Making a difference:
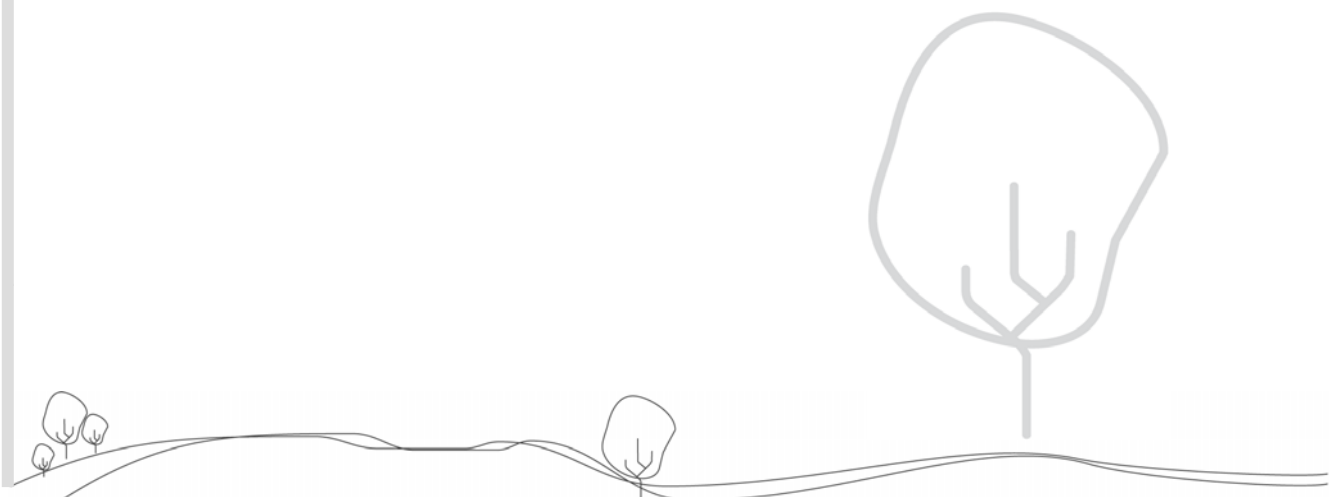
The role of initial teacher education and induction in the preparation of secondary teachers

Glenda Anthony and Ruth Kane

with

Beverley Bell, Philippa Butler, Ronnie Davey, Sylvie Fontaine, Mavis Haigh, Susan Lovett, Ruth Mansell, Kogi Naidoo, Kate Ord, Brian Prestidge, Susan Sandretto, Cheryl Stephens

2008

Making a difference:

The role of initial teacher education and induction in the preparation of secondary teachers

Glenda Anthony and Ruth Kane

with

**Beverley Bell, Philippa Butler, Ronnie Davey, Sylvie Fontaine, Mavis Haigh,
Susan Lovett, Ruth Mansell, Kogi Naidoo, Kate Ord, Brian Prestidge,
Susan Sandretto, Cheryl Stephens**

2008

Acknowledgements

Table of Contents

Tables

1. Aims, objectives, and research questions

New Zealand, a country of four million people, shares many of the features of other larger countries with respect to the preparation of teachers and the nature of education and schooling. In accord with other countries, the recruitment, preparation (becoming a teacher), and retention of teachers is the focus of increasing interest in New Zealand as agencies responsible for education struggle to address the apparent declining interest in teaching as a lifelong career. Moreover, the fact that the teaching population across all school levels within New Zealand is an ageing one, with a large group of teachers reaching retirement age over the next 10 to 15 years (Harker & Chapman, 2006, signals an increasing need to further understand and address recruitment and retention issues. In partnership with graduating teachers and beginning teachers, we sought to enhance our understanding of teachers' reasons for choosing teaching, and exploring how their expectations matched the reality of their teaching experience and career intentions.

Importantly, becoming a teacher happens across a *continuum* that includes the formal period of initial teacher education—focused on development of teacher knowledge and practices, and teacher identity formation—and the induction phase—that period when the newly qualified teacher is working towards full registration (Cameron, 2007; Cochran-Smith, 2001; Yandell & Turvey, 2007). With participants drawn from the range of initial teacher education (ITE) providers and secondary schools within New Zealand we sought to explore how teachers' experiences of ITE programmes contributed to their sense of preparedness for teaching and continued to inform the development of their teaching practice.

In accord with increasing evidence that the professional experiences in the early years of teaching are a crucial influence on newly qualified teachers' professional learning and formation of career intentions (Cameron, Baker, & Lovett, 2006; Kane & Mallon, 2006; Organisation for Economic Co-operation and Development [OECD], 2005), the project places significant attention on beginning teachers' experiences of the first two years of teaching. Unlike many countries, where induction programmes are in their formative stage of development, or implemented only on a state-wide basis (e.g., Levine, 2006; Ontario College of Teachers, 2006), recognition of the importance of the induction phase for newly qualified teachers has been embedded within the national education system of New Zealand since 1989. Cameron (2007), in a literature review of induction theory and practice, noted that the "official" induction programme in New Zealand appears to be robust and well supported both at a school and national level. In a similar view, Wong, Britton, and Ganser's (2005) review of induction practices in five countries concluded:

> Indeed, we were struck by a variety of the sources of support in New Zealand and by how the schools make use of a range of induction activities. Throughout the educational system in New Zealand, there is a universal commitment to support beginning teachers. (p. 381)

However, despite the presence of a mandated induction programme, recent research within New Zealand secondary schools reveals uneven provisions of induction. Studies by Dewar, Kennedy, Staig, and Cox, (2003), Cameron, et al. (2006), and Cameron, Dingle, and Brooking (2007) suggest that the provision of systematic, sustained, and structured induction experiences are not always evident. Thus, it is important to consider both the nature and effect of varied induction programmes, and look more closely at ways that ITE, beginning teachers, and schools are implicated in the induction process. Increased understanding about what works for whom and in what context, has more typically been focused on the teacher/learner nexus (e.g., Alton-Lee, 2003); in contrast, this study aims to contribute to increased understanding of the teacher learning process.

Within the induction phase, the collective professional community is charged with providing a range of intellectual, social, emotional, and material resources to support and guide beginning teachers. In the era in which education systems are increasingly "challenged to be more responsive to the diversity of their learners and to meet the higher expectations and future-focus required by knowledge societies" (Alton-Lee, 2007), we sought, in particular, to explore how teachers in transition from ITE to the classroom were supported to develop and refine their practices to address diversity and social justice within their classroom. Building on our findings with regard to graduating teachers' perceptions of their preparedness to address diversity within their classroom, and their understandings of the implications of the Treaty of Waitangi for their role as a teacher, we sought to look at ways beginning teachers were supported to develop an orientation to individual students' learning and growth. In particular, we sought to examine how mentors and supervising teachers worked in partnerships with beginning teachers. Generating data from both beginning teachers and their mentors, we sought to explore the perceived roles of mentors (Kwan & Lopez-Real, 2005; O'Brien & Christie, 2005,) and the nature of the collaborative culture within the school systems (Cameron et al., 2006).

In generating data across the transition from ITE to the first two years of teaching, we involved a national sample of secondary teachers' experiences of ITE and induction and the views of those responsible for their mentoring and supervision. Data from our national sample of graduating (survey) and beginning secondary teachers (interviews in the first and second years of teaching) and their mentor teachers complements other large-scale studies being undertaken within New Zealand, namely the *Teachers of Promise* study (Cameron et al., 2006 and ongoing) that involves teachers in their third, fourth, and fifth years of teaching, and the *Learning to Teach* survey study (Cameron et al., 2007) that involved teachers who were at the end of their second year of teaching.

Research questions

In order to enhance our understanding of the process of becoming a teacher and provide a robust evidence base for exploring future possibilities for policy and practice for teacher education that

acknowledges the continuum of teacher learning, the project focused on the newly qualified teachers' transition from ITE to the classroom. We sought to:

1. explore how a national sample of secondary teachers' experiences of ITE contributed to their sense of preparedness and efficacy as they made the transition to the classroom and continued to inform their teacher learning and practice
2. examine the effect of ITE and induction on the beginning teachers' experiences of becoming a teacher and early career path decisions
3. provide exemplars of effective induction programmes that will inform the wider community as to what works, for whom, and in what context
4. describe and explore the views of beginning teacher mentors or supervising teachers with respect to teachers' preparedness and developing capability.

The project focused inquiry on four areas: recruitment and preparation within ITE, teachers' experiences in the first two years of the classroom (the period of provisional registration), the teacher as learner across the continuum of ITE and the induction phase, and newly qualified teachers' expectations and intentions regarding their career (retention and attrition issues). Table 1 outlines the project's research questions.

Table 1 **Research questions**

Focus of inquiry	Research questions
Choosing teaching and preparation	What are graduate students' reasons for choosing secondary teaching?
	What are the graduate teachers' (and their mentors') perceptions of their preparedness?
	How does ITE continue to influence and inform beginning teachers' practice?
Support and guidance for beginning teachers	How is induction into the profession experienced by beginning teachers?
	How do mentors perceive their role?
Becoming a teacher	What are the expectations and experiences of newly qualified teachers?
	What do teachers learn during induction?
	How are teachers' experiences related to their perceptions of their own development of teaching capability?
Teacher intentions	How are teachers' experiences related to their subsequent satisfaction with, attitudes to, and choices about, their teaching career?

2. Research design

The longitudinal project (2005–2007) used a mixed-method design that drew on both quantitative and qualitative data collection methods. The multiple sources of evidence and the high response rate, both from the questionnaire and the interview process, together contributed to ensuring high levels of validity and credibility of the findings. Each method used in this study is detailed below.

Questionnaire

The *Making a Difference: New Zealand Student Teacher Survey 2005* was developed from the international literature (Australian Council of Deans of Education, 1998; Darling-Hammond, 2000; OECD, 2005; Rice, 2003, amongst others) and the range of standards currently active within New Zealand including: *Satisfactory Teacher Dimensions for Teacher Registration* (New Zealand Teachers Council, 2005b); *Professional Standards: Criteria for Quality Teaching— Secondary School Teachers and Unit Holders* (Ministry of Education, 1999); and *Draft Graduating Standards for Teacher Education Qualifications that Lead to Provisional Registration as a Teacher in Aotearoa New Zealand* (New Zealand Teachers Council, 2005a). Scales were developed in the following areas:

- reasons for choosing teaching
- attitudes towards teaching
- learning and the role of teachers
- motivation to choose a specific ITE programme
- levels of commitment to a career in teaching
- self-efficacy related to teaching
- perceptions of how well ITE programmes prepared graduating teachers for classroom teaching.

Specific questions requested demographic data such as gender, age, years of university study, and so on. Respondents were also invited on the final page of the questionnaire to participate in phase 2 of the longitudinal study, which involved a series of interviews during their first two years of teaching.

In the development phase, a draft questionnaire was sent to a panel of six people with expertise in educational research with a request to evaluate content validity. Feedback on the relevance of the questionnaire scales and items, the clarity of the questions and the information sheet, and on appropriate coverage of important elements, led to modifications to the questionnaire. The second version of the questionnaire was piloted with a group of 109 secondary student teachers

graduating at mid-year 2005 from Wellington College of Education and Christchurch College of Education. The face validity of the questionnaire was established through discussions with students on clarity and relevance of items. Students' comments on the questionnaire and a factorial analysis of results from the pilot contributed to the modified version of the questionnaire. This version of the questionnaire was sent to all research team members for feedback at the end of August 2005.

Ethical approval for administering the questionnaire was obtained through the Massey University Human Ethics Committee. Each institution offering secondary teacher education was invited to allow its students to be part of the national project. While individual student responses were to remain anonymous, all institutions were informed that data could be analysed and reported according to programme and institution. The questionnaire was administered to all graduating student teachers from the 16 different secondary ITE programmes offered by the 10 providers in October and November 2005. The ITE providers allowed research team members to administer the questionnaire to students in final classes to increase the response rate and the reliability of the findings. Students were reminded on the questionnaire covering letter, as well as orally, that their participation was voluntary and they were able to leave the room at any time.

One hundred and fourteen students completing programmes through distance study were also sent a questionnaire with an accompanying invitation to complete and return the questionnaire in the enclosed stamped envelope. Altogether, 855 secondary graduates—a response rate of 72.2 percent of the total population of 1184 graduates at the end of 2005—completed the questionnaire.

All questionnaires were coded according to attributes of the respondent's programme of study. To date, analysis has been completed for scales of choosing teaching and preparedness and these are reported in the Project findings chapter of this report.

Interviews

Approximately 350 graduating teachers indicated in their survey response that they would be interested in continuing into phase 2 of the longitudinal study. At the beginning of 2006 those teachers (who had valid contact details) were provided with further information about the study and asked to consent to a series of three interviews across their first two years of teaching. One hundred and eleven teachers consented to take part in the first interview. From this a cohort of 100 teachers (29 males and 71 females)—henceforth referred to as the "Take 100" cohort—constituted our in-depth case studies. Profiles of the Take 100 cohort are provided in the Project findings chapter.

The case study data were generated principally by semi-structured interviews conducted at the mid- and end-of-year points of the beginning teachers' first year of teaching and at the mid-point of their second year of teaching. The interview schedules were developed to address both chronological themes (e.g., beginning teachers' experiences at 6, 12, and 18 months) and

longitudinal themes such as the continuum of teacher learning and induction experiences. The first interview focused on teachers' reasons for choosing teaching, their experiences as a beginning teacher, their views of ITE preparation, and their induction experiences. The second interview focused on their continuing experiences as a teacher, their induction and professional learning experiences, and their career plans. The third interview focused on the experiences of being a second-year teacher, their professional learning experiences and induction support, and teacher reflections on their future career plans. In each interview, beginning teachers were asked to rate their level of satisfaction with their role as a teacher, to rate their satisfaction with the professional learning and induction programme of support within their school, and to complete a metaphor about themselves when teaching at their best.

Interview schedules were developed in consultation with the whole team, with reference to the research objectives and the literature on beginning teacher experiences in the induction phase (e.g., Achinstein, 2006; Bubb, Earley, & Totterdell, 2005; Johnson, Berg, & Donaldson, 2005; Mansell, 1996; McCormack & Thomas, 2003). Although the broad focus of the successive interviews was mapped out in advance, protocols for the second and third interviews were only completed after feedback from earlier interviews. Each interview was piloted by two research team members with a group of teachers who had graduated in the mid-year cohort that was involved in the pilot questionnaire. The piloting process provided feedback on the interview protocol and the timing of the interview. Because the interviews were in the main conducted within teachers' non-contact times, it was important that the interview could be completed within a 50–60-minute time frame.

In addition to standard participant consent and information forms, ethical procedures involved notifying the respective school principals that beginning teachers within their schools were involved in a longitudinal study. Where possible, interviews were conducted face to face; however, the remote location of some participating teachers from the research team member meant that approximately 30 percent of interviews were conducted by phone. For the most part, the same team member conducted the series of three interviews with each participant. Exceptions arose when teachers shifted school regions within the project time frame. Interviews were recorded, with relatively few audio problems experienced across the whole study. Back-up summaries were also provided by the interviewer. Some participants in the Take 100 cohort were unavailable for one of the interviews, although they did not withdraw from the study, and three teachers in the Take 100 cohort left teaching during the study.

Mentor survey

During the first interview, we sought beginning teachers' permission to approach their mentor or supervising teachers to complete an online survey related to their mentoring experiences of the teachers. Consenting beginning teachers were asked to provide the contact details for one or two teachers, usually their subject mentor or the teacher responsible for coordinating Provisionally

Registered Teachers. While most teachers were happy for this to happen, there were a few who declined. A request to contact mentors of teachers in their second year of teaching was also repeated at the third interview. The mentor survey data were used to supplement the case study data generated through the beginning teacher interviews.

Towards the end of 2006, nominated mentors were invited by letter to complete the online survey. Ninety-two teachers nominated mentors and 43 of these mentors completed the survey. Mentor respondents were mostly experienced teachers (two reported five or fewer years of teaching, and 31 had 11 or more years of teaching), and 79 percent of the sample had previous mentoring experience. In 2007, 68 teachers nominated mentors. Of the 82 teachers approached to take part, 44 completed the online survey. Collectively, the mentor responses referred to 43 of the second-year teachers in the study.

Mentor survey questions were based on the research objectives related to preparedness and support and guidance, and their design was informed by relevant literature sources (e.g., Feiman-Nemser, 2001; Jones & Straker, 2006; Smith & Ingersoll, 2004). Questions comprised a mix of closed, Likert-type scales, rankings, and open-ended responses. Data were collected on mentors' biographical details and experience as a mentor, mentors' perceptions of the first-year teacher's preparedness with respect to the range of knowledge and understandings that were canvassed in the graduate teacher questionnaire, and details about the specific actions the mentors had taken with regard to support or guidance of the first-year teacher. The survey of mentors of second-year teachers covered similar material, with the addition of questions related to the mentors' roles and their familiarity with the registration process.

3. Project findings

The data generated from 855 graduating teacher survey responses, Take 100 case studies, and two mentor surveys are extensive. As such, our analysis is ongoing and the findings reported here are of necessity broad based and largely descriptive. It is the research team's intention that a range of theoretical perspectives (e.g., sociocultural, activity, complexity, poststructuralist theories) will be applied in the second level of analysis to provide a richer explanatory framework for our findings. Some of the findings are presented with regard to the complete data sets, and others are presented with respect to subsets organised by pathways into teachings (change-of-career teachers), teaching subjects, or single case studies. Ongoing analysis will also consider data across the multiple collection strategies—enabling us to develop case findings that capture more richly the transition from ITE into the classroom, and to triangulate data sources between mentor and beginning teacher.

Beginning teacher profiles

Graduating teachers

The national survey—baseline data on the total population of secondary student teachers graduating in 2005—provides data which enables us to describe, explore, and compare secondary teachers' experiences of the different ITE programmes and explore future possibilities for better policy and practice for teacher education. Altogether, 855 graduates of the total population of 1184 secondary graduates completed the questionnaire.

The respondents to the national survey reflect demographic characteristics of the total population of student teachers. Females comprised 64.6 percent of the respondents, males 35.4 percent. Two-thirds of the respondents comprised females aged between 21 and 30 years. Over two-thirds of the respondents (68.7 percent) were Pākehā. Māori accounted for 9.5 percent, Pasifika 2 percent, and Asian 10.7 percent of the respondents. The remaining 9.2 percent identified as "other". The majority of the respondents (87.4 percent) had graduated from one-year graduate entry programmes, and the remainder (12.6 percent) from concurrent four- or five-year bachelor degree programmes or from a two-year programme offered at one of the institutions. All institutions were represented in the responses.

Take 100

The Take 100 cohort represents those teachers who consented to participate in the longitudinal study. Within the cohort there were teachers who had completed their ITE across all major education institutions within New Zealand, both internally and as distance mode students (see Table 2).

Table 2 **Take 100 initial teacher education provider**

	Frequency
Auckland University of Technology	2
Bethlehem Institute	4
Christchurch College of Education	18
Dunedin College of Education	12
Massey University	13
New Zealand Graduate School of Education	3
University of Auckland	25
University of Otago	3
University of Waikato	10
Victoria University of Wellington	10
Total	100

The participating teachers were teaching in a range of secondary schools in terms of decile (see Table 3) and type (including private, area, co-educational and single sex), and location (e.g., rural, urban).

Table 3 **Take 100 school decile rating**

	Interview #1 school decile	Interview #2 school decile	Interview #3 school decile
Low	15	15	15
Medium	42	43	38
High	42	41	42
Missing	1	1	2
Left teaching			3
Total	100	100	100

When compared with national profiles of beginning secondary teachers, our cohort was overrepresented by females (71 percent) and change-of-career teachers (68 percent).[1] Possibly this is an outcome of the self-selected nature of the sample. Further biographical detail of the cohort is presented in Table 4.

Table 4 **Take 100 biographical attributes**

	Age at start of project		Ethnicity
21–30	49	Pākehā	80
31–40	32	Māori	2
41–50	16	Asian	8
51+	3	Other	10
Total	100	Total	100

Choosing teaching

While choosing to become a teacher involves many of the same concerns that teachers have encountered in schools for more than a century—perceived low pay, inadequate resources, isolating work, subordinate status, and limited career opportunities—these issues take on "new forms and meanings in the current context of work and schooling, a context in which prospective teachers face an unprecedented number of career options and the work of teachers is increasingly scrutinized" (Johnson & Birkeland, 2003, p. 582). In our complex society, marked by rapid educational change and increased calls for accountability, understanding what motivates people to go teaching needs to be regularly reviewed.

In examining teacher motivations for choosing teaching, we used two data collection strategies: the graduating teacher survey ($N = 855$) and the interview at six months with the Take 100 cohort.

