

CHAPTER 1

OVERVIEW OF THE STUDY

Teacher education is primarily concerned with learning: developing teacher education students' and intern teachers' learning about teaching, and teaching for learning. A synchronicity of learning about teaching and learning, and about oneself as a teacher, are inherent in the process. Moves toward a more stringent oversight of teacher education accreditation by the New South Wales Institute of Teachers and the Australian Institute for Teaching and School Leadership provide an impetus for clarifying the complex dynamic of undergraduate learning. In addressing these issues, this thesis presents and tests the conceptual framework of LEARnT Theory (Jones, 2009). It draws together pertinent literature and research to explain the nature of intern teacher learning.

Within LEARnT Theory, learning is understood as “theory making”, with the developing teacher positioned as the “theory maker”. The process of “theory making” involves complex, multi-layered, cyclical and reiterative interplays of cognition, affect and action. It is proposed that the proficiency of individuals’ “theory-making” is dependent upon the power of their generative reflective thinking. To ensure robust learning in both pre- and in-service teacher education, key stakeholders would do well to be mindful of key characteristics of teacher education students’, and intern teachers’, learning. Such learning is no better displayed in teacher education than in the internship which historically in New South Wales at least, has come to be that final period of eight to ten weeks of teacher education where what students have learned is put into practice with the aid of teacher mentors.

The expectations held by teacher educators and teacher accreditation bodies, such as the New South Wales Institute of Teachers, are that graduate teachers emerge from their teacher education with the capacity to “reflect critically” (NSW IT, 2005, p. 11). Such an expectation is built upon the assumption that reflective thinking is honed throughout the teaching degree. The application of diverse theories of reflection, single-loop and double-loop learning, “theories of action” and the tempering role of

self-efficacy beliefs in determining learner and teacher behaviours are applied in this research within the context of undergraduate teacher education.

While the second chapter addresses explicitly the context of the study, this first chapter articulates the stimulus for the research and the nature of the study, including discussion of the:

- purpose and rationale of the study;
- research questions posed by the study;
- context of the study;
- ethical considerations;
- scope and delimitations of the study;
- significance of the study; and
- structure of the thesis.

PURPOSE AND RATIONALE OF THE STUDY

The purpose of this study was to assist teacher education stakeholders to improve teaching and learning within teacher education programs by providing a deeper knowledge and understanding of the approaches intern teachers take to their learning, in particular reflection. The study is aimed at ameliorating the issue of a lack of understanding of the nature of intern teacher learning by teacher educators, mentor teachers, and the intern teachers themselves. Evidence supporting this lack of understanding is discussed in Chapter 3.

Consequently, the ultimate goal of the study was to understand the true nature of final year intern teachers' learning and through evidence-based research inform:

- teacher educators, including university researchers and teachers, and school Principals, executive staff, teaching staff and mentor teachers, of the fundamental importance of, and their role and responsibility in, modelling and guiding teacher education students and intern teachers in the most effective approaches to learning;
- the sometimes misguided assumptions of policy makers and teacher accreditation bodies regarding the flawed assumptions of endeavouring to

encapsulate teachers' professional learning through the singular lens of competencies; and

- teacher education students and intern teachers of the most effective approach they can take to their learning to ensure authenticity, integrity and resilience.

In pursuing these goals it is hoped that the study will address the scarcity of literature regarding teacher education interns' learning.

The literature discussed in Chapter 3 supports the view that in taking a transformational approach to learning intern teachers are able to critically reflect and shape their once taken-for-granted frames of reference into more "inclusive, discriminating, flexible habits of mind" (Mezirow, 2000a, p. 8). Clearly answers are needed to set the context, and to justify the enquiry (Richards, 2009, p. 12) into intern teachers' approaches to learning. The development of transformational learning attributes for Graduate Teachers is surely an important goal for teacher education. This study proposes a broader perspective on graduate teacher competencies; not one limited to a set of professional teaching standards that acts as a "can do" list in terms of enhancing student teachers' learning, but one that ensures graduates have the intrapersonal and professional competencies essential to thriving in the teaching profession. This stance is supported in the literature (Bloomfield, 2010; Dreyfus & Dreyfus, 1986, 2005; Kalantzis, 2002; Tickle, 1999, 2000; White & Moss, 2003) and discussed in the following chapter.

RESEARCH QUESTIONS POSED BY THE STUDY

Understanding the nature of intern teacher learning is significant since the approach these undergraduates take impacts upon their preparedness to make the transition into the role of graduate teacher on employment. Likewise, such knowledge and understanding provide important insights for the teacher education curriculum and teacher accreditation. An excellent site for addressing these issues is the four-year Bachelor of Education (BEd) (Primary) since it is in this award that teacher educators can address student development and its culmination most meaningfully as compared

with, say, a discipline degree plus teaching Diploma model of teacher preparation. The primary aim of this research, then, was to answer the following questions:

What is the nature of 4th year BEd (Primary) intern teachers' learning, in terms of LEARnT theory?

This major question was divided into two sub-questions:

- i. What do the reflective practices of intern teachers reveal about the nature of their learning?*
- ii. What relationships exist between intern teachers' self-efficacy, reflection and depth of learning?*

These sub-questions underpin the main goal of exploring the nature of the approach BEd students take towards their learning in the final phase of their teacher education program.

CONTEXT OF THE STUDY

This study was undertaken in the context of the University of New England (Armidale, New South Wales, Australia), specifically, the 4th year Bachelor of Education (Primary) internship. This internship is a ten-week school placement within a primary-school classroom, and constitutes the culminating teaching experience of the degree. The context of the award, and the research more generally, are discussed in Chapter 2.

ETHICAL CONSIDERATIONS

This research was conducted within the guidelines of the National Ethics Application and the University of New England's Human Research Ethics Committee (approval number HE08/083).

SCOPE AND DELIMITATIONS OF THE STUDY

The New South Wales Institute of Teachers' (NSW IT) prescriptive framework of Professional Teaching Standards (PTS) designed to "describe, celebrate and support the complex and varied nature of teachers' work" (2005, p. 1) provided a crucial impetus for this study. In particular, Aspect 6.1.1, the expectation that the Graduate

Teacher will “demonstrate a capacity to *reflect critically* on and improve teaching practice” (NSW IT, 2005, p. 11), was seminal. Understanding the extent to which the intern teachers could critically reflect, and if not, the nature of their reflection and hence learning, was key to this study.

On the internship, the intern teacher is assessed against the Professional Teaching Standards (NSW IT, 2005). There is, therefore, the expectation that interns will “reflect critically”. This study, however, critically reflects upon such an assumption.

“Reflecting critically” is understood in this study to be synonymous with critical reflection. In the introduction of LEARnT theory in Chapter 2, and later in Chapter 3, rich analyses are given of the inherent relationship between critical reflection and learning. It is important to establish early that this research was based on the premise that synthesising a new understanding of the nature of BEd student learning is possible through analysis of the current dexterity of individuals’ reflective thinking.

The research questions provide a scaffold for thinking within this study. It was imperative that this be the case since otherwise there was a temptation to take convoluted pathways and to lose the explicit purposes of the task. Characteristics of the participants, one cohort of on-campus Bachelor of Education students in a regional university in New South Wales (NSW), Australia, define the initial conditions under which the findings can be deemed valid. This cohort was selected because they were studying at the university at the time I was employed as a lecturer in the School of Education. The cohort of potential participants and the time limits of the study were determined by the enrolment population and the enrolment period of this cohort of students within the BEd. Whilst the study was confined to a specific cohort there remains the potential to refine and extend LEARnT theory with other populations of teacher education students on practicum, and intern teachers.

STRUCTURE OF THE THESIS

The structural framework of this thesis is outlined in Table 1.1 below.

Table 1.1: Structural framework of the thesis

Chapter	Title	Purpose
1	Overview of the study	Explains the background, context, purpose and significance of the study.
2	Context of the study	Considers the milieu in which the study is situated.
3	Perspectives from the literature	Examines the literature supporting the key components and relationships within the conceptual framework of the LEARNt model (Jones, 2009) including discussion of the relevance of these theoretical foundations to the primary research question.
4	Methodology	Details the methodological approach. Arguments about the research paradigm and perspectives are espoused, alongside an explanation of the proposed analysis instruments, including Rasch and NVivo.
5	Results and Discussion of High Overall Efficacy (HOE) interns	Presents and discusses understandings from data gathering and data analysis of HOE intern interviews.
6	Results and Discussion of Medium Overall Efficacy (MOE) interns	Presents and discusses understandings from data gathering and data analysis of MOE intern interviews.
7	Results and Discussion of Low Overall Efficacy (LOE) interns	Presents and discusses understandings from data gathering and data analysis of LOE intern interviews.
8	Overall Results and Discussion	Integrates key insights from the previous three chapters regarding the nature of intern teachers' learning, and relationships found between self-efficacy, reflection and depth of learning.
9	Implications and Future Research	Concludes by synthesising findings regarding the nature of intern teachers' learning and of LEARNt theory, considers implications and limitations of the study and identifies further research.

