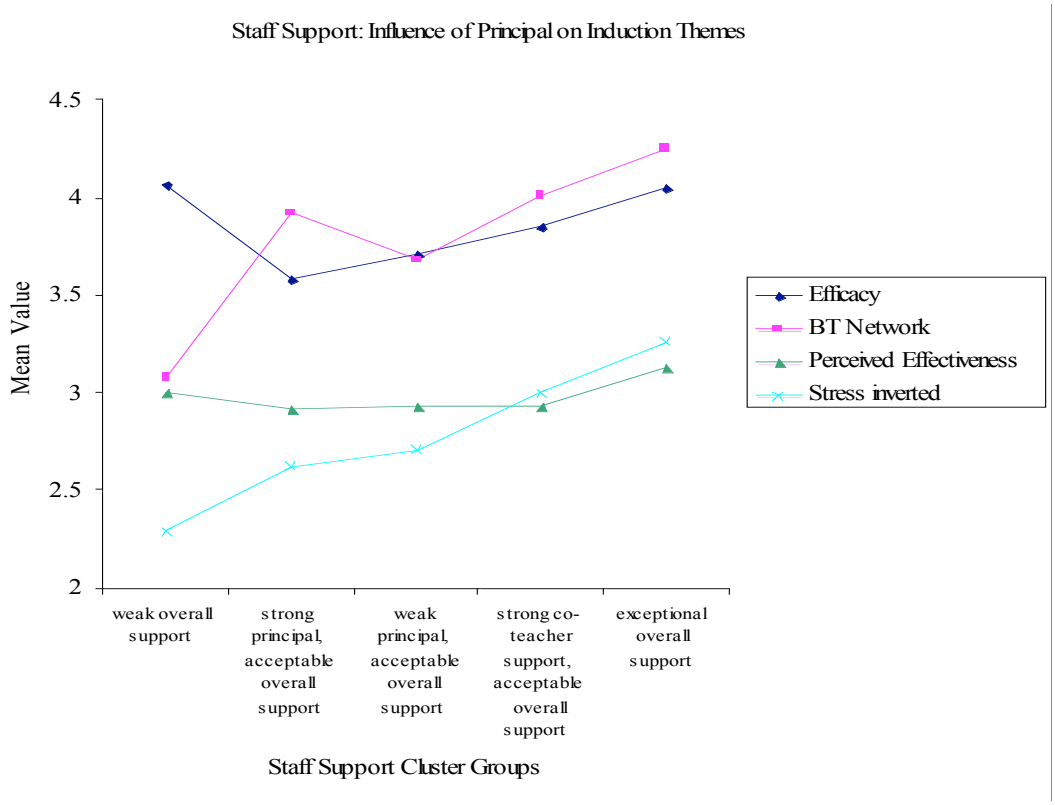


Figure 10. Graph of *Staff Support* clusters in relation to *Efficacy, Perceived Effectiveness, BT Networks* and *Stress*

Analysis of initial interview data also showed that management teams, particularly principals, played a role in BT support. Trends indicated that support from principals tended to be pastoral in nature. Although principals from all of the schools were concerned about student achievement, they assisted BTs in personal ways; for example, by finding a heated flat and subsidising BT plates at the annual Christmas party:

> *Being able to give a petrol voucher here, or buying someone a bottle of wine when they're down, or send some flowers to somebody, box of chocolates, some fruit and veges or something as well. You see, we have to do that as well. It's a bit more than just black-and-white, teach, deliver.*
>
> –Principal, Northland school

At the case study sites, in additional to holding the tutor teachers accountable and offering pastoral support, four of the five principals were also observed being supportive in a pedagogical capacity, by modelling lessons in classrooms or leading reflective staff meetings.

Networking with Other BTs: School Support Services

BT Networks was a second factor that captured socioemotional components of induction. *BT Networks* was a composite measure composed of two items: BTs who viewed meeting with a group of BTs beneficial and BTs who viewed networking with other BTs beneficial (α=0.73). Respondents reporting high benefit from BT networks were more likely to value their school-based induction programme than BTs who reported low benefits [$F(4,179)=20.76$, $p<.001$]. These BTs engaged in more pedagogical practices—such as analysing assessments, observing other teachers, and video analysis—with their tutor teachers than BTs who reported less benefit from networking [$F(4,179)=4.77$, $p<.001$]. These BTs believed their tutor teacher helped them to solve more problems [$F(4,177)= 4.523$, $p<.002$]. MANOVA analysis of the composite items showed that these BTs also reported holding more professional development leadership roles [$\Lambda=.915$, $F(2,69)=3.125$ $p<.046$] and being less stressed [$\Lambda=.761$, $F(8,140)=2.559$ $p<.012$] than BTs who derived less benefit from networking. MANOVA results suggested that BTs who valued networking were more likely to teach year 0–2 students [$\Lambda=.698$, $F(4,56)=2.757$ $p<.037$] and had worked fewer than 8 months [$\Lambda=.669$, $F(4,56)=3.117$ $p<.022$].

Analysis of the four possible *BT Networks* response clusters indicated that there was a positive relationship between BT networking and the frequency of other practices; however, BTs with higher levels of pedagogical practices in their induction programme were more likely than BTs with exceptional levels to report benefit from BT networks. As discussed in the following chapter, this difference may be the result of an intervening variable, such as a BT's age, experience, or year (grade) level.

School Support Services

Interview data indicated that BT meetings run by SSS had been attended by BTs from all five case sites in 2006. Data suggested that BTs experienced socioemotional support from networking with other BTs during the meetings:

> *I think that the best idea if you want to get BTs together in sharing and talking and supporting each other, send them to the BT1 course.*
>
> –Year 2 BT, Fieldview

However, in 2007, BTs from three of the five schools were not attending SSS courses. Fieldview and Whakarauika were both piloting programmes of BT support on-site, although the second-year BTs reported that they had attended SSS in 2006. Additionally, both schools were receiving on-site support for numeracy through SSS. At Ringarehe, both teachers had attended SSS BT courses the previous year, but they were not attending the courses during 2007:

> *Last year, we went to the BT meetings. We had about four, one a term. I don't know if we will do it again this year. But, yeah, we did that last year. [Year 2 BT] and I went to four meetings where we met with other BTs.*
>
> –Year 2 BT, Whakarauika

> *I haven't been. First year, last year, we did a lot. We're mainly just focusing on the classroom this time now.*
>
> –Year 2 BT, Ringarehe

Common Case Feature: Meeting with a Group of BTs

Four of the five schools reported having BT-only meetings in which all of the BTs met as a group. At some schools, senior staff facilitated the meetings, and at other schools the BTs ran the meetings themselves (Table 17). At Whiti, BT meetings were largely administrative and were coordinated and run by the tutor teacher. At Ringarehe, the principal structured a time when BTs collaborated on a writing unit. At Whakarauika, the induction coordinator structured a time for BTs to share reflections on off-site visits. At Fieldview, BTs coordinated, hosted, and participated in their own meetings and extended invitations to other BTs within their cluster. The management and BTs at Harakeke indicated that they were interested in pursuing the idea of on-site BT meetings.

Table 17

Data Concerning BT Meetings

School	Mtg. Coordinator	Estimated # of Meetings in 2007	Average Benefit Rating	Attendance at SSS BT Meetings
Fieldview	BT2	8	3.29	No
Ringarehe	Principal	16	2.00[15]	Yes
Whakarauika	Tutor Teacher/AP	6	5.00	Some BTs do
Whiti	Tutor Teacher	10	4.75	Yes
Harakeke	N/A	0	N/A	Some BTs do

Most BTs agreed that the SSS courses were valuable, but with regard to on-site meetings responses were split. BTs reported higher ratings for meetings that were clearly labelled as "BT support" and coordinated by management. Data from interviews also highlighted this dichotomy:

> *It's all right. Does it change my practice or enhance my BTism? No, not at all. But it's nice to see other people and hear about it. I think I'd rather be on a BT course.*
>
> –Year 1 BT, Fieldview

> *In the last six weeks we had our meeting together here with a couple of teachers doing workshops with us. And I think two weeks ago, we had another meeting on site. Brilliant, it was just brilliant. All three of us really, really enjoyed it.*
>
> –Year 1 BT, Whakarauika

Summary of Socioemotional Support

The survey responses and the interview references both indicated that socioemotional support was both critical to an effective induction and strong in low-decile primary schools. In fact, when data were coded at the sentence level, the axial code *Socioemotional Support* received the highest number of references of any of the induction components (n=1,797). A myriad of practices were found to be occurring across low-decile schools and at case sites.

First, deprivatisation via collaborative planning was common across low-decile schools. Although the frequency–utility matrix showed a low frequency of observing tutor teacher demonstration lessons, observations were common at the case sites. It was established that the

[15] One of the two BTs responded that it was not applicable. In other words, she did not view the curriculum planning meeting between herself and the other BT as a 'BT meeting.'

wording of the survey question may have led to the lower average. At the one site where video analysis was used, it was found to be very useful. One variation that surfaced was when ANOVAs indicated that the number of months teaching was related to the utility of demonstration lessons, with first-year BTs finding demonstration lessons significantly more useful (M=4.23, SD=0.97) than second-year BTs (M=3.93, SD=1.02) [$F(4,105)=4.790$, $p=.001$]. The question arises: are induction programmes meeting the needs of second-year BTs? This question will be further examined in the subsequent discussion chapter.

As the review of the literature suggested, tutor teachers were found to be supportive; however, tutor teachers did not commonly receive training for their role. Tutor teachers who also held a management position or whose role was a dedicated one received higher ratings. Dedicated tutor teachers themselves expressed mixed feelings about the role.

Cluster analyses of the *Staff Support* factor indicated that principal support was a necessary, but not sufficient, condition for providing socioemotional support. Although all case site principals reported providing orientation (n=48) and handbooks (n=28), these components were not cited by BTs as being beneficial, therefore they were not included in the data analysis.

Another question that arose was the relationship of BTs to external networks. The cluster graph showed that BTs with exceptional levels of support reported less benefit from BT networks. It may be that outstanding programmes were negating the need for cohort support. However, all case site BTs gave positive reports about the socioemotional support provided by SSS. During 2007, four of the case sites were piloting on-site BT meetings, but these were only viewed positively at those sites where the purpose of the meetings was clear and management coordinated the agenda.

All told, support was found to be strong and there were multiple manifestations of supportive induction practices. The strength of the pedagogical development and socioemotional support components having been established, the next step was to examine the data in light of the professional agency component.

Professional Agency

The review of the literature found *Professional Agency* to comprise three sub-components: efficacy, leadership roles, and reciprocity within an integrated culture. The following sections review the data analyses of these three components.

Teacher Efficacy

Efficacy was a composite measure of two items: 'I am a good teacher' and 'I am satisfied with the job that I am doing as a teacher' (α=0.77). The mean responses for these two items were moderately high: for 'I am a good teacher' the mean was 3.93 (*SD*=0.68), and for 'I am satisfied with the job that I am doing as a teacher' the mean was 3.76 (*SD*=0.81). *Perceived Effectiveness* was positively related to *Efficac*y [*F(*3,186)=7.97, *p*<.001]; in other words, BTs with higher perceived efficacy reported slightly higher perceptions of their students' reading progress [*F(*8,181)=4.272, *p*<.001]. BTs who viewed themselves as more efficacious were more likely to be in their second year of teaching [*F(*2,183)=5.87, *p*=.003] and to report higher levels of staff support [*F(*4,193)=2.850, *p*=.025] (Table 18).

Table 18

Mean Efficacy Levels by Months of Teaching

Months of Teaching	N	Mean	SD
0–8 months	92	3.58	.65
9–16 months	48	3.88	.64
17–24 months	46	3.96	.79
Total	186	3.75	.70

The overall perceived efficacy was 3.85, and it was positively and significantly related to engaging in pedagogical practices with a tutor teacher and perceived effectiveness in teaching reading relative to other teachers. BTs who reported higher levels of efficacy also reported lower stress levels. In a similar study with a survey of 173 Connecticut BTs, Chester and Beaudin (1996) found BT efficacy in urban schools was mediated by staff collaboration and administrative support. Staff support was not found to be significantly related to perceived efficacy in this study; however, the mean value of BT's efficacy declined as frequency of induction practices increased. In other words, less efficacious BTs were having more frequent interactions with their tutor teacher and management. In the discussion chapter, this finding will be further explored in an attempt to understand the relationship and investigate potential intervening variables.

Formal Leadership Roles

As regards leadership capacity, survey results indicated that most BTs (82%) were engaged in some form of leadership, with extracurricular (e.g., sport) and social leadership being the most prevalent. Most BTs held additional roles (*M*= 1.77; mode= 1), with 59% reporting being an extracurricular activities (e.g., sport) leader, 44% having a role in a social committee and 39% being a member of an academic committee. Other roles filled by BTs included: technology coordinator, parent liaison, NZEI representative, library head, teacher representative on the board of trustees, literacy coordinator, and meditation group leader. However, survey data seemed to indicate that BTs across low-decile primary schools did not hold curricular leadership roles. Only 14% reported holding a leadership role in professional development, and only 7% reported holding a curricular leadership role (e.g., technology, Mäori).

Case site BTs reported having a variety of leadership roles. Twelve of the twenty BTs reported assuming extracurricular roles such as dance, swimming, and jump jam coach. Four BTs reported being a leader of curriculum or professional development. Six reported other leadership roles, such as head of library. Nine reported being involved in social committee activities:

> *I think I'm utilised more in the school in terms of the sport and the music and the culture programme and things like that which makes me really busy… Next Tuesday, I am looking to organise maybe two kids from each class to maybe video and take photos of the cultural performance.*
>
> –Year 1 BT, Whiti

Two case site BTs reported that they held no leadership role. However, analysis of the data suggested that BTs at exemplar sites held a similar proportion of formal leadership roles in comparison to BTs across low-decile schools (Table 19).

Table 19

Comparison of Leadership Roles between Case Sites and All BTs

Leadership Role	Case Site BTs	Per Cent of All BTs
Extracurricular	60% (n=12)	59% (n=118)
Curriculum/PD	20% (n=4)	21% (n= 42)
Other Committee	30% (n=6)	39% (n= 78)
Social	45% (n=9)	44% (n= 88)
Selected Tutor Teacher	0% (n=0)	3.4% (n=7)
Assist Tutor Teacher	3.21 (*SD*=1.13)	2.92 (*SD*=1.08)

Reciprocity within an Integrated Culture

One survey item directly addressed the concept of reciprocity within an integrated culture. 'During our meetings, I help my tutor teacher become a better teacher' averaged a relatively low response, slightly below neutral (*M*=2.92; *SD*=1.08). Furthermore, only 3.5% of BTs had input into the selection of their tutor teacher. None of the case site teachers selected their tutor teacher. However, when asked if they helped their tutor teacher become a better teacher, BTs at the exemplar sites responded with an average of 3.21 (*SD*=1.13), higher than the national survey average.

A dendogram was used to break down the *Pedagogical Practices* factor into four sub-clusters: tutor teacher engaging in weak pedagogical practices (n=40), tutor teacher collaborating on a moderate number of pedagogical practices (n=32), tutor teacher adopting a coaching stance and using a high number of pedagogical practices (n=34), and tutor teacher adopting a coaching stance and engaging in exceptionally high pedagogical practices (n=34).

Whether tutor teachers were considered to have a coaching or collaborating stance was determined by BTs' response to the item 'During meetings with my tutor teacher, I help my tutor teacher to become a better teacher.' Interestingly, no BTs reported having a tutor teacher who *collaborated* with them on an exceptional number of *pedagogical* practices. Furthermore, BTs whose tutor teachers adopted a collaborative stance reported lower levels of perceived effectiveness than other BTs. This finding was further investigated during field visits (Figure 11).

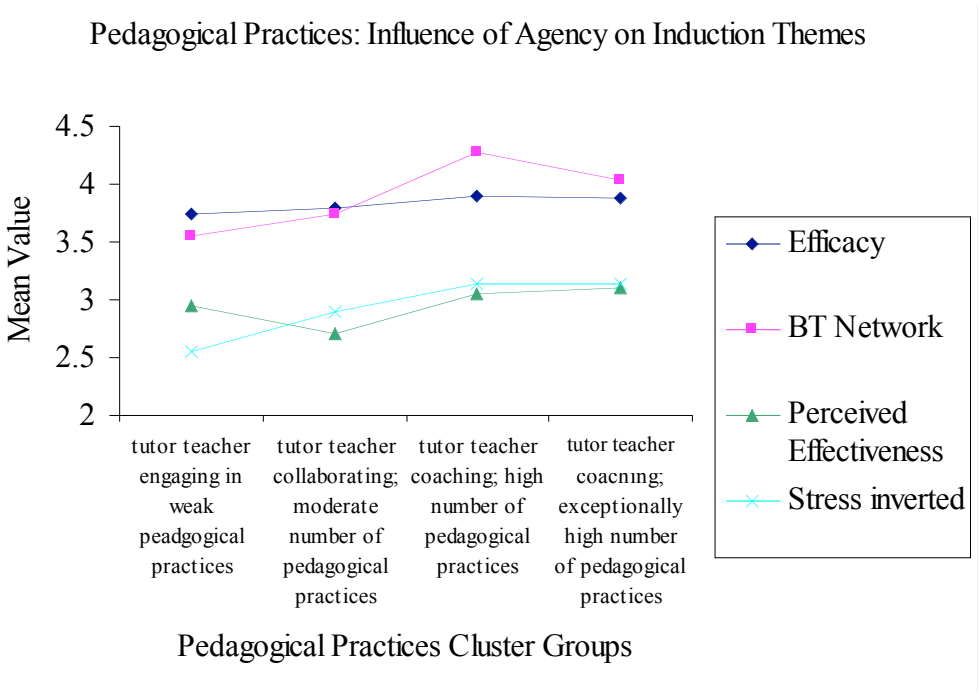


Figure 11. Cluster graph of *Pedagogical Practices*

Although there were 109 references to BTs as valuable, contributing members of the school community, there was variety in BTs' responses regarding their status in regards to more senior teachers. BTs even contradicted themselves at various points in the interviews:

> *After one of those [SSS] courses, the following Thursday, we'd talk about what that course was about, how we can use the stuff that I learned in the course. How we can implement it as quickly as possible. Then we would try to share some with the other teachers in the syndicate meeting. Just to make sure we were sort of refreshing ourselves for what was happening there.*
>
> *Accepted? Our new ideas? [Laughs.] There are people who've been here a while, and they don't accept our new ideas.*
>
> –Year 2 BT, Fieldview

> *I think as soon as you lose the BT status you're OK, but now, in staff meetings and stuff like that, I don't feel like I can contribute very equal.*
>
> *Having said that, though, I think that the way that I set up my class, I've gotten compliments…like we're doing* Beowulf. *Nobody else is doing* Beowulf *or anything that difficult with their kids.*
>
> –Year 1 BT, Fieldview

To investigate the nature of the relationship between BTs and their tutor teachers via a first-level approximation, every line from two five-minute segments of each observed BT–tutor teacher meeting was coded. Comments were marked as pedagogical (planning, assessing, curriculum), pastoral, administrative, management (behaviour of students and parents), or other. Mentoring stances were coded as collaborative, coaching, or consulting. If more than one approach was evident during a segment, both approaches were marked. Data suggested that meetings were predominantly pedagogical in nature and coaching was the most common mentoring stance (Table 20). Data also suggested that when BTs met as a group, meetings were predominantly pedagogical.

Common Case Feature: Limited, but Pedagogical, Statements in Meetings

Transcripts of all staff and syndicate meetings were reviewed for any instance of a BT speaking. Remarks by BTs were coded for content (pedagogical, pastoral, classroom management, administrative, and distractors) and type of interaction (question, response, non-response statement, and read aloud). BT comments were infrequent, with a total of 248 comments spoken to the whole group. It was estimated that each five-minute segment averaged 45 lines (calculated from the data in Table 20) and the average comment was 1.5 lines long. In other words, over eight hours of meeting transcripts yielded approximately eight minutes of BT comments. When their comments were combined, it was calculated that BTs made an average of 30 comments per syndicate meeting and 22.2 comments per whole-staff meeting. Data indicated that the most common type of comment was a pedagogical statement, and the next most common a pedagogical response. Administrative statements and administrative comments were also dominant in a small proportion of the sessions (Table 21).

Common Case Feature: Failure to Challenge the Status Quo

All interview and meeting transcripts were analysed for instances in which a BT challenged the status quo. “Challenging the status quo” was defined as introducing, or attempting to introduce, any new idea concerning pedagogy, policy, or procedures to the school. Two instances were found. In one instance, during a syndicate meeting, a BT suggested a different routine for the cross-country course:

Table 20
Dialogue Analysis of BT Interactions with Tutor Teachers and BT Group Meetings

Participants	Segment Time	Total # of Lines	Pedagogical	Pastoral	Administrative	Behaviour Management	Other	Mentoring Stance
Year 2 BT, under 30, Ringarehe	0–5	35	32	0	0	0	3	coaching
	5–10	53	39	0	0	8	6	coaching
Year 2 BT, over 30, Ringarehe	0–5	37	36	0	0	1	0	coaching
	5–10	48	42	0	0	0	6	consulting/ coaching
Year 1 BT, under 30, Harakeke	0–5	63	32	9	13	0	9	consulting
	5–10	39	24	3	12	0	0	consulting
Year 2 BT, under 30, Harakeke	20–25	43	40	3	0	0	0	collaborating/ consulting
	35–40	41	16	0	5	0	20–BT mtg	coaching
Year 2 BT, over 30, Harakeke	20–25	49	11	0	4	0	34–stu health	collaborating/ coaching
	45–50	37	12	0	1	13	11-BT mtg	collaborating/ coaching
Year 1 BT, over 30,	5–10	42	38	4	0	0	0	coaching
Harakeke	30–35	48	37	0	0	11	0	coaching
Year 2 BT, over 30,	0–5	46	0	5	38	0	3	collaborating
Whakarauika	5–10	48	16	21	9	0	2	coaching
Year 2 BT, under 30, Fieldview	All 5	45	36	4	0	0	5	consulting/ coaching
BT Group Meetings								
Whiti	5–10	35	0	0	35	0	0	consulting
	15–20	57	11	0	46	0	0	consulting
Fieldview	5–10	42	40	1	1	0	0	consulting (BTs = experts)
	15–20	46	25	1	5	9	6–intro	consulting
Whakarauika	0–5	48	41	0	0	7	0	collaborative
	20–25	63	17	13	0	33	0	collaborative
Ringarehe	10–15	12/ read	10	0	0	0	2–laugh	collaborative
	30–35	41	41	0	0	0	0	collaborative

Table 21

BT Comments during Meetings: Content and Comment Type

School and Meeting Type	Administrative				Pedagogical				Pastoral/Mgmt				Distractor			
	Question	Statement	Response	Read aloud	Question	Statement	Response	Read aloud	Question	Statement	Response	Read aloud	Question	Statement	Response	Read aloud
Harakeke staff	6	11	4	0	5	6	1	0	0	0	0	0	1	1	0	0
Ringarehe staff 1	0	0	0	0	4	17	12	0	0	1	3	0	0	3	3	0
Ringarehe staff 2	1	0	0	0	3	6	13	2	0	1	0	0	0	5	0	0
Whiti BT mtg	7	8	4	0	1	4	9	0	0	0	3	0	0	1	0	0
Whiti syndicate	2	2	3	0	2	7	1	0	0	0	0	0	0	0	0	0
Whakarauika staff	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
Whakarauika syndicate	8	5	3	0	1	8	2	1	1	8	1	0	0	4	1	0
Fieldview PD	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0
Fieldview syndicate	4	9	3	3	0	4	4	0	0	1	2	0	0	5	0	0
Total	31	35	17	3	16	55	42	4	1	11	9	0	1	19	4	0

> *But maybe we could have the routes and do the seniors first [in a different order from the traditional routes].*
>
> –Year 2 BT, Whakarauika

The second instance surfaced during interviews when a BT stated that he adhered to a different writing timetable from that in the whole-school curriculum policy:

> *I find writing and reading sort of go together. [Glances around corner.] I've got a different one [timetable]. You see, we're meant to have writing and then reading, but if, say the focus for the term is letter writing, I find it easier if we do the reading first,…what I'll do, I'll have a teacher group here for reading, and then they follow up with the writing…if you do it this way [shows timetable] you can get one-on-one time with some kids.*
>
> *[Interviewer: Have other teachers copied your idea?] No. I asked if we could do it that way, and I got told 'No.' Because special programmes take kids out for reading during reading time…but the problem is they don't. They take kids out all over the place, so it doesn't actually work.*
>
> –Year 2 BT [school withheld]

Summary of Professional Agency

ERO noted the importance of "challenging taken-for-granted practices…developing the attitudes, values and ethics of a teaching professional…[giving] performance feedback and feed-forward…[keeping] up-to-date records…including a self-reflection record and planning for further support and development" (*Quality of Year Two*, 2004). Survey initial interview data indicated that the professional agency of BTs, particularly their efficacy, was being enhanced across low-decile schools:

> *We encourage our senior teachers to give them confidence in demonstrating that skill in a small syndicate-wide, then putting them into a situation where they've got to share their strengths with other staff members… They feel as though they are part of staff and that they have as much to give to the staff and our children as our experienced teachers.*
>
> –Principal, Waikato school

> *I coach a teacher that's been teaching for like 20 years. It's a little weird, but I learn stuff from her and if I have advice for her, because it's a new day and age and we have new ideas, she takes them. It is cool. I was a bit scared at first…[but] I like coaching her.*
>
> –Year 1 BT, Hamilton school

However, closer analysis of survey data and analysis of later case study data indicated a conservative trend. First, meetings with tutor teachers, although pedagogically oriented, were more likely to be characterised by a coaching mentoring stance than a collaborative, reciprocal

relationship. Although their comments were often pedagogical statements or responses, BTs spoke little in meetings and only challenged the status quo twice:

> *I put in my own two cents because that's just the kind of person that I am, but as far as improving their teaching, no. I don't think that you have the power to be able to do that here. Just school dynamics and stuff like that. You're just a BT and you kind of know where you stand.*
>
> –Year 1 BT, Fieldview

> *I suppose I kind of view myself as the Indian and she's the chief, so I kind of, you know, I'll add my two cents' worth if there's something that I've found that kind of works, but I don't know if I actually influence her teaching as such.*
>
> –Year 2 BT, Ringarehe

Despite progressive policy documents that stated the importance of enhancing BT agency, the ethos of hegemonic dominance reported by Battersby (1990) in the 1980s was evident in the schools. Given the progressive policy and the emphasis that recent research has placed on BT agency (Achinstein & Villar, 2004; Kardos, 2005; Tickle, 2000a), the trends indicated by the data may warrant further investigation of the professional agency of BTs in New Zealand.

Structured Balance

The fourth induction component investigated during data analysis was *Structured Balance*. The New Zealand-wide policy of funding 0.2 release time, followed by 0.1 in the second year of a BT's tenure, is a major indicator of the national emphasis placed on creating a balanced BT induction structure. Data support the notion that BTs are given easier assignments; for example, fewer BTs are represented in intermediate and new entrant years, years cited in the literature as being notoriously difficult. However, teachers still report being stressed: the mean (M=2.93) was less than the mid-point. Additionally, the vast majority of BTs were working more than 40 hours per week, even with the 0.2 release time. Case study data provided some insight into how the exemplar schools ensure that they are providing a structurally balanced programme for their BTs. Data suggested that the BT time allowance was an important part of ensuring that BTs had structured balance: 87 references involved the BT time allowance. Data also suggested that maintaining a life balance (n=76) and having consistent, competent relievers (n=69) were importance for stress management. These practices are further explored below.

Reduced Workload

With regard to work time, 11.5% (23) reported working less than 45 hours per week, 47.9% reported working 46–55 hours per week, 32.9% reported working 56–65 hours per week, and 6.8% (14) reported working more than 66 hours per week. At every case study school, the 0.2/0.1 time allowance was used to support BTs. At Ringarehe and Whakarauika, BTs and their tutor teachers shared the time on a specific day of the week. At Fieldview, Whiti, and Harakeke, BTs tended to receive a full day off, only sharing the time occasionally with their tutor teachers:

> *I find they come out and they expect to get a day out. We don't. We give them half a day, and I give the rest to [tutor teacher] because [tutor teacher] goes around and observes and works in the classroom.*
>
> –Principal, Whakarauika

> *I have my weekly release day, which I use to either be observed, observe others, or create resources, kind of just stay on top of things.*
>
> –Year 1 BT, Fieldview

Common Case Feature: Funding and Development Beyond the 0.2/0.1

Principals at all five case sites found cost-effective solutions to moderating the workload beyond the traditional 0.2/0.1 release. This included: funding teachers' release to attend cluster-wide BT programmes; releasing tutor teachers to plan, evaluate, and update induction programmes; releasing teachers to attend professional development; and providing sick BTs with additional days off:

> *For the programme, every time someone goes out of the school, there's an expense, and, yup, we have to pay for that, that's just a given. And we do. It's actually easier in a low-decile school, because there is greater flexibility around the funding. Our budget is not as tight.*
>
> –Principal, Fieldview

> *Yeah, we usually are using the 0.2. But we sometimes are dabbling a little bit extra. Sometimes I jump my timetable around to get into the classrooms. We believe it's that important, toward registration, that we up the pace.*
>
> –Principal, Ringarehe

In order that the reduced workload could be analysed via a second-level approximation, BTs at the case study schools were asked to complete a grid outlining induction and professional development activities for a fortnight. Days were divided into morning, afternoon, and after-school sessions. The BTs reported participating in professional development and/or induction activities for 27% of the sessions (M=8.0 out of 30). The average time spent on induction and/or

professional development activities varied between schools, in part because of the proportion of second-year BTs on staff. First-year BTs reported more time spent on professional development (30%, *M*=9.1) than mid-year (29%, *M*=8.8) or second-year BTs (22%, *M*=6.5) (Table 22).

Table 22

Average Number of Sessions per Fortnight Reported Spent on Induction and Professional Development Activities

School	Average Number of Professional Development Sessions per Fortnight	Per Cent Second-Year Respondents
Whiti	9.2	0%
Whakarauika	9	33%
Harakeke	8.3	0%
Fieldview	7.2	50%
Ringarehe	6	100%

In the timetables, younger BTs reported slightly fewer professional development sessions (26%, *M*=7.7) than older BTs did (28%, *M*=8.4). Reported activities included: meetings with tutor teachers, external professional development, staff meetings, syndicate meetings, BT group meetings, cluster assessment meetings, co-planning sessions, and observations of other teachers. Cluster analysis of survey data indicated that type of practice might be a critical factor in enhancing BT efficacy and perceived effectiveness. Frequency of practice reduced to five groups after similar categories: low frequency of induction practices (n=5), moderate frequency of induction practices (n=17), high frequency of induction practices except demonstrations (n=65), high frequency of induction practices including demonstrations (n=41), and extremely high frequency of induction practices (n=45). Interestingly, BTs who observed their tutor teacher demonstrate a lesson reported lower levels of perceived effectiveness than did other teachers who engaged in a similar (high) frequency of different induction practices (Figure 12).