Graduating teachers' reasons for choosing teaching

Within the national survey, respondents had to indicate the significance of a list of 25 reasons for choosing teaching on a four-point scale ranging from "extremely significant" (1) to "not at all significant" (4). The middle choices were "significant" (2) and "somewhat significant" (3). Table 5 presents the percentage of graduates who rated each of the provided items as "extremely significant" to their decision to become a teacher. Grouping these items according to Kyriacou and Coulthard's (2000) categorisation of altruistic (shaded area), intrinsic (bold), or extrinsic (italics) highlights that the most important reasons are those concerned with altruistic (e.g.,

---

[1] In the graduating teacher survey—representing 72.2 percent of the national cohort—65 percent of the respondents were females and 40.5 percent of the respondents indicated that they entered ITE directly from the secondary school university degree pathway.

contributing to society) and intrinsic (e.g., personal sense of satisfaction) motivations. Extrinsic motivations (e.g., salary, holidays) were identified by fewer than 20 percent of the respondents as being "extremely significant".

Table 5 **Graduating secondary teachers' reasons for choosing teaching**

I chose teaching because I…	"Extremely significant" %
1. Want to make a difference in students' achievements	60.7
2. Want to share my love for the subject	56.9
3. Enjoy teaching others about things	54.4
4. Enjoy working with young people	48.7
5. Want to do a job that I can feel proud of	47.9
6. Want to help young people to be successful members of the society	46.5
7. Want to do something meaningful with my life	42.3
8. Want to make a contribution to society	36.1
9. Want to contribute to improving the system of schooling for young people	32.3
10. Want to contribute to reducing disadvantage for low achieving students	32.1
11. Want to have the chance to further my own knowledge through professional development	31.1
12. Want to help young people participate in their community	30.8
13. Am attracted by the degree of variety in the job	27.6
14. Want to be involved with students' extracurricular activities	25.8
15. Was inspired by teachers I have known	25.7
16. Want opportunities to exercise creativity	24.6
17. Enjoy being able to use leadership skills	23.3
18. Like the attractive holiday entitlement	19.7
19. Am seeking job security	19.6
20. Want to have a lifelong career	17.9
21. Want to be part of a professional learning community	16.3
22. Am attracted by the family friendly working patterns	15.4
23. Want to have a good salary	13.3
24. Want to be respected by the general public	4.4
25. Want to have a job with an attractive image	3.0

Beginning teachers' reasons for choosing teaching

In the first interview with the Take 100 cohort, teachers were asked: (1) *What were your reasons for choosing teaching?* and (2) *Can you tell me about people and/or experiences that influenced your decision?* Coding responses revealed key themes subsumed within intrinsic, altruistic, or extrinsic motivations (Kyriacou & Coulthard, 2000), plus a fourth category of "other":

- intrinsic motivations
    - teachers as significant others/recruiters
    - prior teaching/teaching-related experiences
    - always wanted to be a teacher
    - passion for teaching subject
    - aptitude for teaching
    - enjoy working with people (predominantly adolescents)

- altruistic motivation
    - altruism—wanting to make a contribution to young people, society, and so on

- extrinsic motivations
    - nature of the job
    - seeking a personal and/or professional challenge
    - provision of scholarship monies
    - dissatisfaction with previous job

- other
    - by default
    - teachers in family
    - nature and provision of ITE programmes
    - timing issues.

However, in coding the responses, it became apparent that the reasons for choosing a teaching career are complex: it was typical for intrinsic, altruistic, and extrinsic reasons to be intertwined for any one participant. For example, the following respondent indicated the multifaceted nature of her decision:

> I had lots of good reasons for choosing teaching which I had thought very clearly about for a long time. I wanted a career that was contributing to my community. I wanted a career that would be challenging. I wanted a career that would be family friendly so that when I decided to have children it would fit in well with that. I wanted a career that would make me financially secure but I knew that I wouldn't become wealthy but that was fine. And I wanted something that I would continue learning throughout my career. And I wanted something that I thought I would enjoy. And all of those were really equally important. I thought about those factors before I thought about teaching and then when I thought about teaching I realised that it was the perfect fit because I like young people, and I like ideas, and I like learning, and I like teaching. I mean, things that I've done before have involved teaching other people skills and ideas I've enjoyed in various jobs. (T719#1)

Change-of-career teachers' reasons for choosing teaching

Within our Take 100 cohort, 68 teachers were change-of-career teachers. Given that in 2005 only around 40 percent[2] of secondary student teachers in New Zealand entered initial teacher education directly from a university degree pathway, it is timely that we review the factors attracting people to secondary teaching, with a focus on the emerging dominant group of change-of-career teachers (Priyadharshini & Robinson-Pant, 2003). Australian researchers Richardson and Watt (2006) assert that while the themes of social mobility, influence of parents, the desire to work with young adolescents, working in a people-oriented profession, and job-related benefits such as holidays, are still valid attractors to teaching, they may not be adequate or entirely relevant in the twenty-first century. Specifically, we questioned whether the traditional altruistic and intrinsic motivations—wanting to make a difference and the desire to work with young adolescents—that featured in large-scale studies in the 1990s (e.g., Kyriacou & Coulthard, 2000; Serow & Forrest, 1994) were the driving force in attracting change-of-career people to teaching.

Who are our change-of-career teachers and where do they come from?

The age distribution of our 68 career-change teachers (46 females and 22 males) is provided in Table 6.

Table 6 **Age distribution of change-of-career teachers**

	Frequency	%
21–30 years	20	29.4
31–40 years	31	45.6
41–50 years	15	22.1
51+ years	2	2.9
Total	68	100.0

These teachers come from professional fields (e.g., accountancy, engineering, journalism) as well as a wide variety of other occupations (Table 7). They include women who were seeking to return to work after interrupting their previous work to have children, and others returning from overseas work and travel experiences.

---

[2] Based on the *Making a Difference* project survey data at the end of 2005 which had a 72.2 percent return rate of all students enrolled in secondary teacher education programmes across New Zealand.

Table 7 **Previous employment fields of our change-of-career teachers**

	Frequency	%
Business/Administration	22	32.4
Customer service	11	16.2
Science/Technical	10	14.7
Media/Advertising	8	11.8
Government department/Law	5	7.4
Health	3	4.4
Teaching-related	6	8.8
Other	3	4.4
Total	68	100.0

These teachers had experienced varied career pathways—successful, unsuccessful, freelancing, and serial career-type pathways (Priyadharshini & Robinson-Pant, 2003). Some identified being a "parent" as their most recent experience, but made reference to earlier work experience. "Late starters"—those people who returned to university to finish degrees that had been interrupted by work experiences—were also included.

For the change-of-career people, 56 of the participants gave a response that was able to be coded as intrinsic, 66 cited extrinsic-type reasons, and only 21 offered altruistic-type reasons. A possible explanation for the discrepancy between our sample and other cited studies (including the survey phase of our study) may lie in respondents' socially situated expectation to identify altruistic and intrinsic reasons for becoming a teacher when given a list of reasons to choose from. Teaching is an occupation known for its emphasis on humanistic and interpersonal concerns (Manuel & Hughes, 2006). While both the survey completed at the end of the ITE experience, and the interviews after 6 months generated historical accounts of teachers' perceptions of why they chose teaching, it is highly probable that teacher responses articulated six months into their teaching careers would be influenced by the immediate concerns of their decision, especially extrinsic work conditions (Malderez, Hobson, Tracey, & Kerr, 2007). Additionally, the interviews allowed the teachers to articulate more fully the reasons for switching careers alongside those reasons for being attracted to teaching.

In order to explore the complexity of the interview responses, we directed our attention to the following questions:

1.   Why does a person decide to give up their former job to become a teacher?
2.   If someone is about to switch careers they must think they've got what it "takes"—what is this and how do they know this?
3.   Why choose teaching at this point in time?

Why does a person give up their former job to become a teacher?

More often than not we identified an interweaving of "push" and "pull" factors in each person's account. Push factors were those factors that provided momentum towards seriously considering, or reconsidering, teaching as a career. These included being dissatisfied with aspects of one's job(s), changing location and not being able to find a job in one's usual occupation, or losing one's job or not being able to progress in the job. In contrast, pull factors were those that drew people to teaching as a career. They included intrinsic factors such as looking for a challenge, fulfilling altruistic desires, always having wanted to be a teacher, and perceiving a career fit both on a personal ability level and a prior experiential level, alongside personal utilitarian factors associated with job security, time for family (either existing or planned), lifestyle, access to ITE courses, and the provision of scholarships.

The most commonly mentioned pull factor concerned participants' prior teaching-related experiences. When talking about their decision to choose teaching, just over half of the cohort drew on personal experiences that they believed gave them an insight into their suitability for teaching. Implicit or explicit in many of the accounts of teaching-related experiences was the perception by participants that they already had some of the skills or predispositions (e.g., being good with people) for teaching.

Many participants ($n = 28$) noted that they had previously considered teaching at an earlier stage in their lives. While, for most, this ambition was in the back of their minds, for seven participants the desire remained to the fore. For various reasons these people had found themselves working in other jobs—often related to teaching—but had retained the desire to teach when circumstances, especially family circumstance, were more favourable. Hence we considered this a pull factor.

Interestingly, only 25 percent of these change-of-career teachers mentioned passion for their subject as a pull factor. Typically, those who had difficulty establishing a viable career in their field of interest noted this as a major motivating factor:

> I'll never forget it, my guidance counsellor at high school . . . lovely teacher, leaning across the desk at me—"go teaching, you can't make a living out of art". So it has come full circle really. (T394#1)

When located in the fullness of each person's response, the situated and contextualised nature of the decision-making that took place, with push and pull factors working in combination, is evident. Collectively, the push and pull factors were used to justify the shift from their previous work, a shift that involved considerable financial and time investment.

Have they got what it takes to go teaching?

Making the decision that they could be a teacher appeared to be very much interwoven with the life histories of this group. For many, experiences within their prior occupations, combined with the influence of role models either in the family or through school or as acquaintances, enabled them to form a strong sense that they could do the job. As mentioned above, half of the cohort reported having prior teaching or teaching-related experiences within their previous occupations. These teaching-related experiences gave participants a "taste" for teaching and allowed them the opportunity to assess their potential aptitude for teaching. It was noted, however, that participants' references to related abilities were frequently global in nature (e.g., "I enjoy teaching anybody", "I found I enjoyed showing teenagers what they could do", "I love the learning environment").

So why choose teaching at this point in time?

Many seemed to have reached a crossroads in their life, which prompted their decision to take up teaching as a career. Working with the data, we identified three broad groups of career changers:

1. "Looks Good" (*n* = 42)—those whose reasons and contributing factors coalesced around pragmatic and extrinsic reasons for making their decision, including reasons related to family situations, work expectations, and flexibility:

   > It's a really good back-up career for me, especially if I end up wanting to have kids. There are opportunities to work part time. There are opportunities of doing teaching fellowships and working overseas so it's fantastic and flexible. (T819#3)

   Many of this group had not considered teaching until recently and their responses frequently indicated an element of serendipity in their decision:

   > My boss was pretty hopeless and the company wasn't very responsive to human resources and I didn't really like human resources. Then my best mate's brother committed suicide so that was a period of reflection for me and I started to think that life is very short and it was one Saturday I was sitting outside reading the paper and it just came to me "why don't I teach?" So it was quite late, I didn't think much about it before then. (T411#1)

2. "Time is Right" (*n* = 14)—those for whom there seemed to be a convergence between a long-held desire to teach and the opening up of that possibility. Collectively this group presented as very positive about their decision to choose teaching:

   > Well, I actually thought about it off and on for about 10 years before I actually did it. Even though I really enjoyed publishing I had always wondered if I would like teaching instead . . . I have always really loved children. I like to figure out the way their minds work and how they think about things and I just always thought that I'd like to teach . . . And then when I got here I found it really hard to get a publishing job. I thought "well why not, now is the time, do it now". (T195#1)

17

3. "Teaching is Me" (*n* = 12)—those who were attracted to teaching through positive teaching-related experiences within prior occupations or life experiences. This group frequently expressed the belief that they would be a "good teacher" or "enjoy teaching":

> I like teenagers, I have always run youth groups and have taught heaps of kids how to snow board and take them on camps . . . and I really found I enjoyed showing teenagers what they could do as lots of them have got really low opinions of themselves and I think that's enforced by lots of people around. I thought since I like working with teenagers so much it was a good idea for someone like me to get into a job where I could encourage them every day. (T3#1)

Factors in choosing teaching: Summary

While many of the contributing factors (e.g., dissatisfaction with prior occupation, prior teaching-related experiences, perceived personal ability, teachers in the family, job expectations, making a difference, and so on) were the same across teachers, regardless of their pathway into teaching, the tipping point associated with their decisions to choose teaching was different. While we have not completed a fine-grained analysis on those who chose teaching as a first career, our findings support Lovett's (2006) study that noted the strong influence of intrinsic motivators and models (teachers and families). With regard to the change-of-career teachers, our analysis suggests that a more complex array of motivations was involved. Moreover, these motivations associated with switching careers may well affect not only recruitment strategies, but also the experiences of beginning teachers within the classroom. For these teachers in particular, their expectations and needs of induction and expectations of their career structure within teaching are likely to be referenced against prior experiences within life and careers. These issues are further examined later in the report.

Perceptions of preparation and preparedness

Graduating teachers' perceptions

Findings discussed in this section concern the level of preparedness scale within the national survey (*N* = 855). The level of preparedness scale comprises 53 items related to student teachers' perception of preparedness, grouped according to two areas:

- components of the teaching practice (Q. 25)
- knowledge and understanding of aspects of curriculum and pedagogy (Q. 26).

In addition, a separate question was asked as to the graduates' overall sense of preparedness to begin teaching (Q. 27). Students were asked to answer each question using a four-point Likert scale (1. Very well prepared; 2. Well prepared; 3. Somewhat prepared; 4. Not at all prepared). Data were analysed using the statistical analysis software SPSS (version 12). Descriptive

statistics, factor analysis, and cross tabulations were conducted to shed light on the different levels of preparedness reported by graduates of different programmes and through different modes of delivery (internal or distance).

Analysis of the responses reveals that the participating secondary teaching graduates perceived themselves to be well prepared to begin teaching in all but a few significant areas. For the question: *Overall, how well prepared do you feel to begin teaching?*, 86.9 percent of the respondents believed that they were prepared to begin teaching: "very well prepared = 21.4 percent; "prepared" = 65.5 percent; "somewhat prepared" = 12.4 percent; "not at all well prepared" = 0.7 percent (6 of the 855).

This sense of overall preparedness is reflected in items within the scale representing components of their teaching practice. In general, graduating teachers perceived themselves to be "well prepared" or "very well prepared" to meet the challenges of teaching in the classroom. 71.4 percent of the respondents reported that they felt "very well prepared" to *communicate with students clearly in English* (mean 1.30) and 58.7 percent reported that they felt "very well prepared" to *maintain a safe physical and emotional environment* (mean 1.45). Graduating teachers felt well prepared to *evaluate and reflect on their own teaching* (mean 1.58), *sustain two-way communication with students* (mean 1.60), *engage students in cooperative working groups as well as independent learning* (mean 1.69), and *help students to think critically and interpret ideas from a range of different perspectives* (mean 1.72).

In terms of knowledge of the curriculum and pedagogy, graduating teachers felt the most prepared in their *knowledge of their preferred teaching area* (mean 1.51), and of *appropriate learning programmes and teaching strategies* (mean 1.87). They perceived themselves "well prepared" to use information and communications technologies to *communicate with colleagues* (mean 1.87), and to *support teacher and student research* (mean 1.87). Respondents felt less well prepared to *contribute actively to the extra curricula life of the school* (mean 1.95), with 37 percent feeling "very well prepared" and 27 percent feeling only "somewhat prepared" or "not at all well prepared".

However, there was a cluster of areas in which graduating students displayed less confidence—assessment and monitoring of student progress, responding to students' diverse needs, inclusive educational practices related to Māori, and communication with parents.

While frequency data shows that in general graduates felt "prepared" or "very well prepared" in areas related to knowledge of assessment and maintaining and reporting records of students' achievement, 29.7 percent of the respondents felt only "somewhat prepared" or "not at all well prepared" to *maintain accurate and relevant records of student work and progress towards learning outcomes* (mean 2.13). In addition, 21.5 percent of the respondents reported feeling only "somewhat prepared" or "not at all well prepared" to *use a range of assessment strategies to support student learning* (mean 2.01). Twenty-nine percent of students lacked confidence to *identify how different students in their classroom learn best* (mean 2.12), and 20 percent of respondents reported feeling only "somewhat prepared" or "not at all prepared" to *use the results*

of student assessment in your [sic] planning (mean 1.97), *to provide constructive and timely feedback* (mean 1.89), or *to support programmes which enable students to achieve* (mean 1.94). Respondents felt the least prepared to *develop and administer appropriate assessment protocols that reflect the requirements of NCEA* (mean 2.27), and 36.5 percent of respondents felt only "somewhat prepared" or "not at all well prepared" with respect to the National Certificate of Educational Achievement (NCEA).

Other areas of concern were indicated, with 35 percent of respondents having low confidence in their knowledge of *current issues and initiatives in NZ education* (mean 2.25). Twenty-five percent of respondents reported feeling "somewhat prepared" or "not at all well prepared" in their knowledge of *their other teaching subject*, *the current New Zealand curriculum documents and expectations*, and of *learning theories and their interaction with practice*. Over one-third of students (38.6 percent) reported feeling only "somewhat prepared" or "not at all prepared" to *use ICT to track student achievement* (mean 2.25) and/or *to enhance group collaboration and team work* (mean 2.29).

Of interest for our ongoing longitudinal case studies were the indications that graduating teachers reported that their knowledge of the teachers' code of ethics was tentative at best. Just over one-third (34.6 percent) of respondents reported feeling "somewhat prepared" or "not at all well prepared" *to understand, communicate and model the principles of the NZ Teachers Council code of ethics* (mean 2.23).

There was a significant number of graduating teachers who perceived themselves to be underprepared in terms of working with parents. Only 11 percent of respondents reported that they were "very well prepared" to *work with families, whānau and caregivers to better understand and support student learning* (mean 2.47), while 38.5 percent reported that they felt "prepared". For the same item, however, 50.5 percent of graduates reported that they were "somewhat prepared" or "not at all well prepared". A similar, though less marked, data pattern emerges for the item *effectively report student progress to students, parents, whānau and/or caregivers* (mean 2.26). For this item, 38 percent of the respondents reported that they felt "somewhat prepared" or "not at all well prepared". Finally, 36.1 percent of the respondents reported that they were only "somewhat prepared" or "not at all well prepared" to *sustain two-way communication with parents, whānau and/or caregivers*.

While 19.6 percent of respondents felt "very well prepared" to *use a range of inclusive teaching strategies to raise the achievement of all students including Māori and Pasifika* (mean 2.16), 32.9 percent reported feeling only "somewhat prepared" or "not at all well prepared" in this area. Half of the respondents reported feeling only "somewhat prepared" or "not at all well prepared" in their *knowledge of current issues and initiatives in Māori education* (mean 2.63), and in their *knowledge of Te Tiriti o Waitangi and its significance for education* (mean 2.47). More than three-quarters (84.7 percent) of the respondents reported feeling "somewhat prepared" or "not at all well prepared" to *communicate clearly with students in te reo Māori* (mean 3.36). The report on initial teacher education in New Zealand (Kane et al., 2005) indicates that all secondary

programmes of initial teacher education across New Zealand do include material and instruction on Te Tiriti o Waitangi and its significance to New Zealand education, and all programmes have a statement referring to graduates' knowledge and practice in this area in their graduate profiles. Even so, more than one-third of the respondents in the present study reported feeling less than prepared in this critical area.

Respondents generally reported feeling prepared in their knowledge of diverse learning needs and ways in which they could address these in their planning and teaching, with 87.4 percent of the respondents confident in their knowledge of *the range and nature of diversity of individual students* (mean 1.81), and of *how students' emotional, social, physical and cognitive development influences motivation and learning* (mean 1.77). This confidence lessened, however, when graduates were asked how prepared they felt in their knowledge of *how to analyse students' work to identify future learning and teaching steps* (mean 2.0). Only 58.7 percent of the respondents felt that they were "very well prepared" or "prepared" to *identify and address special learning needs and or difficulties that students may be experiencing* (mean 2.31). Somewhat related to this, 48 percent of respondents felt that they were only "somewhat prepared" or "not at all well prepared" to *teach in ways that support students who have English as a second language* (mean 2.39). Respondents were also tentative at best in their sense of preparedness *to identify and utilise community resources (material and human) to create relevant learning experiences for students* (mean 2.12), with 29.6 percent reporting feeling only "somewhat prepared" or "not at all well prepared". In spite of this apparent lack of confidence in identifying and addressing students' specific learning needs, 90.7 percent of respondents reported that they were "very well prepared" or "prepared" to *teach subject matter concepts, knowledge and skills in ways that enable students to learn* (mean 1.71).