SIGNIFICANCE OF THE STUDY

This study is important because it analyses and identifies intern teachers' approaches to learning and in doing so adds to the body of knowledge on intern teachers' learning. Literature concerned with the complex process of learning was synthesised to provide the LEARNt theory framework (Jones, 2009) for analysing and evaluating

relationships amongst intern teachers' prior Learning, Efficacy and Actions, and Reflection and Theory making. The process involved analysing approaches to learning in terms of their transformative, adaptive and reflex-ive nature. Research into intern teacher' efficacy (Witcher, et al., 2002), reflection (Boud, Cressey, & Docherty, 2006; Brookfield, 2000b) and learning remains less prevalent than research of professional, experienced teachers. As identified in Chapter 3, little is known about the actual approach to learning that intern teachers take and how this knowledge may inform teacher education and professional teaching standards. By improving the theoretical framework for understanding the complex nature of intern teacher learning, this study aims to contribute to more positive learning outcomes associated with teacher education.

CONCLUSION

This chapter has oriented the reader to the background, context, significance and exploratory margins of the study. In addition it has foreshadowed the key concepts fundamental to the research. It has also provided an opportunity to explore the motivating forces behind this particular research. Because the context of this research is critical, the next chapter sets out its key features.

CHAPTER 2

CONTEXT OF THE STUDY

This research is primarily concerned with understanding the nature of University of New England (UNE) Bachelor of Education (Primary) intern teachers' learning in the context of a ten-week internship in New South Wales (Australia) schools. This chapter introduces the internship as an extended practicum in teacher education then specifically focuses upon the UNE BEd (Primary) internship. It also examines the New South Wales Institute of Teachers' Professional Teaching Standards (2005) against which the intern teachers' learning was assessed.

INTERNSHIPS IN TEACHER EDUCATION: AN INTERNATIONAL PERSPECTIVE

Following a decade of efforts to improve and “professionalise” teaching in the United States of America (USA), in the 1980s, major changes were made to rules governing the preparation and licensing of teachers. Part of the process involved examination of “how a supervised clinical training experience — an internship — might be used to enrich candidates' abilities and ensure their competence before they practice autonomously” (Darling-Hammond, Gendler, & Wise, 1990, p. v). The rationale for a teaching internship came from the evolution and observation of other professions, namely medicine, psychology, architecture and engineering. The internship model adopted in the USA differs from that in Australia in that the newly graduated teacher undertakes an internship to meet requirements for a license to teach.

INTERNSHIPS IN AUSTRALIAN TEACHER EDUCATION

Active trialling of internships in Australian teacher education programs took place in the mid-1990s. However, in contrast to the postgraduate internship model in the USA, internships in Australia are undertaken in undergraduate teacher education programs, generally upon completion of essential academic studies. For example, internships were introduced in:

- 1994 in the final year of the Bachelor of Education (extension) program at Griffith University Gold Coast (Jones, Ball, & Smart, 1995), and in the Bachelor of Education (Primary) at Edith Cowan University (Campbell-Evans, 1995; Chadbourne, 1995);

- 1995 in the first and third years of the three-year Bachelor of Teaching program at Southern Cross University (Young, 1995), and within the final year of its four-year Bachelor of Education (Primary) program at the Queensland University of Technology (Millwater & Yarrow, 1997);
- 1996 in a two-year graduate-entry Master of Teaching program at the University of Sydney (Hatton, 1996).

At the University of New England, where this study was set, the internship was offered as a pilot program of six students in 1998 and ten students in 1999. These teacher education students were placed in North West Region schools, after negotiation with teachers who agreed to be involved in the program. It was then introduced for all 4th Year BEd students in 2000. Many Australian universities now incorporate the internship as an assessed component of their teacher education programs.

Internship as induction into the teaching profession

Within the Australian internship model (Working Party on Internships in Teacher Education, 2004, p. 3):

The purpose of a period of internship is to offer high levels of independence wherein pre-service teachers can develop more fully their ‘teacher identity’ by taking full responsibility for a class while still in a supported environment and without having the extreme pressure of a full-time teaching load.

In the face of high early-career teacher attrition (Brennan, Thames, & Roberts, 1999; Ingersoll, 2001; Manuel & Brindley, 2002) the imperative of the internship is to provide a “a realistic working situation while at the same time mentoring ... to create a fruitful and guided learning situation, enabling interns to address issues and problems as they arise” (Working Party on Internships in Teacher Education, 2004, p. 7).

Internship as partnership

Effective partnerships between the schools and university are fundamental to providing optimal internship experiences (Darling-Hammond, 1994; Mayer, 1999). However, structural relationships between schools and universities have served to separate the worlds of teachers and teacher education (Ramsey, 2000). Varied priorities, reward systems, and agendas (Smith, 2002) have created tensions and cultural clashes (Lewison & Holliday, 1999). In its review of internship partnerships the Queensland Board of Teacher Registration (1997) identified factors in effective partnerships, including

sustained and effective: collaboration; commitment; planning; management and evaluation; communication; shared goals; and continued active participation. Obstacles to effective partnerships included: vague purpose; poor planning, ineffective communication; lack of commitment (negativity); inadequate resources; poor understanding of implementation processes, organisational mismatch; relationship difficulties; and criticism by other players in the field.

Also noted in the Board's 1997 report was the dearth of opportunity for research partnerships between school and university personnel, with a particular focus upon internships (Hall, 2001). The engagement of teachers in collaborative research would enable their voices to be heard and their concerns regarding mentoring to be addressed, thereby encouraging a greater number of teachers to mentor (Working Party on Internships in Teacher Education, 2004, p. 8). Joint innovative collaboration between school and university stakeholders contributes to the development of focused learning communities (communities of practice) and a deepening of knowledge and understanding in specific shared concerns (Wenger, McDermott, & Snyder, 2002) surrounding the teacher education internship.

Differentiating the internship from the practicum

The status of the intern teacher differs from that of the pre-service teacher on supervised practicum. The *Top of the Class: Report on the inquiry into teacher education* (Standing Committee on Education and Vocational Training, 2007, p. 84), stated that in almost all internships:

The student teacher may take full charge of the class but the class is still the responsibility of a qualified teacher and the student teacher is still under the supervision of that teacher ... Internships often share some of the features of effective induction programs, such as access to a mentor and a reduced face-to-face teaching load.

Although the Report uses the term "student teacher", I believe the internship approach transitions the individual from student teacher to "intern teacher"; since "the internship is seen as "fitting further along the developmental continuum of teacher preparation, more closely aligned with induction into the profession" (Working Party on Internships in Teacher Education, 2004, p. 3). This is an important distinction based on the level of responsibility given to the intern teacher. The terms "intern teacher" and "the intern" will be used to describe the participants in this study. In this study the "qualified teacher" who guides the intern through the internship period is referred to as the "mentor teacher".

CONTEXTUAL DIMENSION OF INTERN LEARNING

An intern's sense of "personal agency operates within a broad network of socio-structural influences" (Bandura, 1997a, p. 6) including the culture and collective efficacies (Bandura, 1977, 1986, 1997a) of school environments. Internship schools are not simply an instrumentality for providing organised learning, "the medium is the message" (Marshall McLuhan in Knowles, Holton, & Swanson, 2005, p. 107). Intern teacher learning is shaped by contextual dimensions, is informal and formal, and occurs in a "myriad of ways" (Chivers, 2010, p. 124). Juxtapositions between personal "biography and the sociocultural milieu" (Jarvis, 1992, p. 17) emerge as an intern's "tacit knowledge" (Reber, 1993) confronts the "incidental learning" (Marsic & Watkins, 1990) and "experiential knowledge" (Heron, 1992) of the internship environment. Significant relationships (Bergner & Holmes, 2000; Kelchtermans, 1993) and "interpersonal interactions" (Sweet, 2010, p. 184) have an impact on intern teachers' identities and levels of professional learning. All this means that the quality of the learning that takes place in the internship school is affected by the kind of organisation it is and the interactions of people within it.

Many authors highlight the potential of internship contexts and relationships to enhance interns' learning. For example, Miller and Silvernail (1994) refer to opportunities for the "rub between theory and practice". Darling-Hammond (1998, pp. 6-7) discusses the potential for many to develop "a practice that is different from what teachers themselves experienced as students"; for "doing and reflecting", "collaborating with other teachers"; and for "looking closely at school students and their work, and sharing what is observed". Kibler (1997) also saw the potential for internships in terms of possible renewal for experienced teachers and for increased communication and partnerships between all stakeholders (universities, schools, employers and employees). On the other hand, Kibler also posited that the internships might be a graveyard for aspirants or, at the very least, challenging.

SOCIAL DIMENSION OF INTERN LEARNING

The quality of relationships within internship schools reflects patterns of relating and power within the school contexts and determines the extent to which intern teachers find their "voices" (Kegan, 1994). The dialogue that is shared can become an "inner dialogue" (Lewis, 2002) that guides future behaviour. In such interactions, "transference" may

emerge as the interns experience either positive or negative emotions that may have their roots in early child–parent relationships (Pipes & Davenport, 1990).

Intern and mentor teacher relationships

The relationship between an intern and mentor teacher is understood to be that of co-teachers. As Knights, Myer and Sampson (2010, p. 96) suggest, “working together on the planning, teaching and assessment of an academic program and being together in the classroom with students over an extended period of time offers the possibility for rich collaborative reflection”. However, there is inevitably some form of power relation involved.

A co-teaching relationship can be complex. It usually takes time, commitment, trust and the respect of both parties to undertake shared planning and reflection, to negotiate divergent views on pedagogy and classroom management, and to manage potential vulnerabilities. Bergner and Holmes (2000) claim that when mentor teachers communicate to the intern teacher that they value them and see their potential for growth and change, the interns start to live according to the “status expectation” placed upon them.