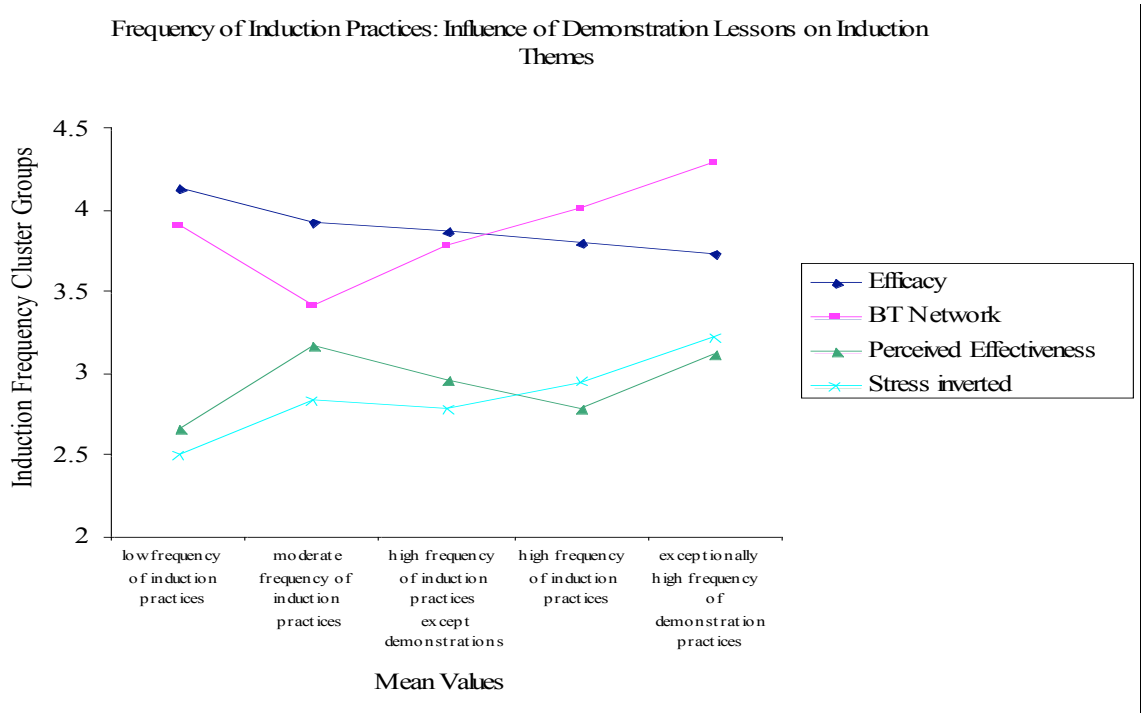


Figure 12. Graph of *Frequency of Practice* clusters in relation to *Efficacy, Perceived Effectiveness, BT Networks* and *Stress*

Life Balance to Moderate Stress

Stress was not included in the factor analysis as it was measured by a single item on the survey. The overall level of stress for all BTs was 2.93, with 5 being the least stressed. Although 21.1% of BTs reported their stress level as *exhausted* or *downhill*, the majority (79.9%) reported it as *coping, effective*, or *renewing* (M=2.93, SD=0.87). ANOVAs indicated a moderate positive relationship between BTs' reported levels of stress (higher responses signified lower stress) and the pedagogical practices engaged in by tutor teachers, the degree of staff support, BTs' reported efficacy, and the perceived utility of induction practices (Table 23).

Table 23

Significant Factor Theme ANOVAs with Stress

Factor		Sum of Squares	df	Mean Square	F	Sig.
Staff Support	Between Groups	12.666	4	3.166	4.111	.003
	Within Groups	145.561	189	.770		
Pedagogical Practices	Between Groups	22.681	4	5.670	8.288	.000
	Within Groups	129.303	189	.684		
Efficacy	Between Groups	9.460	4	2.365	5.108	.001
	Within Groups	87.509	189	.463		
Induction Utility	Between Groups	7.682	4	1.920	3.789	.005
	Within Groups	95.282	188	.507		

Common Case Feature: A Focus on the Physical Well-Being of BTs

The majority of BTs at the case sites reported mid-point (*coping*) stress levels (n=16), with no BTs reporting *downhill* and only one reporting *exhausted*. Data from initial observations and interviews were triangulated to attribute a work-life balance to manageable stress levels:

> *But the core aspect would be feeling fit, healthy, spry. If you're coming to school tired and worn out, that's when things start to go wrong. So getting that balance between stretching people and giving them good PD while still letting them have a home and social life is still a balance.*
>
> –Principal, South Auckland

> *They locked the doors at half past four on Mondays and Fridays. They say it helps with the balance.*
>
> –Observation field note, Fieldview

Data from principals and board of trustees members at case study schools suggested an increased emphasis on maintaining the health of their staff:

> *Board parent 2: No issues here for staff health. That's a good thing. I'm not suggesting that might not be true.*
> *Board parent 3: [to principal] Are you lying to us? [Laughter]*

Board parent 2: But that's us, we're liable for that. This board is liable for your health. That's part of what we are for. When I read that, I want to know that is so. Whether that's about your physical health, your spiritual health, that kind of thing. We're talking about your staff health care plans or any of those things. That's the kind of stuff we need to think about as a board, about how we actively support that to support you to make that even more so for staff…

–Excerpt from board of trustees meeting, Rangirehe,
[after principal's report on staff health]

Common Case Feature: Consistent, Competent Relievers

In initial and case study sites, data suggested that finding consistent, competent relievers for release and professional development could be a problem that interfered with the quality of induction programmes:

Relievers are somewhat in short supply and rather expensive. Down here particularly, if there's a local course on, then it's like dynamite. Everybody wants time so you've got to be in really quickly. It's quite tricky.

–Principal, King Country school

Yup, I get release time. Saying that, last Thursday I didn't get my release time, but that's all right. [Interviewer: Why not?] Because there weren't enough relievers.

–Year 1 BT, Fieldview

All five case study sites made an effort to circumvent this problem by having a consistent, experienced reliever for each of their BTs as often as possible. At four case sites, the reliever shared some of the planning work with the BT. Another topic that surfaced was the fact that several BTs had received little or no support while relieving the previous year:

I don't think the relievers get that much support as they should be getting. If [BT] wasn't my best friend, she wasn't here, a few people that I knew when I was little weren't here, then it would be a lot different.

–Year 1 BT, King Country

The support is different for relievers compared to the actual person who works at the job because you never really show your face. You're like a ghost in the school. "Do your job then go away."

–Year 1 BT, Whiti
[describing previous school]

In three of the case study schools, BTs reported having received full release time when employed part time as relievers the previous year:

We were giving him release even when he was a relief teacher, we were giving him release on top of that to meet with a tutor teacher, to access PD, all that sort of stuff. We never knew if he'd stay or anything, but we accepted that's what you do to grow the communal pool of teachers. That's my philosophy.

–Principal, Harakeke

Programme Vision and Evaluation

During case visits, another feature of structured balance emerged: a clear support agenda (n=97). This feature did not surface during survey data analyses as it was not covered in any survey item. Case study schools all had systematic, accessible, and electronically networked documents for BT support that were used daily. All five case study sites had a clear, explicit, documented programme. Fieldview's induction coordinator compiled a model portfolio to assist BTs in moving towards registration. At all sites, the induction handbook had been designed—or revised—within the last five years, particularly since the 2005 update of the NZTC induction support handbook:

This is our actual induction programme here. We designed this looking at the [NZTC] booklet, taking what was more important, going through everything.

–Induction Coordinator, Whakarauika

Case Innovation: Formal Evaluation

During initial interviews, one principal captured the prevailing sentiment:

We are self-critical and analytic about what we do all the time…but it probably would be a good idea to formally review it, which we don't do, we haven't done really. It's something we could improve on, I think.

–Principal, Horowhenua school

Three of the five case sites formally evaluated their programmes via questionnaires at the end of every term:

I give them a little form and just ask them, "What do we need to improve?", "What did you really like?" Usually it's at the end of the term. Yeah, the observations, we discuss that, we discuss the next steps.

–Tutor Teacher, Ringarehe

The induction coordinator at Whakarauika created an open-ended survey which was used each term to solicit comments on staff development support, areas of concern, and areas for future development ("More in-class observations? Model lessons?"). Fieldview held separate annual meetings with BTs and tutor teachers at the beginning and ending of each year and evaluated their

programme by giving questionnaires to both BTs and tutor teachers. At Ringarehe and Whakarauika, evaluations of the programmes were reported to the boards of trustees. Ringarehe focused on the progress of BTs towards registration, whereas Whakarauika focused on the activities of the induction coordinator. Harakeke and Whiti reported having a formal evaluation of their induction programmes, although senior teachers at both schools reported that they informally evaluated the programme on a weekly basis during management meetings.

Summary of Structured Balance

Having structured balance was a critical component to effective induction. At case sites, the reduced workload was enhanced by additional funding for more release. Although there was variation in how the time was used, across exemplar schools, there was a pattern of additional time allocated to BT support. At the case sites, Year 1 BTs reported spending 30% of their time in a fortnight on professional development, and Year 2 BTs reported spending 22%. These BTs reported extensive professional development, including participating in programmes designed specifically for BTs in low-decile schools such as cluster-wide moderation sessions or on-site numeracy development. The question of the nature of the activities BTs engaged in during release time was raised, and data suggested that some practices might be more effective than others.

Additionally, reduced stress via life balance was important. In a study of BTs, Cherniss (1991) found that although BTs were at a high risk of suffering from burnout, BTs reporting a high level of support were correlated to recovering more quickly from stress. Nationwide survey results showed that BTs with lower stress levels were significantly more likely to report having an exceptional induction programme (Table 24, p=.001). Only one BT in the case sites reported a stress level below 3. In other words, and contrary to the image of the stressed BT in a low-decile school, analysis of the data suggested that BTs in low-decile schools were coping, and those who were the least stressed assigned a high rating to their induction programme.

Table 24

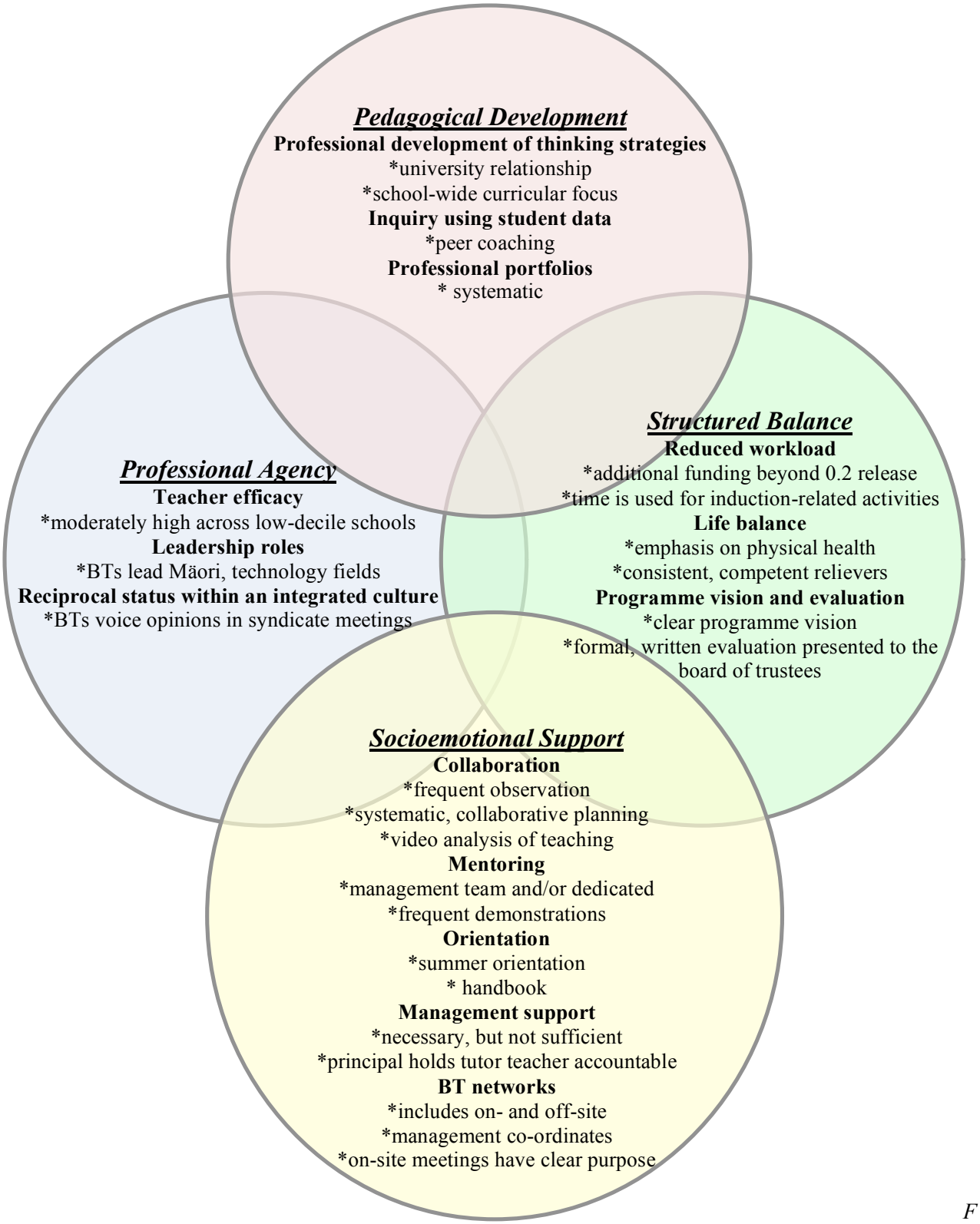
Stress Level at Low-Decile Schools in Relation to Induction Programme Quality

Stress Level	Average BT Rating of Induction Programme
Exhausted	3.00 (n=19)
Downhill	3.09 (n=23)
Coping	3.74 (n=111)
Effective	4.16 (n=44)
Renewing	5.00 (n=2)

Moreover, case sites were interested in maintaining the health of their BTs. Consistent, competent relievers were also found to contribute to reduced stress levels. Lastly, having a programme with a clear vision that was constantly evaluated and updated was identified as a key practice within the component of structured balance.

Conclusion to Findings: An Effective Integrated Model

In conclusion, analysis of the data suggested that low-decile primary schools in New Zealand engaged in practices that encouraged pedagogical development, socioemotional support, professional agency, and structured balance. Practices were often overlapping, and in each instance case sites were implementing refined practices (Figure 13). The following chapter highlights further findings in light of this model of effective induction and discusses the implications of these results.



F

igure 13. Effective integrated induction components in New Zealand low-decile primary schools

CHAPTER 7. RESULTS AND DISCUSSION

The previous chapter consisted of analyses of induction components in low-decile primary schools; findings indicated that induction was integrated. Powerful, and sometimes varying, practices were identified at exemplar case sites. This chapter reviews three aspects of the integrated model. First, a Mäori-based conceptual framework for the integrated model that emerged during grounded theory analyses is argued and discussed. Next, the comparison of survey data with results from Cameron's (2007) survey of all New Zealand schools indicates that schools serving students from low-socioeconomic backgrounds may have strong, integrated induction models. The final section highlights variations in the model based on age and experience of the BTs that emerged during ANOVA analyses of factor themes.

Hauora: Viewing the Integrated Model through a Cultural Lens

Given that the literature concerning integrated induction was predominantly from international sources, it was important to contextualise the data in the New Zealand setting. As discussed below, data indicated that the influence of Mäori culture on BT support was a common theme in schools with exemplar BT induction programmes. Arising from the data, the model raised via a Mäori lens proved to have high ecological validity, rendering it a useful mechanism for communicating the concepts of integrated induction concept to practitioners. Moreover, highlighting an indigenous lens supported the notion of Kaupapa Mäori, in which research centred around Mäori epistemological constructions of the world, and Mäori perspectives were celebrated (e.g., Bishop & Glynn, 2004; Pihama, Cram, & Walker, 2002; Pohatu, 2005; Smith, 1997). Given the importance of (a) contextualising the literature, (b) enhancing the communicability of the findings, and (c) emphasising indigenous voice, this chapter opens by discussing Mäori concepts of integrated support before proceeding to a more general analysis of the integrated model in low-socioeconomic primary schools.

Data derived from triangulation of case study data supported the formulation of the proposition of integrated induction components. In the grounded theory analysis, during the coding of 3,897 references into 110 axial codes, four components—socioemotional support, professional agency, pedagogical development, and structured balance—emerged strongly (Table 11, Chapter 6). At this point, categories appeared to be saturated. As data were being reviewed during analysis, a key piece of information surfaced in the transcript of an interview with a BT on the penultimate

day of field visits. The BT, who was Samoan, was drawing upon Mäori philosophy to explain induction at his school:

> *If you look at the physical education document, there's this thing on Hauora. You'll see it's about the wharenui [main building] of the marae*[16] *and how it's laid out—the spiritual and the whare tapa wha [walls of the building]…and how they intertwine…it's looking at the physical, the spiritual, the emotional, the mental. If those four things are solid, it keeps the house firm, keeps the foundation firm. And I know some real cool legends that we've used, that Samoan people have used, to encourage education. You know it's just an analogy, it's what we should look at so that we can go forward.*
>
> –Year 1 BT, Whiti

This statement sparked further investigation of the Hauora model. Both literature, particularly the work of Durie (1994), and the data set were thoroughly reviewed to investigate the suitability, applicability and relevance of the Hauora concept. Hauora is a Mäori philosophy of health recognised by the World Health Organisation, one of the few integrated indigenous health models in the world (*Health and Physical,* 2006). Hauora comprises four types of well-being: spiritual (*taha wairua*), mental and emotional (*taha hinengaro*), social (*taha whänau*), and physical (*taha tinana*). When all of these aspects are in place, balanced development occurs. Durie (1994) writes of the *whare tapa wha* (four-sided house) in which, similar to the walls of a house, all four elements are "necessary to represent strength and symmetry, though each represent[s] a different dimension" (p.69). This metaphor proved to be a useful model around effective induction which was understood by practitioners.

Similar to the integrated model, the Hauora model is composed of four overlapping components (Figure 14). The first component, *taha hinengaro*, incorporates facets of the mental domain, including cultivating coherent thinking strategies, developing problem-solving skills, and fostering a sense of achievement. Also part of *taha hinengaro* is the emotional domain. *Taha whänau,* or social development, includes relationships, feelings, and social support. The third component, *taha wairua*, encompasses concepts such as values, purpose, personal identity, and self-awareness. A prominent feature of *taha wairua,* is *karakia* (appreciation of/reflection upon the past). Incorporated in *karakia* is the concept of *ako* (reciprocal teaching) the common method for Mäori tribes to pass information about medicine, weaving, and other disciplines onto the next generation (Cameron, Garvey Berger, Lovett, & Baker, 2007). Field visit data

[16] The open area in front of the *wharenui*, where formal greetings and discussions take place. Often also used to include the complex of buildings around the *marae*.

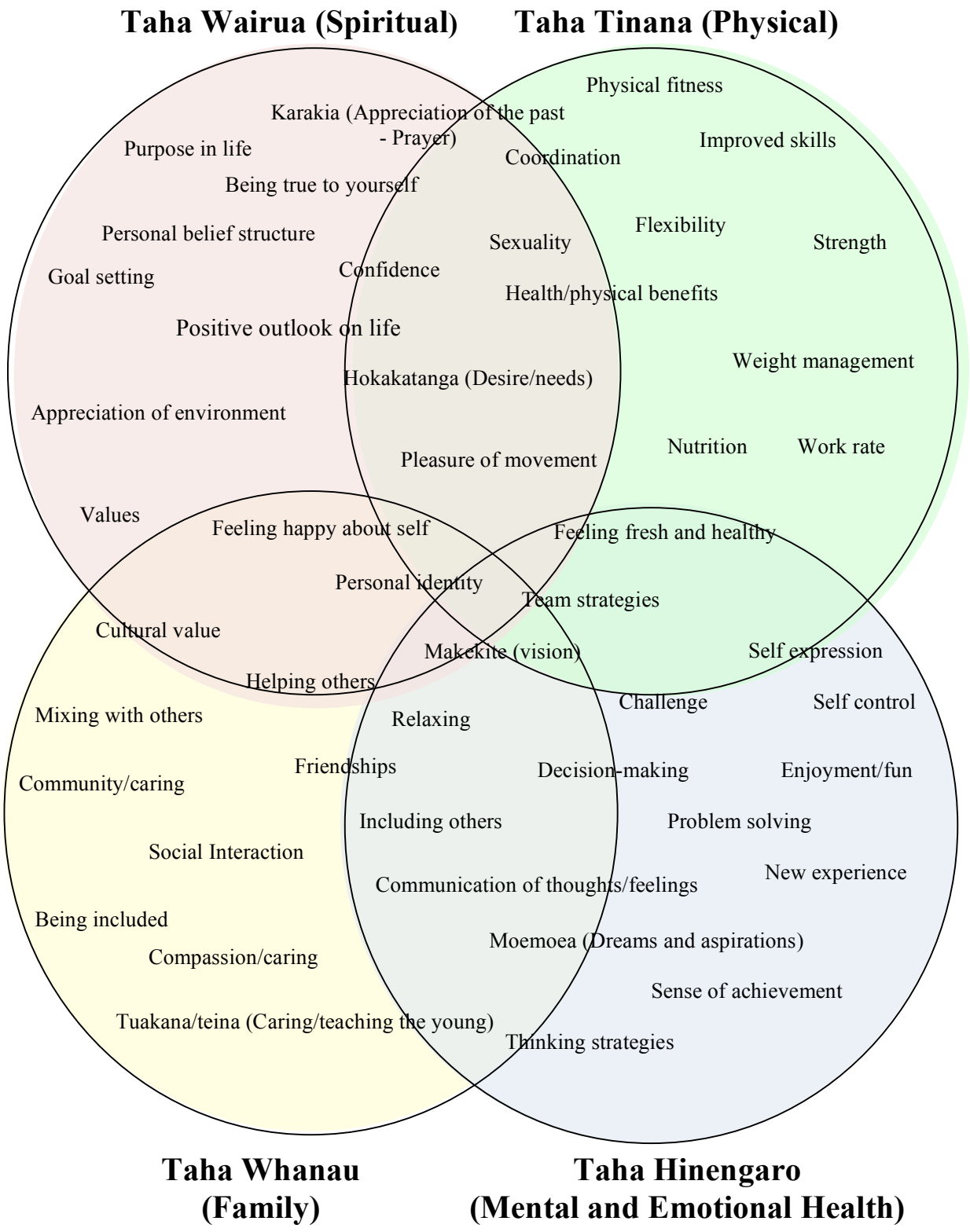


Figure 14. Ministry of Education (2006) Hauora diagram: Balanced development[17]

[17] Source: Health and Physical Education in the New Zealand Curriculum, Ministry of Education (2006) http://www.tki.org.nz/r/health/curriculum/statement/hpe_statement.pdf

revealed that this type of reciprocal teaching is common in Mäori-immersion classrooms. Finally, *taha tinana* incorporates the physical body: its growth, development, and ability to move, and ways of caring for it. This component encompasses work rate, stress, and physical well-being.

In grounded theory, a selective code is a core category which can function as a central storyline (Borgatti, 1996). The Hauora model appeared to be the selective code for effective induction in New Zealand: all of the axial codes fit under this umbrella theme (see Appendix D). Text searches revealed five direct references to elements of the *whare tapa wha*:

> *We talk about the spirit in which things are done and said, but I don't think they [ERO] get that. Because teaching to me is a real holistic job. As well as, you know, everything you've got to do. That's my personal opinion, just what I hear from them. The wairua, yeah.*
>
> –Year 2 BT, Harakeke

> *The whole of our school is based on a well-being ethos called "Hauora." Hauora, and under that [lists the four pillars in Mäori][19]. Wairua is the spiritual component. If you don't have the wairua, you go nowhere… The wairua component is what makes the hair on the back of your neck stand up when you come in. As you go round various schools, you're going to say, "Oh this school feels good… There's something different about it." You can usually put your finger on it.*
>
> –Principal, Northland school

> *BTs get the support not just from their tutor teacher, but from everyone else in our whänau, our whänau circle.*
>
> –Tutor Teacher, Harakeke

> *Not that I know what kind of support they get in the high-decile schools, but…here, we are more supportive, we are more like a whänau, we are more like a family.*
>
> –Tutor Teacher, Fieldview

> *You have to start with the fact that we are a decile 1 school. We are predominantly Mäori. We have 97% Mäori students here. Very much on the whänau philosophy here, and we very much have the concepts of aroha and awhi here—that's love and support.*
>
> –Principal, Ringarehe

In addition to these five direct references, four of which were made by non-Mäori participants, there were also indirect references to a culturally defined concept of integrated support:

---

[19] At the time of transcription, the researcher did not recognise the Maori terms, and therefore transcribed them as such.

[Interviewer: How would support look like in a Samoan culture?] You try and intertwine ideas. It's all woven, and it's like the patterns that you see—the koru patterns and things that you see in a lot of the artwork that you see. A lot of the beliefs are taken from those ideas where learning is about the collaborative, doing things together. My belief is you're not just working together as a team, you've got to work together as a family. Especially in these low-decile schools. You start to notice that in a lot of the [bilingual] immersion schools, in a lot of the Samoan/Mäori schools, a lot of it is collaborative working.

–Year 1 BT, Whiti

As a whole, that's just Mäoridom, because that's our nature, to love and to help each other.

–Year 2 BT, Whakarauika

BT: Another one that comes to mind about how you intertwine to get something more effective.
TT: Oh, I'll keep that in mind.
Interviewer: Harakeke means, flax? And what was the first one?
TT: It was a weaving together of threads. Oh and there's another one about threading the needle. There's a few...
BT: [Laughing] What are you going to pretend to thread me?
TT: No, you bring the red, the white, and the black and you thread them through the needle and then they become one...[Both laugh.]

–Teacher conversation, Whakarauika

I've read a lot of things and it's all by Europeans on constructivism…I'm thinking to myself, "Man, we've already done that…" But now the reason why our culture immerses ourselves into these ideas is because we have to try and assimilate into the culture to get through...working in groups and working as a family and things like that… But we've already done that!

–Year 1 BT, Whiti

After these quotes had been triangulated, the literature reviewed in chapter two was revisited and organised according to the Hauora themes (Figure 15). In the context of induction, *taha wairua* included reflection, inquiry, and purpose. The notion of developing pedagogy captured the essence of *taha hinengaro* for BTs. *Taha tinana* incorporated a healthy work rate

Mental and Emotional (*Taha Hinengaro*): Pedagogical Development

Thinking Strategies

- Integrated into intensive and ongoing professional development (Bartell, 2005; Earley & Bubb, 2004; Renwick & Vise, 1993; Serpell & Bozeman, 1999; Villani, 2002; Whisnant, Elliot, & Pynchon, 2005; Wood, 2005)
- Active learning via research project (Desimone, Porter, Birman, Garet, & Yoon, 2002; Heilbronn & Jones, 1997; Ingersoll & Smith, 2004; Tickle, 1994; Villani, 2002)
- Sound definition of effective teaching (Arends & Rigazio-DiGilio, 2000)

Problem Solving

- Implicit, reactive and deliberate classroom-based teacher learning (Earley & Bubb, 2004; Moir & Gless, 2001; Renwick & Vise, 1993; Thomas & Newton, 2001; Tickle, 1994; A. Williams, 2003; Wood, 2005)
- Learning challenges existing beliefs (Horn, Sterling, & Subhan, 2002; Ingersoll & Smith, 2004; Timperley, 2003)
- Problem-based learning (Steadman, 2005; Timperley & Wiseman, 2003)
- Inquiry focuses on student learning (Brown & Wiggins, 2004; Canniff & Shank, 2003; DeBolt, 1991; Feiman-Nemser, 2001; Gallegos, 1995; Luft, Roehrig, & Patterson, 2003; Moran, Dallat, & Abbott, 1999; Roberts, 2000; Timperley & Parr, 2004; *Top of the Class*, 2007; Wong, 2005)

Sense of Achievement

- Positive, collaborative formative assessment/observations with clear procedures (Serpell, 1999)
- Risk taking (Hopkins & Stern, 1996)

Physical Well-Being (*Taha Tinana*): Stress and Workload

Reduced stress

- Appropriate assignments/less challenging classroom (Bartell, 2005; Claycomb & Hawley, 2000; Feiman-Nemser, 2001; Gewirth, 1998; Gilbert, 2005; Ingersoll & Smith, 2004; Kajs, 2002; Tickle, 1994; Totterdell, Bubb, Woodroffe, & Hanrahan, 2004; Zeichner, 1979)
- Provide instruction on effective time management (Boss, 2001; Joerger & Bremer, 2001; O'Brien & Goddard, 2006; Roberts, 2000)

Reduced workload

- Reduced teaching load (*An Ethic of Care*, 2002; Darling-Hammond & Baratz-Snowden, 2005; Earley & Bubb, 2004; Horn, Sterling, & Subhan, 2002; Ingersoll & Smith, 2004; Serpell & Bozeman, 1999; *Top of the Class*, 2007; Wood, 2005; Zeichner, 1979)
- Release time (Feiman-Nemser, 2001; Gilbert, 2005; Horn, Sterling, & Subhan, 2002; Joerger & Bremer, 2001; Portner, 2005; Scott, 2000; Serpell, 1999; Tickle, 1994; Timperley, 2003; Villani, 2002; White, 2005; Wonacott, 2002, Wood, 2005)
- Time spent on activities—both total contact hours and duration of activity over time (Garet, Porter, Desimone, Birman, & Yoon, 2001; Johnson, Harrison Berg, & Donaldson, 2005; Moran, Dallat, & Abbott, 1999; Schön, 1987; Tickle, 2000a)
- Limit the number and scope of extra teaching duties (Joerger & Bremer, 2001)

Figure 15. Elements of Hauora: Connections to literature

Spiritual (*Taha Wairua*): Inquiry, Reflection & Purpose

Karakia (appreciation of the past)

- Reflection (Dewey, 1963b; Louden, 1992; Moran, Dallat, & Abbott, 1999; Roberts, 2000; Shepston & Jensen, 1997)
- Portfolio (Brown & Wiggins, 2004; Wonacott, 2002)
- Encourage reflective dialogue (Darling-Hammond & Baratz-Snowden, 2005; Desimone, Porter, Birman, Garet, & Yoon, 2002; Tickle, 1994; Whisnant, Elliot, & Pynchon, 2005)
- Give feedback (Allen & LeBlanc, 2005; Huberman, 1989; Valli, Raths, & Rennert-Ariev, 2001; White, 2005)
- Connect to pre-service education (*An Ethic of Care*, 2002; Bartell, 2005; Brown & Wiggin, 2004; DeBolt, 1991; Feiman-Nemser, 2001; Gallegos, 1995; Schuck & Segal, 2002; Wonacott, 2002)

Goal Setting

- Informed by standards-based evaluation (*An Ethic of Care*, 2002; Horn, Sterling, & Subhan, 2002; Joerger & Bremer, 2001; Portner, 2005; Schön, 1987; Selinger, 1991; Whisnant, Elliot, & Pynchon, 2005)
- Coherent, planned structure (*An Ethic of Care*, 2002; Claycomb & Hawley, 2000; Johnson, Harrison, Berg, & Donaldson, 2005; Portner, 2005; Serpell, 1999; Totterdell, Bubb, Woodroffe, & Hanrahan, 2004; Wonacott, 2002)
- Piloted and refined (Totterdell, Bubb, Woodroffe, & Hanrahan, 2004)
- Multi-year and developmental (Darling-Hammond & Baratz-Snowden, 2005; Sargent, 2003; Totterdell, Bubb, Woodroffe, & Hanrahan, 2004)
- BT has programme design input (Portner, 2005)
- Programme evaluation (*An Ethic of Care*, 2002; Arends & Rigazo-DiGilio,2000; Bartell, 2005; Claycomb & Hawley, 2000; Dagenais, 1996; Feiman-Nemser, 2001; Horn, Sterling, & Subhan, 2002; Moir, 2003; Odell, 1987; Portner, 2005; Sargent, 2003; Serpell & Bozeman, 1999; Villani, 2002)

Makekite (vision)

- Teacher vision of good practice (DeBolt, 1991; Hammerness, 2006; Johnson, 2004; Villani, 2002)
- Program vision/purpose (Bartell, 2005; Luft, Roehrig, & Patterson, 2003; Moir & Gless, 2001; Odell & Huling, 2000; Rogers & Babinski, 2002; Thomas & Newton, 2001)