There were statistically significant gender differences for a number of the item responses and, in all such cases, women perceived themselves to be better prepared than men. Respondents in the 21 years to 30 years age group also tended to reflect higher levels of perceived preparedness than others across a number of items. For those items related to addressing needs of Māori students, or communicating with families (where some graduating teachers perceived themselves to be underprepared), Māori respondents rated higher perceptions of preparedness.

While the general sense of preparedness is indeed a positive result, it was notable that those respondents who reported feeling "very well prepared" consistently reported similar concerns related to preparedness of specific items—related to assessment and monitoring of student progress, responding to students' diverse needs, inclusive educational practices related to Māori, and communication with parents—that were highlighted by the complete data set analysis.

The survey data set of the Take 100 cohort will enable further analysis of perceptions of preparedness on graduation to be matched with individual teachers' ongoing experiences in the first two years of teaching, and with mentor perceptions.

Reflections at six months

Responses of the Take 100 teacher interviews at six months into their first year of teaching reaffirmed the survey findings: the majority of beginning teachers felt well prepared to begin teaching. Positive components of ITE programmes recalled by beginning teachers included: practicum, planning, reflective practice, preparation for assessment, and mix of theory and practice. Areas that the teachers would have liked to have seen more focus on included: classroom management, curriculum focus, school organisation, and meeting students' diverse needs, especially the needs of students from non-English-speaking backgrounds, and knowledge and understanding of pedagogical practices related to inclusion and support of Māori.

Of note is the wide range of responses to the prompt that asked the participants to comment on how well they felt their ITE programme prepared them to teach Māori students. In terms of the quality of preparation they received, the participants again gave a wide range of responses, from poor (not enough), okay but more needed, to quite good.

> I thought that was quite poor because we did a five hour thing on it, then that was it for the year. (T533#1)

> Yeah okay, I think there is still room for more on that I feel. Yeah I still think it's important, it's kind of part of our heritage. (T18#1)

> We definitely learned a lot to do with teaching Māori students and different things that come up and how to teach towards that population. (T182#1)

In terms of their current teaching, many appeared ambivalent about their preparedness to teach Māori students, providing a "disclaimer" statement involving demographics of their school:

> To be quite honest we actually don't have that many Māori students here . . . but I think they focused very well on that at teachers college. I think that's something that if I did have Māori students here I would probably be prepared [for] teaching them. (T181#1)

Many, whether or not they were pleased with the quantity and quality of the preparation they received, implemented a pedagogy of "no special treatment":

> Yes I know that Māori are underachieving and yes I know blah blah blah blah and all this, okay that's fine. But I don't differentiate my students in my class, that's how I teach at school . . . but essentially I'm as prepared as they could make me. Because I do not teach any of my students any differently . . . because of their culture. (T706#1)

Responses in the first interview confirmed that many beginning teachers were struggling to find ways to attend to individual needs, especially those who had a student with a serious learning disability within their class. Access to support in these instances appeared to vary greatly between schools. Classroom management issues were to the fore, but many teachers acknowledged that this was an area that needs a mix of ITE and in-school development:

> I don't think ITE can fully prepare someone for classroom management because every situation is different and every class is different . . . every single day of the week is different. (T188#1)

> We did quite a lot of classroom management but then again without the actual hands on? It prepared us really well in theory. But until you meet your classes I think nothing matches the real experience. But I think they prepared us as well as they could. (T154#1)

In terms of preparedness, change-of-career teachers often noted that prior experiences—both in careers and relationships—influenced their approach to classroom management, relationships with young people, and establishment of curriculum expertise and relevance. Several of the teachers who had travelled overseas and worked in positions where they taught English felt well prepared to interact with the diversity of ethnicities within their classes.

Teachers' evaluation of the ongoing influence of ITE was mixed: some teachers reported ongoing reference to ITE resources, others saw less immediate relevance to current day-to-day concerns.

Mentor assessment

Mentors were also asked to assess beginning teacher preparedness. At the end of the first year, mentors who participated in the online survey (representing 43 percent of our Take 100 group) rated approximately 10 percent of these teachers as "somewhat" or "not at all well prepared" as a beginning teacher. For these teachers, identified areas of concern related to pedagogical practices more so than knowledge about their teaching subject. At the end of the teachers' second year in the classroom, mentors appeared relatively positive about the second-year teachers' competency in classroom and professional roles. For the categories: *identifying and addressing special learning needs and/or difficulties that students may be experiencing; teaching in ways that support students who have English as a second language; working with families, whānau and caregivers to better understand and support students' learning;* and *planning and carrying out a teaching programme that ensures all students are able to make progress in their learning,* approximately 25 percent of mentors rated their second-year teachers as "somewhat" or "not at all competent". Of concern is that 25 percent rated second-year teachers as "not at all competent" in "communicating in students clearly in te reo Māori".

Perceptions of preparation and preparedness: Summary

Across all data sources there is a sense that beginning teachers felt less prepared in aspects of knowledge, understanding, and pedagogical practice related to inclusion and support of Māori students in the classroom. This was so even for those students who reported feeling "very well prepared" to teach overall. The demographics of New Zealand's schools are changing. Projected population figures suggest that in 20 years' time Māori students will make up increasing proportions of the secondary school population:

> The number of Māori 13 to 19 year olds is expected to increase by 24 percent, increasing their proportion of the national population aged 13 to 19 from 21 percent in 2001 to 24 percent in 2026. (Ministry of Education, 2006)

These projections present a particular context for which we are currently preparing teachers and we need to ask, "In what ways do programmes of ITE take this impending reality into account?" Taking the results of this study, a significant number of respondents (who may well still be teaching in 20 years' time) do not currently feel sufficiently prepared to meet the needs of Māori students in their classes.

Another area of concern was the challenge of differentiating instruction to meet the needs of diverse learners. While we are unable to predict with certainty the demographics of future classrooms, we can assume with confidence that classrooms will continue to reflect increasing diversity in terms of student ethnicity, linguistic background, and ability. While both teachers and mentors reported an overall sense of preparedness in terms of knowledge of how students' social, physical, and emotional factors and experiences influence their learning and knowledge of the range and nature of diversity of individual students, there is a sense that teachers feel less prepared in ways to differentiate instruction to meet these diverse needs, especially the needs of students from non-English-speaking backgrounds, and schools may be less active in promoting professional development is this area. The graduating survey results, in particular, reveal a tension between respondents' knowledge about the nature of diversity, and their understanding of how to address the diverse learning needs that may arise in the classroom. Just under half the respondents felt less secure in their preparation for how to identify the specific learning needs of their students and plan programmes of learning to meet these needs, and 21.7 percent felt unprepared *to analyse students' work to identify future learning and teaching steps* (mean 2.0)—a critical process for teachers engaging in evidence-based practice. These results are evident despite over 90 percent of respondents declaring that they were prepared to *teach subject matter concepts, knowledge and skills in ways that enable students to learn* (mean 1.71). This apparent contradiction leads us to call for attention to the ways in which ITE can ensure explicit attention to better preparing beginning teachers to meet the needs of diversity within classrooms.

Initial teacher education is only the beginning of the learning continuum. The results of this study signal some areas of teacher learning which may well be better addressed in the first two years of teaching through the mandatory induction programme required in all New Zealand schools. For example, in the first year of teaching, several beginning teachers reported that their difficulties and challenges involved productive communication with parents, whānau, and caregivers. Such lack of confidence places a significant burden on the beginning teacher and may well contribute to lost opportunities to work in supportive partnerships with parents and whānau and may signal an area with which teachers need more support and guidance in their induction programme.

Becoming a classroom teacher

At six months

At six months, most teachers reported that teaching was as expected—demanding and hard work. In making the transition to the classroom, change-of-career teachers frequently compared their working conditions, including the social and professional culture of teaching, with previous work experiences. While positive about collegial support, they were less accepting of poor organisational structures, lack of accountability, lack of resources, and unacceptable work expectations.

The majority of teachers were teaching in their preferred subject area(s) and involved in extracurricular activities. Participation in extracurricular activities was regarded positively when aligned with personal interests and expertise, with relationship building with students frequently reported as a positive outcome. Those who had limited or no extracurricular activities in their first year of teaching expressed appreciation for this, perceiving that this allowed them extra time to devote to "classroom teaching":

> I think that it was a general idea in the school that many hands make lighter work but on the same token if I said no I'm a first-year teacher I need to concentrate on something else, I think people would accept that also. (T204#1)

For others it was more a case of survival:

> Fortunate at the moment 'cause there is not a lot more that I can cope with to be honest. I mean, if you think about it, I'm a single parent here with two children. If I'm spending 60 hours a week in my teaching job, how much is my home and family getting? It's literally trying to survive. (T291#1)

Challenges and frustrations came in the form of managing workloads and associated work/life balance, managing the classroom, feeling underwhelmed by student effort or achievement, assessment pressures, lack of resources, and, for a significant number (30 percent), beginning teachers felt that their school provided inadequate formal support structures (see also the Induction section).

Rewards were primarily expressed in terms of student learning, building relationships, or affirmation of their teaching:

> The Year 9s who bring you chocolate and cards. The ones who go "I love you, you are my favourite teacher", not that there are many of them but just having the kids that you know you are making a difference for. And that is kind of why you are a teacher in the first place I guess. Just the ones who come up to you at the end of the day or the parents ring up and say, "thanks my kid is doing so much better 'cause you actually pay them interest" and stuff like that, they are the rewards. (T10#1)

For some teachers, difficulties with classroom management and student behaviour and "coping" with low-achieving students were addressed by moves towards more structured teacher-directed

lessons. Many of the beginning teachers discussed differential practices, expectations, and satisfaction with their teaching of senior students compared with junior students:

> I have some students particularly in Year 9 who, their way of trying is just trying to keep their behaviour within acceptable bounds and that's sort of where their priority is rather than their academic work at the moment. (T69#1)

At 12 months

By the end of their first year, most teachers felt things had improved in terms of classroom management, getting to know the systems, increased confidence, being better organised, and building sound relationships with staff and students. Terms 3 and 4 still provided plenty of challenges with examinations and NCEA, and organising trips for junior classes.

When asked to describe one of their "best" experiences so far, teachers noted that best experiences frequently involved relatively small episodes within a day. For some, a best experience involved just having the day or class go well:

> It was the beginning of this term, when one of my busy days went really well and all the classes went well and we did dissections in one class and things like that that went really well and the kids behaved and they learnt something. It was just a nice day. (T812#2)

However, frequently responses centred on positive experiences or a "breakthrough" with a particular class—often the nemesis class that had been a major concern early on in the year—or with a particular student:

> My best day is I have this one girl in my Year 12 class and she didn't hand in one of her internals, failed another internal, she handed one in and she got an "achieved" and I was just so rapt. I was just so excited [by] the fact that she passed and she worked really hard and she got an "achieved" and I was just so happy for her. I was just so proud. (T181#2)

Another type of best experience that was frequently mentioned involved trying a new type of activity—often practically based—with a class. There was often a realisation that, as teachers, they were beginning to be able to extend their teaching repertoire (see also the section on teacher learning) and make a real difference for their students:

> I did have this one lesson with my Year 9 class where they all got up and pretended that they had a shop and they had to cut all these articles out of the newspaper and put prices on them and . . . part of the class were the customers and they had to go around and work out the percentages and decreases because the shop was having a big sale. . . . I had never tried doing anything practical with them since the start of the year—when it was a disaster—and they loved it, and passed the test most of them. . . . I learnt not to give up on them. Before we had the activity I was really excited about doing the activity because it was a great idea, but at the same time I was dubious as to whether it was going to work or not and I was thinking maybe I shouldn't even try it. But I tried it and it was good. (T94#2)

The end of the year also was a time when many teachers reported receiving positive feedback from students—especially from seniors—and this appeared to be particularly affirming. Reports

of classes achieving especially well in a unit of work, successful class trips, and displays of students work were also mentioned.

Reports of worst experiences frequently included disruptive, disrespectful behaviour—sometimes in class, but also at form time or in the breaks. On a positive note, most of those who reported upsets around student management also reported good follow-up support from colleagues. A few teachers chose to report bad experiences with colleagues; the end-of-year interview reflected teachers' growing awareness of the effects and implications of school politics. Those teachers who worked in small departments, sometimes solo, were more likely to express concern over departmental matters, with several teachers worried about potential threats to their subject area's viability in the following year.

At 18 months

By the second year, teachers overwhelmingly reported that teaching was much "better". Better was qualified in terms of less stress, more effective classroom management, getting to know the systems, increased confidence, being better organised, being clearer about expectations of self and students, and building sound relationships with staff and students.

> It's a lot better than being a first-year teacher, you know the system in place, you know children's names which makes a huge difference. You are a wee bit more comfortable with the content of what you are teaching and that makes a huge difference. Having taught those things two or three times now coming into the second year it's a lot better. (T198#3)

Many noted, however, that with the extra teaching and school-wide responsibilities, the second year was still very demanding. A few teachers appeared to be in situations that were not conducive to "becoming a teacher":

> It's more stressful, increased classroom time, different subjects to teach . . . so a whole new set of resources all over again and I have got half of the ones that I taught last year basically. It's just added stress and it's so stressful I was crying the other night . . . developing as a teacher, I don't think I have gone downhill, I think I am making good steady progress as expected. But it still seems, at the moment especially, too much to bear. It's getting very stressful and I am thinking this is not good teaching practice. A lot of different things going on, I am taking three senior classes that are all new this year so all new resources and all new paper work. And because one of my classes got cancelled because of small numbers I had to take over making the costumes for the school production as that class was going to make them all. (T388#3)

Teacher satisfaction

Teachers were asked at each of the three interviews to rate their level of satisfaction with their role as a teacher (see Table 8).

Table 8 **Take 100 satisfaction with their role as a teacher**

	At 6 months	At 12 months	At 18 months
Very dissatisfied	2	2	2
Dissatisfied	13	9	11
Neutral	8	7	3
Satisfied	49	52	52
Very satisfied	27	27	29
Missing	1	2	
Left teaching		1	3
Total	100	100	100

At 18 months, 81 percent of teachers expressed satisfaction with their role as a teacher. Interestingly, this proportion is very similar to the response to the items *Teaching meets or exceeds the exceptions that I originally had* (81.5 percent) and *I am not as happy about teaching as I thought I would be* (76.4 percent) from Cameron et al.'s (2007) survey of secondary teachers.

Change-of-career teachers: Making the transition to the classroom

For change-of-career teachers, there is an additional component to becoming a teacher—that of making the transition from one working environment to another. Many of the teachers referred to their prior occupational experiences when talking about their perceptions of preparedness to teach. They were aware that they brought specific skills—often expressed in contrast to younger teachers—to their new role. Frequently mentioned skills included familiarity with information and communications technologies, administration, working with teams, and presentation skills. As previously reported, several of the teachers who had travelled overseas and worked in positions where they taught English felt well prepared to interact with the diversity of ethnicities within their classes.

The ability to integrate work experiences to ensure curriculum relevance and establish credibility was seen as an advantage by these teachers:

> I do like to choose often Māori writers and that because I worked for the Māori publishing company for 10 years so the kids know, and it must mean something when I tell them that I know X—I have met her and the writers that we are studying. (T291#3).

For some teachers, however, prior experiences proved a double-edged sword. There were a few cases, but not an insignificant number, where schools assumed these teachers would contribute in areas (e.g., agricultural studies, photography) related to their previous work experiences, even when they had not studied these in their ITE. Teachers who were parents or who had worked with youth, frequently cited experience as an advantage when they interacted with parents. Others,

however, reported concerns that parents placed greater expectations and demands on "older" beginning teachers. Being older also brought complications with collegial guidance expectations:

> They do make assumptions because you are older that you have been teaching for a long time and one teacher came up to me and said you would never know that you weren't an experienced teacher. So what I need and what other people see that I need may be miles apart. (T62#2)

In reflecting on their teaching experiences, change-of-career teachers often made reference to differences in expectations for teaching and for their previous occupations. For example, several teachers reported struggling to accept less than perfection in lesson preparation, marking, or instruction:

> It's not easy coming from a trade where you work within 1 percent or 2 percent accuracy in the graphic industry and you know failure is not an option, delivering late is not an option, imperfection is not an option, you know you're on a really tight operative scale there. Teaching is different, it's human; you've got a biological mass in front of you, one day from the next, extremely complex. (T184#1)

Others commented on a lack of accountability within their classroom and concern with not knowing how things worked organisationally when compared with their previous position:

> For me it's coming from working like in a professional way where I expect things to happen and things to move and I'm used to knowing exactly what I'm doing, where now I'm like back at the bottom of the pile figuring it all out. (T762#1)

Lack of resources, when compared with previous job environments, was a particular issue for some teachers, especially those working in practically oriented subject areas. Forming relationships with colleagues and students was another area that these teachers contrasted with previous employment. Notably, teachers remarked how they felt more constrained in their schools and, in cases where relationships were unsatisfactory, the school processes to work through the difficulties appeared ill defined.

> In the staffroom I find it very, very cliquey, like there is the English corner and the technology corner and you don't swap, oh no, you don't sit in the wrong seat. Who do you sit beside, who do you definitely not talk to, that side of it is beyond me. (T766#2)

Being able to draw on prior work experiences and expertise appeared to be a significant factor in affirming change-of-career teachers' identity and sense of worth as beginning teachers. Such expertise appeared to be regarded as an advantage; their experience in the "real" world endowed credibility and ensured that their lessons had a sense of relevance:

> Because I have experience in the field, when I am saying things I feel more confident in what I am talking about relating things for the students to the bigger world out there rather than this is just what you need to know, this is more interesting in why you have to know it. So in each lesson it has been quite valuable but also things like having a wider view of how to deal with people when you have worked with people in a different situation. (T830#3)

Others were able to use their prior experiences to provide new specialist courses (e.g., media and horticulture) that were often valued by the school community.

Metaphors we teach by

In each of the three interviews, the Take 100 teachers were asked to provide a metaphor of their teaching. They were asked to complete the following sentence, which was taken from the work of Palmer (1998): "When I am teaching at my best I am like . . ."[3]

Metaphor is an important tool for trying to comprehend partially what cannot be comprehended totally: feelings, aesthetic experiences, moral practices, and spiritual awareness. Lakoff and Johnson (2003) explain that the essence of metaphor is "understanding and experiencing one kind of thing in terms of another" (p. 116). The metaphor is not merely in the words we use, "it is our very concept of the activity or practice we are seeking to explain" (p. 5), for example, argument is war, or argument is dance. Others have explored the use of metaphors in understanding better the role of teachers and teaching, and ways in which teachers conceptualise teaching (Bérci, 2007; Breault, 2006; Bullough, 1991, 1992, 1994; Noyes, 2006). Typically, researchers use metaphor as a way to provoke increased teacher reflexivity about their role of teacher and teacher identity.

Our initial analysis of metaphors from the first and second interviews (the first year of teaching) is based on the approach used by Noyes (2006). This involved grouping the metaphoric expressions in terms of the root metaphors that emerged from the Take 100 data set. Where ambiguities arose, we consulted the elaborated answers of the participants to ensure that the categorisation accurately depicted the meaning intended by the teacher. Grouping the metaphors allowed both for their analysis and the identification of changes that occurred between the first and second interview. While asking for metaphors from both interviews enabled us to illuminate changes in teachers' perceptions of themselves as teachers, we were aware of the need to be cautious in interpreting them. Although teachers reported their metaphors and may well reflect on their meaning, we cannot provide evidence of the extent the metaphors influenced their actual teaching practice.

Five root metaphors were identified, with the addition of one grouping which comprised all statements that did not evoke metaphors but were merely descriptive (e.g., "doing my job properly"). The root metaphors are presented in Table 9 with an example from the participants' interviews. A discussion of each root metaphor follows.

---

3   The stem sentence generates a simile which is one form of metaphor.

Table 9 **Metaphors from Interviews 1 and 2**

Root metaphor	Example from interviews
Happy/confident	"chirpy little bird"
Movement	"an eagle soaring"
Expert/guide	"captain of a ship"
Performer	"stand-up comedian"
Invisible teacher	"a giant eye/ear"
Descriptive statement	"doing my job properly"

Happy/confident

This was the most commonly occurring root metaphor (20 percent) across the interviews. Descriptions of emotions included: "focused and happy", "relaxed and confident in myself", "alive, excited", and actual metaphoric/simile statements, e.g., "kid with jelly beans", "cat purring", "happy floating bubble", "excited like a child on Christmas day". Some descriptions signalled overwhelmingly positive dispositions such as "walking on water" and "skylight on top of the world". This sense of elation makes logical sense for describing being "at your best". Many also elaborated on the idea of the students being happy as well, a concept reminiscent of Bullough and Stokes' (1994) discussion that coming to know the self must be accompanied by the "other" (meaning the students): "forming an identity as teacher requires coming to terms with that which is not self, most importantly students" (p. 202).