The relationship may be functional in which stakeholders “coordinate, consult, communicate and cooperate” (Head, 2003, p. 51). It may be an effective collaboration in which all aspects of teaching are freely discussed (Knights, Myer, & Sampson, 2007). On the other hand, the relationship may be dysfunctional, with the aforementioned lacking, and the mentor less than an ideal role model of professional thinking and practice. To position the intern–mentor teacher relationship most effectively, Chivers (2010, p. 128) advocates that “where practicable, mentors should be matched to trainees, or better still, selected by the trainees themselves to ensure compatibility”. By and large this matching does not usually take place.

Intern and stakeholder relationships

It is not simply the relationship with the mentor teacher that has a powerful impact on an intern’s learning. The intern may also debrief with other, perhaps more senior, staff. Such debriefing has the potential to identify issues and problem solving at the point of action (Ments, 1990). Likewise, dialogue with peers is particularly powerful since efficacy is built through the vicarious observance of and dialogue with peers who are at a similar

stage in their professional development. As Chivers (2010, p. 128) explained, “the potential power of peer mentoring and collaborative learning should not be overlooked. Trainees can learn a lot from each other”.

Interns also seek high levels of interaction in informal community of practice spaces (e.g. in the coffee shop after school) and in affinity spaces (Gee, 2005) such as online media. Life outside work, in particular, relationships with family and friends, also provides “rich learning opportunities” (Chivers, 2010, p. 123). In some cases these individuals bring their own teaching experiences and problem-solving strategies to their dialogue with interns. Perhaps the most powerful interactions are those between the intern teacher and the school students. For example, engaging a disruptive student in direct dialogue may enable the intern to confront the teacher’s ethical responsibility to act in the best interests of the student having “seen their face” (Levinas, 1981).

ISSUES SURROUNDING INTERNSHIPS

There are many positive outcomes of the informal learning interactions outlined. However, there are also limitations that need to be understood. For example, although “beginning teachers consistently rate the practicum as the most useful part of teacher education courses” (Standing Committee on Education and Vocational Training, 2007, p. 67) concerns about practicum and internships have been raised by many authors. For example, *The Top of the Class: Report on the Inquiry into Teacher Education* (Standing Committee on Education and Vocational Training, 2007, pp. 70-72) found that:

- Supervising teachers were reluctant to take on the role of supervision due to issues of workload, professional development, accreditation, inadequate support from the university, scant opportunity to have an impact on the teacher education program, and uncertainty in understanding and integrating students’ theoretical backgrounds with classroom practice.
- Teacher education students, and interns, likewise struggled to integrate their theoretical coursework learning into their classroom practice.
- The employment of non-teaching university staff as liaison personnel within practicum and internship schools limited academics’ exposure to the realities of today’s classrooms, and provided less opportunity for the professional development of experienced teachers’ through discussions of methods with university researchers.

- Although many teachers, individually, were found to be outstanding teacher supervisors, limitations in the number of placement opportunities within schools for teacher education students and interns were noted which meant placements were necessary with teachers who were not necessarily suited to the task, and that there was less likelihood of matching students with the most appropriate supervising teachers.

A number of limitations have also been found in co-teaching relationships. The perceptions mentor teachers have of their role and capabilities are particularly noteworthy, as mentioned above. As a result, many mentor teachers have difficulty seeing themselves as teacher educators (McIntyre, 1994) and doubt the extent to which mentors can challenge thinking and scaffold mentee reflection (Jayne, 1995; Kettle & Sellars, 1996). If they are unsure of their roles, mentor teachers are more likely to provide emotional rather than professional support to interns (Collison & Edwards, 1994) and inadvertently impose a ceiling on development (Garrigan & Pearce, 1996) by concentrating on supporting and managing the experience (a pastoral role) rather than educating (Collison & Edwards, 1994). This latter point is an important one.

Hargreaves (2010, p. 94) adds another perspective on concerns surrounding internships, believing that the experiences intern teachers are exposed to:

exert a disproportionate influence on their experience and socialisation into the norms of the profession. Understanding this discourse, and the tensions it creates for students who are torn between the real and espoused experience of practice, is essential.

As well as issues related to the preparedness of mentor teachers, uncertainties about university expectations, relationships and socialisation, limitations were also inherent within the cognitive frameworks of learning (Lasky, 2005) used within school contexts. This factor goes some way to explaining why theories learnt in teacher education are rarely implemented in teaching practices (Wideen, Mayer-Smith, & Moon, 1998). Finally, added to these concerns are limitations in the transference of context-specific workplace learning (Argyris & Schön, 1974; Fiol & Lyles, 1985; Jones & Hendry, 1992) acquired within the internship school to other work environments.

Support for BEd Interns

Lack of adequate support is given as the key factor in the attrition of 25% of Australia's beginning teachers (Standing Committee on Education and Vocational Training, 2007). It was important to the purposes of this study, therefore, to understand interns' experiences of support and its impact on their learning. The conceptualisation of the "Circle of Courage" (Brendtro, Brokenleg, & van Bockern, 2002) underpins Brendtro, Brokenleg and van Bockern's (2005) studies in resilience science, and Brendtro and Larson's (2006) studies of "self-worth" and "universal growth needs" (2005, p. 131). The "Circle of Courage" encompasses four core values which, when applied to the internship, provide a framework for understanding how intern teachers can be supported or are not supported. This framework thus means investigating the extent to which interns experienced:

- a sense of "belonging" within the internship context;
- opportunities for "mastery" learning;
- appropriate levels of "independence" (autonomy); and
- critically reflective practices and development of "generosity" (the capacity to overcome adversity).

Kauffman (2000) asserts that the Circle of Courage provides an anchor of enduring certainty in a chaotic post-modern culture. Reading this work and knowing many BEd interns' stories, I had a powerful sense that there was a strong correlation between interns' experiences of the four core values encompassed within the Circle of Courage and their perceptions of support during their school placement.

Following this discussion of the internship process within teacher education generally, it is now timely to introduce the UNE BEd (Primary) internship, which provided the specific context in which the nature of BEd intern teacher learning was examined.

THE UNE BACHELOR OF EDUCATION (PRIMARY) INTERNSHIP

UNE BEd students undertake professional practice through practicum placements with supervising teachers in primary schools. Prior to the last semester of their four-year degree, interns must have successfully completed three and a half years of coursework and four practicum equivalent to a total of 70 days' fully supervised professional practice.

The final extended practicum is referred to at UNE as the BEd internship. It marks the final phase of the degree.

BEd Internship guidelines

The University of New England, Fourth Year Bachelor of Education Handbook for the Internship Program (UNE, 2008, p. 5), hereafter referred to as the Internship Handbook, states the nature, purpose and expectations of the internship:

The Internship allows student teachers, across a 10 week block placement, to demonstrate the competencies of a beginning teacher and thus to be able to take more independent responsibility for a partial teaching load as an Intern ... The Internship provides the Intern with opportunities for developing, and putting into practice, knowledge and skills that have been learnt within university-based studies and in previous Professional Experience units ... [and] for extensive reflection on practice and building individual portfolios of work.

Although it is currently being argued that “virtual worlds provide interaction and engagement ... context[s] for collaboration and simulation ... and can emulate contexts, such as classrooms” (Gregory, 2011, p. 92), the Internship Handbook (UNE, 2008, p. 5) states, “the experience cannot be simulated ... it provides the opportunity for the intern teacher to be fully immersed in the complexity and variety of teachers’ work and to transition into full responsibility and autonomy in the culminating phase of their BEd program”. The internship is a lived experience; real schools, real classrooms, real learners; this is the world for which our BEd interns are preparing.

The Intern

Interns are generally aged between 21 and 23 years of age with a smaller proportion somewhat older. This is considered the “early adult stage” of life (Bromley, 1974; Erikson, 1978; Havighurst, 1972; Levinson, Darrow, Klein, Levinson, & McKee, 1978) also described as “young adulthood” (Simonson, 2005, p. 689).

It has been argued for many decades (Erikson, 1968; Giddens, 1990, 1991; Ziehe & Stubenrauch, 1982) that the development of identity is a fundamental preoccupation of individuals in early (young) adulthood. As well as coping with “new educational opportunities, new consumer opportunities, new communication systems and new lifestyle choices ... felt in an almost chaotic confusion”, interns also engage in serious “identity work” (Simonson, 2005, p. 690) as they come to terms with themselves as teachers and as learners in the internship context.

The roles and responsibilities of the intern teacher are explained in the Internship Handbook (see UNE, 2008, pp. 29-30). Intern teachers:

- are responsible to the Principal;
- when supervising pupils alone have a 'duty of care' equivalent to that of any teacher employed by the Department of Education and Training; and
- are reminded that professional attributes will be assessed, including reliability, punctuality, appearance, dress, involvement in school activities, interpersonal relationships with staff, willingness to accept advice, attitude to teaching and suitability as a teacher.

The Internship School Principal

The roles and responsibilities of the school Principal towards the intern are explained within the Handbook (see UNE, 2008, pp. 28-29). Internship school Principals are expected to ensure that:

- only experienced, effective mentor teachers are selected;
- mentor teachers are fully aware of the requirements of the internship program;
- the intern is informed of school rules, policies, organisation, and legal constraints; and
- interns are not used as casual relief and are appropriately mentored.

The latter point is an important one in that some interns in this study were placed in some of the internship schools' most difficult classes, and with mentor teachers ill equipped to support them.

The Mentor teacher

The Internship Handbook (UNE, 2008, p. 8) explains the relationship that is to be established between the intern and the mentor teacher during the internship in the following way:

An experienced teacher with whom a co-teaching relationship is established mentors the student teacher/Intern. This co-teaching relationship is crucial to the success of the Internship program. The Intern needs to be guided and supported and yet also given opportunities to develop and demonstrate independent teaching competence as expected of a beginning teacher.