Confidence

- BTs are valued (*An Ethic of Care*, 2002; Myint Myint, 1999)
- Self confidence is built in teachers (Odell & Huling, 2000; Saffold, 2006)
- PD is self-initiated (Raymond, Butt, & Townsend, 1992)

Programme enhances personal identity

- Developmental, individualised and flexible (*An Ethic of Care*, 2002; Arends & Rigazo-DiGilio,2000; Feiman-Nemser, 2001; Horn, Sterling, & Subhan, 2002; Villani, 2002) self-actualisation (Odell, 1987; Roberts, 2000)
- Personal commitment (Raymond, Butt, & Townsend, 1992)
- Self-fulfillment (Gewirth, 1998)
- Individual learning plan includes goals, self-assessment, support, shared accountability (Moir, 2003)
- Self-assessment (Brown & Wiggins, 2004)

Figure 15 (cont). Elements of Hauora: Connections to literature

Social Collaboration (*Taha Whänau*)

Being included

- Information about the school and curricular guidelines provided in advance (Brown & Wiggins, 2004; Danielson, 1999; Tickle, 1994; Wonacott, 2002)
- Preparatory visits made (Earley & Bubb, 2004; Wong 2005; Tickle, 1994)
- Handbook (Tickle, 1994; Wonacott, 2002)
- Orientation programme (Horn, Sterling, & Subhan, 2002; Joerger & Bremer, 2001; Johnson, 2004; Serpell & Bozeman, 1999; Stansbury & Zimmerman, 2000; Whisnant, Elliot, & Pynchon, 2005; Wonacott, 2002; Wood, 2005)
- Clear ways for understanding complex school systems and policies (Joerger & Bremer, 2001)

Tuakana/teina (caring/teaching the young)

- Quality, structured mentoring (Bartell, 2005; Darling-Hammond & Baratz-Snowden, 2005; Desimone, Porter, Birman, Garet, & Yoon, 2002; Earley & Bubb, 2004; Gilbert, 2005; Horn, Sterling, & Subhan, 2002; Moir & Gless, 2001; Portner, 2005; Serpell, 1999; Stansbury & Zimmerman, 2000; Thomas & Newton, 2001; Tickle, 1994; *Top of the Class*, 2007; Whisnant, Elliot, & Pynchon, 2005; Wonacott, 2002; Wood, 2005)
- Tutor teacher support (Evertson & Smithey, 2000; Johnson, Kardos, Kauffman, Liu, & Donaldson, 2004; Kajs, 2002; Serpell & Bozeman, 1999)
- Critical colleagueship, inquiry-based PD for tutor teachers (Carroll, 2002; Claycomb & Hawley, 2000; Dagenais, 1996; Joerger & Bremer, 2001; Odell & Huling, 2000)
- Tutor teacher compensation (Dagenais, 1996; Danielson, 1999)
- Tutor teacher selection (Kajs, 2002; Odell & Huling, 2000)
- Tutor teacher preparation and release time (Dagenais, 1996; Totterdell, Bubb, Woodroffe, & Hanrahan, 2004; Zeichner, 1979)
- Team teaching (*Ethic of Care*, 2002; Renwick & Vise, 1993; Wood, 2005)
- Mentoring teams (Earley & Bubb, 2004; Fletcher, Strong, & Villar, 2005; Scherer, 1999; Turk, 1999)
- Management support (Angelle, 2002; Bartell, 2005; Barth, 1991; Carter, 1994; Danielson, 1999; David, 2003; *Ethic of Care*, 2002; Gallegos, 1995; Horn, Sterling, & Subhan, 2002; Joerger & Bremer, 2001; Johnson & Kardos, 2002; Kardos, 2005; Lyman & Villani, 2004; Portner, 2005; Reiman & Thies-Sprinthall, 1997; Simmons; Tickle, 1994; Trenta et al., 2002; Wonacott, 2002; Wong, 2005).
- Same-field mentor (Ingersoll & Smith, 2004; Johnson, Harrison Berg, & Donaldson, 2005; Serpell & Bozeman, 1999)
- Induction/PD coordinator (Bartell, 2005; Portner, 2005; Wonacott, 2002)

Community/Caring

- Syndicate/Teams (Angelle, 2002; Kajs, 2002)
- Proximity to others (Hertzog, 2002)
- Observe other teachers (Allen & LeBlanc; Arends & Rigazio-DiGilio, 2000; Dagenais, 1996; *Ethic of Care*, 2002; Gilbert, 2005; Portner, 2005; Renwick & Vise, 1993; Serpell & Bozeman, 1999; Totterdell, Bubb, Woodroffe, & Hanrahan, 2004; Wong, 2005; Wood, 2005)
- Parental support (Joerger & Bremer, 2001)

Mixing with others

- Common planning time (Gilbert, 2005; Ingersoll & Smith, 2004; Joerger & Bremer, 2001; Johnson, Harrison Berg, & Donaldson, 2005; Portner, 2005; Whisnant, Elliot, & Pynchon, 2005)
- BT meetings (Achinstein & Meyer, 1997; Earley & Bubb, 2004; *Ethic of Care*, 2002; Hertzog, 2002; Nias, 1998; Renwick & Vise, 1993; Rogers & Babinski, 1999; Tickle, 1994; Wonacott, 2002; Wood, 2005)

Figure 15 (cont). Elements of Hautora: Connections to literature

- External network of teachers(Desimone, Porter, Birman, Garet, & Yoon, 2002; *Ethic of Care*, 2002; Ingersoll & Smith, 2004; Odell & Huling, 2000; Wong, 2005; Saffold, 2006; Whisnant, Elliot, & Pynchon, 2005)
- Attend professional conferences (Bruner, 1996; *Ethic of Care*, 2002)
- Visit other schools (*Ethic of Care*, 2002; Tickle, 1994)

Communication of thoughts/feelings

- Promote collaboration (Allen, 2005; Bartell, 2005; Feiman-Nemser, 2001; Hargreaves, 2003; Hertzog, 2002; Hopkins & Stern, 1996; Horn, Sterling, & Subhan, 2002; Ingersoll & Smith, 2004; Joerger & Bremer, 2001; O'Brien & Goddard, 2006; Portner, 2005; Raymond, Butt, & Townsend, 1992; Stansbury & Zimmerman, 2002; Steadman, 2005; Whisnant, Elliot, & Pynchon, 2005)
- Professional learning community in which members collaboratively examine student work (Cochran-Smith & Lytle, 1999; Gilbert, 2005; Hargreaves, 2003; Sykes, 1999; Timperley & Parr, 2004)
- Guided peer-coaching (Hertzog, 2002; Joyce & Showers, 2002),
- Study group (Carroll, 2002; Desimone, Porter, Birman, Garet, & Yoon, 2002; Portner, 2005)
- Peer review.(Thiessen, 1992; Whisnant, Elliot, & Pynchon, 2005)
- Community of practice (Feiman-Nemser, 2003; Lave & Wenger, 1991)
- Learning circles with books (Villani, 2002)
- Cultures which foster openness, collaboration and help-seeking. (*Ethic of Care*, 2002; Odell & Huling, 2000; Tickle, 1994)
- Culture of mutual help (Chauncey, 2005; Williams & Prestage, 2001; Wolfe, Ray, & Harris, 2004)
- Voluntary pedagogical conversation (Hargreaves & Dawe, 1990)
- Pastoral care (David, 2000; Earley & Bubb, 2004; *Ethic of Care*, 2002; Rowley, 2005; Wonacott, 2002)

Cultural value

- Address diversity in learning and culture (Whisnant, Elliot, & Pynchon, 2005; A. Williams, 2003; Zeichner, 1979)
- Support of minority group teachers (DeBolt, 1991)

Helping others

- Assistance of a teacher's aide (Ingersoll & Smith, 2004; Johnson, Harrison Berg, & Donaldson, 2005; Tickle, 1994)
- Assistance in gathering materials (*Ethic of Care*, 2002; Joerger & Bremer, 2001; Tickle, 1994; Zeichner, 1979)
- Reliever teacher professional development (Earley & Bubb, 2004)

Figure 15 (cont). Elements of Hauora: Connections to literature

and a reduced stress rate. *Taha whänau*, the component which received the most references, included tuakana/teina (mentoring), community, mixing with others, helping others, being included, and communication of thoughts and feelings. Although Figure 15 lists the components individually, ultimately each of these four dimensions of Hauora influenced and supported the others.

Durie (1994) explains that Mäori thinking is holistic: "Understanding occurs less by division into smaller and smaller parts, the analytical approach, than by synthesis into wider contextual systems" (p.70). Perhaps the most critical element of the *whare tapa wha* is the notion that if one element of the Hauora is missing, balanced development does not occur. The analogy is made of a house with four walls: if one of the walls is knocked down, the house is weakened. If two walls are removed, the house falls down. The concept of a fully integrated system is one that is presently missing in international induction: many countries focus on one or two components while disregarding the other components. Thus, the data gathered about induction in low-decile New Zealand schools may help international understanding of the integrated model of induction: all components are necessary, the absence of any is a critical deficiency.

In sum, the Hauora model represents one culturally relevant model of induction in New Zealand. The Hauora model has been placed first in this discussion chapter to give credence to indigenous voice (Smith, 1997). The four Hauora categories, while larger in scope, closely mirror the four components of effective integrated induction. Additionally, the widespread use of the Hauora model in schools may render it a practical tool for assisting practitioners in conceptualising the concept of an integrated induction framework. Having highlighted this potential cultural lens, the discussion now returns to applying the integrated model to analyse induction programmes in low-decile primary schools.

Low-Decile Schools: Induction Experts

The integrated model can be used as a tool for highlighting the strengths—and weaknesses—of particular induction programmes. Survey data from this thesis was compared with data from a similar, nationwide survey commissioned by the NZTC (Cameron, Dingle, & Brooking, 2007), BTs in low-decile primary schools report participating in induction activities with a greater frequency than the overall BT sample (Table 25). The results of this analysis suggest that low-decile primary schools have strong induction programmes by international and New Zealand standards.

Table 25

Comparing Induction of Low-Decile BTs with Induction of All BTs

Reported Induction Activity	% BTs from All Primary Schools	% BTs from Low-Decile Primary Schools
Tutor teacher assists with planning	43%	89%
BT group in school	28%	48%
BT group via SSS	77%	98%
Written record	88%	97%
Observing others	84%	95%
Videotaping teaching	5%	14%
Being observed	90%	95%
Tutor teacher is helpful	83%	99%
Observing tutor teacher demonstration	50%	53%[20]

There is evidence, therefore, that induction in low-decile schools is strong. The literature review and survey analysis illuminated data for three of the four spectrum strands: expertly balanced structures that facilitate recruitment/retention, strong professional development contexts, and BT leadership opportunities that enhance professional agency. During case visits, supplementary data concerning the fourth strand, socioemotional support from a cross-cultural context, were gathered. To explore further the notion of low-decile schools as induction experts, the integrated themes are linked to questions posed for Brinkerhoff's Success Case Method: "What is happening?", "What are the results?", "What is the value of the results?", and "How can improvement happen?"

What Is Happening? An Expertly Balanced Structure

Venn diagrams were created to contrast the practices at success case sites (Figure 16). Programmes varied from site to site, but, as described in the previous chapter, there were common themes. That is, each of the low-decile sites had devised a unique manner of expertly balancing all four components.

[20] The survey connected with this research stipulated that the observations were in the BT's classroom, whereas Cameron's survey made no such stipulation. This may help explain the small gap between these two percentages.

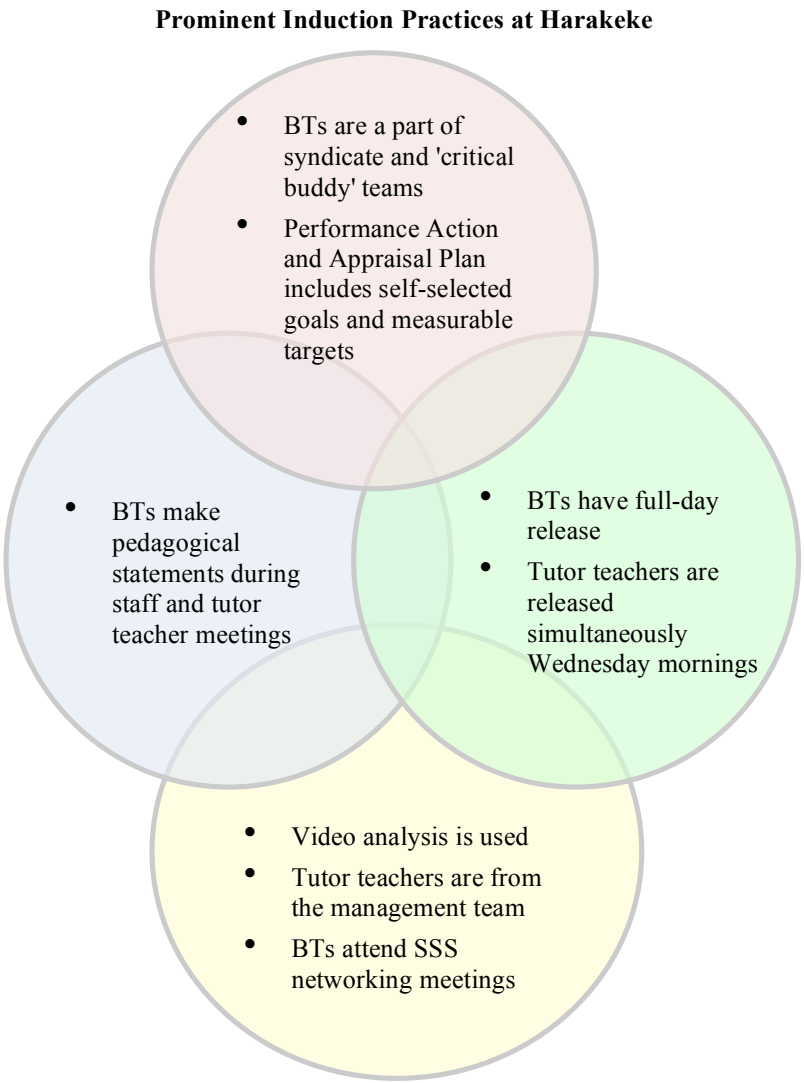


Figure 16. Prominent induction practices at the five exemplar sites

In their study of induction, Smith and Ingersoll (2004) found that fewer than 1% of BTs in the United States experienced a "comprehensive" induction package: a reduced number of course preparations, a helpful mentor in the same field, a seminar tailored to the needs of BTs, strong communication with management, and time for planning and collaboration with other teachers. However, Cameron, Dingle, and Brooking's (2007) survey of New Zealand BTs, showed that approximately 83% of primary BTs had a time allowance to support induction, 90% discussed work with their tutor teachers, 94% attended teaching seminars (although only 50% development. of these may have been BT-specific), 59% reported helpful communication with management, and 80% had time to collaborate with their syndicate (Table 26). Using their database, it was calculated that approximately 19% of New Zealand BTs were experiencing a comprehensive induction package and an additional 37% New Zealand BTs were experiencing induction programmes with four of Ingersoll's elements (M. Cameron, personal communication, May 15, 2008).

Table 26

Comparing Comprehensive Induction Components in Primary Schools across New Zealand, Low-Decile, and Exemplar Low-Decile Schools

	Time Allowance	Discuss with Tutor Teacher	Attended PD Seminars	Helpful Communication with Management	Time to Collaborate with Syndicate	At Least Four Elements	Five Elements
New Zealand	83%	90%	94%	59%	80%	56%	19%
Low-Decile	99%	82%	91%	72%	86%[21]	74%	66%
Exemplar Low-Decile	100%	100%	100%	57%	100%	100%	57%

In contrast, 66% of BTs in low-decile schools are receiving a comprehensive induction package and over 74% had four of Ingersoll's elements. Surprisingly, only 57% (11 of the 21) of BTs in exemplar schools were receiving comprehensive induction packages; however, 100% of the case site BTs were experiencing an induction programme with four of Ingersoll's elements. This difference was accounted for entirely by one variable: 'Helpful communication with management.' Although four of the five principals were observed having pedagogical

[21] Not a survey item. To calculate the 'time to collaborate', the item 'Other teachers improve my teaching' was used as a proxy item, ratings of 'agree' or 'strongly agree' were counted as receiving syndicate support (86%). This is a conservative estimate, the actual figure may be higher.

conversations with BTs, the BTs did not all report this as being helpful. This finding may be explained by Mansell's (1996) observation that BTs may not recognise the influence that the principal has over their development. Regardless of the reason for the low rating, it should not be overlooked that 57% of BTs in exemplar low-decile primary schools is far greater than the 1% reported by Ingersoll and Smith. In other words, increased pedagogical development opportunities appear to be available to teachers in low-decile New Zealand primary schools, and induction may well be a "selling point" in these schools, particularly if a BT's relationship with management is positive.

What Are the Results? Increased Support in a Cross-Cultural Context

During its investigation of induction programmes for Year 2 BTs, the ERO (2004) found supportive relationships in many schools. Indeed, such networking of BTs has been cited as a vanguard practice (Stansbury & Zimmerman, 2000). In their survey, Cameron, Dingle, and Brookings (2007) found that "almost all [BTs] indicated that they felt welcomed and valued as a staff member" (p. xii). Data from the present study suggest that successful induction programmes in low-decile schools contain a strong socioemotional dimension. This includes collaborative social networks and deprivatisation under a supportive principal. Social networking via SSS is valued and tutor teachers are cited as strong sources of emotional support. All of these features point to a strong culture of care. Data suggest that induction programmes in some low-decile schools may be strongly influenced by Mäori and Pasifika cultures:

> *We've never been individuals, we've never done things on our own. We've done things as a family, we've done things as groups, we've done things as a community. That's what we try and establish in our schools. We've done groups, we've done group discussions, we do team sports. It has been in the Samoan and Mäori history, and now a lot of Europeans are starting to think, "Oh!"*
>
> –Year 1 BT, Whiti

> *There's harakeke…another one that comes to mind about how you intertwine to get something more effective… It was a weaving together of threads. Oh and there's another one about threading the needle. There's a few [metaphors for support]*
>
> –Tutor Teacher, Whakarauika

> *[Year 1 BT] used her release time to visit [Year 2 BT]'s class and teach them a Mäori song.*
>
> – [Fieldnote, Whiti]

The Mäori tradition of the *whänau* (kinship network) was pervasive throughout all social structures—family, religion, business, and education. The reliance on multiple, interwoven systems has been incorporated into the modern-day New Zealand mentality. Lave (1991) suggested that culture affects situated learning, which is a process of becoming a member of a sustained community of practice. In other words, effective support, rather than being unique to Mäoridom, reflects an adoption of a culture that emphasises balanced development. This view may have been due in part to the importance of community in the Mäori culture. Although Mäori BTs identified extra pressures and expectations, including being assigned cultural and pastoral roles without additional time/support (Pettigrew, 2004), the sentiment of cultural care was one that continually resurfaced in this study. Further research and collaboration with Mäori and Pasifika experts would assist New Zealand educators in creating induction models that draw on their rich cultural knowledge.

What is the Value of the Results? BT Development and Student Achievement

Within the supportive structure, systematic and rigorous examination of practice was occurring in the low-decile schools. The frequency–utility matrix (Figure 8, Chapter 6) illustrates that pedagogically oriented induction activities are occurring with frequency and perceived as beneficial. Common techniques were whole-school, inquiry-based pedagogical development, peer-coaching, and systematic collection of documentation in professional portfolios. In all exemplar schools, support and development overlapped. Video analysis, peer-coaching, collaborative planning, reviewing student work with tutor teachers, and discussing pedagogy at BT group meetings are all examples of the intersection of support and development. Because it was incorporated as a cultural norm at these schools, public analysis of teaching and student achievement occurred in all of the case study schools. The ultimate result of the specific focus on analysing student work is increased student achievement, as exemplified by the following remark accompanying the reading scores in BT classrooms:

> *We do not compare ourselves to other low-decile schools as we have found that their benchmarks are considerably lower than the national norms. Instead we use the national norms. [Reading scores] reflect this, with the majority of children achieving below the national norms at the end of Year 1. Gaps do close as children get older. All assessment data was gathered using PROBE and PM Benchmark Kits. Phonics programmes that*

> *were introduced 2 years ago are also beginning to show benefits, with Year 3 and 4 students achieving very pleasing results.*
>
> –Deputy Principal, Fieldview

How Can Improvement Happen? Scaffolding Professional Agency

Professional agency was the second-most referenced dimension, and high efficacy levels and leadership roles were reported across low-decile schools and at case study sites. However, BTs did not report a high degree of curricular leadership roles, and most BTs—despite tutor teacher reports to the contrary—did not perceive themselves as assisting tutor teachers in improving their practice. As a point for improvement, there was little difference in the professional agency reported across low-decile schools and the professional agency reported at the case sites. There was, however, variation within the agency, an issue that will be further explored in the following section.

Summary of Low-Decile Discussion

As this section has discussed, BTs in New Zealand low-decile primary schools appear to have strong induction programmes that incorporate all four components. Case study BTs had increased opportunities, including—if they had a positive relationship with their principal—a comprehensive induction programme; reduced stress; and a supportive, culturally driven, ethos of care. Additionally, they reported high degrees of involvement and efficacy, although a point for improvement would be their role in scaffolding the curricular growth of other teachers.

Having established the success of the cases, it is important to remember that "there is little empirical evidence to suggest that there is a definitive model for induction. Rather the precepts of induction need to be interpreted and adapted to local circumstances with flexibility, sensitivity to context, and imagination" (Totterdell, Bubb, Woodroffe, & Hanrahan, 2004, p. 38). In their study, Wilson, Hall, Davidson, and Lewin (2006) found negative feelings associated with a "one size fits all" standardised provision. As the Venn diagrams (Figure 16) illustrate, each of the five success schools had different emphases, although there was a common underlying set of principles. Underscoring the importance of the uniqueness of situation, Schön (1987) wrote that the search for meaning involves learning to become proficient at the practice of the practicum. Thus, if other schools and regions look to establish induction programmes based on the exemplary practices found in the integrated model found in New Zealand's low-decile primary

schools, they should take care to adapt the integrated practices and elements to the context of the particular communities in which schools, teachers, and students find themselves.

Variations in the Model: Age and Experience

Tashakkori and Teddlie (2003) remarked that unexpected results could lead to theory expansion. In this study, data analysis indicated that different subgroups of BTs were having different induction experiences. As reported in chapter six, this tension initially surfaced during investigation of the question of BT agency, when it emerged that older and younger BTs reported different degrees of efficacy. The examination of age was prompted by Chester and Beaudin's (1996) study of 173 Connecticut BTs, in which their main findings were that BT efficacy was mediated by staff collaboration and administrative support. Chester and Beaudin also found that age and prior experience—not education achievement, gender, or race—were the only two personal attributes that had an effect on BT efficacy. Their data indicated that older novices experienced increasing self-efficacy, whereas younger novices experienced decreasing self-efficacy. This finding prompted an analysis of the relationship between efficacy and age using the New Zealand low-decile survey data. Although survey items differed slightly from Chester and Beaudin's, older novices—with the exception of older BTs who began after the start of the year—reported lower levels of self-efficacy than their younger counterparts did [Λ=.914, $F(6,167)=2.566$, $p=.019$] (Figure 17).

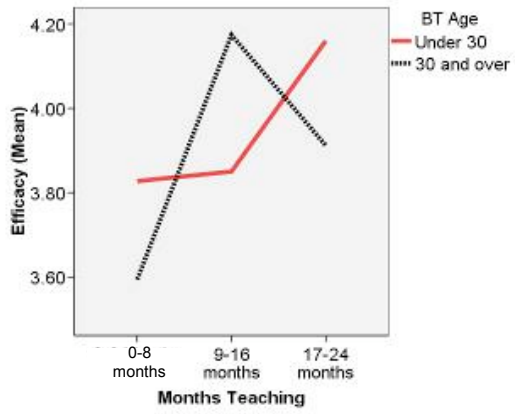


Figure 17. Graph of *Efficacy* by age and months of experience ($p<.05$)

This relationship of efficacy to age and experience prompted analysis of the relationship between other factor themes with age and experience. As can be seen in Figure 18, a "Masonic" pattern emerged.[22]

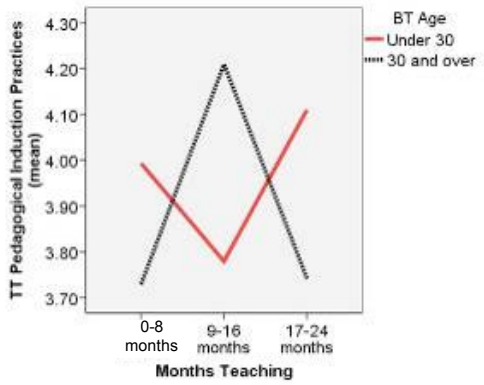
To summarise these factor themes with regard to age and experience: (a) less support was received by young BTs who began teaching after the first term of the year ("mid-year BTs"); (b) BTs who were over 30 and in their second year reported less benefit from BT networks, lower self-efficacy, and a reduced perceived effectiveness; and (c) engaging in pedagogical induction practices was least appreciated by older BTs in their first year. The following paragraphs discuss some of these trends in light of the induction literature.

Literature: Experience Matters but Age Is in Question

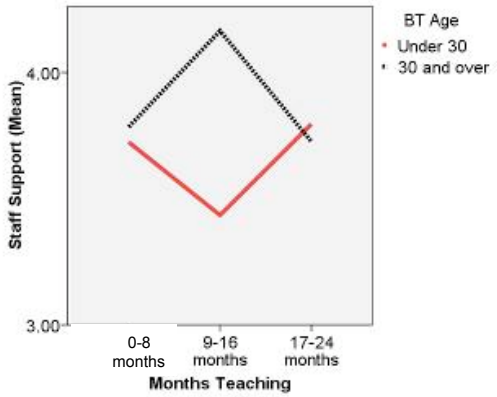
Survey data suggested that differences in the relationship between efficacy and age may interact with differences in experience level. Therefore, the literature was reviewed for studies concerning experience and age. Mansell's (1996a) study found that second-year BTs may experience an increase in leadership without an increase in pedagogical development, as noted by one BT: "Because I'm so capable, I'm just left to it, and people sometimes forget I'm only year two!" In their survey responses and timetable grids, second-year BTs reported lower frequency of support, but they placed a higher value on analysing student assessment data and problem-solving with their tutor teachers. In the literature, four studies were found that reported significant differences between first- and second-year teachers' performance and self-perception. A Japanese study found that second- and third-year teachers perceived that their knowledge, skills, and attitudes were higher than those of first-year teachers (Myint Myint, 1999). A study in which observers rated the teaching proficiency of 107 Oregon teachers (64 first-year and 43 second-year) found that second-year teachers who had been formally mentored outperformed first-year teachers, although frequency of mentoring interactions did not play a role (Schalock, Hansen, & Schalock, 2001). A follow-up study found that early-career teacher performance

[22] Relationships in Figure 18 are significant at $p=.05$ level except *Induction Utility* ($p=.15$) and *BT Networks* ($p=.55$). Graphs of these two themes are shown as they were included in case study investigations.

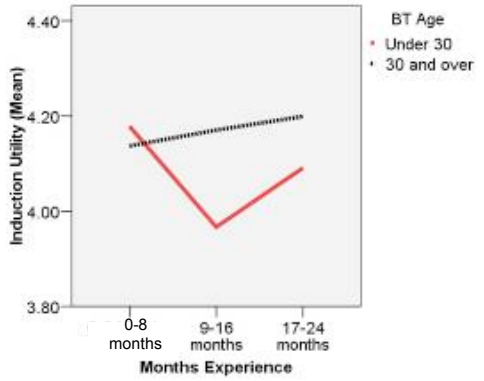
Pedagogical induction practices by age and experience



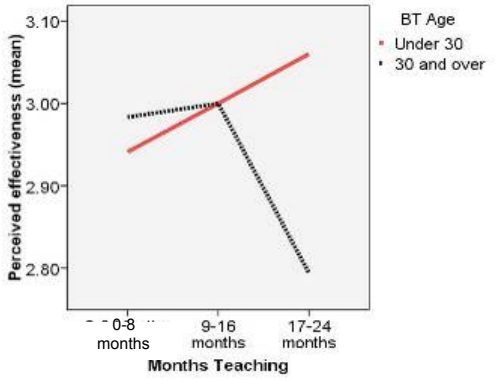
Staff support by age and experience



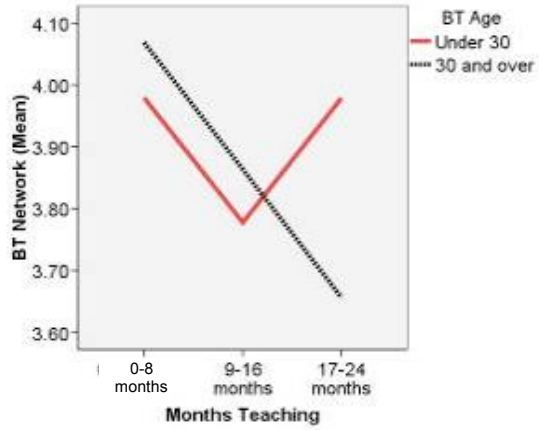
Induction utility by age and experience



Perceived effectiveness by age and experience



BT networks by age and experience



BT stress (labelled "comfort level" to show inversion) level by age and experience

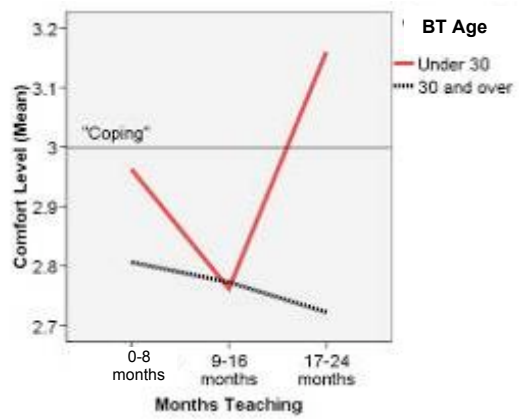


Figure 18. Factor themes and *Stress* by age and months of experience (Main, 2008)

appeared to improve with experience (Schalock, Hansen, & Schalock, 2002). The fourth study found that first-year Californian teachers performed equally to their more experienced counterparts, but the sample comprised only seven matched pairs (Strong, 1998a). Also, one report stated that in stronger programmes, second-year teachers may be given more leadership roles; for example, in a Los Angeles programme, tutor teachers and second-year teachers provided modelling for their first-year buddies as part of a coaching triad (Colbert & Wolff, 1992). Given there was no literature stating any contrary findings, it can be concluded that previous studies found second-year teachers to have stronger pedagogical practices than their first-year peers. However, data from this study indicated that this did not seem to be the case for older BTs. To further investigate this phenomenon, literature on age was also reviewed.

Divided Opinions Regarding the Influence of Age

Literature referring to age-related distinctions among BTs revealed contradictions regarding the nature of the distinctions. Findings from some studies tended to favour younger BTs, whereas other studies reported that age worked in a BT's favour. In their report examining Mäori BTs, Kane and Mallon (2006) found an apparent relationship between age and success in gaining employment: teachers' college graduates under 30 years old were all employed, whereas graduates over 30 years old tended to be reliever teachers. Another study found that BTs aged 20–24 felt more supported than more mature BTs. They also valued pre-commencement visits and telephone contact from their school, and organised social functions to meet other staff members more than older age groups did. An American study found that older BTs in career transition reported being particularly overwhelmed (Brown & Wiggins, 2004). Lastly, a study of 718 Portuguese teachers found that younger teachers (aged 25–35) reported less stress than older teachers (36–45 and 46–65), who also reported being the least satisfied (Schwarzer & Greenglass, 1999).