Movement

Most of the metaphors in this category alluded to things running smoothly (e.g., "well-tuned engine"), or a flowing motion (e.g., "river flowing"). Other metaphors included notions of the teacher, when teaching at their best, being a catalyst (e.g., "spark starting a flame"), an accelerating force (e.g., "snow plough"), or an unstoppable force (e.g., "cheetah, powering forward" and "tidal wave"). Some metaphors gave the notion of being out of control or overcoming resistance: "storm or whirlwind", "headless chicken", "swimming against the current", and "waka breaking water". As in the previous category, some of the teachers presented their metaphors in terms of students moving upwards and forwards as a class (e.g., "tail wind— supporting from behind"), reminiscent of Lakoff and Johnson's (2003) notion of spatiality. The concept of seeing the students and teacher as a team to move forward gives the idea that participants are thinking in terms of co-constructivist notions of the learner as involved in the teaching process (Leavy, McSorley, & Boté, 2007; Martinez, Sauleda, & Huber, 2001).

Expert guide

Teacher as expert guide is a category associated with conventional transmission pedagogy. Discussed in virtually all studies consulted on metaphor, it is not surprising that it is one of the

significant root metaphors in this study. While all the metaphors here embody notions of "expertise", some metaphors present stronger notions of power and control (e.g., "queen bee", "lion: in control, dominant", "conductor", "captain of a ship") than others (e.g., "coach", "mentor, guide, friend", "facilitator", "guiding light"). While all represent the teacher as knowing more than the student, some speak to the notion of "teacher as expert" or "authoritarian" as the default mode (Bullough & Stokes, 1994). This was often the case for teachers who were experiencing difficulty in the classroom. Interestingly, the metaphors which stayed exactly the same across the first and second interviews were highest in this category, illuminating the strong effect and long history that this conventional metaphor has on those who conceptualise teaching in this way.

Performer

Within the root metaphor of performer, representations included "entertaining sage on the stage", "hero", "John Cleese", "Superman", and "stand-up comedian". Others alluded to notions of management and control, including the "ringmaster", the "snake charmer", and the "slit-eyed juggler". Still others reflected an element of performance with audience engagement (e.g., "circus act", "entertainer", and "magician"). Bérci (2007) claims that learning to teach can be "understood as a philosophical journey during which the self strives to be understood by the self, and teaching is to be taken up as an identity rather than a role" (p. 64). At this stage, however, the participants were still seeing the teacher as an "actor" taking on different roles. For a small number, there was a shift (in the second interview) away from the idea of teaching as a performance (and possibly away from the notion of teaching as a role) towards a strengthening concept of the self.

The invisible teacher

This root metaphor emerged from the idea of either not being needed in the classroom, exemplified by such metaphors as "an angel overseeing students", "standing back and watching", or from being just one of the learners in the classroom community (e.g., "almost nonexistent"). The implications of this root metaphor could be that participants felt disengaged from teaching, or, more positively, that the students were so self-sufficient that the teacher could step back or be fully integrated as a member of a self-regulated community of learners.

Through continuing our analysis of the metaphors alongside other data generated by the participating teachers, we hope to explore the images of self as teacher and how it is projected as a "role" or an "identity" (Bérci, 2007).

Preparedness and preparation: Summary

Teachers' expectations for the classroom, informed by their practicum experiences, appeared relatively realistic in terms of actual workload and challenge. In accord with the literature (e.g., Johnson, Berg & Donaldson, 2005), the beginning teachers collectively reported struggles to

motivate students to learn, to implement effective classroom management, to plan effectively for diverse student needs, to incorporate effective assessment strategies into planning and teaching, and to work in partnership with parents.

The metaphors constructed by the beginning teachers in their first year of teaching provide insight into how they view and position themselves as teachers in relation to their students, and also signal the elements of being a teacher that are foremost in their perceptions of self as teacher. Not surprisingly, the metaphors reflect the diverse range of experiences and expectations of the Take 100 cohort. Some of the metaphorical statements signal representations of power relationships. There are also notions of resistance which need to be explored further, as depicted in metaphors such as "I am swimming against the tide". The question arises as to the influence of the context from which such metaphors arise. There is also evidence across a number of metaphors of teachers who perceive themselves as the authority (the sage on the stage) and the students as passive learners and thus reflect teaching as transmission. These finer interpretations of metaphorical statements will continue to be explored within the context of participants' complete data sets.

The second year marked a significant milestone for beginning teachers and their developing professional identities and capabilities. For the most part, the additional teaching responsibilities appeared to be well received. However, how teachers coped with, and learnt from, these experiences differed, as did their expectations for support. The next two sections focus on teacher learning and the nature of support and guidance that provided teacher learning opportunities and focus.

Teacher learning

The professional formation of any teacher evolves over a continuum that involves both the initial teacher education (ITE) and school induction phases. For beginning teachers, the quality of professional learning experiences within their induction period are a crucial influence on the sort of teacher they become (Cameron et al., 2007; Ingersoll & Kralik, 2004). In addition to providing teachers with the benefit of expertise associated with experience, the professional community is charged with providing learning spaces and opportunities for the newly qualified teacher to engage in "serious and sustained professional learning" (Feiman-Nemser, 2001, p. 1049). These opportunities may occur within a formal induction programme, within informal arrangements at school, or external to teachers' immediate workplace.

While a few beginning teachers appeared to endorse the myth that the induction phase—and especially the first year—was all about survival (Russell, McPherson, & Martin, 2001), by far the majority of the teachers clearly demonstrated that as beginning teachers they wanted to do more than just survive; they wanted to continue to develop a professional identity and learn the complexity of being a teacher. At the end of the first year of teaching many teachers were able to reflect on the progress they had made in a range of teaching practices:

> [I've learned] the management strategies, classroom strategies, cooperative learning, like cooperative learning is something that I'm very interested in trying to figure that one out. I've been kind of experimenting with that all year, different kinds of group work and how to form groups that work well together. How to cater for the needs of everyone in the class, that has probably been one of the most interesting kinds of things that I've been toying with all year because I have in my junior class I have mixed ability groups which blew up pretty much, it didn't work. . . . One thing I've learnt from that is you've got to be very strategic when you are choosing groups. You've got to know your students inside out, you've got to know which ones are going, which personalities are going to work together, which ones are going to be really dynamic. (T419#2)

So how was their learning facilitated and supported during their induction phase and what was the focus of their learning? Teacher learning in the first year focused on classroom management, getting to know the systems such as assessment and reporting, resource production, and building relationships with staff and students. By the end of the first year, teachers' efforts to develop more effective pedagogical practices included an increased awareness of the learner as an individual. Some teachers, however, were still coping with abusive student behaviour, lack of resources, feeling undervalued and undersupported, and feeling frustrated with not having a permanent teaching position.

When asked what areas first-year teachers might best learn in schools, the mentors affirmed the beginning teachers' focus on behaviour and classroom management, assessment, and lesson and resource planning. While report writing and working with parents were signposted as preferred school-based experience, many noted that learning in schools should build on foundational knowledge and skills acquired in ITE:

> I would consider it important that the theory relating to planning, classroom management, the dynamics of teaching and learning, and all that encompasses, be covered and then be reflected upon once the hands-on teaching begins. (M161S#1)

Teacher learning in the second-year interviews was characterised by "dissolution of the boundaries between notions of subject knowledge and the embedded, sociocultural knowledge of school students" (Yandell & Turvey, 2007, p. 548). In understanding the complexity of the learning process, teachers expressed increased awareness about the diversity of learning needs and the importance of relationships and supportive learning environments.

> Basically when I first started teaching I was given something that I didn't really fully understand and then go teach it to kids so I had to go and study it and teach it by basically putting it to them then hoping that they would remember it. Now I am more involving them in the processes and I am doing better experiments and I know how to relate it better to their life and put it into a larger perspective for them and that helps them a lot. (T3#3)

Teacher reports of factors that supported their learning included positive interactions with mentors and colleagues. Specific examples included sharing preparations and moderation of assessment, co-planning, team teaching, and classroom observations. Opportunities for professional

development, both school wide and external, appeared to be readily available.[4] However, on the negative side, there was a significant number of teachers who appeared to be working in isolation (see section on induction). Informed by evaluations of their own student learning outcomes, teachers drew on ideas from ITE and school-based and external professional development to refine and expand their teaching strategies. The ongoing influence of ITE, in particular, drew mixed responses, but was generally perceived as being a useful foundation, and one that was somewhat more appreciated in the second year. The following quotation illustrates that, for some, ITE years appear a long way in the past:

> Not specifically. Often I incorporate a whole range of things. College seems so long ago. Sometimes I do things and I realise yeah that is something I learnt over at College. (T268#3)

Most teachers, in looking to the future, viewed their development as ongoing. Target areas included developing more effective strategies for diverse learners and managing for learning and resource development, improving knowledge of things Māori, and working to reduce school-wide bullying.

One aspect of our ongoing data analysis is to theorise how the teachers view themselves as learners and understand those induction practices that promote and support teachers' learning. There are many theories of learning we are keen to draw on when theorising about teacher learning (e.g., complexity theory, activity theory, communities of practice). To date, the sociocultural literature, with its orientation toward joint enterprise, the centrality of participation and resources, and the notion of trajectories of learning (Wenger, 1998), has proved a useful starting point. From a sociocultural perspective, the specific interactions and dynamics of the professional community of the school constitutes an important contributor to a beginning teacher's development (Wilson & Berne, 1999).

The first year of teaching is an important phase in any teacher's professional growth. When beginning teachers enter their own classroom, they experience and learn about the complexity of being a teacher and they find a professional place within the school culture (McCormack, Gore, & Thomas, 2006). As such, we have chosen to report here two analyses focused on the first year of teaching. The first analysis, involving a sample of 62 teachers from the interview at six months, considers teacher learning across the continuum of ITE and the first six months of teaching (Case 1). The second analysis involves a sample of teachers categorised by teaching area—so far we have considered mathematics teachers (Case 2) and English teachers (Case 3).

---

[4] Such opportunities may not be sustained in the post-registration phase. Cameron et al. (2007) noted that opportunities for fourth-year secondary teachers were limited—especially "opportunities to engage in the sorts of professional learning that helped them to become more reflective about the impact of their teaching on their pupils".

Case 1: Learning across the continuum: Teachers' perceptions of themselves as learners

The data analysis was undertaken by reading the transcripts of the first interview, with utterances of the transcript text highlighted and put into initial categories. These categories were then grouped into themes or strands. The main data strands indicated that learning could usefully be categorised into three major areas: *professional*, *personal*, and *social development* (Bell & Gilbert, 1996).

Professional development as a part of teacher development is defined as the learning of new knowledge and practices relating to pedagogy, assessment, and curriculum. In acquiring the new practices and knowledge, any existing knowledge is changed or developed. In talking about their ITE influences within their first six months of teaching, the teachers' comments on their professional development or learning could be grouped into six aspects:

- *Learning about some new teaching knowledge or practice*—the teachers commented that they needed to know about aspects of teaching; for example, teacher knowledge of learners (Shulman, 1986), the curriculum, the subject or content knowledge, general pedagogical knowledge such as knowledge of a range of possible teaching practices, and pedagogical content knowledge (e.g., how best to teach about acids and bases to students aged 13–14 years).

- *Learning how to do teaching*—the teachers commented that they learnt knowledge of how to teach; that is, general pedagogical and pedagogical content knowledge. They made a distinction between knowing and being able to do. For example, many of the teachers commented on how they knew about classroom management strategies but not necessarily how to put this knowledge into action:

  > Not very well [prepared], because classroom management, really it's a matter of more practice. But theoretically, yes, very well prepared. They give you all the scenarios; what strategy you may use to deal with this kind of problem. But it's just by talking, unless you experience all that, you can't really get into there. (T551#1)

- *Experiencing a new teaching practice*—the teachers commented on learning by having the experiences of actually teaching during the practicum. It was the experiencing of what it felt like to teach which helped them learn:

  > It was just being there in front of kids you know, that experience you cannot replicate in a lecture theatre. (T601#1)

- *Actually doing a teaching practice*—the teachers commented that in learning to teach, they had to put their professional knowledge into practice. When talking about this aspect, the teachers used phrases like, "give it a go" or, "just jump in and try it".

- *Having and using the resources to support a teaching strategy*—the teachers commented on how having resources helped their learning, and the reverse, when they did not have resources. Such resources included teaching units and worksheets for students with special needs.

- *Receiving feedback*—having the university or school-based teacher educators observe them teach and give feedback was seen by the teachers as helping their learning to teach. Observations of other teachers, a practice common to practicum, were less likely to be continued as a learning tool by all teachers in the first six months (see also the section on induction).

The second data strand was that of *social development*. Social development, as a part of teacher development and learning, involves the renegotiation and reconstruction of the rules and norms of what it means to be a teacher and to teach, through social interaction and communication between colleagues. Here the teachers talked of learning what it means to be a teacher—the knowledge constructed socially by a group of teachers—and of forming networks and social groupings of colleagues and peers.

Personal development as a part of teacher development involves each individual teacher constructing, evaluating, and accepting or rejecting for herself or himself the newly socially constructed knowledge and practices of what it means to be a teacher, and managing the feelings associated with changing their practices and beliefs about teaching. For example, the teachers talked of their feelings of managing being a student teacher on practicum, when the pupils and school staff may or may not consider them to be "real" teachers.

Case 2: Becoming a mathematics teacher: Learning in the first year of teaching

This analysis concerns the learning experiences and opportunities afforded 15 mathematics teachers[5] within their first year of teaching. Responses from the two interviews conducted in the first year of teaching are analysed according to Feiman-Nemser's (2001) Central Tasks in Learning to Teach (CTLT):

- learning the context
- designing responsive instructional programmes
- creating a classroom learning community
- enacting a beginning repertoire.

---

[5] Eleven teachers teach only mathematics, and four teach mathematics at the junior level only, with responsibility for another subject area.

In the first six months, beginning teachers' time allowance was largely used for learning about the context—students, curriculum, and school community. Initially, the extent of this new knowledge seemed, for some, quite overwhelming:

> You don't know the names of any staff, you don't know any of students, you don't know the background of any of your students, you don't know what sort of behaviour to expect from them, you don't know anything about their ability, you don't know anything about their disabilities, that's the big one. (T204#1)

Information about school policies and procedures, reporting to parents, and information related to students was frequently shared in scheduled meetings with other beginning teachers led by a senior teacher. By the end of the year, the teachers reported a certain familiarity with procedures, and many noted that they had learnt to be more patient and tolerant, and sort the "big stuff" from the "little stuff":

> I have had to learn about a boundary of reasonableness like I'm a structured person and I like the rules to be consistent and if you are late you are late. . . . I like things to be quite black and white and I have had to learn that I can't be, so I have to work out how late is late enough to give the home detention and how late is late enough to say you are late. So that is something that I have had to learn throughout the year. (T790#2)

Designing responsive instructional programmes

Feiman-Nemser (2001) explains designing responsive instructional programmes as "the ability to bring together knowledge of content and knowledge of students in making decisions about what to teach and how to teach over time and make adjustments in response to what happens" (p. 1028). Addressing diversity and setting realistic expectations based on their developing knowledge of students proved an ongoing challenge, with several teachers referring to the need to provide a more structured experience for students:

> . . . making the work accessible to them. I've had to re-think and probably go back to quite traditional ways of teaching because they find that more accessible, sort of quite processed-based learning. Almost like a formula you can follow to get success seems to be the way they absorb things easier. (T202#1)

However, by the end of the year most teachers indicated an increased confidence in their ability to recognise and meet the diverse needs of their students in their programmes and through their teaching strategies.

> I feel that I am making a difference with my Year 10s. They are a top band group and I really feel like I am extending them . . . I really like playing with them—"why does this work"—not just this is what we do, but the idea behind it, and their eyes light up and they think through it. (T790#2)

Comments indicated that as the teachers spent time with their students and watched and listened to their students' responses to their teaching, they continued to make adjustments to their programmes and tailor their teaching strategies to maximise learning.

Day-to-day planning was a challenge for some, especially if preparation also involved learning subject content knowledge; learning that many hoped would pay off in terms of preparation for future years. Several teachers commented that they needed to be realistic about how much time to spend planning:

> So there is a standard that you are expected to produce at Teachers College and then there is what is actually achievable in the real world . . . what we need more of is what you need to do to get through the week. (T204#2)

While information about resources and mathematics assessment requirements was shared within departmental meetings and meetings with their mathematics mentor, several of the teachers expressed an awareness that access to colleagues' time was not to be taken for granted. In the later part of the year, those who had regular, as opposed to "needs-based", meetings appeared more likely to continue productive mentoring arrangements despite the prevailing culture of "busyness":

> Mostly the mentoring I have got from people has been really specific because I guess everybody is busy and you need to have an agenda on something specific that you are talking about and achieving through that time. I have really appreciated the fact that my supervisor has timetabled a regular time to meet and that is our time. (T790#2)

Creating a classroom learning community involves teachers maintaining a classroom which is not only productive of students' learning but is also safe and respectful. In the first interview many of the teachers reported grappling with management issues, with the need to establish rules and routines, and to manage disruption while attempting to undertake quality teaching and learning. The majority of the teachers sought and had been provided with assistance from their more experienced colleagues in tackling issues of classroom behaviour and student motivation, and working in partnership with parents. In accord with the literature (e.g., Johnson, Berg, & Donaldson, 2005), some teachers' struggles to motivate students to learn were particularly disheartening:

> I can't motivate the children and I'm finding that very frustrating. I talk to the other teachers who have got more experience than me. My HOD [head of department] doesn't take it personally, he says they have to take responsibility but . . . I get upset really quickly about students who just don't want to do any work. (T417#1)

There was a marked change in focus in the end-of-year interviews. Most teachers reported that classroom management issues were largely resolved; they finished the year with a sense of order and confidence in the classroom community they had established. Recall of their most enjoyable experience often related to a "breakthrough" with their "nemesis" class. A few teachers, however, were still focused on creating the positive learning environment, suggesting that work on mathematics teaching per se was on the "to do" agenda for next year.

> My angry voice I think, I have to get one I think. I find it easier to get to know my students but it's finding that line where I know them as students but they still know me as "teacher" and not just friend. So then when it comes to discipline issues and yeah that's sort of the main thing I want to pick up next year. (T6#2)

Enacting a beginning repertoire involves attending "to the purposes not just the management of learning activities and their meaning for students" (Feiman-Nemser, 2001, p. 1029). Involving pedagogical practices which encompass curriculum design, classroom instruction, and assessment, beginning teachers need opportunities to enact and broaden their repertoire of teaching skills. Such professional learning appeared to be closely linked with both the beginning teachers' initial capability in terms of confidence and experience of pedagogical practices, and to the school culture. Some teachers found themselves in schools with a strong "craft knowledge" culture where more ambitious pedagogies were discouraged in favour of traditional approaches to teaching. Several teachers reported explicit awareness of the pull (and sometimes push), from both more experienced colleagues and the community, to abandon their initially desired practices for safer, less complex activities or actions:

> I find myself actually moving away from what I've been taught. I love the idea of student-centred learning, I love the idea of group work. But what tends to be the most effective is actually having a very tight lesson with lots of where students are kept very busy doing work out of a textbook and textbook teaching if you like. So that's not something that I'm entirely comfortable with. . . . That's the advice that I've been given—"Keep it simple and keep them moving through the work" and "Parents want to see a lot of homework. . . . Parents will be more focused on the amount of homework than the learning that is taking place. (T204#1)

Consistently, those beginning teachers who had been encouraged and supported to observe experienced teachers reported this as a significant source of professional learning, especially when these experiences confirmed the "privileged teaching repertoire" (Ensor, 2001) promoted within their ITE experience:

> I said [to the mentor] I am having real trouble making this interesting. You know, getting outside the book. She suggested go and watch this other teacher. So I did, and I got some good ideas from it that relate right back to that ITE training, because I found that when I got into the classroom, she was applying some of those outside-the-square ideas. . . . Whereas for me, I had reverted back to the way I was taught maths, which was from the book, pen and paper, in the exercise book and had no variety. (T343#1)

The opportunity to watch in other subject areas and interact with teachers outside of their department was also reported as a useful activity by a few teachers. Others reported the process of reflecting back or referring to ITE notes and resources during personal reflection time, to be a valuable source of learning.