Within that co-teaching relationship is the expectation that communication around joint planning and teaching evaluation is developed and maintained.

The roles and responsibilities of the mentor teacher towards the interns are also explained within the Internship Handbook (UNE, 2008, pp. 28-29). Mentor teachers are expected to:

- ensure they are fully aware of the requirements of the internship;
- provide background information about the class, including expected standards and routines;
- if possible, inform the intern of work to prepare prior to the internship;
- provide on-going and constructive feedback;
- allow the intern to observe them teach and critically reflect on their own teaching with the intern; and,
- encourage and support the intern in critical reflection of their own practice and observations, and use such written reflections as a basis for discussion.

However, within UNE's Internship program, intern teachers do not choose their mentor teacher. Rather, the internship is arranged between the school and the University's Professional Experience Office.

THE INTERNSHIP WORKLOAD

The intern is expected to “develop and demonstrate independent teaching competence as expected of a beginning teacher” (UNE, 2008, p. 5) within a 60% teaching load, using the remaining 40% of their time for preparation and action research. An Action Research project is completed during the internship.

The BEd Action Research project

Action Research is an assessed component of the BEd Internship at a number of Australian universities. Implementing action research is an approach supported by Dewey (1929), who advocated systematic inquiry into the nature of learning and the effects of teaching. In the same way, Ball and Cohen (1999) asserted that rich teacher professional learning, at all stages of teacher development, is centred upon the critical actions of teaching and learning rather than abstractions. Reflection and therefore learning are enhanced when teachers engage in research (Yost, 2006; Yost, Sentner, & Forlenza-Bailey, 2000). Action Research within the internship at UNE has the potential to enrich the quality of teaching, teacher and student learning in the school (Bloomfield, Taylor, & Maxwell, 2004; Maxwell, 2011).

UNE BEd (Primary) intern teachers were concurrently enrolled in a related unit EDCX 478: Reflective Practitioner Report, having completed an action research unit the previous semester. This school-based mini Action Research project focused the interns on their practice within the internship placement. As outlined in the Internship Handbook (UNE, 2008, p. 10) interns were expected to:

- develop with their mentor teacher the most strategic, practical and feasible research question;
- source data;
- undertake theoretical research;
- collect evidence of change; and
- develop a Reflective Practitioner Report, to complement and strengthen the intern's professional experience.

Upon completion of the unit, the Internship Handbook (UNE, 2008, p. 10) stated, intern teachers were expected to be able to:

Continually improve their professional knowledge and practice by critically reflecting upon and improving [their] teaching practice ... and explore educational ideas through research, and improving their knowledge of students and the way they learn.

Examples of action research work developed from students' reports include Mead and Maxwell (2010) and Emerson and Maxwell (2011).

INTERNSHIP ASSESSMENT

In New South Wales, teacher professional learning is recognised, understood and accredited through the NSW IT Professional Teaching Standards (NSW IT, 2005). The NSW IT Professional Teaching Standards Graduate Teacher competencies (2005) provide the framework against which UNE's BEd interns are assessed. The Internship Handbook (2008, p. 6) justifies this approach, claiming that:

As the Internship presents the final professional experience component within the Bachelor of Education (Primary), UNE considers that its assessment criteria should be equivalent to the Institute's Standards for the Graduate Teacher. Both the Phase One and the Final Report for the Internship have therefore been structured according to the NSWIT Graduate Teacher standards.

The Professional Teaching Standards framework (2005, p. 1) aims to provide:

A common reference point to describe, celebrate and support the complex and varied nature of teachers' work. [They] describe what teachers need to know, understand and be able to do as well as providing direction and structure to support the preparation and development of teachers.

The claim that the standards will “sustain and stimulate teachers in their professional practice” (NSW IT, 2005, p. 2) remains to be seen.

Table 2.1 provides an overview of the three Dimensions and seven Elements within the framework. There are also four key stages within the framework of which the first is for Graduate Teachers. In Table 2.1, Element 6 is used to illustrate how the aspects of most relevance to this study — those related to reflective practice — vary for the four stages. These Aspects in turn have Standards, which describe the means by which individuals can demonstrate their capacity to continually improve their professional knowledge and practice at each stage (Graduate Teacher, Professional Competence, Professional Accomplishment, and Professional Leadership).

Table 2.1: Outline of the NSW IT Professional Teaching Standards (2005)

Professional Knowledge Dimension	
Element 1	Teachers know their subject content and how to teach that content to their students.
Element 2	Teachers know their students and how they learn.
Professional Practice Dimension	
Element 3	Teachers plan, assess and report for effective learning.
Element 4	Teachers communicate effectively with their students.
Element 5	Teachers create and maintain safe and challenging learning environments through the use of classroom management skills.
Professional Commitment Dimension	
Element 6	Teachers continually improve their professional knowledge and practice.
Graduate Teacher Standard	6.1.1: Demonstrate a capacity to reflect critically on and improve teaching practice.
Professional Competence Standard	6.2.1: Reflect critically on teaching and learning practice to enhance student' learning outcomes.
Professional Accomplishment Standard	6.3.1: Model effective practices for systematically analysing and reflecting on individual teaching practice in relation to student learning outcomes.
Professional Leadership Standard	6.4.1: Consistently, systematically and critically review all aspects of practice to improve student learning.

The seven elements refer to the requisite knowledge, practice, and commitment of teachers and school executive staff to plan for, and manage, successful learning in NSW schools. Although there are a total of forty-six standards, an interesting point to note is that only at the stages of Graduate Teacher and Professional Competence is there the expectation that teachers will “reflect critically”. In the following section, concerns about inconsistent expectations about who is expected to reflect critically are outlined.

Limitations of assessing intern teachers against Professional Teaching Standards

The NSW IT Professional Teaching Standards (2005) attempt to encapsulate learning that is valued in the teaching profession and assess it in specific terms. In the opening salvo of *The Reflective Practitioner* (1983), Donald Schön criticises the grounding of professional knowledge in “technical-rationality”. Usher, Bryant and Johnston (1997, p. 143) added to the debate regarding technical-rationality as a positivist epistemology of practice, stating that the “dominant paradigm ... has failed to resolve the dilemma of rigour versus relevance confronting professionals”. Usher et al. recall Schön’s (1985) alternative epistemology of practice “in which the knowledge inherent in practice is understood as artful doing”, and practitioners as connoisseurs and critics (Eisner, 1985, 1998).

The critique of technical-rationality as an epistemology of practice, commenced by Schön (1983), continues through the decades, with Tickle (1999, p. 121) expressing concerns that standards have “evident associations with behaviourist principles and with curricula defined according to pre-specified and measurable objectives and outcomes”. Kalantzis (2002) supports this view, stating that standards infer the status of teaching as a craft or technical occupation. White and Moss (2003, p. 5) view the professional knowledge valued and measured through standards by governments and bureaucracies worldwide as “profoundly limited” in that it relegates the role of the teacher to that of an “instructional technician who unquestioningly implements the policies and procedures of others, [evoking] a sad stricken image of the profession”. More recently still, Bloomfield (2010, p. 223) indicates that such an approach is symptomatic of a trend:

In much of the western world in recent decades, neoliberal agendas have exerted significant influence within fields such as education ... through increasingly centralised standards, audit and accreditation measures.

The development of institutional structures is an attempt to “fashion and legitimate and thus to exert control over both subjectivities and practices within teaching” (Bloomfield, 2010, p. 222) by accrediting only certain teacher knowledge and skills. In all, it can be argued that the use of Standards frameworks based upon a technical-rational epistemology of practice, including but not restricted to the NSW IT Professional Teaching Standards (2005), constitutes a limited view of teachers’ work.

Inconsistent expectations

Anomalies exist in the mapping of the skill-based concepts of novice, beginner, proficient and expert (Dreyfus & Dreyfus, 1986, 2005) onto key stages within the NSW IT Professional Teaching Standards to which the BEd interns are accountable. For example, the capacity to “reflect critically” is limited to Graduate Teacher and Professional Competence stages only (NSW IT, 2005, p. 11). Teachers operating at the Professional Accomplishment stage are to “analyse and reflect”, and those at the Professional Leadership stage “critically review all aspects of practice to improve student learning” (NSW IT, 2005, p. 11). Criticality is important in a profession. Sweet alerts us to the incongruity wherein critical reflection is seen as “a necessary process for the novice and beginner, but quite unnecessary for the expert” (Sweet, 2010, p. 183). A more consistent approach would be to include an expectation of critical reflection at all stages within professional teaching standards. Critical reflection, as will be explained at length in the following chapter, is fundamental to transformative learning, dealing with dilemmas and professional and personal growth at all stages of teachers’ professional lives.

Further, this situation is problematic on a number of levels. Firstly, the position on reflection held by the New South Wales Institute of Teachers is ambiguous as there is no expectation that more experienced/expert teachers and school executive will critically reflect, model, or guide (scaffold) novice and less experienced teachers, including intern teachers, to critically reflect. Secondly, when critical reflection is not modelled, shared or valued by more experienced role models, there is the danger that unremitting reflection cycles will perpetuate conformity or degenerate into presumption, ritualism and eventually alienation (Jarvis, 1992). A third concern is that the focus of reflection is limited to improving “student learning” rather than encompassing social and political critique, meaning that the true nature and potential of critical reflection is lost.