Other studies were more sympathetic to older BTs, observing that they assumed more responsibilities and needed less help (Lang, 1996), had a lower turn-over rate than younger BTs (Edwards, 2000), were more reflective (Heller, 2004), and were more buoyant (Martin & Marsh, 2007). Friedman (1999) noted that age was a salient differentiating variable with respect to the emotional exhaustion component of burnout, and young teachers reported burnout at significantly higher rates than older teachers. Studies also noted that older BTs did not

necessarily need the same type of induction programme, and that differentiation was important (Huling, 2006; Johnson, 2004; Myint Myint, 1999).

NVivo matrix queries revealed that all but two interviewed teachers agreed that there was a distinction between older and younger BTs; however, data revealed divided opinions about the nature of the distinction:

> *What I've seen is the older ones are more focused on what they want to do and more realistic and some of them are harder on themselves.*
>
> –Tutor Teacher, Fieldview

> *I find that with the younger ones, they are more willing to say something and to express and to share, whereas the older ones just tend to just get what they need and that's it. They don't sort of want to push the issue or ruffle the feathers.*
>
> –Tutor Teacher, Harakeke

> *What I've found is that the older ones tend to act more confident because they've had children of their own and they've gone back to study*
>
> –Deputy Principal, King Country school

> *I think there's potentially a brashness about the young. It's a self-confidence thing, "I'll give it a go." Maybe older people come in and they've got that reservation.*
>
> –Principal, King Country school

Given the increasing trend towards more mature BTs—in Battersby's (1989b) study, two-thirds of the BTs were under 23 years old; in this study, half of the BTs are over 30 years old—the question of the relationship between age and efficacy (as well as other induction components) is highly salient, particularly as it applies to BTs in their second year.

Revisiting the Data in Light of Age and Experience

Data from interviews and meetings were used to expand an emerging theory about the relationship between age, experience, and effective induction components. The interaction of age and experience was investigated by assigning BTs attributes of age (20–29 or 30–60) and experience (first year, mid-year, or second year) and using discourse analysis to investigate these themes in light of the effective induction components (Table 27). Results indicated that certain sub-groups were receiving weaker support in particular areas of the integrated model.

Table 27

Discourse Analysis of BT Comments in Staff Meetings by BT Age and Experience

	Administrative				**Pedagogical**				**Management**				**Distractor**			
	Question	**Statement**	**Response**	**Read aloud**	**Question**	**Statement**	**Response**	**Read aloud**	**Question**	**Statement**	**Response**	**Read aloud**	**Question**	**Statement**	**Response**	**Read aloud**
Year 2 over 30	1	1	2	0	5	9	19	1	1	3	0	0	0	4	0	0
Year 2 under 30	4	9	3	3	2	22	12	1	0	3	5	0	0	12	3	0
Mid-year over 30	5	8	3	0	3	3	0	0	0	4	1	0	0	0	1	0
Mid-year under 30	2	1	0	0	1	2	1	0	0	0	0	0	0	0	0	0
Year 1 over 30	7	5	2	0	1	2	3	1	0	1	0	0	0	0	0	0
Year 1 under 30	9	11	7	0	4	14	6	0	0	0	3	0	1	2	0	0

A Gap in the Support: Mid-Year BTs. One pattern surfaced immediately across the analyses. Trends in the interview data strongly suggested a gap in the support received by mid-year BTs under the age of 30. Cluster analysis showed that these BTs reported the least staff support of any group, and no mid-year BT reported exceptional frequency of induction practices. They were more likely to report a weak-to-moderate combination of tutor teacher pedagogical practices. Although they placed less value on maintaining a written record, they valued demonstrations more than other young BTs and reported strong co-teacher relationships.

Even at the case study sites, where six BTs began teaching after the first term of 2006, the three who were under 30 were receiving noticeably less support: they were omitted from on-site BT meetings, denied access to SSS meetings, and they all reported reduced contact time with tutor teachers. All three had had multiple tutor teachers by their fourth term.

> *BT1: The question was, "Do mid-years get the same support as—?"*
> *BT2: HELL, NO! [Laughs.] …Apart from your BT release days, what else do we get?…I mean, I did see my tutor teacher, but [she] was just busy with all the mid-year testing and all that kind of stuff. It was just, "OK, someone will tell me if I'm doing it wrong, anyway." But if I had known at the beginning that was how hard it was going to be, then I would have waited.*
>
> –Two mid-year BTs
> [location intentionally withheld]

> *Just because I'm a mid-year, I think that's the reason they [SSS] haven't given me enrolment for the second year… So I'm not going to any courses during my release times*.
>
> –Mid-year BT, under 30, Harakeke

> *I didn't do the university paper last year, because I came in too late for it.*
>
> –Mid-year BT, under 30, Whiti

Concurrent with survey results, the three BTs between the ages of 30 and 59 who entered in the mid-year did not feel this exclusion. Interviews indicated that these individuals exhibited greater help-seeking efficacy:

> *He said, "Oh, I'll look into it." He went to [SSS], who was running them, and [SSS] didn't accommodate. They don't cater for that, they said.... When he told me, I said, "Well that's not good enough."*
>
> –Mid-year BT, over 30, Fieldview

Data from this research suggested that BTs who began after the start of the year were denied access to participation. Although interview data supported the notion that late-start BTs

received less support, one possible explanation may have been that attitudes and stress levels can differ depending on the time of year (e.g., Grudnoff & Tuck, 2005; Stroot et al., 1999). Bearing in mind the potential of such fluctuations to affect the results, this research nevertheless adds a substantial contribution to the literature. No literature references were found regarding BTs who began later in the school year. The only related reference reported that a head teacher induction programme offered insufficient guidance for teachers who were not September starters (Earley & Bubb, 2004). Further research on the relationship between age, help-seeking efficacy, and late-start teachers would contribute to the body of knowledge in the field of induction.

Tension in the Balance: The Agency of Older Second-Year BTs. A second group that was somewhat unique was BTs over the age of 30 in their second year. These BTs, though they placed a higher value on reflection than their younger counterparts, were less self-confident in the nationwide low-decile sample. As a cohort, BTs over the age of 30 also found induction practices beneficial and frequent. These older BTs valued written records and reported strong staff support. However, cluster analysis revealed that they derived only moderate benefit from pedagogical practices with their tutor teachers and displayed more moderate levels of efficacy. They reported lower levels of benefit from interpersonal induction practices such as demonstrations and networks. They had higher stress levels, perceived lower effectiveness, and had lower levels of efficacy, than their younger counterparts. They reported receiving large amounts of induction time and interactions; however, the nature of the interactions differed. They did not report receiving the same intense pedagogical training as their younger counterparts. Moreover, by their second year, BTs over 30 were the least empowered, the most stressed, and the least efficacious (although still relatively efficacious), placed the least value on the interpersonal (BT networks, pedagogical interactions with tutor teachers neutral), and had the lowest perceived effectiveness.

Initially, the results at exemplar schools seemed contradictory. Dialogue analysis revealed that older BTs were participating in meetings, and pedagogical statements/comments were the most common type of remark made by older BTs during staff meetings and in discussions with their tutor teachers. In an effort to shed further light on this apparent contradiction, data concerning classroom performance were investigated. Although all four older BTs all self-reported acceptable student performance, reports from management and student data suggested negative student performance trends. Furthermore, the registration status of three of

the four older second-year BTs was being heavily scrutinised. In other words, although teachers reported high levels of efficacy and effectiveness, first-level data approximations appeared to confirm trends detected by the national survey: older BTs were not being denied access to support systems generally, but to *pedagogical* support systems in particular. This reduced emphasis on pedagogy may be one of the reasons why performance of some older BTs in their second year appeared to be weaker than the performance of their younger counterparts.

Reduced Pedagogical Diligence in Younger Second-Year BTs: Not at Exemplar Sites. In contrast to BTs over the age of 30, as a group, BTs under the age of 30 found induction beneficial and engaged in a moderate frequency of induction practices. They reported strong staff support, which increased by the second year, and they were more likely to report feeling empowered than their older counterparts. Their level of coping (stress inverted), efficacy, and effectiveness were all moderate during the first year, with second-year BTs reporting slightly higher levels. However, ANOVAs showed first-year young BTs were *more* likely to report valuing specific pedagogical practices (i.e., written record, observing demonstrations, BT networks) than second-year BTs. These findings were contrary to the research on mentoring that found that most mentored BTs transition after their first year from being concerned with survival to focusing on analysis of teaching (Gold, 1996; Huling-Austin, 1990; Odell, 1987).

Again, case study analysis indicated a contrary trend. Case study data revealed that all four second-year BTs under the age of 30 were receiving intense, pedagogically oriented support. One explanation may be that the nature of the support offered these second-year BTs was an indicator of the successful programmes at the case study sites:

> *Towards registration, which goes into their second year, when the pace is picked up, the girls submit weekly feedback towards registration. There's lots of teaching observations done on them as well… We're giving them feedback of teacher observations and notes…in the second year we are wanting them to show us a little more initiative from that original year of their induction as a BT.*
>
> –Principal, Ringarehe

> *I remember when I came in, I was very nervous, I was very scared. It was a big staff. I needed to be very professional and everything in teaching, it's all new, you don't know what's right, what's wrong unless you assess children… So I waited for a while. [Now] with the assessment, I know when children are moving, and if they are not moving, I ask for help. Now, the difference is I'm more confident. I don't wait as long as I waited last year, I quickly assess them. If they are not moving, I work on them quickly and ask for help as soon as possible.*
>
> –Year 2 BT, Harakeke

Summary of Variations in the Model

This research raised valuable points regarding variations in effective support. Analysis of the data suggested that strong induction programmes would ensure that BTs who began after the start of the school year were incorporated into the socioemotional support structures of schools. There was no literature concerning mid-year BTs. It would also be worthwhile examining mid-year entrants to support these young professionals. In addition, effective induction programmes should provide more advanced pedagogical development during the second year (Pardini, 2002; Tickle, 2000a) and opportunities to develop the professional agency of BTs over the age of 30. The data on this topic were by no means conclusive; however, given the aging trend among BTs worldwide, further longitudinal and case studies would shed light on the topic of tensions between efficacy, age, experience, and support. It may be the case that induction programmes need to be adapted via different induction approaches for older BTs (Freiberg, Zbikowski, & Ganser, 1994; Stockard & Lehman, 2004). For instance, while BT networks may be less effective for older teachers, written reflections and portfolios may become more powerful tools for them, thereby warranting the funding of feedback on, and proper oversight of, these documents. In any case, the idea that *all* components of the integrated model need to be available for all BTs is an issue that it is important to bear in mind when designing and implementing induction programmes.

Conclusion to Results and Discussion

Data from this research provided a wealth of insights about the nature of the integrated induction model in low-socioeconomic New Zealand primary schools. First, the Hauora model presents an accessible, contextually based framework for effective induction. Second, BTs in low-decile schools, particularly those with management support, reported relatively high levels of pedagogical and socioemotional support in the context of structured programmes. Comparing

these data to other survey data highlights the concept of low-socioeconomic schools as induction experts. Lastly, variations were noted, particularly in relation to age and experience, highlighting the fact that successful programmes need to be adapted not only to the individual school, but also to the individual BT.

CHAPTER 8. CONCLUSIONS

Without ignorance there would be no space to become better
or to change the way one sees the world.
–Les Tickle

Internationally, induction has shifted from ad hoc emotional support to structured policy that scaffolds agency via access to legitimate peripheral participation (Lave & Wenger, 1991); collaborative, networked support (Tickle, 2000a; Williams, Prestage, & Bedward, 2001); and pedagogical-plus-pastoral development (Achinstein, 2001; Hargreaves, 2003). One of the primary objectives of this study has been to highlight the overarching accomplishments of schools in lower-socioeconomic areas in a country that emphasises all four components of the effective induction model. Comparison of survey results from low-decile schools with nationwide survey findings has revealed that low-decile schools appear to be successful at inducting neophyte teachers. This study began by posing the question: "How does the New Zealand teaching profession induct its newest members in low-socioeconomic primary schools?" This chapter recapitulates the investigation of this question in light of the integrated induction model. It also includes a discussion of the mixed method research approach, the contributions of this research to the field of teacher induction, and directions for future investigations.

International Literature Review of Effective Induction

Building on the work of Tickle (1994), Gore, Williams, and Ladwig (2006), Achinstein and Barrett (2004), and others, this thesis maintained that induction was both desirable and beneficial. A review of the literature revealed that effective induction had several key components. First, effective induction included pedagogical development via the professional development of thinking strategies, inquiry using student data, and professional portfolios. Literature about a second component, socioemotional support, included references to collaboration, networks, mentoring, orientation, and management support. Analysis of the literature showed that a third component, professional agency, entailed teacher efficacy, leadership roles, and BTs holding a reciprocal status within an integrated culture. Lastly, literature showed that, to be effective, induction required a fourth component, structured balance, which involved a reduced workload, an emphasis on life balance, and an evaluated programme

that had a clear vision. Based on these findings, a model of effective induction was designed. The model was integrated and encompassed all four components.

Context: A Strong Presence in a Varied International Scene

Internationally, most induction programmes were not reported to be strong in all four areas. In three major international comparisons, New Zealand's induction history was strong. Moreover, elements of all four components are present in the New Zealand system, including mandatory tutor teachers and registration portfolios. Each component is supported by multiple organisations. Although New Zealand-based research has tended to be critical, researchers (e.g., Cameron, Dingle, & Brooking, 2007) found strong support in the primary sector, in contrast to the secondary sector.

Despite a recent inundation of research in the field, there has been no research on the induction programmes in low-socioeconomic schools. Although it is possible to view these schools from a remedial standpoint, the literature also supported the idea that low-socioeconomic schools can provide strong induction because of their constant intake of high numbers of BTs, their experience with systems for managing this influx, the need for BTs to assume leadership roles, and such schools' rich cross-cultural environment. This research can contribute to the field by examining induction programmes in low-socioeconomic primary schools in light of the enriched perspective.

Methods and Findings

To investigate these induction programmes, this research drew on the recent work of Tashakkori and Teddlie (2003), Onwuegbuzie (2003), Gorard (2001, 2004), and others to espouse a mixed-methods approach. The integrated typology involved a multiple stand, sequential exploratory design that placed equal status on a survey of BTs in low-socioeconomic schools and five case studies of effective programmes. In the first phase, survey data were analysed via factor and cluster analyses. The second phase, the case studies, consisted of two parts: site selection and field visits. Analysis of field visit data employed multiple methods including: grounded theory method, Success Case Method, discourse analysis, and document review.

Demographics indicated that the survey showed a balanced representation of respondents in terms of age and experience. Survey data and an initial round of interviews formed the basis of a careful selection process that led to the choice of five low-decile schools with exemplar induction programmes. All schools showed elements of an integrated induction programme including pedagogically oriented professional development, collaborative support groups, reflection within an intentionally structured programme, and attention to not overworking BTs. True to the self-managing nature of New Zealand schools, each school had its own unique system, illustrating the myriad possibilities within an integrated four-component induction programme.

Axial coding led to the creation of four distinct elements of effective induction practices in low-decile primary schools: socioemotional support, professional agency, pedagogical development, and structured balance. Analysis of factor themes also supported the existence of these components and illustrated that they are distinct but overlapping. Creating a frequency–utility matrix illustrated that there are a myriad practices within the integrated model, most of which occur with frequency and are perceived as useful. Further analysis of survey and case study data provided insights about specific practices, including common case practices and case innovations, for each of the four component areas.

Discussion: In-Depth Analysis of the Integrated Model

In the results and discussion chapter, findings concerning the integrated model were further explored. Grounded theory method was used to investigate case study data. Selective coding suggested a Mäori perspective can frame the integrated model: Hauora, or balanced well-being. Success case investigations highlighted that the coherent programmes and structured support of BTs supported the hypothesis that these case sites are induction experts. In addition, literature was reviewed and discourse analysis was used to investigate variations in support, particularly those related to age and experience.

Data from the literature review, survey, case site descriptions, statistical analyses, success case method, discourse analyses, document analyses, and grounded theory coding all triangulated to a central theme: induction in low-decile primary schools is integrated and effective. Although there is room for improvement and not every BT reported a perfect experience, data indicated that induction programmes in low-decile schools are models worth examining. Before a

discussion of the contributions to the field and recommendations for future research, the next section briefly examines the impact of mixing these methods on the research process.

Reflection on Mixed Methods Process

The function of reflective thought is to transform a situation in which there is experienced obscurity, doubt, conflict, disturbance of some sort into a situation that is clear, coherent, settled, harmonious.

–John Dewey

This thesis contributes to the growing body of research in which the seeming contradictions between qualitative and quantitative research are engaged in a more symbiotic mutualism. Gorard and Taylor (2004) argued that qualitative and quantitative methods should be viewed as a continuum instead of a duality. In mixed methods research, theory can be both generated and verified in the same study, with quantitative and qualitative methods fitting together like pieces of a jigsaw puzzle (Greene, Caracelli, & Graham, 1989). For instance, in the data collection methodology termed "New Political Arithmetic," the researcher uses in-depth data analyses to help explain patterns in a larger body of research; for example, a case study can follow up a survey (Gorard & Taylor, 2004). The methods for this research project were based on a multiple stand exploratory design that placed equal status on a survey of BTs in low-decile schools and case studies of effective programmes. The purpose of using multiple methods was to maximise conflicting desirables: (a) generalising over populations, (b) precision in the control and measurement of variables, and (c) providing the contextual realism of the participants (Gorard, 2001).

Yanchar and Williams (2006) described a soft incompatibility thesis in which it is acceptable for researchers to develop a coherent strategy to adapt to questions arising during the course of inquiry. In this thesis, a model was developed regarding effective induction practices in low-decile New Zealand primary schools. Various methods were used to investigate each component. For instance, both cluster analysis and discourse analysis techniques were used to analyse professional agency as well as the socioemotional support offered to mid-year BTs. In addition, concepts from one method (e.g., creating a mini-framework as per grounded theory) were applied to investigations using another method (e.g., designing a matrix to frame the frequency and usefulness of various practices). Methods were also mixed within paradigms:

results from ANOVAs on factor themes helped to scaffold scatterplots of perceived utility, and success case interview questions led a participant to mention the selective code underlying the Hauora model. Major advantages to this mixed approach included triangulation and creativity in design approach.

However, issues of incompatibility proved especially difficult during the write-up. Traditionally, quantitative research has demanded neutrality, whereas qualitative research has required descriptions of process, including the role of the researcher in the process. Consider the following paragraph, a draft in the original thesis conclusion:

> *By this stage, I had adopted a more emic stance in my research undertakings. Battersby (1981) cautioned, "As a fieldworker, I should always remember to look and listen, but not be lured" (p. 179). Many post-modern researchers question to what degree this detachment is possible (Bruner, 1960). I encountered ethical dilemmas as BTs asked me questions about the registration requirements—do I answer the questions or simply document the fact that their tutor teacher had not covered the information with them? Would answering the questions taint the integrity of the induction research? Bearing this tension in mind, it was also important for me to remember that I was not researching in an evaluative role. This constantly caused me to question my role, from little questions (Do I help a BT when an unruly student runs out of her classroom? How do I respond when a tutor teacher asks for feedback?) to bigger concerns (Does induction even impact student learning?). Also, these BTs became my friends; one asked me to help her proofread her letter of resignation. More than having steadfast answers to these questions, I recognised that there is a spectrum between what Reinharz (1979) termed the "rape model of research" and "going native." As my relationships grew closer than Christmas cards and thank you notes, I carefully remained responsible as a researcher to reflect on the impact that my interactions were having both on the induction systems, the people involved in those systems, and the research process. I did not reach any hard, fast conclusions, but rather reaffirmed the value of careful scrutiny of one's position in the field.*

This can be viewed as an acceptable, even necessary, paragraph for qualitative research, but it had no place in a quantitative results write-up. The juxtaposition of method and paradigm seemed inconsequential until choices about the voice, perspective, organisation, and presentation of the write-up had to be addressed. In the end, the quantitative method of discussion—impartial, linear, and results-oriented—was selected. In selecting this style of presentation, it must be acknowledged that the other voice was silenced. Thus, the qualitatively minded reader would not know the rich story behind the field visits, as exemplified in the following journal excerpt:

> *Most memorable moment to date? Driving around the North Island in my pink '88 Honda City. Ethnography at its finest: Kiwi hospitality. The time when a tutor teacher found out I was camping in the Northland and invited me over for fresh fish with his family. I stayed the*

> *night playing Monopoly and listening to Mäori news broadcasts. The time I discussed politics over linguine with an Italian family working in Wellington's Ministry of Education. Researching during the day and cleaning hostel kitchens in Taupo at night. Hitchhiking to Porirua with two Samoan women, one of whom turned out to be a principal. Being invited to rock climbing and drum circles with beginning teachers. Never fully "going native," but nonetheless enjoying the ride—even when camping in Putaruru because my car's fan belt snapped at 4:45 on a rainy Easter Friday. Really, the question is what could I possibly forget?*

While the decision to be impartial and conclusive fitted the research agenda of this thesis, the process of deciding highlighted some of the methodological tensions that were pervasive throughout the course of the project.

Contribution to Current Knowledge

This thesis is the first to examine how the New Zealand teaching profession inducts its newest members in low-decile primary schools. The following section outlines the specific contributions it makes to the field of induction research in education.

Synthesising the Literature into an Integrated Framework

Over 347 articles and papers as well as 264 books and reports were reviewed and summarised. Although there have been numerous literature reviews in the induction field, this thesis contributes to the field by synthesising practices into four effective components: pedagogical development, socioemotional support, professional agency, and structured balance. Figures concerning the general (Figure 1) and specific (Figure 15) were created to organise the literature. In addition to being of interest to researchers, these figures also render the large volume of literature concerning induction practices accessible to practitioners.

Examining Integrated Induction Practice

After the results from a national survey of BTs in low-decile schools had been used systematically to select five exemplar case sites, descriptions were written of each case. True to the self-managing nature of New Zealand schools, each school had its own unique system: reflective pedagogical collaboration at Ringarehe, overlapping support structures at Harakeke, transition from external to internal support at Fieldview, an ethic of communal care at

Whakarauika, and external support at Whiti. Descriptions of the field sites can serve as models for principals and teachers designing induction programmes to adapt to their school settings.

The coding of case study data provided further insights into induction practices. Data analysis via grounded theory method supported the findings in the literature that there are multiple, integrated induction components. Once it had been established that there were multiple components, the next step was to investigate the interacting nature of the components. Correlations between factor themes indicated that staff support, perceived induction utility, and engaging in pedagogical practices with a tutor teacher were all strongly and positively related. Efficacy, which was positively related to tutor teacher practices, was also positively related to perceived effectiveness. In sum, factor analyses supported the concept that induction components, while distinct, are interrelated.

To examine specific practices within the integrated framework, a frequency–utility matrix was created. The concept for this matrix is an original contribution to the field of induction, and the matrix design could serve as a tool for practitioners aiming to improve their induction programmes. The idea was introduced at a symposium of more than 200 BTs and received positive feedback. In this study, the matrix highlighted that the majority of these induction practices in New Zealand low-decile schools occur with frequency and are perceived as useful.

In sum, this is the first piece of induction research to apply an integrated model to New Zealand BT support. This research found that induction components in low-decile New Zealand primary schools are distinct, overlapping, and implemented frequently via a variety of practices that BTs perceive as very beneficial. Case study and survey data analysis also provided new insights into the individual components, which are discussed below.

Pedagogical Development

This thesis provides a detailed explanation of pedagogical induction practices in low-socioeconomic primary schools. According to survey respondents, BTs engaged frequently in, and derived benefit from, the professional development of thinking strategies such as problem-solving, developing curriculum, and analysing student data with their tutor teachers. Case study data highlighted practices such as having connections with universities, a school-wide development theme and peer-coaching. Maintaining a registration portfolio was the only high-

frequency induction activity with a mean (3.51) below 4 (*very beneficial*), but it was perceived to be very beneficial in the four case sites that had highly structured requirements for the portfolio. Differences were found between first- and second- year teachers. Although survey results indicated a decline in the pedagogical practices of second-year BTs, in exemplar schools there appeared to be a trend of increased emphasis on pedagogy, as opposed to reduced contact. As countries move towards funding the second year of induction, research on effective induction practices for Year 2 BTs in New Zealand (e.g., *Quality of Year Two*, 2004; *Voices*, 2005) can contribute towards shaping international policy in this area.

Data from the case studies can also contribute to growing international databases of best practices in portfolio reflection. Internationally, systems of evaluation for BTs are beginning to contain case study elements. For example, in California, a teacher performance assessment created by a consortium of universities asks BTs to produce a description of their teaching context, lesson plans, video tapes of lessons, student work samples, and written reflection on instruction and student learning. BTs are expected to demonstrate the ability to plan, instruct, assess, and reflect (Cochran-Smith, 2006; Darling-Hammond, 2006). Presenting a slight contrast to Kane and Mallon's (2006) finding that the ability to reflect and personal agency were important for BTs, surveyed BTs in this study ranked written documentation as a frequent, but less-beneficial, activity. However, in schools with exemplar programmes, BTs included information beyond what was required in their portfolios and described the documentation as important. In other words, the data suggested that well-crafted documentation may be perceived as beneficial by BTs.

Perhaps the most important contribution in regard to analysing BT pedagogical development processes was the finding that focusing on student achievement data was a critical component of pedagogical development in low-decile primary schools with exemplary induction programmes. Other scholars have focused on measuring teacher performance rather than student achievement (Darling-Hammond, 2006; Krieg & Sharp, 2003; Olebe, 2005; Tickle, 2000a), but results from this study indicate that it is the act of measuring, perhaps even more than the results themselves, that makes a critical difference in the induction of BTs in low-decile primary schools. In particular, BTs immersed in a culture of collaborative analysis of student data appeared to be experiencing a more effective induction programme than BTs that did not engage in collaborative inquiry. This finding, coupled with similar findings from other education

researchers, has the potential to influence the way that induction is implemented and viewed in New Zealand.

Socioemotional Support

The concept of induction providing socioemotional support is well known to induction researchers. The research in this thesis contributes to the body of knowledge around the concept by examining case site innovations at exemplar low-decile primary schools. Socioemotional support was reported to stem from a culturally based ethos of care, with collaboration one of many elements critical to it. In addition to fostering collaboration, induction practices attended to the socioemotional support of BTs via deprivatisation of practice. Certain features were evident at every case site, including: systematic, collaborative planning, frequent observations, and orientations and handbooks. BT groups, video analysis, and dedicated tutor teachers were cited as case innovations. Four sites had BT groups, which were found to be more successful if explicitly planned and run by management. These groups tended to provide more pedagogical development than socioemotional support.

Cluster analysis of survey data indicated that management support was a necessary, but not on its own sufficient, condition for socioemotional support. All survey respondents reported having a tutor teacher, and staff support items received high ratings, although case study data indicated that few tutor teachers had received any training for this role. In addition, tutor teachers who were also syndicate leaders would meet less with their BT than teachers who did not hold any formal role. However, members of the management team (often the deputy principal) and dedicated tutor teachers were reported to meet more frequently with their BTs. Survey items also addressed the frequency and utility of various induction practices. The frequency–utility matrix revealed four outlying practices, three of which fell under the domain of socioemotional support. Data indicated that most BTs saw benefit in meeting with a group of BTs and in video analysis; however, a lack of time and/or equipment prevented them from fully engaging in these practices. Those teachers who engaged in video analysis and on-site group meetings reported benefits, particularly if the activities were coordinated by management. The low accounts of watching tutor teachers demonstrate lessons seemed to be a result of BTs watching other teachers within the school; however, cluster analyses showed that observing demonstration lessons was linked to lower levels of perceived effectiveness.

Professional Agency

This study also explored the most contentious area of support: professional agency. Although BTs viewed themselves as being efficacious, survey data seemed to indicate that they did not see themselves as helping their tutor teachers. This study was the first to conduct dialogue analysis on BT–tutor teacher meetings in New Zealand. Dialogue analysis suggested that meetings tended to be primarily pedagogical; however, BTs were still relegated to a "coached" status. In other words, BTs were not engaging in reciprocally interactive behaviour. Dialogue analysis of staff and syndicate meetings indicated that BTs spoke minimally, but when they did, their comments tended to be pedagogical in nature and statements or responses. Exceptions to this trend took place during BT-only meetings. These data indicate that BTs functioned as information brokers, but at a low frequency. Lastly, analysis of the texts revealed only two instances of BTs proactively challenging the status quo. Although BTs were viewed as empowered and reported to be valuable sources of up-to-date pedagogical techniques, in actual practice their professional agency was not being maximised by their induction programme.

It was found that BTs, despite their up-to-date pedagogical knowledge from their pre-service training tended to hold leadership roles in areas such as sport rather than in curricular areas. Other researchers have found that teachers who hold multiple roles believe their skills are varied and well utilised in their current job, and register significantly higher organisational commitment than those who do not hold multiple roles (Johnson, Harrison Berg, & Donaldson, 2005; Rosenblatt, 2001). Given that these roles may take equal amounts of a BT's time, this thesis challenges principals and teachers to consider why they are not tapping into the pedagogical knowledge of BTs.

Structured Balance

The analysis provided insight into some of the vanguard practices typically found in New Zealand induction programmes. For instance, induction release was funded through the second year. As expected, at the five exemplar schools, first-year BTs reported more time spent on professional development than mid- or second-year BTs did. In low-decile schools with exemplar induction programmes, BTs reported spending over a quarter of their timetable on professional development activities. At case schools, the nationwide provision of the 0.2/0.1 time

allowance was supplemented by additional monies to support BT release for professional development.

Nationwide, 75% of BTs reported their stress level as *coping* or *effective*, and reduced stress was linked to effective support in all areas. Having consistent, competent relievers was an exemplar practice that reduced stress. Additionally, at all five schools, programmes were structured and evaluated. At two schools, formal reports were made on the induction programme to the board of trustees. By investigating induction programmes at the school level, this body of research adds to New Zealand's induction literature, which, prior to 2008, had only investigated induction by surveying and interviewing individual BTs.

A Contextually Relevant Framework for Effective Induction: the Hauora Model

Another substantial contribution made by the research reported in this thesis is the development of the idea that the Hauora model can be applied to BT induction programmes. To develop this idea, several steps were taken. First, a literature review of 644 articles, theses, conference papers, and books indicated that induction was integrated. During the 2007 school year, data from 38 hours of transcripts collected over 46 days of field observations were transcribed and 3,897 references were coded into 122 nodes. These data were sorted into axial codes. Data were re-visited and coding was refined over three rounds of visits. Socioemotional, agency, pedagogical, and structural codes became the primary axial codes. During the final series of interviews, a BT suggested that effective induction would comprise the four components of the Hauora model. The traditional Mäori concept of Hauora (balanced development) incorporates physical, spiritual, pedagogical, and socioemotional dimensions of support. The literature was revisited and organised into Hauora categories. Selective coding of the data indicated that the Hauora model fitted the data. The result was a contextually derived, culturally relevant definition of effective induction in New Zealand. Further expansion and investigation of this model may be of interest to New Zealand's educational community, particularly in Mäori-immersion settings. Other countries interested in supporting contextually relevant induction programmes might adopt procedures used during this research to their own cultures.

Discovering Induction Experts: Exemplar Low-Decile Primary Schools

These were the first findings on induction programmes in low-decile primary schools in New Zealand. Based on Cummins's (1986) concept of continuums, an induction continuum was created. Programmes in low-socioeconomic schools could be viewed as enriched or remedial. The literature was reviewed with respect to the four induction components in low-socioeconomic settings. The research supporting this thesis matched perspectives from the enriched end of the spectrum: the low-decile context increases professional development opportunities for BTs, supporting cross-cultural contexts can be enriching, BTs in low-decile contexts have greater leadership opportunities, and well-structured induction programmes can be selling points.

Once a theoretical framework had been created, the next step in the research process was to investigate the applicability of these four points to the New Zealand primary-school setting. Induction could be viewed as a selling point in exemplar low-decile schools, where BTs reported low stress levels and a high ethos of care. BTs in these schools had access to a high degree of professional development, which principals reported was due to the increased funding flexibility offered low-decile schools in New Zealand.