Case 3: Learning to be an English teacher: Complex realities in the first year

This analysis investigates the experiences of those learning to teach the secondary school English curriculum. This subset comprised 28 teachers and included three strands, those teaching only English (*n* = 12), those teaching English plus other subject(s), and those teaching other subject(s) plus English. Transcripts were analysed from the interview data collected at six months and 12

months[6] into teaching. The purpose of this was to find out what was unique about the preparation and experiences of beginning teachers of English in their first year of teaching, to inform both the content and delivery of ITE programmes and the induction and mentoring support offered by the employing schools and English departments within those schools.

The complexity of learning to teach English as a curriculum subject was a particular feature of the analysis—the multiple strands, functions, and processes of the English curriculum provide particular challenges in terms of the decisions teachers would be required to make. For example, the nonspecific nature of the curriculum content means that there are no prescribed texts for teachers to use. Beginning teachers therefore faced the challenge of locating texts, making time to become familiar with those texts, and then finding appropriate ways to teach those texts, to illustrate key achievement objectives.

Overall, the English teachers reported being satisfied with their ITE programmes to teach English. However, the complexity of the curriculum strands, functions, and processes meant that, once teaching, the need to cope with new content at the same time as they were developing their pedagogical repertoires and finding ways to manage the diversity of student needs was particularly challenging. As was the case with teachers across the cohort, managing work time, paperwork, and systems, and dealing with the diversity of student needs and behaviour, were to the fore in the first year of teaching.

At the departmental level we gained insights into the strategies which the beginning English teachers deemed to be both worthwhile or in need of improvement. Particular challenges for English teachers centred on their workloads, marking, and NCEA assessments. Added pressure arose for some of the beginning teachers who reported working in dysfunctional environments where either they did not "fit" comfortably or where there was a lack of leadership. In a few cases, beginning teachers held the sole position in a small or area school. Those teachers who taught in more than one curriculum area (approximately 60 percent of sample) frequently reported additional challenges related to variations of support and expectations between departments.

Teacher learning: Summary

Only a few teachers in this study subscribed to the view that the first year of teaching is *all* about survival (Russell, McPherson, & Martin, 2001). The majority of the teachers clearly showed that as beginning teachers they wanted to do more than survive—they were hungry for "making a difference". The analysis to date highlights the complexity of becoming a teacher and making a difference. Newly qualified teachers need access to sustained learning opportunities—especially in their formative years of teaching—that build upon their ITE experience, to teach in ways that meet demanding new standards for student learning, or to participate in the solution of educational

---

[6]   An analysis of the interview conducted at 18 months will be presented by Lovett and Davey at the PPTA conference in April 2008.

problems. The case studies illustrate that teacher learning occurs across a number of strands including personal, social, and professional.

Teachers, not surprisingly, experienced varied levels of continuity in terms of professional practice and learning between ITE and the classroom. Findings from this section, when read in conjunction with the earlier sections on preparation and preparedness and becoming a teacher, affirm that there is potential to more effectively bridge the continuum of teacher as learner between ITE and the classroom. The next section looks more closely at induction practices that currently support teacher learning in these critical first years in the classroom.

Induction

Despite the national implementation guidelines *Towards Full Registration: A Support Kit* (New Zealand Teachers Council & Ministry of Education 2006), teachers experienced highly variable induction in aspects such as access to suitable mentors, frequency and focus of meetings for Provisionally Registered Teachers, professional guidance in curriculum and assessment, and appraisal systems. Not surprisingly, such variability in access to professional learning opportunities resulted in variable levels of satisfaction (see Table 10) with regard to how the school induction programme was meeting the individual teacher's perceived needs and expectations.

Table 10 **Take 100 satisfaction with their induction**

	At 6 months	*At 12 months*	*At 18 months*
Very dissatisfied	4	9	10
Dissatisfied	18	21	24
Neutral	11	7	7
Satisfied	46	37	40
Very satisfied	20	22	16
Missing data	1	3	
Left teaching		1	3
Total	100	100	100

In order to understand more about beginning teachers' induction experiences and levels of satisfaction, our initial analyses included: identification of how the beginning teacher's time allowance is used; provisions for formal collegial support and guidance; the role of the Specialist Classroom Teacher; access to informal support and guidance; and the mentor's perspectives of their role and responsibilities. We also present two analyses that highlight strengths and

weaknesses of induction programmes within a selection of schools rated highly or not highly by beginning teachers with regard to induction practices.

Use of beginning teachers' time allowance

In the first year of teaching, secondary schools are funded to provide beginning teachers[7] with an additional five hours of non-contact time—in effect this translates to a reduced teaching load of one class, and in some schools this may mean reduced responsibilities associated with the "form" or "home" class. The beginning teachers reported high awareness of their rights to noncontact time and in most cases they were receiving their full allocation entitlement. Several teachers who felt they were overcode (usually an extra hour) had engaged teacher union support to negotiate with the school administration. Some who were overcode due to timetabling constraints had been offered compensatory support in the way of marking, shared teaching, or release from form-time responsibilities. This compensation of overcode timetabling may allay some of the concerns raised in Cameron et al.'s (2007) survey study where approximately 50 percent of the secondary teachers reported teaching over code. Part-time teachers appeared less certain as to whether they were receiving the correct entitlement. For them, the concept of "noncontact" teaching time was less easily distinguished from their nonpaid time.

Not surprisingly, the time allocation was highly valued. In their first year, teachers recognised the dual value of extra time for completing teaching associated tasks and professional development activities, alongside the less-than-fulltime teaching load. For many teachers, the extra time provided a sense of personal space, which to a large extent they were able to control. As one teacher noted, freedom to control some of their time during the day was in contrast to the pressures of accountability of being in the classroom:

> It's a huge thing for me to have those free hours within the day. Just to keep my head above water, cool off, organise things and talk to people, can do that mentor teacher thing, chase up resources, find my way around, you know it takes longer to find things in the resource room for instance, yeah I love that. (T184#1)

And in the first year in particular, noncontact time was quite often associated with time to recharge or relax after difficult lessons:

> Relax, winding down after a class. Sometimes you might have a real stressful period, and being a science teacher you have got to get a lot of equipment out and that [noncontact time] it gives you time to. Whereas if I had more classes I would just have to suck it up and go into another class and it raises the stress levels, or I can get equipment out or put it away. I do work sometimes in that time, but a lot of the times I just breathe. (T83#2)

Despite the varied use of time, overwhelmingly the most common reported use of the time was for completing tasks associated with day-to-day teaching: planning, resource development, marking,

---

[7]   Beginning teachers in private schools (5 in our study) are not covered by the teachers' union agreement— provision of extra time was more varied.

and administration. While most of the teachers understood that some of the time should be allocated to professional development activities, at least initially, day-to-day challenges were to the fore:

> An awful lot of my time is used on admin and sorting out lessons and resources for other classes. I think the intention is for me to do some PD and observe some other teachers. It's not really working out like that at this stage. I'm going to make a bigger effort with that next term but it's still probably going to get lost in all the other things I have to do. . . . Certainly next year I'll be able to use my space and my time a wee bit better, probably not this year though. (T390#1)

Most teachers reported that the time spent in preparing teaching activities was the priority; some noted that this preparation also involved learning subject content knowledge and assessment systems, learning that many hoped would "pay off" in terms of preparation for future years:

> It frees me up to learn and prepare, and I find that I actually need that time to gather knowledge. I'm teaching content especially at level 13 which I haven't covered before. I've got a history–politics background in teaching US history and it's pretty in depth but yet very broad so I'm having to go get books to keep ahead of them so I need that time brutally. And then on top of it I'm also learning about NCEA, marking the essays etc. (T673#1)

Professional development activities involving other colleagues (e.g., meeting with mentors, observing other teachers) were sometimes scheduled during noncontact periods, and noncontact times also provided opportunities for informal chats:

> I've used it to observe other teachers occasionally but primarily just to do my own planning and marking. But also to have conversations with people and we have scheduled meetings, but to spend 20 minutes talking to my HOD [head of department] or a colleague or even longer about a problem I've having or how to approach something. So I feel that I'm getting a lot of value out of that time allocation. (T718#1)

Including personal reflection time as a means of professional development was mentioned, but not frequently. However, taking time for oneself at school often went hand in hand with accepting that work needed to be completed at home:

> I've been able to use my noncontact time to do my planning and to start on doing assessment and evaluating my lessons. I think most of my noncontact time is actually evaluating how I did earlier in the day or if I had an awesome class there's always someone in the office I can tell about that, so sometimes I go [for] oral reflection. And if something didn't go well I use the time to think what went wrong, how can I improve it and then I talk to somebody about it right away even if they aren't a mentor teacher. I use the time mostly for reflection and then I take almost too much work home with me. (T188#1)

In some schools there were real impediments to using the noncontact time in ways that teachers wanted. Teachers reported frustration that the classes they wanted to observe were difficult to timetable within the noncontact periods. Often such organisational constraints led to a decision to not observe other classes, despite a belief that this would be a very useful form of professional development. Those teachers who were in sole charge of a specialist area (e.g., Japanese, Māori,

or technology) reported that added responsibilities often compromised the allowance time. In a similar vein, a few teachers reported that extracurricular responsibilities or wider school expectations could "eat" into time that they knew should be spent on their own professional development:

> It was taken up with fundraising. It just means I've got to make that up. (T268#1)

> I plan, do planning. I make resources. 'Cause I'm taking care of netball I do netball planning and administration as well. (T346#1)

Formal collegial support and guidance: Beginning teacher perspectives

When we looked at how these beginning teachers used their noncontact allocation during the first 18 months, much of the time appeared to be working solo in tasks related to planning, resourcing, and administration. The intention, however, of the *Towards Full Registration Guidelines* (New Zealand Teachers Council & Ministry of Education, 2006) is that beginning teachers have opportunities to interact in a professional way, with multiple school personnel. In the first year, formal arrangements typically included Provisionally Registered Teacher meetings, mentor meetings—usually with their head of department, or senior teacher from their curriculum department—and for some beginning teachers meetings with the Specialist Classroom Teacher (SCT). In the second year of teaching the induction focus shifted. There was a noticeable decline in formal Provisionally Registered Teacher and mentor meetings, with mentoring arrangements moving to support on a needs basis. Only a minority of teachers reported involvement in a proactive programme with articulated goals and target areas of professional development.

Provisionally Registered Teacher meetings

When reporting on meetings for Provisionally Registered Teachers, beginning teachers frequently noted the beneficial effects of collegiality:

> You find out you are in the same boat as the rest of the first years and that was actually really good because you have huge moral issues starting teaching. Some people feel real useless and I still have problems with that because you are getting compared to someone who has had 40 years' experience and the kids compare you on that basis and don't have any sympathy from where you are coming from so it's really hard. We had that meet and compare and talk over and pretty much just have a moan, I think it helped us all a lot. (T1#1)

Some beginning teachers formed significant relationships with the co-ordinator for Provisionally Registered Teachers in that they felt comfortable seeking one-on-one help outside of the scheduled meeting times:

> It's been invaluable just the support I'm getting from the PRT [Provisionally Registered Teacher], any question no matter how stupid she will take the time. I can interrupt her in class if I need to, I can say I'm having a little trouble with this. The other staff members are fantastic I have a lot of support which is great and invaluable. (T181#1)

A minority, however, felt that the group meetings for Provisionally Registered Teachers were not meeting their needs, following a set agenda rather than responding to their individual requirements; for example:

> I don't find them valuable because it turns into a complaining session where all the new teachers come and complain about all the issues they're having in their class. And I don't get anything out of it. But I go along because I think it's important to support these people. The DP [deputy principal] runs that, they give you information about maybe the behaviour management system and the report writing system, things like that, information which I already have which is partly why I find it not as useful, but that is the formal official beginning teachers' system. (T202#1)

Specialist Classroom Teacher

The Specialist Classroom Teacher (SCT) was a new position that was being trialled in most, but not all, of the secondary schools in 2006. The role of the SCT appeared to vary from school to school, but a positive feature that was noted by many beginning teachers was that the SCT was able to provide advice and guidance independently from the formal appraisal system. Often the SCT was from outside the department personnel and this appeared to add to the confidentiality and trust that was expressed by many beginning teachers:

> The Specialist Classroom Teacher she's . . . very experienced and a wonderful guide and she mentors all of the beginning teachers in a general sense . . . it's quite nice to call on people from outside of the department. (T402#1)

A teacher in the cohort who wanted to leave teaching at the midway point of her first year felt the SCT was the best person to talk with:

> I have a duty with her once a week, which I love. Yeah she's, I find her really helpful, more kind of on a personal level with just trying to keep things in perspective. Like she's the only person in my school that knows that I'm trying to look for another job. And that I don't want to teach. (T303#1)

Mentoring

This section considers the beginning teachers' perceptions of the mentoring arrangements using data from the three teacher interviews. In the next section we review findings from the mentor surveys with a focus on mentors' reported activities, roles, and experience.

In the first year, interactions with mentors and beginning teachers typically occurred through meetings, classroom observations, and shared workspace interactions. Formal meetings with subject mentors focused on planning, marking, resources, and scheduling:

> Markings comment, assessment markings, what I am going to do next, what trips are coming up and what I need to do for them. Sometimes we skip it if nothing is happening. Any general problems I am having we will talk through it. (T296#1)

Whilst a few teachers reported some planned agendas for their meetings, others were happy that meetings were largely responsive to day-to-day needs, for example:

> They've [meetings] helped quite a lot really particularly meeting with my supervisor because that is not particularly structured. If there is nothing else going on we'll go through each of my classes and talk about how they are going. But that is an opportunity to bring up any issues that I have been having during the week or ask questions. Some of them are quite a practical nature, do you have any good resources for this topic? And things like that. So my supervisor is quite knowledgeable in the areas that I'm teaching 'cause she is in the same department. (T191#1)

At the beginning of the year, meetings with mentors were for the most part scheduled. However, after six months, many teachers reported that the frequency of meetings had decreased, or were on a needs-only basis. For some teachers the informality of the arrangements was meeting their needs, whereas other teachers felt less than satisfied:

> I think we're meant to meet like every Friday but then only every second Friday it's been happening. She just says "have we got any problems?" And I say "not really". We don't have any formal meetings or anything like that and no agenda or anything. (T190#1)

> Yes they have been. With one of them, with the HOD [head of department] of English it was at my instigation that we have regular meetings. So I had to push for that and they weren't always stuck to. (T291#1)

Some beginning teachers did not move into an environment where the guidance was clearly identified—they were unsure as to whether the mentors were supposed to be formally helping, or were just being helpful:

> Not exactly [assigned formal mentor]. No—it was just more like informal discussions on certain groups and certain kids. It's a pretty small school and everybody knows everybody. . . . . You definitely have to take on your own individual responsibility but what's comforting is that to know that should you require some help the HODs [heads of department] and deans are there to back you up. (T171#1)

A few experienced difficulties with forming positive relationships with mentors and felt somewhat powerless to change the mentoring arrangements. For one respondent the conflict of working with the mentor who was also the teacher in charge of the Year 12 course that she taught proved difficult:

> I have one teacher who is supposedly my supervising teacher, she's also the teacher in charge of one of the programmes that I teach in—she's in charge of the Year 12 English studies. . . . She tells me what I'm doing wrong and I feel really bad. We're meant to meet once a week, it doesn't always happen. The difficult thing because she's in charge of one of the courses that I teach we spend most of our time on that course, and that's the course where I feel the least supported, funnily enough because there's no one else that I can ask for help. . . . I feel that she resents the fact that she has to give me such specific things. (T303#1)

A few beginning teachers expressed concern that their mentors were expected to help in areas in which they obviously needed help themselves:

> They have been fairly informal and that's haphazard. Not that my mentor, he is fantastic, he is in a position where he doesn't know a lot about secondary because he is primary trained and he's sort of dumped in the deep end and doesn't know my area either. (T345#1)

Others were concerned that their mentors were under too much pressure, with one beginning teacher reporting that both her mentors were on stress leave.

In the extreme, several teachers claimed that while they had Provisionally Registered Teacher (PRT) meetings, they had no assigned mentor teacher. For instance, teacher T388 noted that apart from PRT meetings his only form of support in the first six months was department meetings, commenting however that these were "nothing really to do with induction". When unhappy or unsure about who and what their mentors should be doing, some beginning teachers reported finding their own substitute mentor:

> I quite literally demanded a mentor then I emailed someone that I thought would be quite good and said would you be my mentor and she said OK. So we started doing classroom observations and I ended up teaching her how to do classroom observations, and that was great for a while then it petered off, as she said things like "that's great" which wasn't useful. I think probably another aspect is that a lot of other people don't have a clue what I am doing in the computing college technically and don't entirely understand the environment. (T848#2)

Observations and appraisals

Observation of other teachers was frequently discussed as one of the most valued professional opportunities, but one that teachers often reported not "doing" as much as they should or would like to do. It was not assumed that observation of their mentor teachers was the norm; teachers more likely made their own arrangements (sometimes supported by the SCT) to observe teachers across subjects (following a class or student), across units of teaching and, on a few occasions, in other schools. Cameron et al. (2007) surmise that lack of observations of mentor teachers may indicate "a reluctance of some mentors to open up their classroom to the scrutiny of others or lack of common time for this to occur" (p. xv)—our study indicated that the latter was perceived to be the problem. Although teachers in our study appeared to value the opportunity, they frequently prioritised lesson preparation over lesson observation. The following response from a teacher in their second year of teaching exemplifies the "must do" and "as needed" approach to both observing and being observed:

> We keep talking about observing others but it hasn't happened yet. Its one of those things that keeps coming up and we keep going we have to do this and then we haven't done it. I've had my HOD [head of department] come in to observe me twice, twice formally and occasionally informally when I've said, "Can you come and just watch what is happening with a particular student" or something along those lines. (T10#3)

Reactions to appraisals of their own teaching were mixed. Although most teachers reported receiving helpful feedback, this was rarely matched with sustained follow-through action plans that addressed student learning. Cameron et al.'s (2007) survey study also recommends that professional development for mentors may be needed to "strengthen their skill in directing their support towards enhancing students' achievement" (p. 62)—alongside the more traditional type of support geared towards classroom management.

When frequently timetabled towards the end of the year or term, appraisals were sometimes perceived to be more about meeting registration requirements than for professional growth purposes. Uncertainty with the processes and detail of registration was expressed by many teachers—a finding that is noted in Cameron et al.'s (2007) survey study. A significant number of second-year mentors reported unfamiliarity with *Towards Full Registration: A Support Kit* (New Zealand Teachers Council & Ministry of Education, 2006).

Mentors' experiences

Forty-three mentor teachers completed the online survey towards the end of the first year of the study and 44 completed an online survey towards the end of the second year of the study.[8] In the first year, activities that mentors reported as being effective for beginning teachers included classroom observations—either the mentor observing the beginning teacher or the beginning teacher observing teaching in colleagues' classrooms—and the sharing of units of work, resources, curriculum, and planning documents with the beginning teacher.

Approximately half the mentors made specific mention of providing support with assessment procedures, most typically in regard to familiarisation with, and moderation of, the NCEA assessment system. Providing assistance with classroom and student management concerns was also mentioned by about half the respondents. Other specific areas of support reported less frequently included support for parent–teacher interviews and report writing, offering of professional readings, invitations to team teach, encouragement to participate in extracurricular activities, and tips for managing systems and paperwork.

In addition to reported activities that focused on specific action points such as assessment or planning, the majority of mentors reported arrangements for regular one-on-one meetings. The focus of these meetings was to provide discussion and reflective time, and opportunities for beginning teachers to raise issues. Some mentors reported the value of informal chats and on-call assistance. In a small number of cases it appeared that one-on-one support was available only when instigated by the beginning teacher. Towards the end of the first year mentors noted the need to attend to appraisal matters related to the requirements of the beginning teachers'

---

[8] The mentors who completed the survey were working with beginning teachers who, with the exception of three, reported that they were satisfied or very satisfied with their role as a teacher. However, 15 of the beginning teachers matched to the mentor responses reported that their school induction experience was less than satisfactory.

portfolios and observation schedules and generally support the teachers to cope with the demands of the end of year.

During the second year, reported mentor activities that were rated most effective included collegial support—in areas of planning, curriculum sharing, and general troubleshooting. Teaching and lesson observations were also mentioned by half the mentors as being effective or very effective. One mentor mentioned that classroom episodes were videoed but expressed uncertainty as to the effectiveness of this process. In the second year of mentorship there was increased evidence of teacher and mentee sharing practices such as planning, accessing or developing resources, and assessment. Mentors also referred to second-year teachers developing a greater network of support within the school rather than reliance on "them" to solve their problems. They viewed this branching out as a positive response to taking more responsibility for their professional learning.