A final concern that will be raised is that if the NSW IT Professional Teaching Standards accurately captured intern teachers' learning, it would still only be providing one out of a range of assessment frameworks. Benchmarking intern teachers solely against the Standards imposes limitations in understanding the depth and breadth of their learning. Tickle (2000, p. 8) specifically warns of the "endemic problem of teacher induction" in which assessment is against teaching standards without deep knowledge and understanding of the true nature of intern teacher learning:

There has been a failure to comprehensively identify the nature of professional knowledge of what new teachers should know and be able to do, or what kinds of persons they should be or be willing to become.

It is important to critique these Standards as a framework for understanding intern teacher learning and offer new insights on the basis of research.

Before concluding this chapter regarding assessment of interns, it is also necessary to be mindful of the concerns expressed by Darling-Hammond et al. (1990, p. viii) when referring to internship models in the USA:

On-the-job evaluation poses problems of fairness and validity. A one-classroom observation gives only the most narrow source of information on the candidate's ability. The presence of factors out of the new teacher's control make it most difficult to fairly assess whether he or she has acquired good teaching skills.

These concerns apply equally to the UNE BEd internship. Intern teachers can experience extremely problematic or problem-free contexts; they can experience highly professional support or, on the contrary, can be deprived of their ethical rights to support. In such varying environments the possibility of all intern teachers having the same opportunity to reach all Graduate Teacher Professional Teaching Standards (against which they are assessed) is dubious.

In concluding this chapter, which has discussed the internship context, the intern teacher, and internship assessment, I draw upon a statement made in my earlier work (Jones, 2009, p. 2):

Developing teachers are not simply defined by their accumulating professional competencies, nor is their learning restricted to the professional domain. Intern learning is refined or confined by intrapersonal competencies of cognition and emotion, and external contexts and relationships.

When considering the nature of internships some key questions emerge:

- Do interns and graduate teachers critically reflect?

- What in fact is the nature of their learning?
- How can teacher educators' best scaffold intern and graduate teacher learning?
- How can the NSW IT Professional Teaching Standards framework, and other such frameworks, better encapsulate intern and graduate teacher learning?

It was these kinds of questions that led to the research undertaken for this thesis. These and related questions are addressed in the next chapter.

CONCLUSION

This chapter has detailed the context of the study. Internships in teacher education and their contribution to the contextual and social dimensions of intern teacher learning were presented. The specific case of the UNE BEd internship was then discussed with particular reference to the roles and responsibilities of the stakeholders, the nature of the Action Research project, and the assessment of interns against the NSW IT Professional Teaching Standards (2005).

CHAPTER 3

PERSPECTIVES FROM THE LITERATURE

This chapter provides an overview of adult development, in particular adult learning encapsulating Mezirow's transformational learning theory (Mezirow, 1995) and the thinking that has evolved from his work. This background sets the scene for exploring the cognitive and emotional dimensions of learning, in particular the relationship between dissonance, reflection and the meaning perspective. I then argue for understanding the nature of learning. The chapter concludes with the conceptualisation of LEARNt theory (Jones, 2009). The framework informs the study's methodology (Chapter 4) and the analysis and discussion of the findings (Chapters 5 to 8).

AN HISTORICAL PERSPECTIVE ON ADULT LEARNING

Numerous theories of the "ways in which an organism learns" (Gage, 1972) have evolved, from the early work of Ebbinghaus (1885) and Thorndike (1898) to Mezirow (1978) and authors who have built upon his transformative learning theory (Cranton, 1994, 2006; Illeris, 2003, 2004, 2009; Mälkki, 2010; Taylor, 2000, 2007, 2008). It is not the purpose of this study to recount the plethora of arguments regarding learning theory; instead, Knowles, Holton and Swanson (2011) provide a comprehensive analysis. It is important, however, to position what is yet to be known within the foundation of what is already known about adult learning, and more particularly, young adult learning.

ADULT DEVELOPMENT

Early models of adult development were not focused upon learning, but on: lifespan (Erikson, 1963); moral development (Kohlberg, 1973); stages of ego development (Loevinger, 1976); age/stage chronologies (Levinson, et al., 1978); and psychoanalytical theory of development (Gould, 1978). However, in the two decades prior to 1990, significant contributions were made to thinking around learning including adult learning.

The first of these significant contributions to theories of adult learning were made in the 1970s: Piaget (1972) took a cognitive view of human development, conceptualising the fourth stage of formal operations (the capacity to reason hypothetically and think abstractly) as epitomising mature adult thought; and Argyris and Schön (1974) described a hypothetico-deductive process in which behavioural hypotheses were formed, tested and modified.

In the 1980s, Knowles (1980) integrated concepts of age/stage theory into adult education curriculum and Aslanian and Brickell (1980) reconceptualised adult learning as an imperative of life transitions, which correlated with Havighurst's (1972) "teachable moments". Bandura (1986) went on to explain learning as change resulting from imitation and interaction with the environment. Alternatively, Schön (1987) saw reflection as the artistry alongside the science of professional work, the application of wisdom and ethics, rather than a result following from scientific or technical rationality.

In the 1990s perspectives on adult learning further evolved with conceptualisations of learning as: situated (Lave & Wenger, 1991) and socially constructed (Gergen, 1994); process- and outcome-evidenced through behavioural change (Hergenhahn & Olsen, 1993); movement from concrete to abstract inferences and systems, and dialectic thinking (Kegan, 1994); contextual knowledge and constructing one's knowledge (Goldberger, Tarule, Clinchy, & Belenky, 1996); constructing and reconstructing inquiry (Beattie, 1997); transforming experience into knowledge, skills and beliefs, and dialectic thinking (Merriam & Caffarella, 1999); and the process of gaining knowledge and/or expertise (Knowles, et al., 2005, p. 17).

What is clear throughout the evolution of ideas about thinking is that reflection is core to the process of adult learning (Mezirow, 2000a), and "the outcome of reflection is learning" Mezirow (1981, p. 3). Dewey's (1933, p. 9) early definition of reflection as "an active, persistent and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it and the further conclusions to which it tends" provided a foundation for conceptualising reflection as "validity testing" which potentially restricted learning to the "technical and instrumental" (Habermas, 1984 in Mezirow, 1997). However, Mezirow (1991, p. 116) introduced the dimension of examining the habitual ways in which individuals interpret experience to "doubt the truth, validity, or assertions made or implied". Mezirow's conceptualisation was one of critical reflection; it extended Dewey's thinking and became the central dynamic in transformative learning. Learning in the transformative sense is "communicative and emancipatory" learning (Habermas, 1984 in Mezirow, 1997).

This exploration of the evolution of thinking around adult learning shows that synthesising theories of learning is as complex and multi-faceted as learning itself. As Gagne (1965, p. v) so aptly stated, "despite the 'intellectual appeal,' learning cannot be

readily explained by theories”. However, in spite of the difficulties it was necessary to do so, since the purpose of this study was an adventurous one of proposing and testing a new theoretical framework of learning.

Knowing that an “integrated model of learning [was] needed” (Merriam & Caffarella, 1999, p. 248), I turned to Mezirow’s (2000a) Transformative Learning theory, and his definition of learning as “the process of constructing new or revised interpretations of one's experience to guide future action” (Mezirow, 1996, p. 162). Transformative learning theory provided the most comprehensive framework for identifying and understanding degrees of criticality and learning, which were essential for analysing and understanding the diverse characteristics of intern teachers’ learning.

TRANSFORMATIVE LEARNING THEORY

Transformative learning theory evolved from Mezirow’s (1978) pioneering research of adult learners. Although described by Cranton and King (2003, p. 32) as “elegant in its simplicity” (p. 32), transformative learning theory is considered “one of the most sophisticated conceptualisations of reflection within a larger frame of adult learning”(Mälkki, 2010, p. 43). Mezirow (1997, p. 5) believed that the “cardinal goal of adult education” should be developing the capacity for transformative learning and autonomous thinking.

Learning, in Mezirow’s (2000a) transformative sense, is a process of “meaning-making” and emancipation (Mezirow, 2003, pp. 58-59):

Transformative learning is learning that transforms problematic frames of reference – sets of fixed assumptions and expectations (habits of mind, meaning perspectives, mindsets) – to make them more inclusive, discriminating, open, reflective, and emotionally able to change. Such frames of reference are better than others because they are more likely to generate beliefs and opinions that will prove more true or justified to guide action.

Without perspective transformation, distorted or undeveloped meaning perspectives “constrain the way we see ourselves, and our relationships” (Mezirow, 1981, p. 6). Such distortions position the individual to view reality in a way that “arbitrarily limits what is included, impedes differentiation, lacks permeability or openness to other ways of seeing, [and] does not facilitate an integration of experience” (Mezirow, 1991, p. 188).

To understand transformative learning, and its relevance to understanding the nature of BEd intern teachers’ learning, it is necessary to understand Mezirow’s (2000b)

conceptualisations of the various components involved in meaning-making, notably: meaning perspectives, habits of mind (HoM), points of view (PoV), the emotions, and the comfort zone. Figure 3.1 (Jones, 2011) integrates these core concepts and provides a reference point for the unfolding discussion.