BTs from decile 1 and decile 2 schools (n=207, 44%) indicated that they engaged in pedagogical practices frequently and perceived these practices as useful. To create a comparison, survey data were compared to data from a similar, nationwide survey commissioned by the NZTC (Cameron, Dingle, & Brooking, 2007). Data indicated a trend that BTs in low-decile primary schools reported participating in induction activities with a greater frequency than the average New Zealand BT.

Additionally, the access to a supportive community of practice (*whänau*) was reported to be a benefit of working in low-socioeconomic schools, which data suggested might be at least partially attributable to the influence of Mäori and South Pacific cultures, in which communal care for the young plays an integral part. Comparing practices in these schools to practices in schools in Boston, London, Santa Cruz, and other multi-ethnic areas may contribute to the understanding of induction in low-socioeconomic schools worldwide.

Having additional release time for professional development was valuable; first-year BTs spent 30% of their fortnights in professional development activities, and second-year BTs reported spending 22% of their time in professional development activities. These figures are greater than the 20% (for Year 1 BTs) and 10% (for Year 2 BTs) covered by the BT time

allowance. Life balance was reported as important, and BTs linked low stress levels with high ratings of induction programme quality.

Although survey results indicated that BTs were experiencing moderately high levels of efficacy, data revealed that the professional agency component of induction was an area with room for improvement. It was predicted that BTs in low-decile contexts would have greater leadership opportunities. While most BTs did hold formal leadership roles, often these were not in curriculum areas. Additionally, tutor teachers tended to adopt a coaching standpoint when interacting with BTs. Highlighting these differences may be of interest to principals in schools with relatively successful induction programmes. Refining this practice would be a way of making a solid programme even stronger

Altogether, it was found that New Zealand primary schools implementing effective induction programmes tended to engage in what Stansbury and Zimmerman (2002) termed a high-intensity induction programme containing strong, focused, data-oriented, collaborative plans. However, perhaps owing to their cultural setting, these programmes also contained a strong ethic of care. Altogether, this detailed, critical analysis of induction programmes in low-decile schools enhances the understanding of what best practice may be in the New Zealand induction setting.

Variations in Support: Age and Experience

In addition to analysing induction programmes in particular schools, this study also investigated variations in support based on BT demographics, specifically age and experience. As a group, teachers under 30 years old who began their employment in terms 3 and 4 reported weaker support, particularly socioemotional support. During their second year, BTs over 30 had lower ratings of their efficacy and effectiveness in teaching reading than their younger counterparts despite a relatively high frequency of socioemotional support. On the other hand, younger BTs in their second year reported benefits from pedagogical practices (e.g., observing others, reflecting) but a less intensive induction programme.

These survey findings were followed up with case study data that provided insights into groups that surfaced as exceptions receiving strong support. Older BTs who entered mid-year reported strong socioemotional support, whereas younger BTs who entered mid-year reported receiving less support. This is an important gap to highlight, as 10% of BTs begin in April and 10% in July (Murray, 2006). It is important that these 20% receive equal, if not greater, access to

effective induction support. This study is the first to bring support of mid-year BTs into the international research discussion on BTs.

Older BTs, though placing a higher value on reflection than their younger counterparts, were decidedly less self-confident and received frequent support. One finding that was contrary to the survey data was that three of the four second-year BTs who were over age 30 were receiving intense, pedagogically oriented support, but their performance was still weak. Furthermore, the registration status of these three older second-year BTs was being heavily scrutinised. Although the three BTs all self-reported average student performance (3 on a scale of 5), reports from management and student data suggested negative trends of student achievement. This raises the question of the nature of support needed successfully to scaffold the efficacy and effectiveness of older BTs in their second year. Additionally, case study schools stood out as having an exceptionally strong pedagogical focus for BTs in their second year.

These items were connected to interpersonal aspects, which raised the question of differentiation among BTs. Perhaps having a district- or cluster-wide BT meeting would best meet the needs of some BTs, whereas other BTs might derive greater benefit from a different type of support, such as an Internet support group. This finding can add to the continued international dialogue about the strengths and weaknesses of various support options.

Internal Contribution: Boosting the Kiwi Psyche

Us Kiwis, we're real good at bashing ourselves…

–Principal, Ringarehe

A review of the literature revealed New Zealand research reports and conference presentations to be strongly biased against the concept of Kiwi achievement. The ethos that worked well in supporting others worked against garnering support to publish positive research findings on induction. This research established that New Zealand engaged in world-class induction practices; for example, 57% of BTs in low-decile primary schools compared to 1% in United States schools were receiving a comprehensive induction support package. Next, the research reported in this thesis contributed to the field by investigating vanguard practices. Timetable analysis of the reduced workload, interview data on pedagogical practices, and document analysis of portfolios all provided additional, positive information. It is hoped that by

publishing this information in New Zealand-based journals, there will be an increased appreciation of the quality of induction programmes, particularly in low-decile primary schools.

Summary of Contribution to Current Knowledge

This study made several original and unique contributions to the field of induction, including the introduction of the Hauora model as a potential induction framework, creating a frequency–utility matrix to analyse induction practices, investigating effective induction practices in low-decile schools, and highlighting the varied experienced of young mid-year BTs and older second-year BTs. However, as with any investigation, directions for future research were raised during the course of the study. Suggestions about future research directions are presented in the following section.

Suggestions for Future Research: Expanding Theory and International Dialogue

Field investigations highlighted tensions in some issues. For instance, do on-site BT groups or full-time tutor teachers provide a stronger sense of whänau? Can more university connections be utilised to influence BT agency as well as pedagogy? Is there an ideal policy for integrating relievers into the support network? What is the nature of support in high-decile and secondary schools, and can an induction model based on Mäori/Pasifika culture be applied to these schools? Data lent some tentative conclusions; however, the act of bringing these questions to light was an important contribution to the investigative process. The following discussion utilises the four integrated components of effective induction to frame suggestions for future research.

Pedagogical Development

The ERO recommends increased professional development for BTs, and further consideration of this component would assist the direction of future policy, particularly as it relates to low-socioeconomic schools. As Hargreaves (2004) argued, "underperforming schools are not all alike, the reasons for or nature of their underperformance vary greatly" (p. 30). Although this variation existed in New Zealand low-decile schools, case study data suggested that strong involvement of principals, programme evaluation, professional portfolios documenting student learning, peer-coaching, whole-staff inquiry learning, professional

development for tutor teachers, consistent and competent relievers, and fostering a whole-school ethos of care were all important elements of a balanced induction programme for BTs. Future studies might include alternate practices; for example, cross-site visits, web-based support, and literature groups.

The matrix proved to be a useful tool for measuring induction practices, and future research could use the matrix to explore practices in medium- and high-decile schools, secondary schools, and schools in other countries. Individual pre-service institutions could track the responses of their graduates. Longitudinal studies over the course of a decade could use the matrix to examine trends in the frequency and perceived utility of practices.

The policy of submitting registration portfolios needs to be further investigated. Given that the practice can be valuable if procedures are systematically and carefully constructed, it would benefit New Zealand to examine procedures for modelling, collecting, and evaluating portfolios. The Success Case Method might prove to be a valuable method for tracking exemplar portfolios. Comparisons of the specific contents of portfolios in various locations (Japan, Connecticut, Victoria, New Zealand) would further international understanding of formative and summative assessment of BTs.

Although the data collected in this survey were not a direct measurement of student achievement, they highlighted some interesting connections. For example, BTs with higher levels of staff support reported that their students were progressing in reading more than, or as much as, the students of other New Zealand teachers, a link which warrants further investigation using student data. However, the variable nature of assessment between New Zealand primary schools—there is no mandatory national assessment at the primary level—makes student achievement difficult to measure on a nationwide basis. However, it is important to discover which integrated practices, used in which manner, lead to increased student achievement. Most schools have adopted voluntary standardised assessments; therefore, on a small-scale basis, this information could be transferred to the international debate linking induction to student achievement.

Socioemotional Support

In their United Kingdom study of induction, Williams and Prestage (2002) found that practice varied significantly from school to school, as a consequence both of variations in

context and of differences in philosophy, impacting the induction and overall skill level of BTs. Given the key role that management plays in creating a comprehensive induction package, further investigation on the influence of management should be researched. This includes its role in facilitating on-site BT groups. Schools and the Ministry of Education need to ensure that mid-year starters receive equal access to all of the above services, with opportunities for periodic updates. As the NZTC moves forward in its support of dedicated tutor teachers, further investigation into the effectiveness of dedicated tutor teachers would be warranted, especially given this study's findings on the importance of integrating support into a balanced programme.

Other deprivatising practices, such as video analysis and observing others, need to be closely investigated to discern how to maximise the positive impact they have on student learning. Research also needs to be done into how to spread best practices, particularly in self-managing schools.

Furthermore, discourse analysis showed BT support groups to be mainly pedagogical or administrative. In his recent study of New Zealand BTs, Murray (2006) also found evidence that BTs benefit from being in a group of BTs within a school, and recommends forming such groups—or local clusters if there are not enough BTs at one site. Future studies could investigate what type of group would work best for first- and second- year BTs, as well as for older and younger BTs.

Professional Agency

More studies containing dialogue analysis would provide a rich dataset for investigating the alignment of practice with the empowering policy. Analysis of BT–tutor teacher interactions across ages, year levels, ethnicities, and years of experience would be fruitful. Having information about mentoring stances would assist the training of tutor teachers in the techniques of peer-coaching, critical inquiry, and reflective dialogue. Further longitudinal and case studies would shed light on the topic of tensions between efficacy, age, experience, and support, especially for different subgroups of BTs. Additional demographic information—gender, race, school size—should be collected to investigate interactions that were not addressed in this thesis. Lastly, connecting efficacy to effectiveness in high-decile settings would expand on Timperley and Parr's (2004) research in low-decile settings.

Structured Balance

The self-management setting of New Zealand schools means that induction programmes do not need to be standardised, but principals and boards of trustees need to be held accountable for ensuring that the 0.2 BT time allowance is allocated towards induction purposes. Although this was not a problem in any of the exemplar case sites, interviews included over 24 references to BTs, particularly BTs in high-decile schools, who were being short-changed: significant portions of the time allowance were not given to them, their tutor teacher, or any induction-related programme. The Ministry of Education needs to hold schools more accountable for the use of the allowance, with particular focus on monitoring the support of mid-year, older, and second-year BTs. Dialogue analysis and grounded theory investigations should be repeated on a larger scale across deciles, school sizes, school locations, and school sectors. It may also be instructive to investigate specifically the nature of support in Mäori kura (full-immersion) schools. Further studies need to investigate the trend towards younger BTs engaging in fewer support practices and older BTs reporting lower pedagogical intensity in their induction programmes. One cost-effective and efficient method of accomplishing this task would be an online survey with items related to weaknesses indicated by the data in this research, including items related to the nature of the practices used during release time. This survey could be part of the download process for the registration documents.

Confirm the Impact of Induction in the New Zealand Setting

Internationally, there has been only one randomised control, large-scale study of this nature, and the results of that study will be available from the United States Department of Education in late 2008 (Wayne, Youngs, & Fleischman, 2005). The ERO's (*Quality of Year Two*, 2004) report provided an initial link between student achievement and induction programmes via interviews. The next step would be to locate and quantify the effects of exemplar induction programmes and their impact on BT practice, satisfaction, and retention. Further research is needed if policy-makers are to make informed decisions about induction programmes (Fletcher, Strong, & Villar, 2005). External programmes, such as those provided by SSS, should be formally evaluated, as should support organisations such as the ERO and the NZTC. As points of comparison, case studies could be conducted on non-success cases. Additionally, research using structured equation modelling could be used to link the degree and

type of programme integration to the success of the induction programmes in terms of teacher performance and student achievement.

Investigate Contextual Variations

Although it is clear that induction is a complex array of professional arrangements (Goode, Quartz, Barraza-Lyons, & Thomas, 2004), more research is needed to explore the improvement processes of schools in various challenging contexts (Harris & Chapman, 2004). Twenty-five years ago, while studying Auckland BTs, Kingston (1983) found many BTs to be insensitive towards minority groups and had low expectations of them academically—is this still the case? Five years later, Battersby wondered about the different concerns facing rural and urban BTs—that same question can be asked today. More recently, Carpenter, McMurchy-Pilkington, and Sutherland (2002) asserted that "particular teachers are more effective in some context than in others. Put another way, one can be a successful teacher in a high decile school, but this does not mean that such success is automatically transferable to a low-decile school" (p. 8)—and vice versa. But can these skills be taught? Induction may serve as one of the keys, and the theoretical frameworks, survey analyses, case study investigations, and critical review of data presented here are original, substantial contributions to a better understanding of how best to unlock BT support.

Conducting cross-national studies of indigenous support mechanisms would enhance the current, Western focus on induction. Few studies were found of BT induction in African, South American, or other non-Western countries (Japan being a notable exception). International case studies may highlight practices in cultures with effective models of neophyte support.

A key assumption of this research is that induction is valuable and beneficial: it diminishes migration and departures, it is cost-efficient, and it is linked to positive pupil outcomes. However, none of these assertions have been rigorously tested in the New Zealand setting. Such research is imperative in order to ensure that the discourse on induction is productive, necessary, and beneficial.

As a final note, research has also shown that to foster a sense of agency in BTs, induction programmes have benefited from the structure of an individualised learning programme that includes goals, self-assessment, support, and shared accountability in which BTs have input into the design of the programme (*Ethic of Care*, 2002; Portner, 2005). It is important, therefore, to

remember that reciprocity is a key component of research: principals, tutor teachers, and BTs should all be involved in designing the questions and the studies that will help them successfully induct new teachers to the profession.

Conclusion

Bowles and Gintis (1976) argued that "The evident potential for revolutionary reforms in education presents a great opportunity for progressive social change" (p. 263). Despite their optimism, it should be cautioned that induction programmes are a "heavily researched area, yet frustration at the lack of constructive change is a constant theme in the literature" (*Ethic of Care*, 2002, p. 8) and, "even if there is structured change...forms and structures do not guarantee consequential teacher learning" (Feiman-Nemser, 2001, p. 1042). Nonetheless, this research thesis—and perhaps this is its greatest contribution—raises more questions. After seeing the successes of low-decile primary schools, one wonders, what does a comprehensive induction programme look like in various settings, including secondary and high-decile schools? How can all schools increase the frequency of useful activities? How can mid-year starters, second-year BTs, and older BTs be best served? Is the longitudinal trend of Aotearoa New Zealand induction shifting towards a pedagogical framework within the Hauora model? Now that this research has raised these questions, it is time to begin searching for answers.

References

2005-2006 Highly qualified teacher reporting materials. How will I know if I meet the federal definition of a highly qualified teacher? (2005). Columbus, OH: Ohio Department of Education.

(n.d.). *Starter kit for induction of list a teachers*. Wellington, New Zealand: Department of Education.

Abbott, L. (2007, 5-8 September). *Northern Ireland beginning teachers' experiences of induction: The 'haves' and the 'have nots'.* Paper presented at the Annual Meeting of the British Educational Research Association, London.

Achinstein, B. (2001, 10-14 April). *Building a community of learners and leaders for transformational induction programs.* Paper presented at the Annual Conference of the American Educational Research Association, Seattle, WA.

Achinstein, B. (2006). New teacher and mentor political literacy: Reading, navigating and transforming induction contexts. *Teachers and Teaching: theory and practice, 12*(2), 123-138.

Achinstein, B., & Barrett, A. (2004). (Re)framing classroom contexts: How new teachers and mentors view diverse learners and challenges of practice. *Teachers College Record, 106*(4), 716-746.

Achinstein, B., & Meyer, T. (1997, March 24-28). *The uneasy marriage between friendship and critique: Dilemmas of fostering critical friendship in a novice teacher learning community.* Paper presented at the Annual Meeting of the American Educational Research Association, Chicago, IL.

Achinstein, B., & Villar, A. (2002). *Politics of the mentoring process for novices: Negotiating professional relationships and new teacher learning*. Santa Cruz, CA: New Teacher Center.

Achinstein, B., & Villar, A. (2004). A spectrum of mentoring relationships and new teacher learning: Collaboration and complexity. *Journal of Educational Change, 5*, 311-344.

Aitken, H. (2005). *Participating in an early childhood community of practice: The experiences of a group of newly qualified teachers.* Unpublished masters thesis, University of Waikato, Hamilton, New Zealand.

Alexander. (2000). *Culture and pedagogy: International comparisons in primary education*. Oxford, UK: Basil Blackwell.

Alheit, P., & Dausien, B. (1999). *"Biographicity" As a basic resource of lifelong learning.* Paper presented at the European Conference on Lifelong Learning, Bremen, Germany.

Allen, D., & LeBlanc, A. (2005). *Collaborative peer coaching that improves instruction: The 2+2 performance appraisal model*. Thousand Oaks, CA: Corwin Press.

Allen, M. (2005). *Eight questions on teacher recruitment and retention: What does the research say?* Denver, CO: Education Commission of the States.

Alton-Lee, A. (2003). *Quality teaching for diverse students in schools* (BES). Wellington, New Zealand: Ministry of Education.

Alvesson, M., & Skoldberg, K. (2000). Poststructuredism and postmodernism: Destabilizing subject and text. In M. Alvesson & K. Skoldberg (Eds.), *Reflexive methodology: New vistas for qualitative research*. London: Sage.

Anderson, T., Balding, P., Schuck, S., & Segal, G. (2000). Mentoring beginning teachers: A seamless process of induction. In S. Schuck & G. Segal (Eds.), *Change and choice in the new century* (pp. 211-218). Sydney, NSW: Change in Education Research Group, University of Technology.

Angelle, P. S. (2002, April 1-5). *Socialization experiences of beginning teachers in differentially effective schools.* Paper presented at the Annual Meeting of the American Educational Research Association, New Orleans, LA.

Anyon, J. (1980). Social class and the hidden curriculum of work. *Journal of Education 162*(1), 67-92.

Arends, R. I., & Rigazio-DiGilio, A. J. (2000, July). *Beginning teacher induction: Research and examples of contemporary practice.* Paper presented at the Annual Meeting of the Japan-United States Teacher Education Consortium, Connecticut.

Argyris, C., & Schön, D. A. (1974). *Theory in practice: Increasing professional effectiveness* (1st ed.). San Francisco: Jossey-Bass Publishers.

Ashdown, J., Hummel-Rossi, B., & Tobias, R. (2006). Linking teacher induction, teacher development, and student learning In J. Dangel (Ed.), *Research on teacher induction: Teacher education yearbook XIV* (pp. 19-36). Lanham, Maryland: Rowman & Littlefield Education.

Athanases, S., & Achinstein, B. (2003). Focussing new teachers on individual and low performing students: The centrality of formative assessment in the mentor's repertoire of practice. *Teachers College Record, 105*(8), 1486-1520.

Atweh, B., & Heirdsfield, A. (2003). The use of action research for the professionalisation of beginning women teachers as they learn about inclusive mathematics. *Mathematics Teacher Education and Development, 5*, 53-65.

Ballantyne, R., & Hansford, B. (1995). Mentoring beginning teachers: A qualitative analysis of process and outcomes *Educational Review, 47*(3).

Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: W.H. Freedman and Company.

Barrett, A. (2005). New teacher test survey. Retrieved 5 May, 2006, from http://www.newteachersurvey.org/testsurvey.taf

Barrett, J. E., Jones, G. A., Mooney, E. S., Thornton, C. A., Cady, J., & Olson, J. (2002, October 26-29). *Understanding novice teachers: Contrasting cases.* Paper presented at the Annual Meeting [of the] North American Chapter of the International Group for the Psychology of Mathematics Education, Athens, GA.

Barry, N., & Lechner, J. (1995). Preservice teachers' attitudes about and awareness of multicultural teaching and learning. *Teaching and Teacher Education, 11*(2), 149-161.

Bartell, C. A. (2005). *Cultivating high-quality teaching through induction and mentoring*. Thousand Oaks: Corwin Press.

Barth, R. (1991). *Improving schools from within*. San Francisco: Jossey-Bass.

Bassey, M. (1999). *Case study research in educational settings*. Buckingham, England: Open University Press.

Battersby, D. (1981). *The first year of teaching: A grounded theory study.* Unpublished doctoral thesis, University of Waikato, Hamilton.

Battersby, D. (1989a). *The beginning teacher scheme, an evaluation: Final report*. Wellington, New Zealand: New Zealand Department of Education.

Battersby, D. (1989b). Requirements for certification. *National Education, 71*(3), 95-97.

Battersby, D. (1990). Hegemony-in-action : Teacher induction and in-school training for student teachers. *Education Action, 1*(1), 28-35.

Battersby, D., & Ramsey, P. (1990). Practice teaching in New Zealand: Policies, practices and problems. *South Pacific Journal of Teacher Education, 18*(1), 19-26.

Beck, C., & Kosnik, C. (2002). Professors and the practicum: Involvement of university faculty in preservice practicum supervision. *Journal of Teacher Education, 53*(1), 6-19.

Becker, B., Dawson, P., Devine, K., Hannum, C., Hill, S., Leydens, J., et al. (2005). Case studies. Writing@CSU. Retrieved 11 November, 2006, from http://writing.colostate.edu/guides/research/casestudy/

Beijaard, D., & Papanaoum, Z. (2002). Teacher induction as the crossroads: An attempt to harmonize the chaos—an essay review of Les Tickle: *Teacher induction: The way ahead Teaching and Teacher Education, 18*(7), 905-911.

Bell, G., & Gilbert, J. (1996). *Teacher development: A model from science education*. London: RoutledgeFalmer.

Berliner, D. (1994). Expertise: The wonder of exemplary performances. In J. Mangieri & C. Block (Eds.), *Creating powerful thinking in teachers and students: Diverse perspectives* (pp. 161-186). Fort Worth, TX: Harcourt Brace College Publishers.

Berliner, D. (2005). The near impossibility of testing for teacher quality. *Journal of Teacher Education May-June* Retrieved June 12, 2006, from http://www.asu.edu/educ/epsl/EPRU/articles/EPSL-0505-110-EPRU.pdf

Berry, B., & Hirsch, E. (2005). *Recruiting and retaining teachers for hard-to-staff schools. Issue brief*. Washington, DC: National Governors Association.

Bird, L. (1992). Girls taking positions of authority at primary school. In S. Middleton & A. Jones (Eds.), *Women and education in Aotearoa 2* (pp.149-168). Auckland, New Zealand: Bridget Williams Books.

Bishop, R. & Glynn, T. (2004). Achieving cultural integrity in education in Aotearoa/New Zealand. In J. Wearmouth, R. Richmond, T. Glynn & M. Berryman (Eds.), *Understanding pupil behaviour in schools: A diversity of approaches* (pp.107-133), London: David Fulton Publishers, Ltd.

Black, S. (2001). A lifeboat for new teachers. *American School Board Journal, 188*(9), 46-48.

Blackboard jungle and its victims. (1979, November 10). *New Zealand Herald, p.12.*

Blackwell, P. J. (2002). *Putting the pieces of teacher education together: Lessons learned by the Eisenhower initial teacher professional development programs*. New Mexico: Office of Educational Research and Improvement (ED), Washington, DC. Office of Reform Assistance and Dissemination.

Bleach, K. (1999). *The induction and mentoring of newly qualified teachers : A new deal for teachers*. London: David Fulton.

Block, C. C., Mangieri, J. N., & Barnes, H. (Eds.). (1994). *Creating powerful thinking in teachers and students: Diverse perspectives*. Fort Worth, TX: Harcourt Brace College.

Boatman, A. M. (1998). Educational theory handbook [Electronic Version]. Retrieved December 12, 2005 from http://www.theshop.net/aboatman/edtheory.html.

Bobek, B. L. (2002). Teacher resiliency: A key to career longevity. *Clearing House, 75*(4), 202-205.

Borgatti, S. (1996). *Introduction to grounded theory* [Electronic Version]. Retrieved April 13, 2008 from http://www.analytictech.com/mb870/introtoGT.htm.

Boss, S. (2001). Facing the future. *Northwest Education, 7*(2), 2-9,41.

Bourdieu, P., & Passeron, J. C. (1977). *Reproduction in education, society and culture*. Beverly Hills: Sage Publications.

Bowles, S., & Gintis, H. (1976). *Schooling in capitalist America: Educational reform and the contradictions of economic life*. New York: Basic Books.

Boyd, D., Lankford, H., Loeb, S., & Wyckoff, J. (2005). Explaining the short careers of high-achieving teachers in schools with low achieving students. *American Economic Review, 95*(2).

Braund, M. (2001). Helping primary student teachers understand pupils' learning: Exploring the student-mentor interaction. *Mentoring and Tutoring, 9*(3), 189-200.

Breeding, M., & Whitworth, J. (1999, February 24-27). *Increasing the success of first year teachers: A synthesis of three studies.* Paper presented at the Annual Meeting of the American Association of Colleges for Teacher Education, Washington, DC.

Breidenstein, A. (2002). Researching teaching, researching self: Qualitative research and beginning teacher development. *Clearing House, 75*(6), 314-318.

Brinkerhoff, R. (2003). *The success case method: Find out quickly what's working and what's not*. San Francisco: Berrett-Koehler.

Britton, E., Paine, Pimm, & Raizen (Eds.). (2003). *Comprehensive teacher induction: Systems for early career learning*. Boston: Kluwer Academic Publishers.

Brown, J. L., & Wiggins, G. P. (2004). Improving pre-service training and teacher induction programs. In G. Wiggins & J. McTighe (Eds.), *Making the most of understanding by design* (pp. 122-141). Alexandria, VA: Association for Supervision and Curriculum Development.

Bruner, J. S. (1960). *The process of education*. Cambridge, MA: Harvard University Press.

Bruner, J. S. (1996). *The culture of education*. Cambridge, MA: Harvard University Press.

Bubb, S. (2003). *The insider's guide for new teachers*. London: Kogan Page.

Bubb, S. (Ed.). (2002). *Improving induction: Research-based best practice for schools*. London: RoutledgeFalmer.

Bubb, S., & Earley, P. (2006). Induction rites and wrongs: The 'educational vandalism' of new teachers' professional development. *Journal of Inservice Education, 32*(1), 5-12.

Bubb, S., Earley, P., & Totterdell, M. (2005). Accountability and responsibility: "Rogue" School leaders and the induction of new teachers in England. *Oxford Review of Education, 31*(2), 255-272.

Buckley, J., Schneider, M., & Shang, Y. (2004). *The effects of school facility quality on teacher retention in urban school districts*. Boston, MA: National Clearinghouse for Educational Facilities.

Bullough, R. (1989). *First year teacher: A case study*. New York: Teachers' College Press.

Cameron, M. (2006). *Induction literature review*. Wellington, New Zealand: New Zealand Teachers Council.

Cameron, M., & Baker, R. (2004). *Research on initial teacher education in New Zealand:1993-2004*. Wellington: New Zealand Teachers Council and the Ministry of Education.

Cameron, M., & Baker, R. (2006). *Tiptop: Teachers of Promise project*. Wellington: New Zealand Council for Educational Research.

Cameron, M., & Dingle, R. (2006). Career paths in the New Zealand primary school sector. Retrieved April 20, 2007, from http://www.minedu.govt.nz/web/downloadable/dl11355_v1/careerpathsinthenewzealandprimaryschoolsectorfinal.doc

Cameron, M., Dingle, R., & Brooking, K. (2007). *Learning to teach: A survey of provisionally registered teachers in Aotearoa New Zealand*. Wellington: New Zealand Teachers Council.

Cameron, M., Garvey Berger, J., Lovett, S., & Baker, R. (2007, April 9). *"AKO": Being a teacher, being a learner, being part of a learning profession.* Paper presented at the Annual Meeting of the American Educational Research Association, Chicago, IL.

Campbell, W. (1977). *Realities of teacher development.* Wellington, New Zealand: Department of Education.

Canniff, J. G., & Shank, M. J. (2003, April 21-25). *If you do what you always did, you get what you always got: Portland SST transforming school cultures through a seamless continuum of teacher professional development.* Paper presented at the Annual Meeting of the American Educational Research Association, Chicago, IL.

Carpenter, V., Dixon, H., Rata, E., & Rawlinson, C. (Eds.). (2001). *Theory in practice for educators*. Palmerston North, New Zealand: Dunmore.

Carpenter, V., McMurchy-Pilkington, C., & Sutherland, S. (2002). Kaiako toa--highly successful teachers in low-decile schools. *SET Research Information for Teachers, 1*.

Carroll, D. M. (2002, April 1-5). *Making sense of collaborative learning in a mentor teacher study group: Examining the joint construction and collective warranting of ideas.* Paper presented at the Annual Meeting of the American Educational Research Association, New Orleans, LA.

Carruthers, J. (1993). The principles and practice of mentoring. In B. Caldwell & E. Carter (Eds.), *The return of the mentor* London: Falmer Press.

Carter, M. (2001). Mentoring and beginning teachers' workplace learning. *Asia-Pacific Journal of Teacher Education, 29*, 249-262.

Carter, S. (1994). *Teacher stress and burnout. Organizing systems to support competent social behavior in children and youth*. Oregon: Office of Special Education and Rehabilitative Services (ED), Washington, DC.

Catapano, S. (2006). Teaching in urban schools: Mentoring pre-service teachers to apply advocacy strategies. *Mentoring & Tutoring, 14*(1), 81-96.

Chauncey, C. (Ed.). (2005). *Recruiting, retaining and supporting highly qualified teachers*. Cambridge, MA: Harvard University Press.

Cherniss, C. (1991). Career commitment in human service professionals: A biographical study. *Human Relations, 44*, 419-437.

Chester, M. D., & Beaudin, B. Q. (1996). Efficacy beliefs of new teachers in urban schools. *American Educational Research Journal, 33*(1), 233-257.

Chubbuck, S. M., Clift, R. T., Allard, J., & Quinlan, J. (2001). Playing it safe as a novice teacher: Implications for programs for new teachers. *Journal Of Teacher Education, 52*(5), 365-376.

Clark, C. (1992). Teachers as designers in self-directed professional development. In A. Hargreaves & M. G. Fullan (Eds.), *Understanding teacher development*. London: Cassell.

Claycomb, C., & Hawley, W. D. (2000). *Recruiting and retaining effective teachers for urban schools: Developing a strategic plan for action*. District of Columbia: Office of Educational Research and Improvement (ED), Washington, DC.

Clement, M. C. (2000). Making time for teacher induction: A lesson from the New Zealand model. *The Clearing House, 73*(6), 329.

Cochran-Smith, M. (2003). The unforgiving complexity of teaching: Avoiding simplicity in the age of accountability. *Journal of Teacher Education, 54*(1), 1-5.

Cochran-Smith, M. (2006). *Policy, practice and politics in teacher education: Editorials from the Journal of Teacher Education*. Thousand Oaks, CA: Corwin Press.

Cochran-Smith, M., & Lytle, S. L. (1999). The teacher research movement: A decade later. *Educational Researcher, 28*(7), 15-25.

Cochran-Smith, M., & Lytle, S. L. (Eds.). (1993). *Inside/outside: Teacher research and knowledge*. New York: Teachers College Press.

Colbert, J. A., & Wolff, D. E. (1992). Surviving in urban schools: A collaborative model for a beginning teacher support system. *Journal of Teacher Education, 43*(3), 193-199.

Coolahan, J. (2002). *Teacher education and the teaching career in an era of lifelong learning. OECD education working paper n. 2*. Paris: Organisation for Economic Co-operation and Development.

Cooper, M. (1998). Whose culture is it, anyway? In A. Lieberman (Ed.), *Building a professional culture in schools.* New York: Teachers College Press.

Corson, D. (1998). Reforming education for diversity: Leavening power with social justice. In *Changing education for diversity*. Buckingham: Open University Press.