With regard to their role in the mentoring relationships, the mentors were largely positive about this partnership. Many saw positive benefits in terms of reflecting on their own teaching and learning:

> It gives me the opportunity to think about my own teaching, to think about what I do instinctively and continue to fine tune and improve. It forces me to continue to re-evaluate my own strategies. (M812S#1)

> Being a mentor teacher keeps me honest. It keeps me in touch with the need to be deliberate about engaging students—a concern that can slip out of one's consciousness after a few years. . . There have been several times when X's feedback about what she has tried within her class has altered the way I've taught my own classes. (M719S#1)

Renewal in terms of enthusiasm and the challenge of new ideas was also a feature that mentors remarked on:

> The opportunity to reflect on new ideas and old to see what still works and what needs to be adapted. It is interesting to see the enthusiasm and be reminded of some of the reasons why you became a teacher yourself. (M390S#1)

> New teachers bring enthusiasm and new ideas. I find that they revitalise the department by sharing ideas. (M47S#1)

Other identified positives centred on the satisfaction of collegial relationships and professional capacity building:

> I am very happy to share my experience with beginning teachers and I strongly believe that working with younger teachers not only contributes to their satisfaction in their chosen profession but the end effect improves the learning outcomes of our students and that is most important for us. (M533S#1)

> Teaching can be an isolated activity and so it is important to meet and work with new teachers. I enjoy the energy they bring to the department. (M543#1)

Within the collegial relationship building, for some there was an acknowledgement of the "journey" that they were both on, and an appreciation of the challenges that beginning teachers faced:

> Wonderful to see the development of a beginning teacher—to be able to share intimately on this "journey". There is a duality in terms of this relationship—I learn also from their reflections and honesty and can endeavour to act on any issues they may share. (M674S#1)

One mentor (M790), however, found little to celebrate within the mentoring relationship: "To be honest, the only benefit I see is in training someone to do things my way—I am quite particular about systems, etc.". Her response suggests that she perceived her role as supporting the beginning teacher to "fit" into the school systems.

In the second survey, we examined further the nature of mentor roles with a view to mapping changes in perceived roles. Certainly mentors perceived that second-year teachers were more confident and noted that their experiences within a range of classrooms provided a more solid base to reflect on and engage in discussions. For some mentors this meant less formal contact in the second year and a move to more informal discussions. Mentors remarked that the focus changes from management to different teaching strategies. There is concern, however, that some mentors view their role as one of getting the new teacher "up and going" and feel that when the teacher appears confident in their new role, their task is largely completed. In contrast, others see mentoring the more experienced second-year teacher as an opportunity to extend the co-learning relationship:

> As a second-year teacher, X brings a lot more "to the table" than she did as a first-year teacher. She is surer of her own opinions than previously, without having become arrogant or obstinate. This means that there is much more of an exchange going on than previously. Last year I felt more like a giver, but now both giver and receiver. (M24 S#2)

In ranking their primary roles (brief descriptors were provided for listed roles with an option to suggest alternatives) in the first and second years, some roles were ranked highly in the second year that were not so in the first year, and vice versa (Table 11).

Table 11 **Mentors' perceived roles with Year One and Year Two teachers**

Role in Year One	Role in Year Two	Aggregated Rank
Observer	Coach	1
Confidence builder	Sounding board	2
Resource provider	Observer	3
Coach	Inquirer	4
Provider of feedback	Critical friend	5

The descriptor of "Observer"—ranked highly in both years—is essentially a very passive description: observing the teacher's lessons, preparation, attitude, and professional behaviour. This mandatory task (part of appraisal requirements for registration) is usefully linked with the

role of "Provider of feedback". The provider of feedback role may be interpreted as the provision of pragmatic and craft-orientated advice focused on the development of pedagogical skills required of beginning teachers. However, from the open-ended responses and other role selections, it is apparent that a significant number of respondents did not see this role in terms of imposing their own teaching methodologies, but rather in terms of helping teachers develop their own strengths and improve their weakness areas according to their own needs. Thus the rankings provide tentative but positive signs that the mentoring role is moving to a more collaborative stance in the second year with the inclusion of "Inquirer" and "Sounding board" perspectives. Notably, "Confidence builder" dropped from second place to eighth place, and "Resource provider" from third to fourteenth-equal place in year two.

Despite the largely positive benefits of being a mentor, the role did not come without its challenges. Lack of "time" was the most consistently noted. With only 18 percent of first-year teachers rated by the mentors as "somewhat" or "not at all" prepared in terms of their ITE experiences, reported challenges related more to mentors' decisions about how much and how best to provide ongoing support and guidance, and how to provide support that was responsive to individual needs:

> Being aware of their needs, knowing when to let them "learn" from mistakes and knowing when to step in. Being able to offer plenty of varied support to encourage them to try different strategies. (M673S#1)

> Working to a programme but able to adapt according to teacher's needs, sometimes at the drop of a hat. (M184S#1)

While many mentors remarked on beginning teachers' willingness to discuss their strengths and weaknesses, mentors also expressed some frustrations when beginning teachers appeared unwilling to accept advice. These frustrations were expressed as concerns about beginning teachers who:

> . . . have come into teaching with a specific personal agenda. When people are unwilling to accept advice on things to try when their current practices are not working. (M161S#1)

> . . . think that they know it all. (M827S#1)

In the second-year survey, a small but significant number of mentors noted that expectations of senior management within their schools were less than satisfactory with regard to support for and clarity of induction programmes. Some mentors suggested that blocks of time, say half days, be assigned in the second year to enable a more comprehensive overview of learning needs, goals, and actions. Half of the mentors acknowledged that they would benefit from professional development on mentoring. Professional development would include:

> . . . time to discuss strategies with other mentor teachers to determine the most effective strategies and identify the areas of greatest need of the beginning teacher. (M182S#1)

Informal support and guidance: Beginning teachers' experiences

Informal support from collegial interactions was both offered and sought—and always highly valued, frequently being rated as the most important source of support. As noted in Cameron et al.'s (2007) survey report, nearly all teachers indicated that they felt welcomed by their colleagues. Informal support appears to be a mix of social, ethical, and professional actions:

> I think it is really good because teachers put things into your pigeon hole, like here's a lesson plan and they will just pop it in. Also just talking over lunch—what they have done and how they feel and almost anytime when there is something to be learnt or something to be gained from it. And just teachers coming up, especially in our English department, and just making sure that I am all right and I know what I am doing. That's just been invaluable. (T296#2)

For some teachers, particularly those in small departments, informal support from the wider school served to reduce feelings of isolation:

> Once again it is different. If I was part of a larger art department there would be a lot more of that but in some ways I feel quite isolated down here where I am. It does come like when I am putting art work up in the office. (T154#2)

Often these informal contacts arose because of proximity of offices, shared duties, or car-pooling:

> My car-pool buddies, they are really supportive because you can just chat to them about any issues going on and you can have it all off your chest before you get home. (T94#2)

Reports on informal support particularly reinforced the role of the "ethic of care"—a factor that was prevalent in those teachers who rated their induction experiences most highly. Experiences of senior management offering informal support appeared to be particularly affirming for beginning teachers. For example, the following response indicates the teacher's delight when the principal informally observed her teaching:

> So he [principal] comes in and the kids are used to it. . . . He's a maths person and last time I got him to do an example on the board and the kids just thought it was fantastic, so he has seen me teaching in an informal way which I really appreciate because it makes me feel that he cares about what kind of job I am doing and he doesn't just go on hearsay, he actually takes the time to get out of his office to come and see. (T790#1)

Equally, those who had little contact with senior management, except for scheduled meetings for Provisionally Registered Teachers, felt somewhat "let down" and insignificant within their new role at the school.

> . . . on the day my grandfather died I went and told the principal and he said, "Oh and how much time do you want off?" So he's not concerned about how I'm feeling—he's just concerned about covering his teaching. During that day I went to him and said, "I don't know if I can manage this afternoon," and he said, "Well try and get through it." I took one day and drove all night and back to school the next day as we had assessments, reports, and you know. (S707#2)

Informal contact with the senior management could at times, however, be a mixed blessing:

> And I was just talking at morning tea . . . with the principal who said, "No just forget all that [reference to theories and concepts from ITE]". He said, "You don't need to know that for three years". He said, "At the moment you're actually focusing on learning how to do it and in three years' time is when you can come in with all these theories and start to analyse what you're doing." (T10#1)

> The very first class that I ever taught the principal came in but it was in a threatening sort of way and that was difficult and she does that sometimes in a classroom. (T599#1)

Significantly, many teachers mentioned the importance of support from outside the school environment, from other peer teachers, and from home. This support continued to be important throughout the year:

> I guess just from my family I think the support you get outside the school is crucial having people at home. I think my mum knows my students pretty well and she is pretty good to talk to and it's often good to talk to people who don't have a stake in your school or with your students. (T163#2)

Case studies of induction practices: When induction works well and not so well

Teachers' assessment of their induction programme remained fairly stable. However, a disturbing trend was that for those who experienced programmes that were rated as less than satisfactory, things got no better as time progressed. A one-tailed dependent t-test ($t = 1.967$) showed that there was a significant ($p = 0.026$) reduction in satisfaction with their induction experience from 6 months to 18 months' teaching (see Table 10).

The following sections draw on data from a cluster of schools in which the beginning teacher either consistently rated induction as "very satisfactory" or "satisfactory" ($n = 12$) or conversely where beginning teachers either consistently rated their satisfaction with induction as "dissatisfied" or "very dissatisfied" ($n = 11$). Such analysis allows us to identify structural, contextual, and personal factors that contribute to successful and unsuccessful induction experiences.

Case 1: When induction does not work well

The report below uses data from those teachers who consistently reported unsatisfactory induction experiences.

The beginning teacher who experiences an unsuccessful induction is most likely to be the sole beginning teacher in his or her school (or one of two beginning teachers) and could have entered the school after the start of the school year or changed schools within the first year. For the subset examined, issues related to the decile level of the school appeared to be unrelated to the beginning

teacher's induction experience, nor was having (or not having) a previous career perceived as a significant factor.

Beginning teachers who consistently reported unsuccessful induction experiences shared a number of challenges in meeting the instructional expectations of teaching. They struggled in particular with negotiating NCEA standards and assessments, they reported a lack of appropriate resources, and they found themselves lacking strategies for responding to the wide range of abilities within their classrooms. Each of these challenges appears to be interrelated and centred on their struggles with implementing NCEA. Admittedly, the early struggles with NCEA were partially blamed on the lack of emphasis placed on curriculum standards during ITE, as participants reported feeling unprepared in terms of assessment of student learning (this is supported by the national survey of graduating teachers in phase 1 of our study). Admittedly, the early struggles with NCEA were partially blamed on the lack of emphasis placed on curriculum standards during initial teacher education. In accord with graduating teacher survey responses, these teachers reported feeling unprepared in terms of assessment of student learning. Once in schools, these beginning teachers reported having inadequate or non-existent exemplars and they perceived a gap between NCEA's expectations and what the schools were actually teaching.

The lack of available resources simply added to the frustrations; participants felt that they were at a loss for resources and had to spend enormous amounts of time finding or making them. One frustrated English teacher was under the initial impression that her senior colleagues did not want to share their resources with her but eventually concluded by the second interview at the end of her first year that "now I think people don't have any" (T798#2). Although all participants appreciated their 0.2 allocated noncontact time, much of this "free time" was spent either making or hunting down resources to suit a curriculum they were struggling to understand.

Dealing with student differentiation was another significant challenge. These teachers reported feeling unprepared and ill equipped to adapt the "prescribed" NCEA standards with very few resources to effectively meet the wide range of student ability levels. Teachers within this subgroup struggled to identify ways in which they could determine their students' levels of prior knowledge and understanding. Although the participants acknowledged that ITE provided them with strategies and tools to use in the classroom, the consensus was that there was simply not enough time to go back and revisit one's notes.

Teachers who were dissatisfied with their induction typically reported that students were disinterested and lacked motivation to learn. "It is on the students and their motivation just isn't there" (T62#1). The perceived lack of student motivation, coupled with the wide range of abilities in class, in one instance led a teacher to acknowledge that she rushed the "uninterested" students to keep up with the few "talented" students in her class (T700#3). The tendency to blame the students was evident also in the teachers' responses to the self-efficacy scale where they strongly agreed that the main reason that students do poorly is the fact that they do not try hard enough.

Having an assigned mentor and supportive colleagues are presumably supposed to alleviate some of these stresses, yet in the case of these beginning teachers the mentoring arrangement appeared

to add to a list of ongoing problems. Frequently these teachers reported feeling guilty about asking too many questions. Even though formal mentors had a responsibility to assist, these teachers "sort of felt that we were monopolising too much of our department teachers' time" (T62#1) or the time was not used as it should have been. One computer studies teacher describes how the time spent with her mentor seemed to largely comprise completion of tasks for the mentor:

> If I try and get time with her, if there is a case where we both have a free [non-contact period] together, the majority of the time I would say I was doing something for her rather than her doing something for me (T62#1).

One English teacher reported that she did not have an assigned mentor or did not know who was supposed to fulfil the role: "I would like someone to basically check that I am doing the right thing" (T798#1).

Teachers who were dissatisfied with their induction experience consistently reported a lack of any structural substance to the programme. There were few if any scheduled meetings with other beginning teachers, with their own mentor, or with school administrators. There was no system for ensuring regular observations of teaching (of themselves or them observing others) and no written feedback provided. Observations of teaching were casual, inconsistent, and disorganised, and any feedback was received verbally and informally such as "in passing through the hallway" or "completely worthless . . . I didn't feel like I could get anything that I could use" (T798#1). Suggestions to observe other teachers were made, but had not been set up, or were conducted so informally that they were not seen as beneficial. Meetings with other beginning teachers were nonexistent or reported to be a waste of time (i.e., repetitive, or focusing on what was already known).

This group of beginning teachers displayed a lack of knowledge about the requirements for registration and they were unsure of their own responsibilities for ensuring that they had documented evidence of their induction programme. They reported being unaware of potential professional development workshops that could have been beneficial to their development as teachers. They displayed evidence of being isolated and felt that they had been left to "sink or swim" alone. As noted by an English teacher, "Probably the worst thing would be struggling to get information out of people in my department about assessment and things . . . and feeling that you are really on your own" (T798#2).

Despite the inadequacies of the formal induction programme, all of these teachers reported that informal support—through having a self-selected buddy or a colleague one could turn to for help—sustained them throughout these first 18 months. This is exemplified by statements like, "It's the only way we are keeping up" (T62#1) and, "I sought advice from my colleagues on just about everything" (T798#1). As well, all felt fairly satisfied and were consistent with their level of satisfaction of their own role as a teacher despite feeling that the induction programme was unsuccessful. Overall, there was a sense that they felt they were doing as well as could be expected as teachers in spite of the lack of support. One English teacher did acknowledge,

however, that her standards in terms of ensuring that all students in her class learn had been compromised:

> I suppose near the end of last year I realised that I will never be able to do that. So this year I kind of felt not as optimistic about being able to help everybody . . . I feel like I had more patience to help them last year because I genuinely thought I would be able to do everything I wanted to (T798#3).

Despite the fact that the induction programmes for these teachers were perceived as being inadequate, all persevered and planned to continue teaching at least until registered. It must also be noted that, in comparison with cases where teachers reported being consistently satisfied with their induction, these participants seemed to display little personal agency in ensuring that they received an effective induction experience. Many of this group projected a sense that they construed induction as something that should have been done to them and their role appeared somewhat passive.

Case 2: When induction works very well

This analysis is based on a group of beginning teachers (n = 12) who consistently registered high satisfaction with their induction across all three interviews.

These teachers were typically in a school with other beginning teachers and projected themselves as being part of an active community of learners engaged on a collaborative journey through the challenging initial years of teaching. This journey was supported and contributed to by their fellow beginning teachers, their mentors, and other colleagues within the school, including strong leadership from principals and other administrators.

Characteristic of teachers within this group were their realistic expectations of what teaching would be like in terms of workload, student differentiation, and classroom management. Typically these teachers expected and coped with high workloads, and reported that being a second-year teacher was even better than being a first-year teacher. Teaching, however, was not without its challenges. These teachers reported *facing* many challenges: negotiating the NCEA standards and assessments, addressing students' special needs, and catering to the wide range of ability levels in the classroom. These teachers felt that ITE should place more emphasis on NCEA, subject-specific teaching strategies, and "just real life as a teacher" (T719#1). Despite these suggestions, all participants felt satisfied and confident about their ITE preparation and felt that it provided a foundation upon which to build.

In contrast to the previous group, however, these teachers presented as more proactive in addressing the challenges they were facing or in seeking appropriate assistance and support. Typically solutions were the result of the teachers actively seeking ways in which to enhance their long-term professional growth rather than quick-fix remedies. For example, one teacher, with prior experience teaching at a private school, was initially frustrated with the range of student ability levels in his classroom. He started to believe that student differentiation is indicative of a "wide range of natural ability and intelligence and willingness to work" (T827#3). He

acknowledged that he had learned to be more patient and believed that his modelling excellence was the only way the students were going to display excellence.

These teachers, in contrast to the group in Case 1, were readily able to reflect on aspects of their teacher learning. All participants actively sought subject-specific professional development and acknowledged that "content knowledge has been lifted by teaching rather than at ITE" (T719#2).

This group of teachers felt very well supported by their mentors or supervisors and staff. When referring to lengthy conversations or asking for help from her supervisor or colleagues, one teacher stated, "I get a lot of value out of the [0.2] time allocation" (T719#2). Participants had regular, scheduled meetings with their assigned mentors. Unlike teachers in Case 1, the reported relationship with their mentors appeared to involve a more two-way relationship based on collegial respect.

Teachers reported that the scheduled meetings for Provisionally Registered Teachers "just [make] sure that we are on track in terms of getting observations done and so forth" (T790#3) were informative and helpful, especially at the beginning of the year. These meetings became more sporadic throughout the course of the second year, indicative of the decline in necessity and increasing independence of the beginning teachers. Teachers also reported that formal meetings were complemented by the informal support often elicited as casual "shop talk" (T827#2) in staff rooms or preparation rooms.

For this group of teachers, lesson observations were structured, generated written or verbal feedback, or both, and occurred regularly throughout the first year. The participants found these somewhat helpful and reassuring, and perceived observations as supportive rather than directive. One teacher signalled that although classroom observations were helpful, he was mindful that he was also responsible for monitoring his own performance:

> I don't rely on it, like I would like to think that I have a realistic picture of how I'm doing, but every now and then it's good to have someone else's input. (T790#1)

These teachers demonstrated confidence in their own ability to resolve emerging problems through seeking help or further information. There was a sense that it was their responsibility to recognise when they required additional support and they were not reluctant to ask for it. They were well aware of the requirements for registration and actively worked towards ensuring they had evidence of their own professional learning. These teachers' sense of self-responsibility was also evident in their comments about fitting into the school culture, as is reflected in the following statement by one beginning teacher who was negotiating her way through some difficult staff politics: "It is important to reflect on yourself as a colleague and what kind of staff member you are" (T790#2).

Informal support was felt to be of the utmost importance, as one teacher speculated: "I think it will [be for] my whole career" (T719#3). It is interesting to note that this teacher had a second-year teacher as an allocated "buddy" (in addition to a mentor) and in turn, in her second year of teaching, became a buddy for a first-year teacher. Another teacher from this group reflected that

"everyone is really, really supportive around this school from management down. I feel very lucky . . . as you hear some real horror stories" (T790#1).

When asked what their most important support of the year was, answers such as "my mentor", "to have a buddy and being looked after in a friendly way", "my supervisor, HOD [head of department] and car-pooler and having observations" indicate how these teachers viewed their induction as multifaceted and positive. When asked, in their third interview, to comment on possible ways to improve their induction experience, these teachers included the need for educational reading to be more of a priority for teachers to ensure a collective commitment to professional conversations and lifelong learning, and the need for beginning teachers' induction programmes to "be monitored so that everyone is actually doing it properly" (T790#3).

These beginning teachers were "extremely satisfied" with themselves as teachers as well as with the induction programme, as exemplified by one teacher's comment, "I think the school couldn't have done much more to support me really" (T719#1). It is clear that these teachers were also very proactive and pursued various resources (i.e., other staff, Provisionally Registered Teachers, chosen mentors) in order to stay well informed.

Induction: Summary

Examining the experiences of such a diverse group of teachers who were teaching in a diverse group of schools has enabled us to identify key factors that may influence the degree to which induction programmes are effective in supporting beginning teachers in their transition into the profession.[9]

While most of the beginning teachers found the formal school induction systems helpful for their professional growth, in some instances the formal induction support was perceived to be limited or lacking. Consistently, problems identified by the beginning teachers with the formal induction arrangements appeared to be more related to the assignment of a mentor and a lack of a clearly articulated role for the mentor, than to the school-wide meetings for Provisionally Registered Teachers. In the extreme, a few teachers felt that there was no support for them as a beginning teacher. Their concerns manifested in feeling inadequately prepared to face the class, deal with discipline procedures, and liaise with parents, and generally feeling let down.