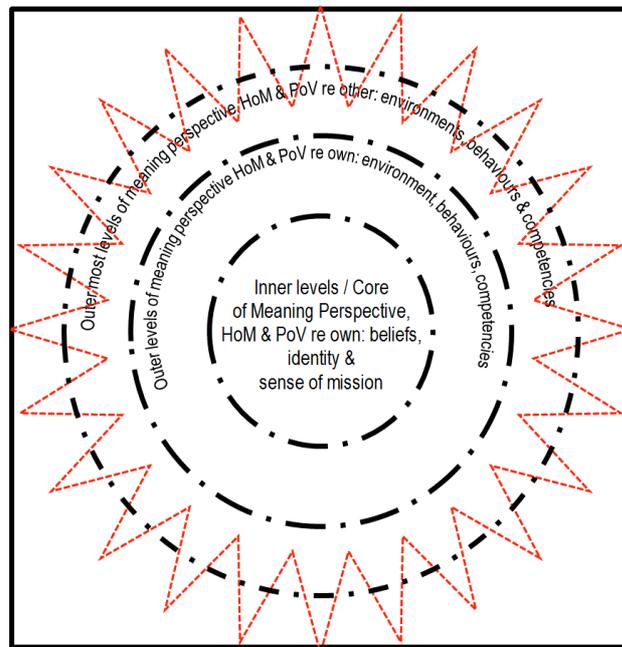


Figure 3.1: *Component parts of learning*

Transformative learning is evidenced when the components of learning (as seen in Figure 3.1) interact so as to inform the transformation of meaning perspectives. The process involves reframing and occurs within varied timeframes. Explanation of these terms meaning perspective, habits of mind, points of view, and the emotions follows.

MEANING PERSPECTIVES

Meaning perspectives are the “structure of cultural and psychological assumptions” (Mezirow, 1985a, p. 21) often assimilated subconsciously in response to an individual’s life experiences. They include fixed “interpersonal relationships, political orientations, cultural bias, ideologies, schemata, stereotyped attitudes and practices ... moral-ethical norms, psychological preferences” (Mezirow, 2003, p. 59). Our experiences are filtered through our meaning perspectives.

Although Mezirow (1981) used the term “frames of reference” in his initial description of the place in which meaning making took place, in 1991, he settled upon the term

“meaning perspective”, considering it more precise than “frame of reference” (Wiessner & Mezirow, 2000). More recently still Mezirow (2000b) stated that “a frame of reference is a meaning perspective” (Mezirow, 2000b, p. 16) and others have taken this lead. For example, Kitchenham (2008, p. 110) states, “a meaning perspective is a general frame of reference”. In light of these insights, the term meaning perspective will predominantly be used throughout the study.

The meaning perspectives intern teachers bring to their internship are replete with prior learning in the form of “habits of mind” and “points of view” (Mezirow, 1991) firmly rooted in their past. Having spent many years in schools as students, intern teachers have developed beliefs about teaching and learning, shaped by: modelling (Feiman-Nemser, 1983; Wubbels, 1992); role models (Britzman, 1986; Crow, 1987; Place, 1997; Ross, 1987), stereotypical examples of teaching in the media (Weber & Mitchell, 1995); images (Clandinin, 1985; Connelly & Clandinin, 1984); values often embedded in family history (Carter & Doyle, 1996; Cuban, 1990; Valli, 1990; Wubbels, 1992); and feelings and emotions (Damasio, 1994; Sutton & Wheatley, 2003). Inevitably, unexamined meaning perspectives shape intern teachers’ teaching and learning.

Habits of mind

Within the meaning perspective are “habits of mind” (HoM) (Mezirow, 1991): “ways of seeing the world based on our background, experience, culture, and personality” (Cranton, 2006, p. 24). HoM have been variously conceptualised as: theories-of-action (Argyris & Schön, 1974); mental models or schema (Rumelhart, 1980); gestalts (Korthagen & Lagerwerf, 1996); or, intentions to act (Gibbs, 2003).

The HoM BEd students and intern teacher’s hold act as “filters” (Mezirow, 2000b, p. 16) through which current experiences and discourses are viewed; they limit attention, perceptions, and interpretations so as to maintain a consistent view of the world and a sense of stability, community and identity (Mezirow, 1981, 1991, 2000a, 2009). HoM are known to be “highly resistant to change” (Joram & Gabriele, 1998), with individuals “holding fast to their underlying beliefs” (Spillane, Reiser, & Reimer, 2002; Yerrick, Parke, & Nugent, 1997) thereby nullifying (Hargreaves, 2010; Korthagen, 2004) potential learning. HoM may be diametrically opposed to teaching and learning presented in teacher education (Korthagen, 2004) and detrimental to becoming a good teacher (Richardson, 1997).

Points of view

HoM are observable in the “points of view” (PoV) (Mezirow, 1997) an individual expresses. Points of view are comprised of groups of “meaning schemes” (Mezirow, 1997), described in this study as schema. Meaning schemes are concepts, beliefs, judgments, and feelings, which subconsciously determine how the individual interprets specific experiences, unless they are critically reflected upon. PoV are less enduring than HoM since they are “more accessible to awareness and to feedback from others” (Mezirow, 1997, p. 6). For example, the intern teacher may appropriate the behaviourist PoV of their mentor teacher, when addressing an issue of student behaviour, yet maintain an existing HoM that is more humanistic.

Emotions

“Maintaining a meaning perspective is safe” (Cranton, 2006, p. 23). The meaning perspective guides attention and thinking with the aim of maintaining “stability, community and identity” (Mälkki, 2010, p. 48). There is a significant pull for individuals to operate within the comfort zone of existing meaning perspectives: to understand and order the meaning of experiences by integrating them with what is already known so as to avoid the threat of chaos (Mezirow, 2000b).

When meaning-making within the meaning perspective is not possible critique of assumptions underpinning unhelpful ways of thinking (Mezirow, 2000b) is needed. Such critique highlights the tension between the work of critical reflection and the role of the meaning perspective: “the role of reflection and the role of the meaning perspective appear opposed, ... the meaning perspective aims to manage the complexity of life by leaning on the very self-evidences reflection aims to question” (Mälkki, 2010, p. 46). Changing the very core of oneself through critical reflection and transformative learning “is not an easy or purely rational process” (Mälkki, 2010, p. 47). As Illeris (2003, p. 402) explains, transformative learning exacts:

personality changes and is characterised by simultaneous restructuring in the cognitive, the emotional and the social-societal dimensions, a break of orientation ... as the result of a crisis-like situation caused by challenges experienced as urgent and unavoidable, making it necessary to change oneself in order to get any further.

Critical reflection is not simply an examination of practice, but an examination of the self (Moore, 2003).

Dissonance and learning

The understanding that tension and dissonance provide a catalyst for learning is not new. Dewey (1933, 1991) acknowledged that knowledge is created in environments of anxiety, and states of perplexity, hesitation, and doubt. Many authors since have used various terms to describe the anxiety that acts as a catalyst to learning: “cognitive dissonance” (Festinger, 1957); “cognitive disequilibrium” (Piaget, 1972); “displacement of concepts” (Schön, 1963); “confusion” (Schön, 1983); “inner discomforts” (Brookfield, 1987); “disorienting dilemmas” (Mezirow, 1990); “surprise, puzzlement, and cognitive disruption” (Ixer, 1999).

Transformative learning theory has been criticised by contemporary adult learning theorists (see Illeris, 2007, 2009; Malinen, 2000) for an overemphasis on the rational and cognitive dimensions of learning. However, recent empirical research (Dirkx, 2008; Illeris, 2004; Kitchenham, 2008; Taylor, 2000) finds significant congruence with a holistic orientation. Mezirow (2000b, p. 18) describing meaning perspectives as “surrounded by emotions ... emotionally charged, and often strongly defended”; and emotions as inherently cognitive since they “act as a trigger for the reflective process” (Mezirow, Taylor, & Associates., 2009, p. 10).

The inevitable dissonance of encountering alternative perspectives and having one’s HoM called into question (Cranton, 2006) provides an important catalyst in teacher education (Galman, 2009) and intern teacher learning. Understanding the nature of emotions and the “entangled and inseparable” (Damasio, 1999) “interconnections between cognition and emotion” (Mälkki, 2010, p. 49) is fundamental to understanding the nature of intern teacher learning. Affective knowing is inherent in critical reflection: Interns are more likely to change through a “see-feel-change” sequence than an “analyse-think-change” (Brown, 2006, p. 732).

It seems that dissonance and anxiety are legitimate emotions, and fundamental to internship learning. To learn effectively BEd intern teachers need the meta-cognitive capacities to manage the emotions, and thereby the problem (Salzberger-Wittenberg, Williams, & Osborne, 1999). Such insights have significant ramifications for teacher education, and more specifically, the BEd internship as a context for learning.

Subjective and objective reframing

Perspective transformation occurs through “critical self-reflection” and/or “reflective judgment” (Mezirow, 1991, 1994). Critical self-reflection involves the “subjective reframing” (Mezirow, 1997) of assumptions underpinning one’s own “distorted or incomplete meaning schemes” (Mezirow, 1985a, p. 23). Reflective judgment, on the other hand, includes critical analysis and the “objective reframing” (Mezirow, 1997) of the way others have framed situations, including the feelings, beliefs, concepts, and actions they communicate. Reframing is a process of developing more open, better-justified and self-authored frames of reference not simply changing one’s mind by assimilating a point of view (Cranton, 2006).

Epochal and cumulative transformation

Mezirow (1978, 1991, 2000a) and Taylor (2000) acknowledge that reframing occurs in one of two ways: as a response to a single, disorienting dilemma (epochal); or as a gradual (cumulative) process. Kitchenham (2008) explains that:

On the one hand, it can occur painlessly through an accumulation ... of transformations in set meaning schemes ... On the other hand, [it] may be an ‘epochal ... [and] ... painful’ (Mezirow, 1985a, p. 24) transformation of meaning perspectives, or sets of meaning schemes [involving] a comprehensive and critical self-evaluation of oneself.