Couse, L., & Russo, H. L. (2006). Service-learning: Mentoring leadership skills in the experienced teacher. *Mentoring & Tutoring, 14*(1), 33-48.

Cuban, L. (2001). *How can I fix it: Finding solutions and managing dilemmas*. New York: Teachers College Press.

Cuban, L. (2003). *Why is it so hard to get good schools?* New York: Teachers College Press.

Cumming, A., & Cumming, I. (1978). *History of state education in New Zealand, 1840-1975*. Wellington: Pitman Publishing New Zealand, Ltd.

Cummins, J. (1986). Empowering minority students: A framework for intervention. *Harvard Education Review, 56*(1), 18-36.

Cuthbertson, L., & Schalock, M. D. (2002). *Mentoring assistance received*. Monmouth, OR: Western Oregon University, Teacher Research Division.

Dagenais, R. (1996). *Mentoring program standards* (No. ED 419 776): ERIC document reproduction service.

Dangel, J. (Ed.). (2006). *Research on teacher induction: Teacher education yearbook XIV*. Lanham,Maryland: Rowman & Littlefield Education.

Danielson, C. (1999). Mentoring beginning teachers: The case for mentoring. *Teaching and Change, 6*(3), 251-257.

Danielson, L. (2002). Developing and retaining quality classroom teachers through mentoring. *Clearing House, 75*(4), 183-185.

Darling-Hammond, L. (2003). Keeping good teachers: Why it matters, what leaders can do. *Educational Leadership, 60*(8), 7-13.

Darling-Hammond, L. (2006). Assessing teacher education: The usefulness of multiple measures for assessing program outcomes. *Journal of Teacher Education, 57*(2), 120.

Darling-Hammond, L., & Baratz-Snowden, J. C. (2005). *A good teacher in every classroom: Preparing the highly qualified teachers our children deserve*. San Francisco, CA: Jossey-Bass.

Darling-Hammond, L., Chung, R., & Frelow, F. (2002). Variation in teacher preparation: How well do different pathways prepare teachers to teach? *Journal of Teacher Education, 53*(4), 286-302.

Darling-Hammond, L., & Sykes, G. (Eds.). (1999). *Teaching as the learning profession: Handbook of policy and practice* (1st ed.). San Francisco: Jossey-Bass Publishers.

David, T. (2000). Programs in practice. Teacher mentoring--benefits all around. *Kappa Delta Pi Record, 36*(3), 134-136.

David, T. (2003). Beginning teacher mentoring programs: The principal's role. In J. Rhoton & P. Bowers (Eds.), *Science teacher retention: Mentoring and renewal. Issues in science education.* Arlington, VA: National Science Teachers Association Press.

de la Torre Cruz, M. J., & Casanova Arias, P. F. (2007). Comparative analysis of expectancies of efficacy in in-service and prospective teachers. *Teaching and Teacher Education, 23*(5), 641-652.

DeBolt, G. (1991, 19 Apr). *Mentoring: Studies of effective programs in education.* Paper presented at the Diversity in Mentoring Conference, New York.

Defino, M. E., & Hoffman, J. V. (1984). *A status report and content analysis of state mandated teacher induction programs* (No. 9057). Austin, TX: Texas University Research and Development Center for Teacher Education.

Delpit, L. D. (1995). *Other people's children: Cultural conflict in the classroom*. New York: New Press

Desimone, L., Porter, A. C., Birman, B. F., Garet, M. S., & Yoon, K. S. (2002). How do district management and implementation strategies relate to the quality of the professional development that districts provide to teachers? *Teachers College Record, 104*(7), 1265-1312.

Desimone, L. M., Porter, A. C., Garet, M. S., Yoon, K. S., & Birman, B. F. (2002). Effects of professional development on teachers' instruction: Results from a three-year longitudinal study. *Educational Evaluation and Policy Analysis, 24*(2), 81-112.

Dever, M. T., Johnson, F. F., & Hobbs, D. E. (2000). A qualitative analysis of an intensive mentor-apprentice collaboration: MAC. *Journal of Research and Development in Education, 33*(4), 241-256.

Dewar, S., Kennedy, S., Staig, C., & Cox, L. (2003). *Recruitment and retention in New Zealand secondary schools. Information from a series of interviews, with a focus on beginning teachers, returning teachers, and heads of departments.* Wellington, New Zealand: Ministry of Education.

Dewey, J. (1933). *How we think: A restatement of the relation of reflective thinking to the educative process*. Boston: Heath.

Dewey, J. (1963a). *Democracy and education: An introduction to the philosophy of education*. New York: The MacMillan Company.

Dewey, J. (1963b). *Experience and education*. New York: Collier.

DfEE. (1997). *Excellence in schools*. London: DfEE.

Diamond, K. E. (2001). Supporting early childhood teachers: A reflection on the Kentucky teacher internship program. *Topics in Early Childhood Special Education, 21*(3), 150-151.

Donaldson, M. L. (2005, April 15). *On barren ground: How urban high schools fail to support and retain newly tenured teachers.* Paper presented at the Annual Meeting of the American Educational Research Association, Montreal, Canada.

Dorney, R., & Carey, M. (2004). Quality teaching : Mentoring beginning teachers at Merriwa Central school. *Scan, 23*(2), 4-7.

Duffy, G. (1994). How teachers think of themselves: A key to mindfulness. In C. Collins-Block, J. Mangieri & H. Barnes (Eds.), *Creating powerful thinking in teachers and students: Diverse perspectives* (pp. 3-25). Fort Worth, TX: Holt, Rinehart & Winston.

Durie, M. (1994). *Whaiora: Mäori health development.* South Melbourne, VIC: Oxford University Press.

Earley, P., & Bubb, S. (2004). *Leading and managing continuing professional development: Developing people, developing schools*. London: Paul Chapman Publishing.

Easley, J., II. (2000). *Teacher attrition and staff development for retention*. Pennsylvania: Penn State University.

Eberhard, J., Reinhardt-Mondragon, P., & Stottlemyer, B. (2000). *Strategies for new teacher retention: Creating a climate of authentic professional development for teachers with three or less years of experience*. Corpus Christi, TX: South Texas Research and Development Center.

Education counts: Teaching staff April 2007. (2007). Retrieved April 17, 2008 from http://www.educationcounts.govt.nz/statistics/schooling/ts/teaching_staff/teaching_staff_april_2007

Edwards, A., & Lynn, P. (2004). Teaching by proxy: Understanding how mentors are positioned in partnerships. *Oxford Review of Education, 30*(2), 183.

Edwards, V. (2000). *Quality counts 2000: Who should teach?* Bethesda, MD: Education Week.

Elvidge. (2002). *Teacher supply. Beginning teacher characteristics and mobility*. Wellington, New Zealand: Ministry of Education.

An ethic of care: Effective programmes for beginning teachers. (2002). Canberra: Commonwealth Department of Education, Science and Training.

Evertson, C. M., & Smithey, M. W. (2000). Mentoring effects on proteges' classroom practice: An experimental field study. *Journal of Educational Research, 93*(5).

Feiman-Nemser, S. (1996). *Mentoring: A critical review*. Washington, D.C.: United States Department of Education.

Feiman-Nemser, S. (2001). From preparation to practice: Designing a continuum to strengthen and sustain teaching. *Teachers College Record, 103*(6), 1013-1055.

Feiman-Nemser, S. (2003). What new teachers need to learn. *Educational Leadership, 60*(8), 25-29.

Feiman-Nemser, S., & Parker, M. B. (1992). *Mentoring in context: A comparison of two U.S. Programs for beginning teachers. NCRTL special report*. Michigan: Office of Educational Research and Improvement (ED), Washington, DC.

Fenstermacher, G. D., & Richardson, V. (2005). On making determinations of quality in teaching. *Teachers College Record, 107*(1), 186-213.

Ferguson, R. (1991). Paying for public education: New evidence on how and why money matters. *Harvard Journal of Legislation 28*(2), 465-498.

Fernandez, C. (2002). Learning from Japanese approaches to professional development: The case of lesson study. *Journal of Teacher Education, 53*(5), 393-405.

Fessler, R., & Christiansen, J. (1992). *Teacher career cycle: Understanding and guiding the professional development of teachers*. Needham Heights, MA: Allyn & Bacon.

Fetterman, D. (1998). *Ethnography: Step by step* (2nd ed.). Thousand Oaks, CA: Sage.

Fetterman, D. (Ed.). (1984). *Ethnography in educational evaluation*. Beverly Hills: Sage Publications.

Fetterman, D., Kaftarian, S. J., & Wandersman, A. (Eds.). (1996). *Empowerment evaluation: Knowledge and tools for self-assessment & accountability*. Thousand Oaks, CA: Sage.

Fetterman, D., & Pitman, M. A. (Eds.). (1986). *Educational evaluation: Ethnography in theory, practice, and politics*. Beverly Hills, CA: Sage Publications.

Fetterman, D., & Wandersman, A. (2007). Empowerment evaluation: Yesterday, today, and tomorrow. *American Journal of Evaluation, 28*(2), 179-198.

Firestone, W., & Pennell, J. (1993). Teacher commitment, working conditions, and differential incentive policies. *Review of Educational Research, 63*(4), 489-525.

Fiske, E. B., & Ladd, H. F. (2000). *When schools compete: A cautionary tale*. Washington, DC: Brookings Institute Press.

Fletcher, S. (2000). *Mentoring in schools: A handbook of good practice*. London: Kogan Page.

Fletcher, S., & Barrett, A. (2003). *The role of mentor-based induction in developing effective beginning teachers*. Santa Cruz, CA: New Teacher Center, University of California.

Fletcher, S., Strong, M., & Villar, A. (2005). *An investigation of the effects of variations in mentor-based induction on the performance of students in California*. Santa Cruz, CA: New Teacher Center, University of California.

Flores, M. A. (2001). Person and context in becoming a new teacher. *Journal of Education for Teaching, 27*(2), 135-148.

Foucault, M. (1977). *Discipline and punish: The birth of the prison*. New York, NY: Vintage Books.

Freiberg, M., Zbikowski, J. & Ganser, T. (1994, February 12-16). *Perceptions of beginning teachers in an urban setting: Does mentoring make a difference?* Paper presented at the Annual Meeting of the Association of Teacher Educators, Atlanta, GA.

Freiberg, M. R. (1996, April 8-12). *Where do we go from here? Decisions and dilemmas of teacher mentors.* Paper presented at the Annual Meeting of the American Educational Research Association, New York, NY.

Freire, P. (1985). *Pedagogy of the oppressed*. Harmondsworth, Middlesex: Penguin.

Friedman, I. (1999). Turning our schools into a healthier workplace: Bridging between professional self-efficacy and professional demands. In R. Vandenberghe & A. M. Huberman (Eds.), *Understanding and preventing teacher burnout: A sourcebook of international research and practice*. Cambridge, UK: Cambridge University Press.

Fullan, M. (1982). *The meaning of educational change*. New York: Teachers' College Press.

Fullan, M. (1993). *Change forces: Probing the depths of educational reform*. New York: Falmer.

Fuller, A., Hodkinson, H., Hodkinson, P., & Unwin, L. (2005). Learning as peripheral participation in communities of practice: A reassessment of key concepts in workplace learning. *British Educational Research Journal, 31*(1), 49-68.

Fuller, A., & Unwin, L. (2003). Learning as apprentices in the contemporary UK workplace: Creating and managing expansive and restrictive participation. *Journal of Education and Work, 16*(4), 407-426.

Fuller, F. (1969). Concerns of teachers: A developmental conceptualization. *American Educational Research Journal, 6*, 207-226.

Gadamer, H., (1975). *Truth and Method.* New York: Seabury.

Gallegos, B. (1995). Urban alternatives. *American School Board Journal, 182*(3), 38-40.

Galvin, A., & Murray, S. (2005). *Teacher supply key statistics report: May teacher loss rates*. Wellington, New Zealand: Ministry of Education.

Ganser, T., & et al. (1994). The perceptions of school principals about a mentoring program for newly hired urban school teachers. *Teacher Educator, 30*(2), 13-23.

Garet, M. S., Porter, A. C., Desimone, L. M., Birman, B. F., & Yoon, K. S. (2001). What makes professional development effective? An analysis of a national sample of teachers. *American Educational Research Journal, 38*(4), 918-938.

Geoffrey, A. (2005). Coaching professionalism and provider size. *The Journal of Management Development, 24*(1/2), 94.

Gewirth, A. (1998). *Self-fulfillment*. Princeton, NJ: Princeton University Press.

Gibson, R. (1984). *Structuralism and education*. London: Hodder and Stoughton.

Gilbert, L. (2005). What helps beginning teachers? *Educational Leadership, 62*(8), 36-39.

Giles, C., & Wilson, J. (2004). Receiving as well as giving: Mentors' perceptions of their professional development in one teacher induction program. *Mentoring & Tutoring, 12*(1), 87-106.

Gill, B. (2005). *Collegial partnerships: A report on the 2004-2005 beginning teacher induction program in New Brunswick.* . New Brunswick: New Brunswick Centre for Educational Administration.

Ginns, I., Heirdsfield, A., Atweh, B., and Watters, J. (2001). Beginning teachers becoming professionals through action research. *Educational Action Research Journal,* 9(1):109-131.

Goddard, R., Hoy, W. K., & Hoy, A. (2000). Collective teacher efficacy: Its meaning, measure, and impact on student achievement. *American Educational Research Journal, 37*(2), 479-507.

Gold, Y. (1996). Beginning teacher support: Attrition, mentoring, and induction. In J. Sikula, B. T. J. & E. Guyton (Eds.), *Handbook of research on teacher education* (2nd ed., pp. 548-594). New York: : Simon & Schuster Macmillan.

Good schools, poor schools. (1998). Wellington, New Zealand: Education Review Office.

Goode, J., Quartz, K. H., Barraza-Lyons, K., & Thomas, A. (2004). Developing teacher leaders: Exploring the multiple roles of beginning urban educators. *Teacher Education and Practice, 17*(4), 417-431.

Goodson, L. (1992). Sponsoring the teacher's voice: Teachers' lives and teacher development. In A. Hargreaves & M. Fullan (Eds.), *Understanding teacher development*. London: Cassell.

Goold, J. (2004). *Induction into the school and the profession: The experiences of beginning teachers.* Unpublished masters thesis, Unitec, Auckland, New Zealand.

Gorard, S. (2001). *Quantitive methods in educational research: The role of numbers made easy*. London: Continuum.

Gorard, S., & Taylor, C. (2004). *Combining methods in educational and social research*. Maidenhead: Open University Press.

Gore, J., Williams, C., & Ladwig, J. (2006, April 7-11). *Pedagogy and teacher induction: A critical moment in teacher development.* Paper presented at the Annual Meeting of the American Educational Research Association, San Francisco, CA.

Grant, L. L. (2004). Meta-analysis of induction and mentoring programs' contribution to new teacher retention during the first five years of employment. *Dissertation Abstracts International Section A: Humanities and Social Sciences, 64*(12), 4287.

Gratch, A. (1998a). Beginning teacher and mentor relationships. *Journal of Teacher Education, 49*(3), 220-227.

Gratch, A. (1998b, January 8-10). *Growing teaching professionals: Lessons taught by first-year teachers.* Paper presented at the Annual Conference on Qualitative Research in Education, Athens, GA.

Green, K. (1997, March 24-28, 1997). *Effects of population type on mail survey response rates and on the efficacy of response enhancers.* Paper presented at the Annual Meeting of the American Educational Research Association, Chicago, IL.

Greene, J. C., Caracelli, V. J., & Graham, W. F. (1989). Toward a conceptual framework for mixed-method evaluation design. *Educational Evaluation and Policy Analysis, 11*(3), 255-274.

Greenwald, R., Hedges, L. V., & Laine, R. D. (1996). The effect of school resources on student achievement. *Review of Educational Research, 66*(3), 397 - 409.

Grudnoff, L. (2008). *Becoming a teacher: An investigation of the transition from student teacher to teacher.* Unpublished doctoral thesis. University of Waikato, Hamilton, New Zealand.

Grudnoff, L., & Tuck, B. (1999, July). *Standards and competence of beginning teachers in New Zealand.* Paper presented at the 9th ISATT Conference, Dublin, Ireland.

Grudnoff, L., & Tuck, B. (2003). Learning about teaching, learning while teaching, and becoming a teacher. *English Teaching: Practice and Critique, 2*(1), 33-42.

Grudnoff, L., & Tuck, B. (2005). Beginning teaching: Stress, satisfaction and resilience. *SET Research Information for Teachers, 3*, 11-14.

Guarino, C. M., Santibanez, L., & Daley, G. A. (2006). Teacher recruitment and retention: A review of the recent empirical literature. *Review of Educational Research, 76*(2), 173-208.

Guskey, T. R., & Passaro, P. D. (1994). Teacher efficacy: A study of construct dimensions. *American Educational Research Journal, 4*, 63-69.

Guyton, E., & Hidalgo, F. (1995). Characteristics, responsibilities, and qualities of urban school mentors. *Education and Urban Society, 28*(1), 40 - 47.

Haberman, M. (1991). The pedagogy of poverty versus good teaching. *Phi Delta Kappan*, 290-294.

Haberman, M. (1995). *Star teachers of children in poverty*. West Lafayette, IN: Pi Delta Kappan.

Hall, A., & Bishop, R. (2001). Teacher ethics, professionalism and cultural diversity. *NZJES, 36*(2), 188-202.

Hammerness, K. (2006). *Seeing through teachers' eyes: The role of vision in teachers' lives and work*. New York: Teachers College Press.

Haney, W., Madaus, G., & Kreitzer, A. (1987). Charms talismanic: Testing teachers for the improvement of American education. In E. Z. Rothkopf (Ed.), *Review of research in education* (Vol. 14, pp. 169-238). Washington, DC: American Educational Research Association.

Hansen, T., Haigh, M., & Ashman, L. (2003, November 29-December 3). *Questions of recruitment and retention from Auckland's south west.* Paper presented at the NZARE/AARE Joint conference, Auckland, New Zealand.

Hanushek, E. A., Kain, J. F., & Rivken, S. G. (2004). Why public schools lose teachers. *Journal of Human Resources, 39*(2), 326-354.

Hargreaves, A. (2002). Professional learning communities and performance training sects. The emerging apartheid of school improvement. In A. Harris, C. Day & M. Hadfield (Eds.), *Effective leadership for school improvement* (pp. 180-195). London: Routledge Falmer.

Hargreaves, A. (2003). *Teaching in the knowledge society: Education in the age of insecurity*. New York: Teachers College Press.

Hargreaves, A. (2004). Distinction and disgust: the emotional politics of school failure, *International Journal of Leadership in Education Theory and Practice,* 27-43.

Hargreaves, A., & Dawe, R. (1990). Paths of professional development: Contrived collegiality, collaborative culture, and the case of peer coaching. *Teaching and Teacher Education, 6*(3), 227-241.

Hargreaves, A., & Fullan, M. (2000). Mentoring in the new millennium. *Theory into Practice, 39*(1), 50-56.

Hargreaves, A., & Fullan, M. G. (Eds.). (1992). *Understanding teacher development*. London: Cassell.

Harper-Jones, G. (1994). The induction of newly qualified teachers in Wales. *European Early Childhood Education Research Journal, 2*(2), 33-47.

Harper-Knight, J. (2001). Model mentors. *Independent Education, 31*(2), 32-33.

Harris, A., & Chapman, C. (2004). Improving schools in difficult contexts: Towards a differentiated approach. *British Journal of Educational Studies, 52*(4), 417-431.

Harris, D. N. (2004). *Putting a high-quality teacher in every Florida classroom* (No.ED483729): Education Policy Studies Laboratory, Arizona State University College of Education.

Harrison, J. (2001). The induction of newly qualified teachers. *Journal of Education for Teaching, 27*(3), 277-279.

Harrison, J., Lawson, T., & Wortley, A. (2005). Action research and the professional development of induction tutors: Some unforeseen impacts and pitfalls. What do we learn? *Journal of Inservice Education, 31*(1), 83-103.

Hatch, T., White, M., & Capitelli, S. (2005). Learning from teaching: What's involved in the development of teaching practice? *Cambridge Journal of Education, 35*(3), 323-331.

Hattie, J. (2006). *A construct and consequential validity study of the certification system of the national board certified teachers*. Auckland, New Zealand: University of Auckland.

Hattie, J. (2007). Problem. What correlation method should I use if I have Likert scales? Auckland, New Zealand: University of Auckland.

Hawk, K., & Hill, J. (2000). *Making a difference in classrooms (AIMHI report)*. Wellington, New Zealand: Ministry of Education.

Hawley, W. and Valli, L. (1999). The essentials of effective professional development: A new consensus. In L. Darling-Hammond & G. Sykes (Eds.), *Teaching as the learning profession: Handbook of policies and practices* (pp.127-150). San Francisco: Jossey-Bass.

Hayes, D. (2001). The impact of mentoring and tutoring on student primary teachers' achievements: A case study. *Mentoring and Tutoring, 9*(1), 5-22.

Health and Physical Education in the New Zealand Curriculum. (2006). Ministry of Education retrieved on January 24, 2008 from http://www.tki.org.nz/r/health/curriculum/statement/hpe_statement.pdf

Heilbronn, R., & Jones, C. (Eds.). (1997). *New teachers in an urban comprehensive school: Learning in partnership*. Staffordshire, England: Trentham Books Limited.

Heilbronn, R., Jones, C., Bubb, S., & Totterdell, M. (2002). School-based induction tutors: A challenging role. *School Leadership & Management, 22*(4), 371-387.

Heller, D. A. (2004). *Teachers wanted: Attracting and retaining good teachers*. Alexandria, VA: Association for Supervision and Curriculum Development.

Hendrick, L. S., & Childress, L. J. (2002, April 1-5). *The rims beginning teacher support and assessment partnership: A study of eight years of collaboration.* Paper presented at the Annual Meeting of the American Educational Research Association, New Orleans, LA.

Herrington, A., Herrington, J., Kervin, L., & Ferry, B. (2006). The design of an online community of practice for beginning teachers. *Contemporary Issues in Technology and Teacher Education [Online serial]* 6(1). Retrieved 13 August, 2006, from http://www.citejournal.org/vol6/iss1/general/article1.cfm

Hertzog, H. S. (2002). "When, how, and who do I ask for help?": Novices' perceptions of problems and assistance. *Teacher Education Quarterly, 29*(3), 25-41.

Higgins, J. (2002). What do teachers get out of in-class modelling? *SET Research Information for Teachers, 2*, 43-45.

Hill, M. (2000). *Remapping the assessment landscape: Primary teachers reconstructing the assessment landscape in self-managing primary schools.* Unpublished doctoral thesis, University of Waikato, Hamilton, New Zealand.

Hodkinson, P., & Hodkinson, H. (2005). Improving school teachers' workplace learning. *Research Papers in Education, 20*(2), 109-132.

Hopkins, D., & Stern, D. (1996). Quality teachers, quality schools: International perspectives and policy implications. *Teaching & Teacher Education: An International Journal of Research and Studies, 12*(5), 501-517.

Horn, P. J., Sterling, H. A., & Subhan, S. (2002, February 23-26). *Accountability through "Best practice" Induction models.* Paper presented at the Annual Meeting of the American Association of Colleges for Teacher Education, New York, NY.

Huberman, M. (1989). The professional life cycle of teachers. *Teachers College Record, 91*(1), 31-57.

Huling-Austin, L. (1990). Teacher induction programs and internships. In W. R. Houston (Ed.), *Handbook of research on teacher education* (pp. 535-548). New York: Macmillan Publishing Company.

Huling, L. (2006). Division 1: Comprehensive approaches to induction: Summary and conclusions. In J. Dangel (Ed.), *Research on teacher induction: Teacher education yearbook XIV* (pp.89-102). Lanham, Maryland: Rowman & Littlefield Education.

Hyun, E., & Marshall, J. D. (2003). Critical inquiry into emergent-oriented curriculum practice. *Journal of Early Childhood Teacher Education, 24*(1), 37-50.

The induction of beginning teachers: Ideas for schools. (1982). Wellington, New Zealand: Wellington Board of Education.

Information for newly registered teachers. (2006). Retrieved May 5, 2006, from http://www.teacherscouncil.govt.nz/registration/how/full/new.stm

Ingersoll, R. M. (2001). *A different approach to solving the teacher shortage problem.* Seattle: University of Washington, Center for the Study of Teaching and Policy.

Ingersoll, R. M. (2001). Teacher turnover and teacher shortages: An organisational analysis. *American Educational Research Journal, 38*(3), 499-534.

Ingersoll, R. M. (2002). The teacher shortage: A case of wrong diagnosis and wrong prescription. *NASSP Bulletin, 86*, 16-31.

Ingersoll, R. M. (2004a). *Why do high-poverty schools have difficulty staffing their classrooms with qualified teachers?* Philadelphia, PA: Center for American Progress and the Institute for America's Future.

Ingersoll, R. M. (2004b). Why teacher induction matters (PowerPoint): New Teacher Center (NORTI).

Ingersoll, R. M., & Alsalam, N. (1997). *Teacher professionalization and teacher commitment: A multilevel analysis, SASS.* Washington, DC: U.S. Dept. of Education, Office of Educational Research and Improvement.

Ingersoll, R. M., & Kralik, J. M. (2004). *The impact of mentoring on teacher retention: What the research says*. Denver, CO: Education Commission of the States.

Ingersoll, R. M., & Smith, M. (2004). Do teacher induction and mentoring really matter? *NASSP Bulletin, 88*(638), 28-40.

Ingvarson, L., Kleinhenz, E., Toon Khoo, S., & Wilkinson, J. (2007). *The VIT program for supporting provisionally registered teachers: Evaluation of implementation in 2005*. Melbourne: Victorian Institute for Teaching.

Ingvarsson, L., & Greenway, P. (1984). Portrayals of teacher development. *Australian Journal of Education, 28*(1), 46.

Initial teacher education: Policy review. (2006). Wellington, New Zealand: Ministry of Education.

Israel, B. A., Checkoway, B., Schultz, A., & Zimmerman, M. (1994). Health education and community empowerment: Conceptualizung and measuring perceptions of individual, organizational and community control. *Health Education Quarterly, 21*(2), 149-170.

Joerger, R. M., & Bremer, C. D. (2001). Teacher induction programs: A strategy for improving the professional experience of beginning career and technical education teachers. Retrieved 29 August, 2006, from https://www.nccte.org/publications/infosynthesis/r&dreport/Tchr%20Indctn%20Prog.pdf

Johnson, S. M. (2004). *Finders and keepers: Helping new teachers survive and thrive in our schools*. San Francisco, CA: Jossey-Bass.

Johnson, S. M., & Birkeland, S. E. (2002). Pursuing a "Sense of success": New teachers explain their career decisions. *American Educational Research Journal, 40*(3), 581-617.

Johnson, S. M., Harrison Berg, J., & Donaldson, M., L. (2005). *Who stays in teaching and why? : A review of the literature on Teacher Retention.* The Project on the Next Generation of Teachers, School of Education, Harvard Graduate School of Education.

Johnson, S. M., & Kardos, S. M. (2002). Keeping new teachers in mind. *Educational Leadership, 59*(6), 12-16.

Johnson, S. M., & Kardos, S. M. (2005). Bridging the generation gap. *Educational Leadership, 62*(8), 8-14.

Johnson, S. M., Kardos, S. M., Kauffman, D., Liu, E., & Donaldson, M. L. (2004). The support gap: New teachers experiences in high income and low income schools. *Education Policy Analysis Archives, 12*(61).

Jones, A. (1991). *At school I've got a chance : Culture/privilege : Pacific Islands and pakeha girls at school*. Palmerston North, New Zealand: Dunmore Press.

Jones, C., Bubb, S., Totterdell, M., & Heilbronn, R. (2002). Reassessing variability of induction for newly qualified teachers: Statutory policy and schools' provision. *Journal of In-Service Education, 28*(3), 495-508.

Jones, M. (2002). Qualified to become good teachers: A case study of ten newly qualified teachers during their year of induction. *Journal of In-Service Education, 28*, 509-526.

Joseph, S. (2006). *Curriculum/area: Output b8: Provisionally registered teachers (draft)*. Auckland, New Zealand: TEAM Solutions.

Joyce, B. R., & Showers, B. (2002). *Student achievement through staff development* Alexandria, VA: Association for Supervision & Curriculum Development.

Kajs, L. T. (2002). Framework for designing a mentoring program for novice teachers *Mentoring and Tutoring, 10*(1), 57-69.

Kane, R. (1994, November 27-December 1). *Beginning teachers: Survival at the expense of intelligent action.* Paper presented at the Australian Association of Research in Education, Newcastle, WA.

Kane, R., & Mallon, M. (2006). *Perceptions of teachers and teaching*. Wellington, New Zealand: Ministry of Education.

Kane, R., Stucki, P., Kahu, A., Jenkins, H., & Bruce-Ferguson, P. (2006). *Narratives of beginning Mäori teachers: The forces that shape the first year of teaching*. Wellington, New Zealand: New Zealand Council for Educational Research.

Kardos, S. M. (2004). *Supporting and sustaining new teachers in schools: The importance of professional culture and mentoring.* Unpublished doctoral thesis, Harvard University, Cambridge, MA.

Kardos, S. M. (2005, April 15-20). *The importance of professional culture in new teachers' job satisfaction.* Paper presented at the Annual Meeting of the American Educational Research Association Montreal, Canada.

Kardos, S. M., Johnson, S. M., Peske, H. G., Kauffman, D., & Liu, E. (2001). Counting on colleagues: New teachers encounter the professional cultures of their schools. *Educational Administration Quarterly, 37*(2), 250-290.

Katz, L. (1972). The developmental stages of preschool teachers. *Elementary School Journal, 73*(1), 50-54.

Kennedy, M. M. (1999). Approximations to indicators of student outcomes. *Educational Evaluation and Policy Analysis, 21*(4), 345-363.

Khoo, V. (2000). M is for mentoring. *Inform, 3*(7), 16-20.

Kilburg, G. M., & Hancock, T. (2006). Addressing sources of collateral damage in four mentoring programmes. *Teachers College Record, 108*(7), 1321-1338.

Killeavy, M. (2001). Teacher education in Ireland: The induction and continuing professional development of primary teachers. *European Journal of Teacher Education, 24*(2), 115-132.

King, J. (1991). Dysconscious racism: Ideology, identify, and the miseducation of teachers. *Journal of Negro Education, 60*(2), 133–146.

Kingston, C. C. (1983). *The induction of beginning teachers : A ready model : An investigation of beginning teachers' entry to the Otara schools' district, 1982.* Unpublished masters thesis, University of Auckland, Auckland, New Zealand.

Klug, B. J., & Salzman, S. A. (1991). Formal induction vs. Informal mentoring: Comparative effects and outcomes. *Teaching and Teacher Education, 7*, 241-251.

Kozol, J. (1967). *Death at an early age : The destruction of the hearts and minds of Negro children*. Boston: Houghton Mifflin.

Kozol, J. (1991). *Savage inequalities : Children in America's schools* (1st ed.). New York, NY: Crown Publishers.

Kozol, J. (1993). *On being a teacher*. Oxford: Oneworld.

Kozol, J. (1995). *Amazing grace: The lives of children and the conscience of a nation*. New York, NY: Crown Publishers.

Krieg, S., & Sharp, S. (2003). The transition from university to teaching in schools: What knowledge counts, what counts as knowledge? Listening to graduate teacher's voices.

Kvale, S. (1996). *Interviews: An introduction to qualitative research interviewing*. Thousand Oaks, CA: Sage Publications.

Ladson-Billings, G. (1994). *The dreamkeepers: Successful teachers of African-American children*. San Francisco: Jossey-Bass Publishers.

Ladson-Billings, G., & Darling-Hammond, L. (2000). *The validity of national board for professional teaching standards (NBPTS)/interstate new teacher assessment and support consortium (INTASC) assessments for effective urban teachers: Findings and implications for assessments*. District of Columbia: Office of Educational Research and Improvement (ED), Washington, DC.