Beginning teachers have a more effective induction programme when there is more than one beginning teacher in the school, which suggests there is value for beginning teachers in being part of their own learning community (either within or across schools) within the wider school community. A commitment to ongoing learning is modelled through all levels of the school and reinforced through scheduled meetings for Provisionally Registered Teachers, regular

---

[9]   Currently the New Zealand Teachers Council is investigating case studies of an induction project across a range of sectors, and Main and Hill (2007) report on "strong support arrangements" within a group of low-decile primary schools in New Zealand.

observations of teaching with written feedback, establishment of a formal mentoring relationship, and the early assignment of a more informal buddy within the school.

In contrast to those teachers who consistently expressed dissatisfaction with their induction programme, teachers who experienced successful induction programmes were proactive in their own professional development and growth through seeking assistance and guidance as required and critically reflecting on their own professional learning as a beginning teacher. Being aware of the expectations and responsibilities of working towards full registration is essential and enables the beginning teacher to take an active role in shaping his or her own career development.

For those teachers who rated their induction experiences highly, there was clear evidence that they were involved in professional relationships with colleagues who both valued them and recognised their special needs as beginning teachers. It is clear that those schools that provide strong leadership, build on opportunities for innovation and renewal through the provision of an "integrated professional culture" (Kardos & Johnson, 2007), and recognise specific needs of each of the beginning teachers, are more likely to develop long-term partnerships with their beginning teachers.

Career plans: Expectations and long-term plans

At each of the interview phases of the longitudinal study, teachers were, for the most part, happy with their decision to go teaching—this, however, is a different response from whether they were happy with teaching at the time of the interview. In the interview at six months, most beginning teachers responded that their experiences of teaching were largely as expected—teaching was hard work, busy, and challenging. However, expectations that having one's own students would make it easier (compared with practicum), and that access to ample resources and supportive working environment was the norm, were not always realised:

> I think I expected the inside of the classroom to run more smoothly. Like the kids to do what they were told to do. . . . you are still new to the kids and the kids are still new to you. . . . and they don't really play up quite so much because they don't know what your weaknesses are yet. And I guess I was expecting it to be like that the entire time. But the first five weeks were like that and then it kind of changed a little bit. (T10#1)

The reality for many was that there were a lot more behaviour management issues and a lot more administration duties and associated stress with being a "form" or "whānau" teacher than anticipated. The following responses were typical of those beginning first-year teachers who initially were finding the going quite tough:

> I expected there to be more support. In terms of behaviour particularly, I think I expected that if something went wrong you could call on someone to help you. And if someone was to do something stupid it wouldn't be so hard to find someone in the moment of need, when that's actually quite a hard thing to do. And sometimes it can be two or three days before you can find somebody who has got the time to deal with something. (T10#1)

> I thought it was going to be a lot of fun. I didn't think it would be quite so demoralising sometimes from students as you feel inadequate sometimes if you can't get your point across, maybe demoralising is a strong word to use but sometimes it's disheartening and sometimes frustrating. (T161#1)

Early on, however, some teachers reported being quite at ease in the classroom. In all cases, these teachers reported being part of a supportive school environment:

> On teaching practice I felt that I developed a really good rapport with the students . . . and that has been the same if not better being a real teacher because I've been there for longer and I get to see the kids everyday . . . and you really get to know them as people, and help them, and see them succeed—so that kind of lived up to what I thought it would be. (T163#1)

> I'm enjoying it and it certainly is challenging. At N School, like behaviour management is a big thing to get your head around and it's always changing but there's been lots of support for me which has been really good and I've found that really helpful. (T18#1)

In our Take 100 cohort, one teacher left teaching in Term 3 of her first year, and two others left teaching at the end of their first year. Who were the teachers who left and why did they leave? Interestingly, all three were change-of-career teachers. The first, a teacher of English (T407), chose teaching on the strength of her prior experiences with coaching and training other people. She felt that teaching would provide "secure full-time work" with "a reasonable level of regular income and stability", and be something that she "might enjoy". This turned out not to be the case. In her school situation she had issues with parents and with departmental colleagues, and had expressed dismay that she did not have "someone directly overseeing me, giving me guidance". Her disappointment with the induction support within her school was influential in her decision:

> It's to do with me not being able to go up and ask, when you can see people are really busy or at lunchtime and you feel like you're getting in the way. People don't have the time. Everyone is stressed. So I've not approached people for help and just muddled my way through. (T407#2)

Confounding factors included her needing to shift to an unknown rural environment where she was the only first-year teacher, being required to teach in her second subject area, and being a sole responsibility parent for the first time. Feeling unsupported and undervalued as a teacher, she concluded that teaching was "too stressful, and for the amount of pay, for the income that I was getting for the stress level that I was feeling it just wasn't worth it" (T407#2).

The two teachers who chose not to continue into their second year were both mathematics teachers. One reported initial expectations that teaching would provide a creative and rewarding career working with young people. He had a positive ITE experience with staff that he described as "nurturing and knowledgeable". The reality was that teaching in his school was more structured

and "behaviour management has been a real struggle, particularly with junior students". At six months, frustrations were readily apparent:

> The main source of frustration is knowing that you're not accomplishing what you want to in terms of results, and in terms of heaving students engaged, having students interested and wanting them to do well. I think what I find particularly frustrating is when you think you're making headway with someone . . . and then the next lesson it's back to square one and you think what is the point? (T705#1)

Acting on his personal belief that "if you are not happy with your career then you've got to be able to take that decision and just change when you need to", this teacher chose to retrain in a statistics-based career. For him, teaching as a career was not as attractive as he first thought, he felt restricted in the way he wanted to teach, and he was unable to be the change agent that he wanted to be within the existing system. Teaching had not provided the personal challenges and rewards that he was looking for:

> The key thing is just pushing myself and actually feeling like I'm using my own potential and being stretched in a way that I want to be stretched. . . . I've found it demanding and actually I've found it very challenging intellectually as well as emotionally but it's really those areas where I have found it the most daunting are things like classroom management and I guess what I really want to be able to focus on is using my subject [mathematics] in a satisfying way. (T705#2)

The other mathematics teacher (T511) left teaching at the end of 2006 to pursue doctoral studies. A teacher with management experience involving teaching adults in China, he looked to teaching in New Zealand as a way to use his expertise and passion for mathematics. His experiences of ITE were mixed, with tensions experienced between the image of teaching in New Zealand and his experience of teaching within China. At six months, this teacher revealed that classroom management issues were "more serious that what I used to think about" and that the workload was "more intense" than expected. He reported experiencing language difficulties in the classroom which resulted in students "picking" on him. He remained optimistic that with "more time to practice" his teaching would improve. Support and guidance came in the form of meetings for Provisionally Registered Teachers and help on a needs-only basis from the mathematics Head of Learning. While the meetings for Provisionally Registered Teachers were regarded as extremely informative, there was concern that because he had taught previously in China that subject support was limited and focused more on immediate survival (e.g., "how to write the misbehaviour report") rather than long-term professional development. He commented that "if you have any questions you ask for help, otherwise you stand on your own". During the first year, appraisal observations were regarded as extra "pressure" points rather than supports. In the second interview he was positive about completing registration requirements but as his contract had at that point not been extended, he was also making enquiries about doctoral studies—a pathway he then followed.

At 18 months, 81 of the Take 100 teachers in our cohort were satisfied with their role as a teacher (Table 12).

Table 12 **Take 100 satisfaction with their role as a teacher at 18 months**

	Frequency
Very dissatisfied	2
Dissatisfied	11
Neutral	3
Satisfied	52
Very satisfied	29
Left teaching	3
Total	100

The two teachers who were very dissatisfied were both considering leaving teaching: one was returning overseas to her home country, the other was looking at changing schools or returning to her previous career. But for those who expressed more positive satisfaction with their new role as a teacher, such satisfaction did not automatically translate into intentions to stay in teaching long term:

> Very . . . the right choice? . . . yeah definitely no regrets at all but I don't know if I want to do it for 30 or 40 years but no I love it it's good. (T2#3)

Teachers who entered teaching directly from a university study pathway (*n* = 26) were more certain about their intentions to teach for the long term. All but four of this group expressed a strong desire to stay with teaching (some with a break for overseas travel or family). Of the four in this subgroup who did not see themselves necessarily teaching in the long term, two were leaning towards returning to more study and two wanted to take time out after registration with the possibility of later returning to teaching.

Change-of-career teachers appeared more circumspect as a group about remaining in teaching for the long term. For all of these teachers, the induction period provided a time to assess their decision to change careers. While most of the 65 teachers in this group who were still teaching at 18 months appeared well satisfied with their progress in becoming a teacher,[10] their reported intentions for teaching as a career revealed that, while they were relatively happy with their decision to move into teaching, they were mixed in their views of continuing to teach past the full-registration period (normally two years).

Most felt that they would teach for the long term; however, they were more likely than the teachers from the university study pathway to qualify their support to stay teaching with the need for things to improve—especially in terms of workload:

---

[10] Of the 65 change-of-career teachers who remained in teaching after 18 months, 83 percent expressed being satisfied or very satisfied with their role as a teacher.

I am happy with the actual classroom side of things, the being in the classroom with the students. I don't know whether teaching is going to be a career that I am going to stick at. I don't know if I would be in it for the rest of my life. I would like to go back to having a job where when Friday came you walked away from it . . . teaching no matter where you turn it invades your whole existence. (T557#3)

For those who entered teaching late in their working life there was a sense that they should stick it out now that they had completed the training. Others reported that teaching brought unexpected rewards and status that were influential in their decision to continue teaching:

I'd started off with a selfish kind of thing. I wanted a profession, career and I needed to find security for my family but the bonus is that I've actually become a valued member of society which I can't say I had working in the media, it's an added bonus here people treat me differently. I get that quite often people admire teachers. (T540#3)

Many of the "Looks Good" group (see earlier section on choosing teaching), especially, noted that they had other options, including returning to previous work. Teachers from this group were likely to comment that although they were enjoying teaching, it was not necessary to view teaching as a long-term career per se—either because one does not stay in the same job forever, or because teaching was not a job that suited older people:

Reasonably happy but being out in the workforce for a time I realise that there are other jobs out there too, there are other career options and I do not have to be with teaching for the rest of my life. I'm of this generation where if you are not happy with a career you can change, it's not like 20 or 30 years ago when you were in the same career or same job for 10, 15, 20 years. (T601#3)

They also expressed the belief that their newly acquired teaching skills provided a stepping stone for another career down the track:

On a satisfaction basis I know that there is something else out there that I want to do I just don't know what it is yet and so teaching suits me down to the ground and I think it will probably give me the opportunity to go into whatever thing I decide I want to go into. (T819#3)

Teachers in the "Teaching is Me" cluster were mixed in their evaluation of their career choice. Several found that teaching was somewhat more challenging than they expected. One teacher (T511) who experienced repeated episodes of verbal and physical abuse within his junior classroom continued to reaffirm his belief that his "personality is quite good for being a teacher". Although he felt that efforts to become more effective were "just a matter of more practice for me", he left teaching at the end of the first year to resume doctoral studies, as noted above. For others, teaching reaffirmed their specific teaching skills, and although enjoying teaching, they were also considering moving to other teaching-related careers:

Very happy, I think it's a great career actually. . . . But I eventually do want to go on and do some more study, Masters or something. I want to do Music Therapy. I also see what I'm doing now is a really good basis for that. (T543#3)

The "Time is Right" teachers were the most likely to report being very happy about their decision to choose teaching. Their responses frequently reaffirmed the altruistic motives that were significant motivators in their (re)turning to teaching:

> It's been a great move in terms that I love teaching the kids and I wouldn't ever give that up, that's what makes me get up out of bed in the morning I suppose because I really still love it and I believe that I am actually doing some good. But as far as the rest of it I could give that up tomorrow. (T706#3)

Expectations of career directions were also mixed within the Take 100 cohort. Some expressed strong opinions as to whether or not they would pursue management options, with several teachers already indicating that they intended to be a principal. Equally, there was a group who were clear that management was not their preferred option (some of the change-of-career people noted that they "had been there"). While most responses indicated that they had considered, even if briefly, possible career pathways, there was a small group who, although expressing the desire to remain in teaching, thought that current attention should be focused on becoming a "good" teacher.

> No at this stage I can't see myself as taking on a management role. I think at this stage all I could do would be to be the best teacher I could be and I wouldn't want to take on too much other responsibility. (T300#3)

4. Conclusions and implications

We begin this chapter by considering the implications for each of the major areas of focus within our findings to date: recruitment and preparation, becoming a teacher, induction, and career intentions.

Choosing teaching and preparation

Choosing teaching as a career involved a complex array of factors. For change-of-career teachers in particular, teaching ability-related beliefs, personal and social utility values, and positive prior experiences of teaching and learning, were all important motivations for switching to teaching. These motivations continued to have an effect on teachers' expectations and thus satisfaction as teachers made the transition into the classroom.

Our findings give rise to the following implications for ITE:

- The study challenges the dominant discourse of preparation in ITE policy and standards (see Ord, 2007). Becoming a teacher needs to be clearly perceived as a continuum of learning and developing of professional identity.
- Key areas identified by both newly qualified teachers and their mentors that require closer attention in ITE include: purposes and uses of assessment to support learning; responding in culturally appropriate ways to Māori and to Pasifika learners; differentiating instruction to identify and respond to students' special learning needs; strategies for including learners for whom English is a second language; and strategies for maintaining records and reporting students' learning.
- In addition to continuing to assist teachers in the above areas, working in partnership with parents and whānau and reporting students' learning to parents and whānau are identified as major areas that need to be included in the advice and guidance programme.
- Recruitment strategies need to focus not just on teachers' potential to make a social contribution. Teachers are also likely to be attracted by campaigns that portray teaching as an intellectually challenging career that offers opportunities to strengthen existing talents alongside opportunities to develop new skills that may serve both teaching and other careers.

Becoming a teacher

The findings remind us that a beginning teacher's repertoire of practice is fragile; it needs to be trialled, reflected upon, strengthened, and challenged—but challenged in a positive way with guidance within a supportive professional learning community. Newly qualified teachers have individualised but legitimate learning needs—needs that cannot be properly assessed in advance or outside the contexts of their teaching.

One of the important findings, derived from our initial analyses based on social theories of learning, is the contingency of teacher learning outcomes on a network of interrelated factors, meaning that outcomes are not so much *caused* by support and guidance practices as they are *occasioned* by those practices (Davis & Sumara, 2006). In effect, teacher learning outcomes are occasioned by a complex web of relationships around which knowledge production and exchange revolve. Schools need to adapt their advice and guidance programmes to suit their situationally relevant context, and to match an individual teacher's levels of experience and preparedness. Equally, beginning teachers need to be aware of both their nonformal and formal learning needs and be equipped and prepared to take more responsibility for their own professional growth.

Two key implications arise:

• The systems involved in knowledge production—including relationships operating at the macro level of the school system and wider community—create a context for the work of teachers at the micro level of their classroom. In creating advice and guidance programmes and policy we need to become more aware of how these networks of systems provide a range of affordances and constraints for teacher reflection and learning.
• Alongside their legitimate learning needs, beginning teachers want to feel that their skills and experiences are valued.

Support and guidance: Strengthening induction programmes

Although the majority of induction programmes included recommended practices concerning time allowances, allocation of mentors, meetings for Provisionally Registered Teachers, and appraisal, the way these practices were implemented varied considerably in nature and quality both across and within schools. It is of concern that some teachers, especially those in small departments, those who started part way through the year, those in part-time positions, and those in contract positions, were "at risk" in terms of accessing appropriate induction support and guidance. Equally of concern are mentor reports of being "at risk" in terms of support, time, and professional development. Mentors need to adopt different roles when working with first- and second-year teachers. It was apparent that in some cases mentors' perceptions of their roles were limited to that of an expert–novice relationship, which focused more on affective and resourcing support alongside "completion" of registration requirements than on continuous teacher development with a shared responsibility for student learning.

Key implications for ITE in this context include the following:

- Induction programmes (and ITE) need to be responsive to the diversity of beginning teachers' prior experiences and expertise. Unable to assess in advance the various needs and contributions of newly qualified teachers, each school must take care to adapt the recommended advice and guidance guidelines (New Zealand Teachers Council & Ministry of Education, 2006) to their situationally relevant context and to match individual teachers' experience and levels of preparedness. This is especially so with change-of-career teachers.
- Few teachers reported *sustained* professional interactions with colleagues. Reliance on "on-the-run" interactions limits the potential for sustained critical dialogue and professional growth.
- Teachers need to be supported by "integrated professional cultures" that maintain opportunities for professional learning across a range of school, professional, and community sources, and beyond the first year of teaching.
- In those schools where induction was less than satisfactory, both teachers and mentors appeared confused about roles, accountability, and registration expectations. Ongoing conversations between those responsible for initial preparation (ITE) and induction (including the school and the New Zealand Teachers Council) are needed to ensure consistency of expectations and that any problems associated with induction are addressed in a timely manner.
- Mentoring is a complex and important role. Mentors expressed the need for clarification as to expectations and concerns with lack of distinction between expectations to mentor and appraise. The move to provide mentor teachers with designated time needs to be accompanied with focused professional development that involves them in a wider mentoring community.

Career intentions

The majority of beginning teachers in this study were happy in their decision to choose teaching. For most, staying until registration was a priority, and then there was a decision point as to whether the perceived benefits outweighed the considerable personal costs that "being a teacher" involved. Change-of-career teachers, a growing force among our newly qualified teachers, continued to assess current and long-term intentions for teaching against previous occupational and life experiences.

There are implications here, also, for ITE:

- Beginning teachers need to feel valued. The prevalence of contract positions, with tenuous or partial discussions about the possibility of permanent roles, was hugely concerning for beginning teachers' sense of identity.
- Teaching as a career was perceived by many as providing a set of skills and experiences that are portable to other careers.

Overall conclusions of the project

Being able to look closely at beginning teachers' experiences as they made the transition into their first teaching roles, has affirmed Feiman-Nemser's (2003) conclusion that newly qualified teachers "long for opportunities to learn from their experienced colleagues and want more than social support and instructions for using the copying machine" (p. 28). Focusing closely on the induction programme embedded in particular school settings has revealed complex learning systems that have to be negotiated by beginning teachers, sometimes with inappropriate and inadequate support.

It was clear that despite clear national guidelines for induction, not all teachers in this study were necessarily receiving sufficient or appropriate support and guidance that challenged and furthered their capacity to become more effective in their teaching. This finding is in accord with other recent New Zealand studies (e.g., Cameron, Baker, & Lovett, 2006; Cameron et al., 2007) in which secondary teachers frequently reported that their schools provided a minimal or unsupportive induction programme.

Issues of access, focus, and quality, with regard to guidance and support, resulted in differential spaces and opportunities for teacher learning. Moreover, faced with multiple options for support and considerable freedom to plan their noncontact time, the beginning teachers exhibited varied levels of agency in their participation in the induction programme. All beginning teachers sought advice, both formally and informally, on curriculum implementation, assessment, teaching strategies for specific students' needs, behaviour management, and working effectively with parents. However, their expectations that they would receive such advice and gain insight from colleagues with experience in their subject areas, through regular meetings and classroom observations, were realised in different degrees and through different pathways.

For those who rated their induction experiences highly, there was clear evidence that they were involved in relationships with colleagues who both valued them and recognised their special needs as newly qualified teachers. The school induction programme was organised and explicit about the available guidance, and beginning teachers were encouraged to seek help and expected to be learning and improving their teaching practice. The provision of time and sustained formal and informal interactions about teaching and learning with more experienced teachers enabled them to build upon their ITE experience, to teach in ways that met demanding new standards for student learning and to participate in the solution of educational problems. As their mentor teachers remarked, these beginning teachers brought enthusiasm and renewal to their schools—to a point where they may begin to develop a new cultural dynamic.

Our findings suggest that more research into and dissemination of exemplary practice is needed. Good practice may well include increased collaboration and understanding of expectations and roles of all of those involved in assisting the beginning teacher—that is, the pre- and in-service providers, the schools, the Teachers Council, the Education Review Office, and the Ministry of Education.

5. Limitations of the project

Collectively, the teacher and mentor responses highlight the ups and downs of the beginning teachers' journeys, showcasing the "good" and "not-so-good" induction practices as experienced by beginning teachers. It should be noted however that findings are largely based on *perceptions* of experience from a cohort of 100 teachers. Drawn from those graduating teachers who indicated at the time of the survey a willingness to participate in phase 2 of the study, this self-selected sample included teachers from all major teacher education providers. However, the sample was overrepresentative of change-of-career and female teachers. Given the earlier discussions related to change-of-career teachers, we reiterate that beginning teachers' experiences and perceptions of induction support in their first two years were mediated by teachers' prior experiences, level of preparedness, and "fit" with school culture, alongside their individual expectations and agency as beginning teachers.