In this study, one would expect to find interns who have experienced epochal transformative, or cumulative transformative, learning. For example, an intern may experience a conscious and very deep insight based upon a critical incident: an epochal transformation from a state of not knowing to a state of knowing. Alternatively, an intern may incrementally transform a habit of mind through cumulative changes in their point of view and meaning schemes based upon the total experience of the internship.

INTRAPERSONAL QUALITIES NECESSARY

A certain level of cognitive development is needed for critical self-reflection (Merriam, 2004) and reflective judgement. These forms of thinking are considered “adult capabilities ... indispensable for fully understanding the meaning of our experience and effective rational adult reasoning in critical discourse and communicative learning” (Mezirow, 2003, p. 60). It was therefore posited that intern teacher readiness for critical self-reflection and reflective judgement would vary, and thereby have an impact upon the nature of their learning.

Dewey's (1960) description of reflection as a rational, cognitive and emotional enterprise, calling for open-mindedness, whole-heartedness and responsibility, highlights the importance of the intrapersonal in reflection and learning. Fundamental to critical discourse are: emotional maturity and clear thinking (Mezirow, 2000b); a certain degree of cognitive development (Merriam, 2004); predispositions such as a readiness for change (Taylor, 2000); and being able to keep an open mind, listen empathetically, bracket premature judgment, and seek common ground (Mezirow, 2003). Also intrinsic to the transformative learning process are qualities of "emotional intelligence" (Goleman, 1995): self-awareness and impulse control; persistence; zeal and self-motivation; empathy and social deftness. More especially, these intrapersonal qualities need to be present in the intern teacher.

DISCOURSE IN TRANSFORMATIVE LEARNING

Mezirow considered discourse, involving the "assessment of beliefs, feelings and values" (Mezirow, 2003, p. 59), to be central to transformative learning. The discourse Mezirow refers to is characterised by consensual validation (Mezirow, 2003) and requires a: readiness to welcome difference, "trying on" of points of view; tolerating paradox; and reframing to achieve common ground. Within the internship such discourse between intern teacher, mentor teacher and more experienced others would enable the intern to articulate their own perspective, listen to alternatives, and critique hidden assumptions (Brookfield, 2000b).

Discourse is far more than analytic conversation (Taylor, 2009) it is "a specialised use of dialogue that has as its goal reaching a common understanding and justification of an interpretation or belief" (Cranton, 2005, p. 632). Cranton (2006, p. 66) confirmed that:

Dialogue and support play a vital role in helping individuals maintain a good sense of self during a time that they may be making unsettling changes in the way they see themselves ... Educators especially need to be aware of learners' needs for supportive and challenging feedback during transformative learning.

Knowledge about teaching is primarily communicative and, as such, socially constructed by communities of practitioners. Intern teachers learn about teaching through experience, reflection on experience, and dialogue with others. The value placed on reflection and reflective discourse about teaching is apparent in the literature (Brookfield, 1995; Schön, 1987).

Dialogue and “safe relationships” play an integral part (Brookfield, 1994; Taylor, 1997, 2000, 2007, 2008) in the process of intern teachers’ transformative learning.

REFLECTION AND THEORY-MAKING (LEARNING)

As stated earlier, it was essential to the purposes of this study- understanding the nature of BEd intern teacher learning- that an integrated framework of critical reflection and transformative learning, and non-critical reflection and learning of the non-transformative kind, be developed. However, before launching into this stimulating task it was important to understand the 'critical' in critical reflection, and to articulate the conceptualisation upon which this study drew, knowing that it could be theorised in many ways.

Lyons (2010) provides a comprehensive overview of the diverse scope of literature and disciplines regarding critical reflection. The practice of critical reflection is richly and variously understood with contributions spanning early educationalists from Socrates (Nussbaum, 1997) through Dewey (1904), to Freire (1972), Schön (1983), and critical theorists Habermas (1974) and Brookfield (2005). Likewise, various fields and disciplines are interwoven, including social theory (Giddens, 1992), management, allied health, social work and law (Fook & Askeland, 2006), economics (Fisher, 2003) and industrial relations (Cressey & Boud, 2006). Also enlivening the fabric of critical reflection are related conceptualisations, such as reflective practice (Argyris & Schön, 1974; Schön, 1983), reflexivity (Taylor & White, 2000), action research and experiential learning (Kolb, 1984), transformative learning (Mezirow, 1990), Foucauldian approaches to power, feminism (Issit, 2000); postmodernism (Fook, 2002), and more recently, notions of spirituality (Ghaye, 2005).

From such diverse fields and disciplines it is clear that, “critical reflection is not an unequivocal concept. It is, rather, a contested idea. How the term is used reflects the ideology of the user” (Brookfield, 2009, p. 35). Therefore, to develop a clearer understanding of the conceptualisation of critical reflection upon which this study drew; I needed to disentangle the different, and often conflicting, intellectual traditions informing its use. Brookfield (2009) synthesises four traditions, from which I now draw: ideology critique as seen in Neo-Marxism and work of the Frankfurt School of Critical Social Theory, psychoanalysis and psychotherapy, analytic philosophy and logic, and pragmatist constructivism.

1. *Ideology critique* (Adorno, 1973; Horkheimer, 1947; Marcuse, 1964) being the process by which people learn to recognise how uncritically accepted and unjust dominant ideologies are embedded in everyday situations and practices. Ideology critique has parallels with Mezirow's (1991) “systemic” critical reflection of sociocultural distortion, and Freire (1994) and Williams (1977) social transformation.
2. *Psychoanalytical and psychotherapeutical* traditions emphasise critical reflection as the identification and reappraisal of inhibitions acquired due to childhood trauma. This emancipatory process is embedded in transformative learning theory also (Gould, 1990; Mezirow, 1991). To Neo-Marxists such as Fromm (1941) and Laing (1960) personality is socially and politically sculpted, with the transformation of the personality occurring through social revolution.
3. Within the *analytic philosophy and logic* (Norris & Ennis, 1989; Stice, 1987) tradition, critical reflection involves increasing competence in argument analysis. The capacity to recognise logical fallacies, to distinguish bias from fact, opinion and evidence, judgment and valid inference, and to reason inductively, deductively, and/ or analogically.
4. *Pragmatist constructivism* emphasises the role of individuals in constructing and deconstructing their own experiences and understandings. “This strand of thought maintains that events happen to us but that experiences – that is, how we understand events – are constructed by us” (Brookfield, 2000, p. 37).

As these four views of the process of critical reflection indicate, the process ranges from the collective (Boud, Cressey, & Docherty, 2006; Reynolds & Vince, 2004), for example, ideology critique, to the individual detached from the social (Boud, et al., 2006; Elmholt & Brinkman, 2006), more specifically, critical reflection as the identification and reappraisal of inhibitions, and constructivism. However, instead of perceiving separate constructions, Fook (2010) argues for a deeper understanding of critical reflection as a process which is neither inherently individual or collective, but instead “one which is based irrevocably upon an understanding of the *individual in social context*” (p. 38). This view involves elements of the third tradition, analytic philosophy and logic, as it applies to oneself and social, political contexts.

The integrated understanding of critical reflection proposed by Fook (2010) has a starting point in individual experience followed by a focus on social context. Fook (2010) contended that critical reflection enables individuals to:

- develop a sense of their own professionalism and professional practice;
- learn ways of learning that are context specific yet transferable;
- promote a critically reflective workplace;
- be alert to “hidden” values and assumptions in workplace cultures; and
- better understand the social and political dimensions of contexts and co-construct organisational change.

These points are of particular relevance to the purposes of this study.

I have embraced Fook’s (2010) synthesis of two fundamental understandings of critical reflection to develop a framework for understanding the nature of intern teachers’ learning. Firstly, Mezirow’s (1991) unearthing of uncritically assimilated habits of mind (assumptions) and the capacity to transform these perspectives (Cranton, 1996). Secondly, the exposure of dominant or hegemonic assumptions (Brookfield, 2009) that unconsciously shape professional practice. It is important to remember that, “the two perspectives are not necessarily mutually exclusive, that is, the deeper assumptions unearthed, may, or may not, be about power” (p. 40).

Within the internship, the potential emerges for the intern teacher to become aware of, and to choose to act in, ways that confirm, or question, their own assumptions and the status quo of power relations that unquestioningly prevail (Fook, 2002; Kondrat, 1999). The place and importance of individual awareness in this process of criticality, links with critical social theory (Agger, 1998; Brookfield, 2005), conscientization (Alfrero, 1972; Hart, 1990) and approaches to self-change (Fay, 1977). Critical reflection and individual intern teacher transformation makes possible social change, albeit confined to internship classroom relationships and culture (in effect, a microcosm of potential larger school and society in which it is embedded).

Having critiqued a range of ideologies and disciplines regarding critical reflection and its relationship to learning, it was essential to the purposes of this study that an integrated theoretical framework was settled upon. Inherent in that thinking was the realisation that non-critical reflection and learning of the non-transformative kind would also be

necessary. To achieve these ends Mezirow's (1991) transformative learning theory was settled upon as it encapsulated elements of the four traditions of ideology critique, psychoanalytical and psychotherapeutical approaches, analytic philosophy and logic, and pragmatist constructivism argument, discussed previously. These approaches synthesise in the process of questioning the uncritically assimilated assumptions and beliefs of oneself, the other, and the collective. The deconstruction and (re)construction process generates transformative learning.