Lang, C. (1996). *Preparedness for teaching: Beginning teachers' views of their pre-service programmes and their first year of teaching*. Unpublished masters thesis, University of Waikato, Hamilton, New Zealand.

Lang, C. (1999, November 29-December 3). *When does it get any easier? Beginning teachers' experiences during their first year of teaching*. Paper presented at the Joint Conference of the Australian Association for Research in Education and New Zealand Association for Research in Education, Melbourne, VIC.

Lang, C. (2001). When does it get any easier?: Beginning teachers' experiences during their first year of teaching. *Journal of Teachers Work, 7*.

Langdon, F. (2000). *Principals' perceptions of effective beginning teachers and the pre-service graduate qualification.* Unpublished masters thesis. University of South Australia, Adelaide, SA.

Langdon, F. (2008) *Beginning teacher learning and professional development: An analysis of induction programmes.* Unpublished doctoral thesis, University of Waikato, Hamilton, New Zealand.

Lareau, A. (1989). *Home advantage: Social class and parental intervention in elementary education*. New York: Falmer Press.

Lather, P. (1986). Research as praxis. *Harvard Educational Review, 56*(3), 257-277.

Lave, J. (1991). Situated learning in communities of practice. In J. M. L. Lauren B. Resnick, and Stephanie D. Teasley (Ed.), *Perspectives on socially shared cognition*. Washington, DC: American Psychological Association.

Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge, UK: Cambridge University Press.

Le Metais, J. (1997). Continuing professional development: The European experience. In H. Tomlinson (Ed.), *Managing continuing professional development in schools*. London: Paul Chapman.

Levesque, M., & Gervais, C. (2000). L'insertion professionnelle: Une etape a reussir dans le processus de professionnalisation de l'enseignement: Professional induction: A stage to succeed in during the process of professionalizing teaching. *Education Canada, 40*(1), 12-15,24.

Levin, B. (2002). Lives of teachers: Update on a longitudinal case study. *Teacher Education Quarterly, 28*(3), 29-47.

Levine, A. (2006). Educating school teachers. Retrieved September 20, 2006, from http://www.edschools.org/pdf/Educating_Teachers_Report.pdf

Levine, J. M., & Moreland, R. L. (1991). Culture and socialization in work groups. In L. B. Resnick, J.M. Levine, and S. D. Teasley (Eds.), *Perspectives on socially shared cognition*. Washington, DC: American Psychological Association.

Lewis, L., Parsad, B., Carey, N., Barfai, N., Farris, E., & Smerdon, B. (1999). *Teacher quality: A report on the preparation and qualifications of public school teachers*. Washington, D.C: U.S. Department of Education.

Lewis, P., MacKay, S., & Varley, S. (2000, September 7-10). *Monitoring the induction experience of newly qualified teachers.* Paper presented at the British Educational Research Association Annual Conference, Cardiff University.

Lieberman, A. (Ed.). (1988). *Building a professional culture in schools*. New York: Teachers College Press.

Lin, H., Gorrel, J., & Taylor, J. (2002). Influence of culture and education on U.S. And Taiwan preservice teachers' efficacy beliefs. *The Journal of Education Research, 96*(1), 37-46.

Lipton, L., & Wellman, B. (2003). *Mentoring matters: A practical guide to learning-focused relationships*. Sherman, CT: Mira Via, LLC.

Little, J. W. (1990). The mentor phenomenon and the social organization of teaching *Review of Research in Education, 16*, 297-351.

Little, J. W. (1999). The persistence of privacy: Autonomy and initiative in teachers' professional relations. *Teachers College Record, 91*(4), 509-536.

Lokan, J. (2003). *Factors that sustain today's teachers* (No. ORA 27). Deakin West A.C.T.: Australian College of Educators.

Lopez, A., Lash, A., Schaffner, M., Shields, P., & Wagner, M. (2004). *Review of research on the impact of beginning teacher induction on teacher quality and retention*. Menlo Park, CA: SRI International.

Lortie, D. (1975). *Schoolteacher: A sociological study*. Chicago, IL: University of Chicago Press.

Louden, W. (1992). Understanding reflection through collaborative research. In A. Hargreaves

and M. Fullan (Eds.) *Understanding teacher development.* London: Cassell.

Luft, J. A., Roehrig, G. H., & Patterson, N. C. (2003). Contrasting landscapes: A comparison of the impact of different induction programs on beginning secondary science teachers' practices, beliefs, and experiences. *Journal of Research in Science Teaching, 40*(1), 77-97.

Lyman, L. L., & Villani, C. J. (2004). *Best leadership practices for high-poverty schools*. Lanham, Md.: ScarecrowEducation.

Maguire, M. (2001). The cultural formation of teachers' class consciousness: Teachers in the inner city. *Journal of Education Policy, 16*(4), 315-331.

Main, S. (2007). Toward a pedagogical framework: New Zealand induction. *Journal of In-Service Education*, 33(2), 237-240.

Main, S. (2008). Pedagogical oversights: Age and experience in New Zealand induction. *Journal of Education for Teaching*. 34(2), 121-137.

Mansell, R. (1996a, December 5-8). *Professional development of beginning teachers: How does it work?* Paper presented at the New Zealand Association for Research in Education, Nelson, New Zealand.

Mansell, R. (1996b). *A satisfactory teacher. How are year 1 and 2 teachers being supported in their schools to make progress toward this standard?* Paper presented at the Teacher Education to Standards Conference, Dunedin.

Marable, M. A., & Raimondi, S. L. (2007). Teachers' perceptions of what was most (and least) supportive during their first year of teaching. *Mentoring & Tutoring, 15*(1), 25-37.

Martin, A., & Marsh, H. (2007, 5-8 September). *School-related buoyancy: A framework for understanding 'everyday resilience' of students and school personnel.* Paper presented at the Annual Meeting of the British Educational Research Association, London.

Martinez, K. (1994). Teacher induction revisited. *Australian Journal of Education, 38*(2), 174-188.

Martinez, K. (2004). Mentoring new teachers : Promise and problems in times of teacher shortage. *Australian Journal of Education, 48*(1), 95-108.

Matos, C. (2002). *A study on the concerns and support needed by beginning teachers regarding planning, administration and class management to increase the effectiveness of the tutor teacher and the use of the 0.2 release time.* Unpublished masters thesis, Auckland College of Education, Auckland, New Zealand.

McCann, T. M., & Johannessen, L., R. (2004). Why do new teachers cry? *Clearing House, 74*(4), 138-145.

McKenzie, P., & Santiago, P. (2005). *Teachers matter: Attracting, developing and retaining effective teachers*. Paris: Organisation for Economic Co-operation and Development.

McNally, J. (2002). Developments in teacher induction in Scotland and implications for the role of higher education. *Journal of Education for Teaching, 28*(2), 149-164.

McNally, J. (2006). Confidence and loose opportunism in the science classroom: Towards a pedagogy of investigative science for beginning teachers. *International Journal of Science Education, 28*(4), 423-438.

Megginson, D. (2000). Current issues in mentoring. *Career Development International, 5*(4-5), 256-260.

Meyer, T., & Achinstein, B. (1998, April 13-17). *Collaborative inquiry among novice teachers as professional development: Sustaining habits of heart and mind.* Paper presented at the Annual Meeting of the American Educational Research Association, San Diego, CA.

Mills, H., Moore, D., & Keane, W. G. (2001). Addressing the teacher shortage: A study of successful mentoring programs in Oakland county, Michigan. *Clearing House, 74*(3), 124-126.

Mitchell, D. E., Scott, L. D., Hendrick, I. G., & Boyns, D. E. (1998). *The California beginning teacher support and assessment program. 1998 statewide evaluation study* (No. TT004). California: Riverside County Dept. of Education, CA.

Moir, E. (2003, July 28-30). *Launching the next generation of teachers through quality induction.* Paper presented at the National Committee on Teaching and America's Future, Denver, CO.

Moir, E. (2006). *Final report on the evaluation of the professional development initiative for mathematics and literacy teachers*. Santa Cruz, CA: New Teacher Center.

Moir, E., & Gless, J. (2001). Quality induction: An investment in teachers. *Teacher Education Quarterly, 28*(1), 109-115.

Moghaddam, F., Walker, B., & Harre, R. (2003). Cultural distance, levels of abstraction, and the advantages of mixed methods. In A. Tashakkori & C. Teddlie (Eds.), *Handbook of mixed methods in social & behavioral research.* (pp. 111-134). Thousand Oaks, CA: Sage.

Moran, A., Dallat, J., & Abbott, L. (1999). Newly qualified teachers in post-primary schools in Northern Ireland: The support provided for their needs and their own vision for induction. *European Journal of Teacher Education, 22*(2&3), 173-189.

Morton, M. L. (2005). Practicing praxis: Mentoring teachers in a low-income school through collaborative action research and transformative pedagogy. *Mentoring and Tutoring, 13*(1), 53-72.

Moskowitz, J., & Kennedy, S. (1997). Teacher induction in an era of educational reform: The case of New Zealand. In J. Moskowitz & M. Stephens (Eds.), *Students of teaching to teachers of students: Teacher induction around the Pacific rim*. District of Columbia: Department of Education, Washington, DC. Office of the Under Secretary.

Moskowitz, J., & Stephens, M. (Eds.). (1997). *From students of teaching to teachers of students: Teacher induction around the Pacific Rim*. District of Columbia: Department of Education, Washington, DC. Office of the Under Secretary.

Mugglestone, P. (2004). *New Brunswick's beginning teacher induction program: Where do we go from here?* Unpublished masters thesis, University of New Brunswick, New Brunswick, Canada.

Muijs, D., Harris, A., Chapman, C., Stoll, L., & Russ, J. (2004). Improving schools in socioeconomically disadvantaged areas--a review of research evidence. *School Effectiveness and School Improvement, 15*(2), 149-175.

Muijs, D., & Harris, A. (2007). Teacher leadership in (in)action: Three case studies of contrasting schools. *Educational Management, Administration and Leadership,* 35(1), 111-134.

Mulford, B. (2003). *The role of school leadership in attracting and retaining teachers and promoting innovative schools and students. Commissioned paper by the review of teaching and teacher education*. Canberra: Department of Education, Science and Training Accessed 9/May/2006 at http://www.dest.gov.au/sectors/school_eduSWcation/publications_resources/profiles/school_leadership.htm

Murdoch, R. T. (1978). *Professional development: The induction and education of beginning teachers*. Christchurch, New Zealand: Christchurch Teachers College.

Murdoch, R. T. (1979a, 27 March). *Induction to teaching and the role of the teachers colleges.* Paper presented at the Teachers Colleges Principals Conference, Christchurch, New Zealand.

Murdoch, R. T. (1979b, 12 June). *Teacher induction: The current situation.* Paper presented at the School Principal Seminar, Palmerston North, New Zealand.

Murphy, S. C., & Huling-Austin, L. (1987, April 20-24). *The impact of context on the classroom lives of beginning teachers.* Paper presented at the Annual Meeting of the American Educational Research Association, Washington, DC.

Murray, S. (2006). *Beginning teachers 2000-2004: Characteristics, employment trends, qualifications and subjects*. Wellington, New Zealand: Ministry of Education.

Murrell, P. C., Jr. (2000). Community teachers: A conceptual framework for preparing exemplary urban teachers. *Journal of Negro Education, 69*(4), 338-348.

Murshidi, R., Konting, M. M., & Elias, H. (2006). Sense of efficacy among beginning teachers in Sarawak. *Teaching Education, 17*(3), 265-275.

Myint Myint, S. (1999). Japanese beginning teachers' perceptions of their preparation and professional development. *Journal of Education for Teaching, 25*(1), 17.

National Center for Education Statistics. (1997). *The characteristics of stayers, movers, and leavers: Results from the teacher follow-up survey, 1994-95. [NCES 97450].* Washington, D.C.: United States Department of Education.

National Center for Education Statistics. (2004). *Teacher attrition and mobility: Results of the teacher follow-up survey,2000-2001.* Washington, DC: United States Department of Education, 301.

Neuweiler, H. B. (1988). *Teacher education policy in the states: A 50 state survey of legislative and administrative actions*. Washington, DC: AACTE.

New Zealand Teachers Council. (2006). Retrieved May 14, 2006, from http://www.teacherscouncil.govt.nz/

Ng, L. (2006). *Monitoring teacher supply: Survey of staffing in New Zealand schools at the beginning of the 2006 school year*. Wellington, New Zealand: Ministry of Education.

Nias, J. (1998). Learning the job while playing a part: Staff development in the early years of teaching. In G. Southworth (Ed.), *Readings in primary school management*. London: Falmer Press.

Nias, J., Southworth, G., & Yeomans, R. (1993). *Staff relationships in the primary school*. London: Cassell Educational Limited.

O'Brien, J., & Christie, F. (2005). Characteristics of support for beginning teachers: Evidence from the new teacher induction scheme in Scotland. *Mentoring & Tutoring, 13*(2), 189-203.

O'Brien, P., & Goddard, R. (2006). Beginning teachers: Easing the transition. *The Australian Educational Leader, 28*(1), 28-31.

Odell, S. (1987). Teacher induction: Rationale and issues. In D. Brooks (Ed.), *Teacher induction: A new beginning* (pp. 69-80). Reston, VA: Association of Teacher Educators

Odell, S., & Huling, L. (Eds.). (2000). *Quality mentoring for novice teachers*. Indianapolis, Indiana: Kappa Delta Pi.

Odell, S. J., & Ferraro, D. P. (1992). Teacher mentoring and teacher retention. *Journal of Teacher Education, 43*(3), 200-204.

Older, A. (2007). Building successful teaching and learning models. Retrieved January 4, 2008, from http://www.ingenio.auckland.ac.nz/uoa/for/alumni/news/ingenio/archive/a07/6/1.cfm

Olebe, M. (2001). A decade of policy support for California's new teachers: The beginning teacher support and assessment program. *Teacher Education Quarterly, 28*(1), 71-84.

Olebe, M. (2005). Helping new teachers enter and stay in the profession. *Clearing House, 78*(4), 158.

Olebe, M., Jackson, A., & Danielson, C. (1999). Investing in beginning teachers--the California model. *Educational Leadership, 56*(8), 41-44.

Onwuegbuzie, A & Teddlie, C. (2003) A framework for analysing data in mixed methods research. In A. Tashakkori & C. Teddlie (Eds.) *Handbook of mixed methods research in social & behavioral research* (pp.351-384). Thousand Oaks, CA: Sage Publications.

Paradise, D. (1998). New profession teacher project: Standards development. Retrieved April 15, 2007, from http://www.ccsso.org/projects/Interstate_New_Teacher_Assessment_and_Support/Consortium/Projects/Standards_Development/

Pardini, P. (2002). Stitching new teachers into the school's fabric. *Journal of Staff Development, 23*(3), 23-26.

Parker, M. B. (2003). Curriculum resources as a vehicle for facilitating inquiry during induction into teaching. *Curriculum and Teaching, 18*(2), 35-49.

Patterson, M. (2005). Hazed. *Teacher* (164), 16-19.

Peeler, E., & Jane, B. (2003, November 29-December 3). *Mentoring: Bridging the identity crisis for beginning teachers.* Paper presented at the New Zealand Association for Research in Education /Australian Association for Research in Education Annual Conference, Auckland, New Zealand.

Pettigrew, R. (2004). *How do New Zealand secondary schools support and retain young teachers who have made teaching their first career?* Unpublished masters thesis, University of Waikato, Hamilton, New Zealand.

Phipps, C. (2001). Being a professional means nurturing others. *English Journal, 90*(4), 23-24.

Pihama, L, Cram, F., & Walker, S. (2002). Creating methodological space: A literature review of Kaupapa Maori research. *Canadian Journal of Native Education. 26, 1.* pp.30-43.

Pohatu, T. (1996). *I tipu ai taatou i ngaa turi o o taatau maatua tipuna: Transmission and acquisition processes within Kawai whakapapa.* Unpublished masters thesis, The University of Auckland.

Portner, H. (Ed.). (2005). *Teacher mentoring and induction: The state of the art and beyond*. Thousand Oaks, CA: Corwin Press.

Power, A., & Hine, A. (2003, November 29-December 3). *The accomplished teacher as mentor.* Paper presented at the New Zealand Association for Research in Education /Australian Association for Research in Education Annual Conference, Auckland, New Zealand.

Prisoners of time. (1994). Washington, DC: Education Commission of the States.

The quality of year two beginning teachers. (2004). Wellington, New Zealand: Educational Review Office.

Quartz, K. H. (2003). "Too angry to leave": Supporting new teachers' commitment to transform urban schools. *Journal of Teacher Education, 54*(2), 99-111.

Rata. E. (2001). Teachers and socioeconomic class in education. In V. Carpenter, H. Dixon, E. Rata, & C. Rawlinson (Eds.), *Theory in practice for educators* (pp. 137-160). Palmerston North, New Zealand: Dunmore Press.

Raymond, D., Butt, R., & Townsend, D. (1992). Contexts for teacher development: Insights from teachers' stories. In A. Hargreaves & M. Fullan (Eds.), *Understanding teacher development* (pp. 143-161). London: Cassell.

Reay, D. (1995). They employ cleaners to do that: Habitus in the primary classroom. *British Journal of Sociology of Education, 16*(3), 353-371.

Recruitment, education, and training of teachers. (1948). Wellington, New Zealand: Report of the Consultative Committee.

Reiman, A., & Thies-Sprinthall, L. (1997). *Mentoring and supervision for teacher development*. New York: Longman.

Reinharz, S. (1979). *On becoming a social scientist*. San Francisco, CA: Jossey-Bass.

Renwick, M. (2001). *Support for beginning teachers: Final report*. Wellington, New Zealand: Ministry of Education.

Renwick, M., & Vise, J. (1993). *Windows on teacher education: Student progress through colleges of education and the first year in the classroom*. Wellington, New Zealand: New Zealand Council for Education Research.

Report of the commission on education in New Zealand [Currie Report] (1962, July). Wellington, New Zealand: Department of Education.

Reynolds, A. (1992). What is competent beginning teaching? A review of literature. *Review of Educational Research, 62*(1), 1-36.

Riggs, I. M. (1997, February 26-March 1). *The use of portfolios in beginning teacher support and assessment.* Paper presented at the Annual Meeting of the American Association of Colleges for Teacher Education Phoenix, AZ.

Riggs, I. M. (2000). *The impact of training and induction activities upon mentors as indicated through measurement of mentor self-efficacy* (No. ED 442 639): ERIC document reproduction services.

Riggs, I. M., & Sandlin, R. A. (2002, April 1-5). *Professional development of mentors within a beginning teacher induction program: How does the garden (mentors) grow?* Paper presented at the Annual Meeting of the Educational Research Association New Orleans, LA.

Riggs, L., & Scott, L. (1999, 20 April). *Challenges in the retention of new teachers: The significance of structured support.* Paper presented at the Annual Conference of the American Educational Research Association, Montreal, Canada.

Rippon, J., & Martin, M. (2006a). Call me teacher: The quest of new teachers. *Teachers and Teaching: Theory and Practice, 12*(3), 305-325.

Rippon, J., & Martin, M. (2006b). What makes a good induction supporter? *Teaching & Teacher Education: An International Journal of Research and Studies, 22*(1), 84-99.

Rist, R. (1970). Student social class and teacher expectation: The self-fulfilling prophesy in ghetto education. *Harvard Education Review, 40*(4), 411-451.

Roberts, A. (2000). Mentoring revisited: A phenomenological reading of the literature. *Mentoring & Tutoring, 8*(2), 145-170.

Robinson, G. W. (1998, October 14-17). *New teacher induction: A study of selected new teacher induction models and common practices.* Paper presented at the Annual Meeting of the Midwestern Educational Research Association, Chicago, IL.

Rogers, D. L., & Babinski, L. (1999). Breaking through isolation with new teacher groups. *Educational Leadership, 56*(8), 38-40.

Rolley, L. (2001). Another cry in the wilderness? *Unicorn, 27*(3), 37-40.

Rosenblatt, Z. (2001). Teachers' multiple roles and skill flexibility: Effects on work attitudes. *Educational Administration Quarterly, 37*(5), 684-708.

Rowley, J. (2005). Mentor teachers as instructional coaches. In H. Portner (Ed.), *Teacher mentoring and induction: The state of the art and beyond* (pp.109-128). London: Corwin.

Rust, F. (2002). Professional conversations: New teachers explore teaching through conversation, story, and narrative. In N. Lyons & V. LaBoskey (Eds.), *Narrative inquiry in practice: Advancing the knowledge of teaching* (pp. 173-188). New York: Teachers College Press.

Saffold, F. (2006). Retaining urban teachers: The impact of mentoring *Journal of Urban, Learning, Teaching and Research, 2*, 231-238.

Sargent, B. (2003). Finding good teachers- and keeping them. *Educational Leadership, 60*(8), 44-47.

Schalock, D., Hansen, J. B., & Schalock, M. D. (2001). *A contextual variable influencing the performance of first and second year teachers*. Monmouth, OR: Western Oregon University, Teacher Research Division.

Schalock, D., Hansen, J. B., & Schalock, M. D. (2002). *The range of teaching proficiency observed in first and second year teachers*. Monmouth, OR: Western Oregon University, Teacher Research Division.

Scherer, M. (Ed.). (1999). *A better beginning supporting and mentoring new teachers*. Alexandria, VA: Association for Supervision and Curriculum Development.

Schön, D. A. (1987). *Educating the reflective practitioner: Toward a new design for teaching and learning in the professions* (1st ed.). San Francisco: Jossey-Bass.

Schofield, J.W. (1990). Increasing the generalizability of qualitative research. In E. Eisner and A. Peshkin (Eds.), *Qualitative inquiry in education: The continuing debate.* New York, NY: Teachers College Press.

Schuck, S. & Segal, G. (2002). Learning about our teaching from our graduates, learning about our learning with critical friends. In J. Loughran & T. Russell, (Eds.) *Improving Teacher Education Practices through Self-Study*, (pp.88-101). London: Routledge Falmer.

Schuck, S. (2003). Getting help from the outside: Developing a support network for beginning teachers. *Journal of Educational Enquiry, 4*(1), 49-67.

Schwarzer, R., & Greenglass, E. (1999). Teacher burnout from a social-cognitive perspective: A theoretical position paper. In R. Vandenberghe & A. M. Huberman (Eds.), *Understanding and preventing teacher burnout: A sourcebook of international research and practice* (pp.238-246). Cambridge, UK: Cambridge University Press.

Scott, N. H. (1998). *Careful planning or serendipity? Promoting well-being through teacher induction*. Canada; New Brunswick: New Brunswick Dept. of Education, Fredericton, Canada.

Scott, N. H. (2000a). *Building a strong foundation for teaching: The fifth annual report of the beginning teacher induction program in New Brunswick*. Canada; New Brunswick: New Brunswick Dept. of Education, Fredericton, Canada.

Scott, N. H. (2000b). *Four years later: Issues in teacher induction*. Canada; New Brunswick: New Brunswick Dept. of Education, Fredericton, Canada.

Scott, N. H. (2001). *Mentoring new teachers: A report on the 2001 beginning teacher induction program in New Brunswick*. Canada; New Brunswick: New Brunswick Dept. of Education, Fredericton, Canada.

Selinger, S. (1991, November 21-26). *Share and take: A path to critical reflection for entry-level teachers.* Paper presented at the Annual Conference of the National Council of States on Inservice Education, Houston, TX.

Serpell, Z. (1999). *Beginning teacher induction: A review of the literature.* Washington, DC: American Association of Colleges for Teacher Education.

Serpell, Z., & Bozeman, L. (1999). *Beginning teacher induction: A report on beginning teacher effectiveness and retention.* Washington, DC: National Partnership for Excellence and Accountability in Teaching.

Shepston, T., & Jensen, R. (1997, March 24-28). *Dodging bullets and BMWs: Two tales of teacher induction.* Paper presented at the Annual Meeting of American Educational Research Association, Chicago, IL.

Shimahara, N. K., & Sakai, A. (1995). *Learning to teach in two cultures: Japan and the United States*. New York: Garland.

Simmons, A. (2000). *A guide to developing teacher induction programs*. Belmont, MA: Recruiting New Teachers Inc.

Siraj-Blatchford, I. (2007, September 5-9). *Exploring the potential for a distinct paradigm for integrating methodologies.* Paper presented at the Annual Meeting of the British Educational Research Association, London.

Sizer, T. (1984). *Horace's compromise: The dilemma of the American high school*. Boston: Houghton-Mifflin.

Smith, G. (1997). *The development of Kaupapa Mäori: Theory and praxis.* Unpublished doctoral dissertation, The University of Auckland.

Smith, M., & Ingersoll, R. M. (2004). What are the effects of induction and mentoring on beginning teacher turnover? *American Educational Research Journal, 41*(3), 681-714.

Sparrow, L., & Frid, S. (2001, December 2-6). Beginning teachers of primary mathematics : Recurring themes and emerging issues. Paper presented at the Australian Association for Research in Education, Fremantle, WA.

Sprinthall, N. A., Reiman, A. J., & Theis-Sprinthall, L. (1996). Teacher professional development. In J. Sikula (Ed.), *Handbook of research on teacher education.* (pp. 666–703). New York: Macmillan.

Stansbury, K., & Zimmerman, J. (2000). *Lifelines to the classroom: Designing support for beginning teachers*. San Francisco, CA: WestEd.

Stansbury, K., & Zimmerman, J. (2002). Smart induction programs become lifelines for the beginning teacher. *Journal of Staff Development, 23*(4), 10-17.

Steadman, S. (2005, April 14-20). *Early career learning at work (LINEA) project. Methodological and theoretical frameworks.* Paper presented at the Annual Meeting of the American Educational Research Association, Montreal, Canada.

Stockard, J., & Lehman, M. B. (2004). Influences on the satisfaction and retention of 1st-year teachers: The importance of effective school management. *Educational Administration Quarterly, 40*(5), 742 - 771.

Strauss, A., & Corbin, J. (1990). *Basics of qualitative research: Grounded theory procedures and techniques* Newbury Park, CA: Sage Publications.

Strong, M. (1998a). A comparison of SCNTP beginning teachers and experienced teachers as measured by student performance on SAT9: University of California, Santa Cruz, New Teacher Center.

Strong, M. (1998b). Study of reading performance among 1-3 grade students in classes taught by SCNTP teachers: University of California, Santa Cruz, New Teacher Center.

Strong, M. (2006a). *Induction, mentoring and teacher retention: A summary of the research*. Santa Cruz: New Teacher Center.

Strong, M. (2006b). Overview of research on induction: Questions, methods, findings, and challenges, *PowerPoint*. Santa Cruz, CA: New Teacher Center, University of California.

Strong, M., & Baron, W. (2003, April 21-25). *An analysis of mentoring conversations with beginning teachers: Suggestions and responses.* Paper presented at the Annual Conference of the American Educational Research Association, Chicago, IL.

Strong, M., & St. John, L. (2001). A study of teacher retention: The effects of mentoring for beginning teachers: University of California, Santa Cruz, New Teacher Center.

Stroot, S. A., Fowlkes, J., Langholz, J., Paxton, S., Stedman, P., Steffes, L., et al. (1999). Impact of a collaborative peer assistance and review model on entry-year teachers in a large urban school setting. *Journal of Teacher Education, 50*(1), 27-41.

Suters, L. A., & Kershaw, C. (2002, November 6-8). *Mentoring: Findings from a Title II teacher quality enhancement grant.* Paper presented at the Annual Meeting of the Mid-South Educational Research Association Chattanooga, TN.

Sykes, G. (1999). Teacher and student learning: Strengthening their connection. In L. Darling-Hammond & G. Sykes (Eds.), *Teaching as a learning profession: Handbook of policy and practice* (pp.151-180). San Francisco, CA: Jossey-Bass.

Taking the next bold step to America's future: A national conference on teacher quality (2000). Washington, DC: Department of Education.

Tashakkori, A., & Teddlie, C. (Eds.). (2003). *Handbook of mixed methods in social & behavioral research*. Thousand Oaks, CA: SAGE Publications.

Thiessen. (1992). Classroom-based teacher development. In A. Hargreaves & M. Fullan (Eds.), *Understanding teacher development*. London: Cassell.

Thomas, P., & Newton, S. (2001, April 10-14). *Evaluating the effectiveness of beginning teacher programs in a large urban school district.* Paper presented at the Annual Meeting of the American Educational Research Association, Seattle, WA.

Thrupp, M. (2001). Education policy and social class in England and New Zealand: A constructive comparison. *Journal of Education Policy, 6*(4), 297-314.

Tickle, L. (1994). *The induction of new teachers: Reflective professional practice*. London: Cassell Educational.

Tickle, L. (2000a). *Teacher induction: The way ahead*. Buckingham, UK: Open University Press.

Tickle, L. (2000b). Teacher probation resurrected: England 1999-2000. *Journal of Education Policy, 15*(6), 701-713.

Tickle, L. (2001). Professional qualities and teacher induction. *Journal of In-Service Education, 27*(1), 51-64.

Timperley, H. (2001). Mentoring conversations designed to promote student teacher learning. *Asia-Pacific Journal of Teacher Education, 29*(2).

Timperley, H. (2003). *The sustainability of professional development literacy*. Wellington, New Zealand: Ministry of Education.

Timperley, H., & Parr, J. M. (2004). *Using evidence in teaching practice: Implications for professional learning* (1st ed.). Auckland, New Zealand: Hodder Moa Beckett.

Timperley, H., & Phillips, G. (2003). Changing and sustaining teachers' expectations through professional development in literacy. *Teaching and Teacher Education, 19*(6), 627-641.

Timperley, H., & Wiseman, J. (2003). *The sustainability of professional development literacy 2*. Wellington, New Zealand: Ministry of Education.

Tisher, R. P., Fyfield, J. A., Taylor, S. M., & Dunn, S. S. (1979). *Beginning to teach: The induction of beginning teachers in Australia: Research report on stage 2 of the teacher induction project* (ERDC report no.20). Canberra: Australian Government Publishing Service.

Top of the class: Report on the inquiry into teacher education. (2007). Canberra, ACT: The Parliament of the Commonwealth of Australia House of Representatives Standing Committee on Education and Vocational Training.

Totterdell, M., Bubb, S., Woodroffe, L., & Hanrahan, K. (2004). *The impact of newly qualified teachers (NQT) induction programmes on the enhancement of teacher expertise, professioanl development, job satisfaction or retention rates: A systematic review of research literature on induction*. London: EPPI-Centre, Social Sciences Research Unit, Institute of Education.

Totterdell, M., Heilbronn, R., Bubb, S., & Jones, C. (2002). *Evaluation of the effectiveness of the statutory arrangements for the induction of newly qualified teachers.* London: Department for Education and Skills.

Towards full registration: A support kit for provisionally registered teachers in centres, kura and schools (2006). Wellington, New Zealand: Teachers Council.

Tracey, L., Homer, M., Malderez, A., & Hobson, A. (2007, 5-8 September). *Less painful beginnings? The transition from student teacher to NQT in England.* Paper presented at the Annual Meeting of the British Educational Research Association, London.

Trenta, L., Newman, I., Newman, C., Salzman, J., Lenigan, D., & Newman, D. (2002, February 27-March 2). *Evaluation of a teacher mentoring program using a mixed methods approach.* Paper presented at the Annual Meeting of the Eastern Educational Research Association Sarasota, FL.

Trevethan, H. (2006). Beginning teaching, *T.E.F.A.N.Z.* Dunedin, New Zealand.

Truscott, D., & Roden, J. (2006). Perceptions about urban schools: Changes in preservice teachers after working in a city school. *Journal of Urban, Learning, Teaching and Research, 2*, 175-184.

Tschannen-Moran, M., & Woolfolk-Hoy, A. (2001). Teacher efficacy: Capturing an elusive construct. *Teaching and Teacher Education, 17*, 783-805.