6. Contribution to building capability and capacity

This study comprised a team of researchers from New Zealand and Canada who each have their own areas of specific interest and expertise within the larger project. For the researchers themselves, the experience of working in a large national research team has provided an opportunity to further develop skills of research collaboration and leadership. The study has afforded individual researchers the opportunity to work within a large mixed-methodology research project—a new experience for many within the team. Each researcher brought their own interests, research experience, and strengths to the team and all were able to contribute to the professional learning of others through team meetings, collaborative analysis, shared conference presentations and symposia, both nationally and internationally, and joint preparation of papers for publication.

The study has generated a large data set from a diverse group of graduate and beginning teachers. Team members continue to work in small groups to examine the data through different theoretical and analytical lenses to inform their particular areas of research interest and advance knowledge and understanding. For all members this involves presenting at national and, for some, international conferences, and preparing scholarly articles for publication. For some team members, the findings from the research will lead them to develop further research studies examining questions that emerge from initial analysis. While the preparation and induction of teachers is not necessarily the immediate focus of individual team members' research programmes, data generated from this study was sufficiently wide ranging to afford team members the opportunity to delve more deeply into focused areas (e.g., the socialisation of English teachers; the experiences of first-year mathematics teachers).

A relationship initiated through this project between a researcher and a contributing teacher has also lead to the preparation of a joint publication which demonstrates opportunities for building capability with teachers as researchers. The project has also supported the continued development of a doctoral scholar investigating an allied, albeit independent, research project within the early childhood sector.

An indirect effect of this project must surely be the effect on the participating beginning teachers. Although we cannot claim to have contributed in any significant way to the beginning teachers' capacity or capability, participation in such a project over the two years would influence their capability as teachers. Feedback from participants affirmed that at the very least the project, through the questionnaire and three subsequent interviews, provided the teachers with a space and

the framework to reflect on their transition into the profession and their ongoing development as teachers.

In terms of the principles and priorities of TLRI, this research project has generated findings that will make a significant contribution to building and disseminating knowledge and developing research capability across a number of priorities:

1. Through a focus on the preparation and induction of secondary teachers, this project provides a rich set of both quantitative and qualitative findings that have the potential to inform policy and practice of initial teacher education and induction.
2. Findings from over 70 percent of the 2005 graduating secondary beginning teachers concerning perceived levels of preparedness to meet the needs of students from diverse backgrounds including Māori reinforces the urgent need for further attention in these priority areas.
3. Findings build on prior, and affirm current, New Zealand research studies (e.g., Cameron, 2007; Cameron et al. 2006; Cameron et al., 2007; Kane & Mallon, 2006; Timperley, Wilson, Barrar, & Fung, 2007) and make a significant contribution to building and disseminating national and international knowledge in the area of teacher education and induction.
4. Through the generation of a national data set, this study addresses gaps in current New Zealand research and knowledge.
5. Findings provide a substantive base from which future teacher education policy and practice can be informed.
6. This project recognises the teacher as central to the teaching and learning relationship and advances our knowledge and understanding of the transition from teacher education to the professional role of teacher.
7. Findings will be disseminated across a number of audiences in an effort to further contribute to the ongoing enhancement of preparation and induction.

Partnerships

The partnerships involved in this project were on two levels: partnerships with the team of collaborating researchers from teacher education institutions across the country and internationally, and partnerships with beginning teachers. The nature of the national study meant that teacher educators were involved with interviewing beginning teachers from a range of institutions. Such access to a diverse group of beginning teachers and their experiences meant that even before the data analysis process began in earnest the generation of data supported individual and collective learning for researchers.

The project involved 855 graduating teachers, many of whom volunteered to be further involved in a series of interviews. In addition we had input from more than 50 mentoring staff. Teachers reported that the opportunity to share their experiences and reflect on their development as a

teacher was a valuable process. The research team is extremely grateful for the time these teachers put aside to provide such a rich database of teachers' experiences in Aotearoa New Zealand.

The project was also informed by a parallel doctoral study conducted by Kate Ord, a member of the project team, within the early years sector. Her study, which is due to be completed in 2008, explores the phenomenon of "preparedness" as it is employed in relation to initial teacher education and, in particular, early childhood teacher education, by statutory and regulatory bodies, teacher education institutions, and experienced by student teachers.

References

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.

Alton-Lee, A. (2003). *Quality teaching for diverse students in schooling: Best evidence synthesis.* Wellington: Ministry of Education.

Alton-Lee, A. (2007, April). *Making a bigger difference for diverse learners: The Iterative Best Evidence Synthesis Programme in New Zealand.* Paper presented at the annual meeting of the American Educational Research Association, Chicago.

Australian Council of Deans of Education. (1998). *Preparing a profession: A report of the National Standards and Guidelines for Initial Teacher Education Project.* Canberra: Author.

Bell, B., & Gilbert, J. (1996) *Teacher development: A model from science education.* London: Falmer Press.

Bérci, M. E. (2007). The autobiographical metaphor: An invaluable approach to teacher development. *Journal of Educational Thought*, *41*(1), 63–89.

Breault, R. A. (2006). Finding the blue: A metaphor for the practice of teaching. *Journal of Educational Thought*, *40*(2), 159-176.

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.

Bullough, R. V. (1991). Exploring personal teaching metaphors in preservice teacher education. *Journal of Teacher Education*, *42*(1), 43–51.

Bullough, R. V. (1992). Beginning teacher curriculum decision making, personal teaching metaphors, and teacher education. *Teaching and Teacher Education*, *8*(3), 239–252.

Bullough, R. V. (1994). Digging at the roots: Discipline, management, and metaphor. *Action in Teacher Education*, *16*(1), 1–10.

Bullough, R. V., & Stokes, D. K. (1994). Analyzing personal teaching metaphors in preservice teacher education as a means for encouraging professional development. *American Educational Research Journal*, *31*(1), 197–224.

Cameron, M. (2007). *Learning to teach: A literature review on induction theory and practice.* Wellington: New Zealand Teachers Council.

Cameron, M., Baker, R., & Lovett, S. (2006). *Teachers of promise: Getting started in teaching.* Wellington: New Zealand Council for Educational Research.

Cameron, M., Berger, J. G., Lovett, S., & Baker, R. (2007, September). *Early career teachers' opportunities for professional learning: Impacts on teaching practice, job satisfaction, motivation, and career decisions.* Paper presented at the annual conference of the British Educational Research Association, London.

Cameron, M., Dingle, R., & Brooking, K. (2007). *Learning to teach: A survey of provisionally registered teachers in Aotearoa New Zealand.* Wellington: New Zealand Council for Educational Research.

Cochran-Smith, M. (2001). Learning to teach against the (new) grain. *Journal of Teacher Education*, *52(*1), 3.

Darling-Hammond, L. (2000). How teacher education matters. *Journal of Teacher Education*, *51*(3), 166.

Davis, B., & Sumara, D. J. (2006). *Complexity and education: Inquiries into learning, teaching, and research*. Mahwah, NJ: Lawrence Erlbaum Associates.

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: Ministry of Education.

Ensor, P. (2001). From preservice mathematics teacher education to beginning teaching: A study in recontextualizing. *Journal for Research in Mathematics Education*, *32*(3), 296–320.

Feiman-Nemser, S. (2001). Helping novices learn to teach: Lessons from an exemplary support teacher. *Journal of Teacher Education*, *52*(1), 17–30.

Feiman-Nemser, S. (2003). What new teachers need to learn. *Educational Leadership*, *60*(8), 25–9.

Harker, R., & Chapman, J. (2006). Teacher numbers in New Zealand: Attrition and replacement. *New Zealand Journal of Teachers' Work*, *3*(1), 42–55.

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.

Johnson, S. M., Berg, J. H., & Donaldson, M. L. (2005). *Who stays in teaching and why: A review of the literature on teacher retention*. Cambridge, MA: Harvard Graduate School of Education, The Project on the Next Generation of Teachers.

Johnson, S. M., & Birkeland, S. (2003). Pursuing a "sense of success": New teachers explain their career decisions. *American Educational Research Journal*, *40*(3), 581–617.

Jones, M., & Straker, K. (2006). What informs mentors' practice when working with trainees and newly qualified teachers? An investigation into mentors' professional knowledge base. *Journal of Education for Teaching*, *32*(2), 165–184.

Kane, R.G., Burke, P., Cullen, J., Davey, R., Jordan, B., McMurchy-Pilkington, C., Mansell, R., MacIntyre, L., Scrivens, C., Stephens, C., & Waiti, P. (2005). *Initial teacher education policy and practice: A final research report to the Ministry of Education and the New Zealand Teachers Council*. Wellington: Ministry of Education.

Kane, R. G., & Mallon, M. (2006). *Perceptions of teachers and teaching*: Research report prepared for the Ministry of Education. Wellington: Ministry of Education.

Kardos, S., & Johnson, S. (2007). On their own and presumed expert: New teachers' experience with their colleagues. *Teachers College Record*, *109*(9), 2083–2106.

Kwan, T., & Lopez-Real, F. (2005). Mentors' perceptions of their roles in mentoring student teachers. *Asia-Pacific Journal of Teacher Education*, *33*(3), 275–287.

Kyriacou, C., & Coulthard, M. (2000). Undergraduates' views of teaching as a career choice. *Journal of Education for Teaching*, *26*(2), 117–126.

Lakoff, G., & Johnson, M. (2003/1980). *Metaphors we live by.* Chicago: University of Chicago Press.

Leavy, A., McSorley, F., & Boté, L. (2007). An examination of what metaphor construction reveals about the evolution of preservice teachers' beliefs about teaching and learning. *Teaching and Teacher Education*, *23*, 1217–1233.

Levine, A. (2006). *Educating school teachers*. Retrieved 20 February 2007, from http://www.edschools.org/pdf/Educating_Teachers_Report.pdf

Lovett, S. (2006). "Teachers of promise": Is teaching their first career choice? *New Zealand Annual Review of Education*, *16*, 29–53.

Main, S., & Hill, M. (2007). Culture of care: A chronology of New Zealand teacher induction policy. *New Zealand Journal of Teachers' Work*, *4*(2), 117–126.

Malderez, A., Hobson, A. J., Tracey, L., & Kerr, K. (2007). Becoming a student teacher: Core features of the experience. *European Journal of Teacher Education*, *30*(3), 225–248.

Mansell, R. (1996, December). *Professional development of beginning teachers: How does it work?* Paper presented at the annual conference of the New Zealand Association for Research in Education, Nelson.

Manuel, J., & Hughes, J. (2006). "It has always been my dream": Exploring pre-service teachers' motivations for choosing to teach. *Teacher Development*, *10*(1), 5–24.

Martinez, M., Sauleda, N., & Huber, G. (2001). Metaphors as blueprints of thinking about teaching and learning. *Teaching and Teacher Education*, *17*, 965–977.

McCormack, A., Gore, J., & Thomas, K. (2006). Early career teacher professional learning. *Asia-Pacific Journal of Teacher Education*, *34*(1), 95–113.

McCormack, A., & Thomas, K. (2003). Is survival enough? Induction experiences of beginning teachers with a New South Wales context. *Asia-Pacific Journal of Teacher Education, 31*(2), 125-137.

Ministry of Education. (1999). *Professional standards: Criteria for quality teaching—Secondary school teachers and unit holders.* Wellington: Author.

Ministry of Education. (2005). *A strategy for preparing teacher education graduates to teach diverse learners effectively: Government actions in initial teacher education (2004–2006): A coordinated interagency approach.* Wellington: Author.

Ministry of Education. (2006). *Ngā Haeata Mātauranga: Annual Report on Māori Education 2005.* Wellington: Author.

New Zealand Teachers Council. (2005a). *Draft graduating standards for teacher education qualifications that lead to provisional registration as a teacher in Aotearoa New Zealand.* Wellington: Author.

New Zealand Teachers Council. (2005b). *Satisfactory teacher dimensions for teacher registration.* Wellington: Author.

New Zealand Teachers Council & Ministry of Education. (2006). *Towards full registration: A support kit.* Wellington: Learning Media.

Noyes, A. (2006). Using metaphor in mathematics teacher preparation. *Teaching and Teacher Education*, *22*, 898–909.

O'Brien, J., & Christie, F. (2005). Characteristics of support for beginning teachers: Evidence from the new Teacher Induction Scheme in Scotland. *Mentoring and Tutoring*, *13*(2), 189–203.

Ontario College of Teachers. (2006). *New teacher induction: Growing the profession.* Toronto: Author.

Ord, K. (2007, December). *Teacher "preparation": An overplayed idea?* Paper presented at the annual conference of the New Zealand Association of Research in Education, Christchurch.

Organisation for Economic Co-operation and Development. (2005). *Teachers matter: Attracting, developing and retaining effective teachers*. Paris: Author.

Palmer, P. (1998). *Courage to teach.* New York: Jossey Bass.

Priyadharshini, E., & Robinson-Pant, A. (2003). The attractions of teaching: An investigation into why people change careers to teach. *Journal of Education for Teaching*, *29*(2), 95–112.

Rice, J. K. (2003). *Teacher quality: Understanding the effectiveness of teacher attributes.* Washington, DC: Economic Policy Institute.

Richardson, P., & Watt, H. (2006). Who chooses teaching and why? Profiling characteristics and motivations across three Australian universities. *Asia-Pacific Journal of Teacher Education*, *34*(1), 27–56.

81

Russell, T., McPherson, S., & Martin, A. K. (2001). Coherence and collaboration in teacher education reform. *Canadian Journal of Education*, *26*(1), 37–55.

Serow, R. C., & Forrest, K. D. (1994). Motives and circumstances: Occupational-change experiences of prospective late-entry teachers. *Teaching and Teacher Education*, *10*(5), 555–563.

Shulman, L. (1986). Paradigms and research programs on teaching: A contemporary perspective. In M. C. Wittrock (Ed.), *Handbook of research on teaching* (3rd ed., pp. 3–36). New York: Macmillan.

Smith, T., & Ingersoll, R. (2004). What are the effects of induction and mentoring on beginning teacher turnover? *American Educational Research Journal*, *41*(3), 681–714.

Timperley, H., Wilson, A., Barrar, H., & Fung, I. (2007). *Teacher professional learning and development: Best evidence synthesis iteration [BES]*. Wellington: Ministry of Education.

Wenger, E. (1998). *Communities of practice: Learning, meaning and identity*. Cambridge: Cambridge University Press.

Wilson, S. M., & Berne, J. (1999). Teacher learning and the acquisition of professional knowledge: An examination of research on contemporary professional development. *Review of Research in Education*, *24*, 173–209.

Wong, H., Britton, T., & Ganser, T. (2005). What the world can teach us about new teacher induction. *Phi Delta Kappan*, *86*(5), 379–384.

Yandell, J., & Turvey, A. (2007). Standards or communities of practice? Competing models of workplace learning and development. *British Educational Research Journal*, *33*(4), 533–550.

Presentations and publications generated by this project

Journal articles in preparation or review

Anthony, G., & McChesney, K. *Becoming a mathematics teacher: Continuing the learning journey*. Manuscript in preparation.

Anthony, G., & Ord, K. *Change of career secondary teachers: Motivations, expectations, and intentions*. Manuscript submitted for publication.

Kane, R. G., & Fontaine, S. *Choosing to become (and to remain) a secondary teacher in New Zealand: Findings from two national studies*. Manuscript in preparation.

Kane, R. G., Fontaine, S., & Levy-Mangin, J. *How prepared are New Zealand secondary teachers? Results from a national graduate survey*. Manuscript submitted for publication.

Conference papers and symposia

Anthony, G. (2008, March). *Mathematics teacher education: The continuum from initial teacher education to the classroom.* Paper presented at the Symposium on the Occasion of the 100th anniversary of ICMI, Rome.

Anthony, G., Bell, B., Haigh, M., & Kane, T. (2007, April). *Induction into the profession: Findings for New Zealand beginning teachers.* Paper presented at the annual meeting of the American Education Research Association, Chicago.

Anthony, G., Butler, P., & Ord, K. (2006, December). *Beginning secondary teachers' profile.* Paper presented at the annual conference of the New Zealand Association for Research on Education, Rotorua.

Anthony, G., & Haigh, M. (2008, April). *The role of the mentor teacher.* Paper presented at the professional conference of the Post Primary Teachers' Association, Auckland.

Anthony, G., Haig, M., Kane, R. G., & Sandretto, S. (2008, March). *Embedded induction: Is it making a difference?* In Lawrence Invargson (Chair), *Induction of new teachers: A view from three countries.* Symposium conducted at the annual meeting of the American Educational Research Association, New York.

Anthony, G. J., Kane, R. G., & Butler, P. (2007, December). *Beginning secondary teachers: Great expectations.* Paper presented at the annual conference of the New Zealand Association for Research on Education, Christchurch.

Anthony, G., & Ord, K. (2007, July). *I was a merchant banker but now I am a secondary teacher.* Paper presented at the 36th annual conference of the Australian Teacher Education Association, Wollongong, NSW.

Bell, B., Anthony, G., & Mansell, R. (2006, December). *Support for beginning teachers in the first 6 months.* Paper presented at the annual conference of the New Zealand Association for Research on Education, Rotorua.

Davey, R., Kane, R., Lovett, S., & Stephens, C. (2006, December). *Being a beginning secondary teacher.* Paper presented at the annual conference of the New Zealand Association for Research on Education, Rotorua.

Fontaine, S. & Kane, R.G. (2007, September). *Preparing secondary teachers: The role of initial teacher education.* Paper presented at the annual conference of the European Educational Research Association, Ghent, Belgium.

Fontaine, S., Kane, R. G., & Levy-Mangin, J. P. (2006, May). *Making a difference to the preparation of secondary teachers in New Zealand: The role of initial teacher education.* Paper presented at the conference of the Canadian Society for Studies in Education, Toronto.

Haigh, M., Kane, R., Prestage, B., & Sandretto, S. (2006, December). *Beginning teachers' perceptions of preparedness.* Paper presented at the annual conference of the New Zealand Association for Research on Education, Rotorua.

Kane, R. G. (2005, November). *How do we know that we are making a difference? The methodological challenges of a national evaluation of initial teacher education in Aotearoa New Zealand.* Symposium conducted at the annual conference of the New Zealand Association for Research on Education, Dunedin.

Kane. R. G. & Davey, R. (2005, November). *Secondary teacher education: Increased competition and related threats to quality across the sector.* Paper presented at the annual conference of the New Zealand Association for Research on Education, Dunedin.

Kane, R. G. & Fontaine, S., (2005, November). *Beginning with valid baseline data: Development of a national questionnaire instrument.* Paper presented at the annual conference of the New Zealand Association for Research on Education, Dunedin.

Kane, R. G., & Fontaine, S. (2007, April). *Choosing to become (and to remain) a secondary teacher in New Zealand: Findings from two national studies.* Paper presented at the annual meeting of the American Educational Research Association, Chicago.

Kane, R. G., Sandretto, S., & Haigh, M. (2007, December). *"When I am teaching at my best, I am like a kid on Christmas morning": Beginning teachers' images of themselves as teachers.* Paper presented at the annual conference of the New Zealand Association for Research on Education, Christchurch.

Lovett, S., & Davey, R. (2007, December). *Being a secondary English teacher: Complex realities in the first year.* Paper presented at the annual conference of the New Zealand Association for Research on Education, Christchurch.

Lovett, S., & Davey, R. (2008, April). *Learning to be a secondary English teacher: Complex realities in the first 18 months.* Paper presented at the professional conference of the Post Primary Teachers' Association, Auckland.

Research team

Project directors

Glenda Anthony is a member of the School of Curriculum and Pedagogy at Massey University. Her research involves both mathematics education and teacher education with particular focus on the teaching–learning nexus within the classroom.

Ruth Kane is Director of Teacher Education at the University of Ottawa. Her research interests focus on teacher education, induction and self-study of teaching. She is also conducting a province-wide evaluation of the New Teacher Induction Programme in Ontario and is a member of a parallel study on the preparation and induction of beginning secondary teachers in Quebec.

Other members of the research team were:

Beverley Bell: University of Waikato

Philippa Butler: Massey University

Ronnie Davey: University of Canterbury

Sylvie Fontaine: University of Quebec

Mavis Haigh: University of Auckland

Susan Lovett: University of Canterbury

Ruth Mansell: independent education consultant

Kogi Naidoo: Massey University

Kate Ord: Massey University

Brian Prestidge: University of Waikato

Susan Sandretto: Otago University

Cheryl Stephens: Te Whare Wānanga o Awanuiārangi.