Tschannen-Moran, M., Woolfolk-Hoy, A., & Hoy, W. K. (1998). Teacher efficacy: Its meaning and measure. *Review of Educational Research, 68*, 202-248.

Turk, R. (1999). Get on the team: An alternative mentoring model. In M. Scherer (Ed.), *A better beginning: Supporting and mentoring new teachers*. Alexanderia, VA: Association for Supervision and Curriculum Development.

Turnbull, M. D. (2002). *Student teacher professional agency in the practicum: Myth or possibility?* Unpublished doctoral thesis, Curtin University of Technology, Perth, WA.

Tushnet, N. C., Briggs, D., Elliot, J., Esch, C., & Haviland, D. (2002). *Final report of the independent evaluation of the beginning teacher support and assessment program*. San Francisco, CA: WestEd.

Unfulfilled promise: Ensuring high quality teachers for our nation's students. No child left behind: A status report from Southeastern schools. (2004). Chapel Hill: Southeast Center for Teaching Quality.

Valli, L., Raths, J., & Rennert-Ariev, P. (2001). *A beginning teacher survey study: A theoretical perspective*. Washington, DC: Office of Educational Research and Improvement (ED).

Valsiner, J. (1987). *Culture and the development of children's actions: A theory of human development.* Chichester, UK: John Wiley & Sons.

Vandenberghe, R., & Huberman, A. M. (Eds.). (1999). *Understanding and preventing teacher burnout : A sourcebook of international research and practice*. Cambridge, UK: Cambridge University Press.

Varah, L. J., Theune, W. S., & Parker, L. (1986). Beginning teachers: Sink or swim? *Journal of Teacher Education 37*(1), 30-34.

Villani, S. (2002). *Mentoring programs for new teachers: Models of induction and support*. Thousand Oaks, CA: Corwin Press.

Villar, A., & Strong, M. (2005). Is mentoring worth the money? A benefit-cost analysis and five-year rate of return of a comprehensive mentoring program for beginning teachers: University of California, Santa Cruz, New Teacher Center.

Voices: Beginning teachers' experiences during their first two years of teaching. (2005). Wellington, New Zealand: Education Review Office.

Vonk, J. H. C. (1994). Teacher induction: The great omission in education. In M. Galton & B. Moon (Eds.), *Handbook of teacher training in Europe* (pp.85-109). London: David Fulton.

Vygotskii, L. S., & Kozulin, A. (1986). *Thought and language* (A. Kozulin, Trans.). Cambridge, MA: MIT Press.

Walsdorf, K. L., & Lynn, S. K. (2002). The early years: Mediating the organizational environment. *Clearing House, 75*(4), 190-194.

Wang, J. (2004). Mentor-novice conversations about teaching: A comparison of two US and two Chinese cases. *Teachers College Record, 106*(4), 775-813.

Way, C. E. (2001). Teacher development: A strategy for school improvement. *LAB Education Notes, 3*(2), 4-7.

Wayne, A. J., Youngs, P., & Fleischman, S. (2005). Improving teacher induction. *Educational Leadership, 62*(8), 76-78.

Wegerif, R., & Mercer, N. (1997). A dialogical framework for researching peer talk. In R. Wegerif & P. Scrimshaw (Eds.), *Computers and talk in the primary classroom* (pp. 49-61). Cleveland, OH: Multilingual Matters Ltd.

Weiss, E. M., & Weiss, S. G. (1999). *Beginning teacher induction. Eric digest* (No. EDOSP19993). District of Columbia: Office of Educational Research and Improvement (ED), Washington, DC.

Wells, G. (2002, April). *A theoretical rationale for mentoring as a mode of teacher professional development.* Paper presented at the Annual Meeting of the American Educational Research Association, New Orleans, LA.

What matters most: Report of the national commission on teaching and America's future. (1996). New York: National Commission on Teaching and America's Future.

Whisnant, E., Elliot, K., & Pynchon, S. (2005). A review of literature on beginning teacher induction. Retrieved 30 August, 2006, from http://www.cstp-wa.org/Navigational/Policies_practices/Teacher_induction/A_Review_of_Literature.pdf

White, J. (2005). When innocence meets experience. *Practically Primary, 10*(1), 13-15.

White, J., & Moss, J. (2003, November 29-December 3). Professional paradoxes: Context for development of beginning teacher identity and knowledges. Paper presented at Australian Association for Research in Education and New Zealand Association for Research in Education Conference, Auckland, New Zealand.

Wildman, T., Niles, J., Magliaro, S., & McLaughlin, R. (1990). Promoting reflective practice among beginning and experienced teachers. In R. Clift, W. R. Houston & M. Pugach (Eds.), *Encouraging reflective practice*. New York: Teachers College Press.

Wilkins-Canter, E. A., Edwards, A. T., Young, A. L., Ramanathan, H., & McDougle, K. O. (2000). Gateways to experience. Preparing novice teachers to handle stress. *Kappa Delta Pi Record, 36*(3), 128-130.

Williams, A. (2003). Informal learning in the workplace: A case study of new teachers. *Educational Studies, 29*(2/3), 207-219.

Williams, A., & Prestage, S. (2001, December 2-6). *Teacher culture and the induction of newly qualified teachers.* Paper presented at the Australian Association for Research in Education, Fremantle, WA.

Williams, A., & Prestage, S. (2002). The induction tutor: Manager, mentor or both? *Mentoring and Tutoring, 10*(1), 35-45.

Williams, A., Prestage, S., & Bedward, J. (2001). Individualism to collaboration: The significance of teacher culture to the induction of newly qualified teachers. *Journal of Education for Teaching, 27*(3), 253-267.

Williams, C. (2002, December 1-5). *Telling tales: Stories from new teachers in NSW country schools.* Paper presented at the Annual Conference of the Australian Association for Research in Education, Brisbane, QLD.

Wilson, V., Hall, J., Davidson, J., & Lewin, J. (2006). *Developing teachers: A review of early professional learning* (No. 4). Glascow: GTCS, University of Glasgow.

Wineburg, M. S. (2006). Evidence in teacher preparation: Establishing a framework for accountability. *Journal of Teacher Education, 57*(1), 51-64.

Winkler, A. (2002). Division in the ranks: Standardized testing draws lines between new and veteran teachers. *Phi Delta Kappan, 84*(3), 219-225.

Wolfe, E. W., Ray, L. M., & Harris, D. C. (2004). A Rasch analysis of three measures of teacher perception generated from the school and staffing survey. *Educational and Psychological Measurement, 64*(5), 842-860.

Wonacott, M. E. (2002). *Teacher induction programs for beginning CTE teachers. In brief: Fast facts for policy and practice* (No. NDCCTE19). Ohio: Office of Vocational and Adult Education (ED), Washington, DC.

Wong, H. (2005). New teacher induction: The foundation for coherent, comprehensive and sustained professional development. In H. Portner (Ed.), *Teacher mentoring and induction: The state of the art and beyond*. (pp. 41-58). London: Corwin.

Wong, H., & Asquith, C. (2002). Supporting new teachers. *American School Board Journal, 189*(12), 22-24.

Wong, H., Britton, T., & Ganser, T. (2005). What the world can teach us about new teacher induction. *Phi Delta Kappan, 86*(5), 379-384.

Wood, A. L. (2005). The importance of principals: Site administrators' roles in novice teacher induction. *American Secondary Education, 33*(2), 39-63.

Worthy, J. (2005). 'It didn't have to be so hard": The first years of teaching in an urban school. *International Journal of Qualitative Studies in Education, 18*(3), 379-398.

Yanchar, S. C., & Williams, D. D. (2006). Reconsidering the compatibility thesis and eclecticism: Five proposed guidelines for method use. *Educational Researcher, 35*(6), 3-11.

Young, J. R., Bullough Jr, R. V., Draper, R. J., Smith, L. K., & Erickson, L. B. (2005). Novice teacher growth and personal models of mentoring: Choosing compassion over inquiry. *Mentoring and Tutoring, 13*(2), 169-188.

Youngs, P. (2002). *State and district policy related to mentoring and new teacher induction in Connecticut*. Connecticut: National Commission on Teaching & America's Future, New York, NY.

Yuen-Fun, I. W. (2003, November 29-December 3). *Toward an agenda for helping the beginning teacher: Perceptions of concerns and best help strategies.* Paper presented at the Annual Meeting of the Australian Association for Research in Education / New Zealand Association for Reseach in Education, Auckland, New Zealand.

Zeek, C., Foote, M., & Walker, C. (2001). Teacher stories and transactional inquiry: Hearing the voices of mentor teachers. *Journal Of Teacher Education, 52*(5), 377-385.

Zeek, C., & Walker, C. (2006). There's nothing easy about mentoring. In J. Dangel (Ed.), *Research on teacher induction: Teacher education yearbook XIV* (pp.279-294). Lanham, Maryland: Rowman and Littlefield Education.

Zeichner. (1979, April). *Teacher induction practices in the US and Great Britain.* Paper presented at the Annual Meeting of the American Educational Research Association, San Francisco, CA.

Zeichner, K. (1993). *Educating teachers for cultural diversity (NCRTL special report)*. East Lansing, MI: National Center for Research on Teacher Learning.

Zeichner, K. (2003). The adequacies and inadequacies of three current strategies to recruit, prepare and retain the best teachers for all students. *Teachers College Record, 105*(3), 490-519.

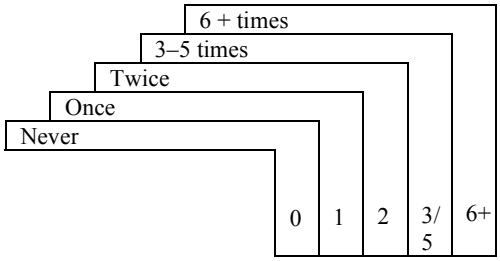
Zeichner, K., & Conklin, H. (2005). Teacher education programs. In M. Cochran-Smith & K. Zeichner (Eds.), *Studying teacher education: The report of the AERA panel on research and teacher education* (pp. 645-735). Washington, DC: American Educational Research Association.

Zeichner, K., & Gore, J. (1990). Teacher socialization. In W. R. Houston (Ed.), *Handbook of research on teacher education*. New York, NY: Macmillan.

Appendix A: Survey

Questionnaire for Provisionally Registered Teachers

For each question, fill in one bubble completely with black/blue pen or pencil. If you change your mind, put an X through that response, and fill in the one bubble you want to be counted.



Since beginning my teaching career, I have…

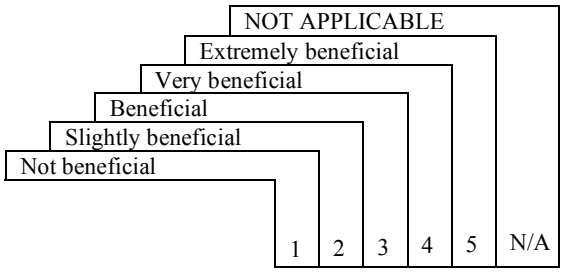
1.	Met with a supervising tutor teacher who is fully registered	1.	0	0	0	0	0
2.	Engaged in professional discussions with colleagues focused on students' learning	2.	0	0	0	0	0
3.	Participated in external professional development experiences	3.	0	0	0	0	0
4.	Kept a written record of advice and guidance programme	4.	0	0	0	0	0
5.	Been videoed for professional development	5.	0	0	0	0	0
6.	Been formally observed	6.	0	0	0	0	0
7.	Observed and discussed the work of other teachers	7.	0	0	0	0	0
8.	Watched my tutor teacher demonstrating lessons in my classroom	8.	0	0	0	0	0
9.	Met professionally with a group of beginning teachers at my school site	9.	0	0	0	0	0
10.	Networked, shared and learned with other teachers	10.	0	0	0	0	0
11.	Networked, shared and learned with other beginning teachers	11.	0	0	0	0	0

12. My tutor teacher is…
    - ☐ My principal
    - ☐ My assistant principal
    - ☐ Syndicate leader
    - ☐ Teacher in my school
    - ☐ Other _____

13. My tutor teacher was selected by…
    - ☐ My principal
    - ☐ My deputy principal
    - ☐ Syndicate leader
    - ☐ Myself
    - ☐ Don't know
    - ☐ Other _____

Please rate the usefulness of activities in which you have engaged by using the following scale:

1 = Not beneficial 2 = Slightly beneficial 3 = Beneficial
4 = Very beneficial 5 = Extremely beneficial 6 =NOT APPLICABLE



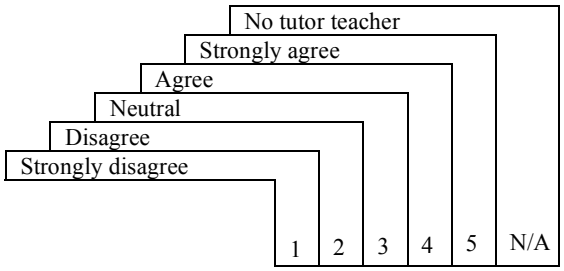
14.	Meeting with a supervising tutor teacher who is fully registered	14.	0	0	0	0	0	0
15.	Engaging in professional discussions with colleagues focused on students' learning	15.	0	0	0	0	0	0
16.	Participating in external professional development experiences	16.	0	0	0	0	0	0
17.	Keeping a written record of advice and guidance programme	17.	0	0	0	0	0	0
18.	Being videoed for professional development	18.	0	0	0	0	0	0
19.	Being formally observed	19.	0	0	0	0	0	0
20.	Observing and discussing the work of other teachers	20.	0	0	0	0	0	0
21.	Watching my tutor teacher demonstrating lessons in my classroom	21.	0	0	0	0	0	0
22.	Meeting with a group of beginning teachers at my school site	22.	0	0	0	0	0	0
23.	Networking, sharing and learning with other teachers	23.	0	0	0	0	0	0
24.	Networking, sharing and learning with other beginning teachers	24.	0	0	0	0	0	0

25. Other ways in which I contribute to the school (please check all that apply)

- ☐ Committee participation
- ☐ Extracurricular activities (e.g., sport)
- ☐ Social committee/activities
- ☐ Taking on a leadership role at professional development meetings
- ☐ Other _____
- ☐ None

Please rate the usefulness of activities on the following scale:

1 = Strongly disagree 2 = Disagree 3 = Neither agree nor disagree
4 = Agree 5 = Strongly agree 6 =Do not have tutor teacher

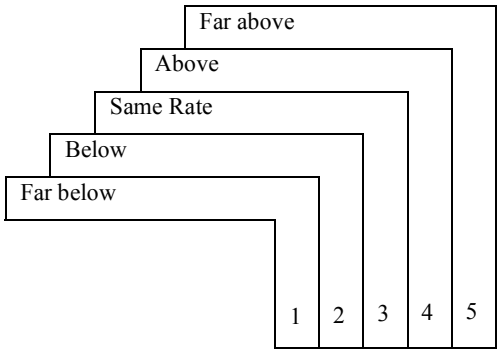


26.	I feel comfortable being observed by my tutor teacher	26.	0	0	0	0	0	0
27.	My tutor teacher helps me analyse student work	27.	0	0	0	0	0	0
28.	My tutor teacher assists me with lesson-planning	28.	0	0	0	0	0	0
29.	During meetings with my tutor teacher, I help my tutor teacher to become a better teacher	29.	0	0	0	0	0	0
30.	Working with my tutor teacher is valuable for my teaching	30.	0	0	0	0	0	0
31.	My tutor teacher helps me to effectively use student assessment data to guide instruction	31.	0	0	0	0	0	0
32.	My tutor teacher and I discuss teaching and/or solve problems together	32.	0	0	0	0	0	0
33.	My tutor teacher helps me to understand more about developing curriculum	33.	0	0	0	0	0	0
34.	My principal holds my tutor teacher accountable for his/her performance as a tutor teacher	34.	0	0	0	0	0	0
35.	Overall, my tutor teacher has helped me to effectively improve my instructional skills and teaching strategies	35.	0	0	0	0	0	0
36.	Overall, my principal helps me to effectively improve my instructional skills and teaching strategies	36.	0	0	0	0	0	
37.	Overall, my deputy principal helps me to effectively improve my instructional skills and teaching strategies [leave blank if you do not have a DP at your school]	37.	0	0	0	0	0	
38.	Overall, other teachers in the school help me to effectively improve my instructional skills and teaching strategies	38.	0	0	0	0	0	
39.	I am a good teacher	39.	0	0	0	0	0	
40.	I am satisfied with the job that I am doing as a teacher	40.	0	0	0	0	0	
41.	My school's support and guidance programme for beginning teachers is exceptionally good	41.	0	0	0	0	0	

Please rate your perception of your students' relative progress in reading on the following scale:

1 = Far below average 2 = Below average 3 = Average

4 = Above average 5 = Far below average



42	Relative to other beginning teachers in New Zealand, I believe that my children are progressing in reading at the same (or a better) rate as (than) children in other classes	42.	0 0 0 0 0
43	Relative to all other teachers in New Zealand, I believe that my children are progressing in reading at the same (or a better) rate as (than) children in other classes	43.	0 0 0 0 0

44. What information did you use to answer questions 42 and 43? _____

45. How many hours on average, (school + outside prep) do you work per week in your teaching role?

- ☐ 35–45
- ☐ 46–55
- ☐ 56–65
- ☐ 66+

46. What best describes your current stress level?

- ☐ 1-Exhausted
- ☐ 2-Downhill
- ☐ 3-Coping
- ☐ 4-Effective
- ☐ 5-Renewing

47. Number of months you have been a full-time teacher? _____

Optional information

48. Your age _____

49. Name of Teachers' Institution from which you graduated _____

Thank you very much for your time. If you have any feedback on this survey, please comment below:

Appendix B: Pattern Matrix for Factor Analysis

Pattern Matrix						
	Factor					
	1.00	2.00	3.00	4.00	5.00	6.00
Use Group BT	0.92	0.00	0.09	0.15	0.16	-0.14
Use Network BT	0.44	0.00	0.02	-0.06	0.40	0.17
Satisfied with job	0.03	1.00	0.15	-0.07	-0.01	-0.02
Good	-0.01	0.64	-0.06	0.11	0.03	0.03
TT Problem-Solve	-0.01	-0.01	0.83	-0.01	0.02	-0.11
TT Plan Assist	-0.04	-0.04	0.79	0.01	0.02	0.01
TT Dev. Curriculum	0.11	0.00	0.77	-0.02	-0.13	0.11
TT Assess Data	0.01	0.06	0.73	-0.09	-0.02	0.10
TT Improve	0.04	-0.04	0.71	-0.05	-0.01	0.23
TT Valuable	0.16	-0.07	0.70	0.10	0.14	0.03
TT Analyse	0.04	0.03	0.68	-0.01	-0.02	0.01
Use TT	0.06	-0.12	0.63	0.00	0.21	0.12
Help TT	-0.01	0.13	0.49	0.04	0.04	-0.02
Comfort Being Observed	-0.26	0.11	0.40	0.10	0.11	0.04
Relative to Other BTs	-0.04	-0.05	-0.04	0.87	-0.02	-0.01
Relative to all Ts	0.12	0.15	-0.09	0.83	-0.11	0.06
Use Video	-0.08	-0.04	-0.24	-0.18	0.67	0.00
Use Observing Others	0.15	0.05	0.02	0.06	0.66	0.14
Use Being Observed	-0.10	0.06	0.30	0.08	0.62	0.00
Use TT Demo	0.12	-0.15	0.20	0.05	0.62	-0.34
Use Network	0.07	-0.02	0.02	0.06	0.58	0.27
Use Ext. PD	0.11	0.03	0.03	0.00	0.48	-0.01
Use P Disc	-0.07	-0.17	0.31	0.20	0.40	0.18
Use Written	0.05	-0.01	0.09	0.01	0.32	0.07
Principal Improves	0.08	0.08	0.09	0.00	0.04	0.68
DP Improves	-0.15	-0.02	0.05	0.00	0.03	0.65
Other Ts Improve	-0.01	0.00	-0.04	0.11	0.11	0.57
School AG Quality	0.10	0.13	0.37	-0.05	-0.02	0.43
Principal Holds TT Account	0.16	-0.14	0.33	-0.04	-0.13	0.41

Appendix C: Interview Protocols

Round One: Semi-Structured Interview Protocol for Principals

(Introduce self, explain research, sign consent/PIS forms)

1. Before I learn more about your induction programme, I'd like to gain an overall sense of your school. Could you please briefly describe your school's context/philosophy for me?

2. Please tell me about your induction programme for beginning teachers

(use the following probes if not mentioned in response to the initial question).

   a. Documentation—Do you have any documentation (paper and/or electronic) of your induction programme? Would it be possible for me to have a copy?
   b. Personnel—Who is involved in the induction programme? How many BTs/TTs do you have this year?
   c. Financial—How do you fund your programme (BTTA, additional monies)?
   d. Pastoral—What is your method for ensuring BTs are 'doing OK'?
   e. Pedagogical
      i. Collaboration—What does collaboration for BTs look like at your school (study groups, video lessons, syndicate meetings, co-teaching)
      ii. Inquiry/reflection—How do your BTs critically analyse their practice?
      iii. Capacity—What leadership roles do your BTs assume (ICT, sport)
      iv. Purpose—How do BTs contribute to the school culture?
   f. Evaluation—How does your school evaluate/update your induction programme? Who is responsible for this?

3. Explain research. Does this project sound like it would fit in well with your school during 2007? Any considerations?

4. Feedback/anything else you would like to add?

(Thank you)

Round Two: BT Semi-Structured Interview Protocol

For my doctoral research, I am conducting case studies of successful induction programmes. As part of my research, I am interviewing beginning teachers and their tutor teachers. This should not take more than 15 minutes. Basically, I just want to find out about you and the support your school is giving you. Your name will not be used when I am writing about my research.

1. First, I am curious to hear about your education training and work background. Could you please briefly tell me a little bit about that?

2. Could you please describe the report that you receive in a typical fortnight? (For second-year BTs, has this changed since the first year?)

3. Do you believe that the other teachers at your school receive the same level of support? Why or why not?
4. Are you fixed term or permanent? What leadership roles do you assume in the school?

5. If you could change any one thing about your induction programme, what would it be?

6. Do you have anything else that you would like to add or show me?

Round Two: Tutor Teacher Semi-Structured Interview Protocol

For my doctoral research, I am conducting case studies of successful induction programmes. As part of my research, I am interviewing beginning teachers and their tutor teachers. This should not take more than 15 minutes. Basically, I just want to find out about you and the support your school is giving you. Your name will not be used when I am writing about my research.

1. First, I am curious to hear about your education training and work background. Could you please briefly tell me a little bit about that?

2. Could you please describe the report that you provide in a typical fortnight?

3. How are you supported (trainings, meetings, networks, release time) as a tutor teacher?

4. If 100 represented a programme that is completely pedagogically focused (planning, assessment, reflections, observations) and 0 represented a programme that focused solely on emotional support, how would you describe the ration of support that you give? A response of 50/50 would indicate an even balance.

5. How is the induction programme at your school updated and evaluated?

6. Do you have anything else that you would like to add or show me?

Round Three: BT Semi-Structured Interview Protocol

Teacher _____ Date _____ School _____

1. I see you are in your ____ term of teaching. How do you feel the support for you compares
    a. to your first year (terms 6, 7)
    b. to other BTs who entered at the beginning of the year (terms 1, 4, 5, 8)
    c. to other BTs from your Teacher Education Programme? (terms 2, 3)

2. Talk to me about how support looks in a decile (1/2) school. If you have had any experiences in high-decile schools, I would be curious to hear about any differences. Why do you think these differences exist?

3. Can you please describe a particular moment/action that exemplifies a time you received emotional support?

4. Do you believe that you help your TT (or other teachers at your school) become a better teacher(s)? If so, how? If not, why not?

5. When I looked at the answers from the survey, there were four types of support that stood out from the others as being particularly beneficial for many BTs. I would be interested to hear what your opinion is on them—do you use them? Have they been beneficial? Why do you think they stood out as different?
    a. The first one is meeting with a group of BTs at your school site

    b. The second one is watching a TT demonstration lesson

    c. The third one is video-ing a lesson and watching the video with your TT

   d. The fourth one is maintaining a written record of your Advice and Guidance programme.

6. Do you notice any difference between younger and older BTs?

7. Tell me more about the paperwork—do you find it to be helpful or a nuisance? If there is a particularly useful form, I'd like to see it please.

8. Is there anything else that you believe is particularly helpful or supportive about your school's Advice and Guidance programme? If so, what? Why is it so helpful/supportive?

9. Is it OK if I have your email address for follow-up questions?

Round Three: BT Fortnightly Activity Grid

Please fill in any professional development **and** advice & guidance activities (ie, staff meetings, tutor teacher observations, Numeracy training, visits to other schools) that should/will occur this fortnight.

	Monday	**Tuesday**	**Wednesday**	**Thursday**	**Friday**
AM					
PM					
After school					
	Monday	**Tuesday**	**Wednesday**	**Thursday**	**Friday**
AM					
PM					
After school					

Round Three:Tutor Teacher Semi-Structured Interview Protocol

Teacher _____ Date _____ School _____

1. How do you decide what to talk about during meetings with your BT?

2. Talk to me about what you think an Advice and Guidance programme looks in a decile (1/2) school. If you have had any experiences in higher-decile schools, I would be curious to hear any differences. Why do you think these differences exist?

4. When I looked at the answers from the survey, there were four types of support that stood out from the others as being particularly beneficial for many BTs. I would be interested to hear what your opinion is on them—do you use them? Have they been beneficial? Why do you think they stood out as different?
    a. The first one is conducting a TT demonstration lesson

    b. The second one is video-ing a BT lesson and watching the video with your BT

    c. The third one is having BT-only meetings

    d. The fourth one is maintaining a written record of your BT's Advice and Guidance programme.

5. Now that it is term 3, I'd like to ask again, if 100 was pedagogical support and 0 was emotional/behaviour management support, where would you place the support that you give for _____ this week? 50/50 would be an even split.

6. Can you please describe a particular moment/action that exemplifies a time you gave emotional support?

7. Do you notice a difference between younger and older BTs?

8. What year did you start teaching? Is the support provided for BTs at your school similar to/different from the support you received as a BT?

9. Tell me about the paperwork—do you find it to be helpful or a nuisance? If there is a particularly useful aspect, I'd like to see it please.

10. Is there anything else that you believe is particularly helpful or supportive about your school's Advice and Guidance programme? If so, what? Why is it so helpful/supportive?

11. Is it OK if I have your email address for follow-up questions?

Round Three: Principal Semi-Structured Interview Protocol

Principal _____ Date _____ School _____

1. How has the _evaluation_ of your induction programme evolved since you assumed leadership at this school? What changes have you made and why?

2. Can you please describe the BoT's involvement in BT support. If possible, could you show/explain the financial aspect of supporting BTs at your school?

3. Can I please see student reading scores from the BT's classroom? Can you explain the connection between the scores and your induction programme?

4. Do you think support for BTs differs for BTs in their second year? Or for those who enter mid-year? If so, how? Why is this, do you think?

5. If you have had any experience in high-decile schools, I would be curious to hear of any differences between Advice and Guidance programmes in low- and high-decile schools. If any, ask why these differences might exist.

6. Can you please describe a particular moment/action that demonstrates the emotional support (kotahitanga) you provide for your BTs?

7. Are there any other documents that you think I should see that support the Advice and Guidance progamme provided for the BTs at your school?

8. Is there anything else that you believe is particularly helpful or supportive about your school's Advice and Guidance programme? If so, what? Why is it so helpful/supportive?

Appendix D: Tree Nodes for NVivo Codes

Axial Code	Node	Sources	References
Whänau		1072	1797
	administrative meetings	7	15
	board of trustees	11	19
	BT	1	2
	BT turnover	16	22
	gender	7	8
	number of BTs on staff	27	37
	previous experience	8	9
	variable BT quality	29	62
	BT meetings with TT	53	89
	check-in	28	29
	collaborative	16	25
	communication btwn TT and BT	48	102
	Inter-BT communication	6	8
	TT coordination	13	17
	culture	38	65
	Workspace	11	14
	dealing with parents	10	14
	DP/AP/programme coordinator	7	12
	external whänau	0	0
	local cluster	26	41
	other school sites	50	78
	SSS	55	99
	teacher training	51	79
	correspondence	2	5
	interns	5	6
	older return	7	8
	overseas	3	4
	Teachers' Council	6	8
	unions	11	21
	observing others	66	108
	orientation	31	46
	pastoral	21	38
	personnel	0	0
	principal	1	1

	principal's background		8	13
	principal's quality		7	9
	principal's role		40	84
	relationships		52	93
	relievers		39	69
	sharing class		11	15
	support personnel		26	31
	attached teachers		4	6
	syndicate leader		9	12
	syndicate mtgs		12	25
	tutor teacher		0	0
	TT selection		26	35
	TT support		40	78
	variable TT quality		32	76
	TT structure		29	57
	external TT		7	17
	Multiple TTs		13	20
	whole-school support		46	66
Hinengaro			432	752
	appraisal observations		46	79
	assessing students		10	17
	attestation		3	3
	BT-only mtgs		51	70
	critical inquiry			
	pedagogical discussions		32	69
	peer-coaching		26	66
	professional learning groups		23	44
	questioning		12	21
	use student data		26	54
	curricular knowledge		53	81
	behaviour management		31	50
	making resources		1	1
	professional development release		20	31
	pedagogical		15	17
	planning		34	53
	professional reading		8	22

	whole-school PD		41	74
	video		34	36
Wairua			628	1082
	capacity-building		4	6
	BT assets		66	109
	BT growth		37	67
	scaffolding		35	75
	teacher empowerment		44	69
	documentation		44	102
	forms used by TTs		22	40
	handbook		19	28
	technology		7	14
	other paperwork and planning		16	20
	policy & expectations		27	49
	professional standards		13	20
	registration		45	91
	termly timetable		19	31
	evaluation		9	12
	ERO		8	15
	evaluation		29	47
	student feedback		2	2
	fixed vs permanent		29	32
	hiring		16	23
	leadership		1	3
	extra leadership roles		48	62
	reflective		39	68
	support agenda		49	97
Tinana			180	266
	0.2 time		58	87
	CRT release		20	24
	easier students		6	8
	finance		15	29
	induction elements		11	12
	life balance		51	76
	time		19	30
Research Process			36	71

School Information			121	174
	Historical		16	19
	low-decile descriptions		27	43
	low-decile experts		28	34
	Mäori		16	29
	rural issues		19	28
	school staff size		15	21
Exceptions			152	281
	induction horror stories		16	24
	BT age		48	118
	folly of youth		5	6
	comparative level of support		31	49
	first/second year		34	53
	mid-year		18	31

Appendix D.2

Codes as at April 2007[23]

time	19	30
bad induction stories	16	24
TT structure	29	57
historical	16	19
low-decile experts	28	34
curricular knowledge	53	81
BT meetings with TT	53	89
check-in	28	29
whole-school PD	41	74
culture	38	65
BT-only mtgs	51	70
video	34	36
support agenda	49	97
sharing class	11	15
orientation	31	46
observing others	66	108
first/second year	34	53
planning	34	53
professional development release	20	31
CRT release	20	24
administrative meetings	7	15
appraisal observations	46	79
attestation	3	3
0.2 time	58	87
hiring	16	23
board of trustees	11	19
induction elements	11	12
fixed vs permanent	29	32
relievers	39	69
relationships	52	93
low-decile descriptions	27	43
whole-school support	46	66
reflective	39	68
school staff size	15	21
rural issues	19	28
life balance	51	76
BT age	48	118
BT	1	2
tutor teacher	0	0
Principal	1	1
Personnel	0	0
external	0	0
capacity-building	4	6
leadership	1	3
critical inquiry	0	0
collaborative	16	25
evaluation	9	12
finance	15	29
pedagogical	15	17
pastoral	21	38
documentation	44	102

[23] The total sources are a final count as at April 2008