In light of these deeper understandings of critical reflection it was possible to synthesise a theoretical framework for understanding degrees of criticality from non-critical to critical reflection for this study. Several theories with their roots in transformative learning theory were integrated: Schön's (1983) differentiation of "reflection-in-action" and "reflection-on-action"; Content, Process and Premise reflection (Cranton, 2006; Mezirow, 1991); "Core reflection" (Korthagen & Vasalos, 2005), and single- and double- loop learning (Argyris & Schön, 1974). These theories will now be discussed individually, and then the manner in which they were synthesised will be presented.

REFLECTION-IN-ACTION

I posited that the intern teachers reflection-in-action would pre-empt and inform their reflection-on-action. To develop a deeper knowledge and understanding of the intern teachers' reflection-in-action it was necessary to turn to the literature. Various terms have been used to describe reflection in the moment. Prior to Schön's definition of reflection-in-action, Greene (1973) used the term "wide-awareness". Schön (1983) used the description "thinking on our feet", which involves looking to the experience, connecting with feelings and paying attention to "theories-in-use". Since Schön a number of authors have captured the concept as: "time out" to monitor (Court, 1988); rapid judgments in problematic situations (Eraut, 1994); "good enough" decisions (Munro, 2002) made in the busyness of the moment; "mindfulness" (Brown & Ryan, 2003; Germer, Siegel, & Fulton, 2005); "presence" (Rodgers & Raider-Roth, 2006); "full awareness" (Mingyur Rinpoche, 2007); and "preliminary transitory realisation" (Sweet, 2010). In essence, these terms refer to the capacity of the individual to monitor an experience as it unfolds.

"Presence", the term used by Rodgers and Raider-Roth (2006), is the one that will be used in this study because I believe it captures the essential qualities of reflection-in-action. Presence is the capacity of "bringing one's whole self to full attention so as to perceive

what is happening in the moment” (Rodgers & Raider-Roth, 2006, p. 271). Intern teachers’ presence is observable in the extent to which they are “present to the student” (Noddings, 2003, p. 180) and “present to oneself” (Rodgers & Raider-Roth, 2006, p. 271). Presence is a particularly important capacity for intern teachers and their mentor teachers since practising presence and deepening one’s self-awareness enriches “contact with the outside world” (Almaas, 1986; Senge, Scharmer, Jaworski, & Flowers, 2004) of the student, the classroom, and the school.

REFLECTION-ON-ACTION

Alongside reflection-in-action, Schön (1983) conceptualised reflection-on-action to describe retrospective reflection upon espoused theories and theories-in-use. Two approaches to reflection-on-action are particularly relevant in understanding the learning of intern teachers in this study. The first is that of “Content, Process and Premise reflection” (Cranton, 2006; Mezirow, 1991), and the second is “Core reflection” (Korthagen & Vasalos, 2005). In the context of this study, it is proposed that when integrated these two approaches would be particularly helpful in understanding the reflection and learning of intern teachers. Content, Process and Premise reflection will be discussed, followed by Core reflection, and the manner in which Premise and Core reflection overlap. In this way, critical reflection will be differentiated from non-critical reflection.

Content, Process and Premise reflection

Mezirow (1991) introduced, and Cranton (2006) further developed Content, Process, and Premise reflection that conceptualise degrees of criticality. The questions Cranton (2006, p. 34) provide help to differentiate the three forms of reflection:

- Content reflection examines the content or description of a problem by asking such questions as “What is happening here? What is the problem?”
- Process reflection is characterised by checking the problem-solving strategies used by asking: “How did this come to be?”
- Premise reflection occurs when the problem itself is interrogated “Why is this important? Why is this a problem?”

Content and process reflection are non-critical forms of reflection, which engender “technical and instrumental” (Habermas, 1984 in Mezirow, 1997) learning. They are akin to Argyris and Schön’s (1978) conceptualisation of “single loop learning” in which, when something goes wrong, the starting point is to look for another strategy that works, within an existing set of goals, values, plans and rules. Pope and Denicolo (2001) raised the concern that reflection in teacher education was primarily focused upon “process”.

Premise reflection, on the other hand, creates “communicative and emancipatory” learning (Habermas, 1984 in Mezirow, 1997), since it involves critical self-reflection and/or critical judgment of underlying value systems. Premise reflection has the “potential to promote the transformation of habits of mind” (Cranton, 2006, p. 38) and “meaning perspectives rather than a meaning scheme” (Kitchenham, 2008, p. 114). Premise reflection has its roots in Argyris and Schön’s (1978) conceptualisation of “double loop learning”; a shift in the way strategies and consequences are framed due to critical scrutiny of underlying goals, values, plans and/or rules. Premise reflection and double-loop learning have parallels to Core reflection (Korthagen, 2004).

Core Reflection and double-loop learning

Korthagen’s (2004) conceptualisation of Core reflection incorporates critical and non-critical reflection. Core reflection (a variation of the Bateson model discussed in Dilts (1990) and Korthagen (2004)), incorporates the six layers of “the onion” model. The six layers equate to six potential “levels of change” (Korthagen, 2004, p. 79), and are divided into the “outer levels” and the “inner levels” of one’s meaning perspectives (frames of reference). For the intern teacher, reflection at the “inner levels” includes consideration of:

- *beliefs* that are often deep-rooted and persistent (Calderhead & Robson, 1991);
- *identity* (professional) (Beijaard, Meijer, & Verloop, 2004) and self-concept; and
- *sense of mission* (“teacher’s calling”, see Hansen, 1995; Korthagen, 2004; Palmer, 1998, 2003) in teaching.

In contrast, reflection at the “outer levels” involves critique that informs:

- the *environment* of the classroom and school;

- the *behaviours* of the intern, students, mentor teacher, and/or significant stakeholders; and
- the *competencies* of self-and/or others, including “knowledge, skills, and attitudes” (Stoof, Martens, & Van Merriënboer, 2000).

Korthagen and Vasalos (2005) noted the symbiotic relationship between the inner and outer levels: the inner levels determine the way an individual functions on the outer levels, and contrastingly, the outer levels influence the inner levels. Critical reflection is the central process in transformative learning (Mezirow, 2000b). Core reflection (Korthagen, 2004) creates “communicative and emancipatory” learning (Habermas, 1984 in Mezirow, 1997).

Integration of Content, Process and Premise reflection and Core reflection

In this study I have integrated Content, Process and Premise, and Core reflection to establish a basis for differentiating the intern teachers’ approaches to learning. Premise and Core reflection at the inner levels of beliefs, identity and sense of mission are considered critically reflective since they are the means by which fixed assumptions and expectations within habits of mind are critiqued and become more inclusive, discriminating, open, reflective, and emotionally able to change (Mezirow, 2003). Content and Process reflection and Core reflection at the outer levels of environment, behaviours and competencies are non-critical in nature. The focus is upon problem-solving immediate issues primarily through the assimilation or perpetuation of existing strategies. The premises upon which such choices are made remain unexamined, and beliefs and opinions are not necessarily “more true and justified to guide future actions” (Mezirow, 2003, p. 58).

Transformative learning and the meaning perspective

In Figure 3.2, “Transformative (double-loop) learning and the meaning perspective”, I have integrated the thinking of Mezirow (1991, 1996, 2000a, 2006), Korthagen and Vasalos (2005) and Argyris and Schön (1974), and Illeris (2003, 2004, 2009), to explain the process of critical reflection and transformative, double-loop learning as it applies to understanding intern teacher learning:

- Initially, the individual undergoes single-loop learning by effecting change at the outer levels of the meaning perspective, through non-critical reflection on

the environment, and the competencies and behaviours of themselves and/or others.

- If the emotions are heightened due to threat, they are brought under control to the extent that the individual can work through them, or in spite of them.
- The individual then engages in critical reflection on core beliefs so that habits of mind, points of view and meaning schemes are transformed, thereby informing teacher identity, and sense of mission.
- The comfort zone is enlarged enabling the intern to function across the inner and outer levels of the meaning perspective.

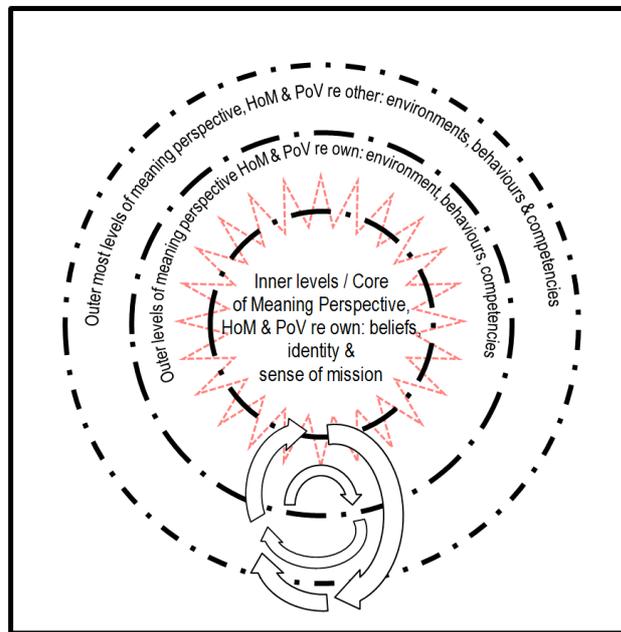


Figure 3.2: Transformative (double-loop) learning and the meaning perspective

Critical reflection enables “thought control of action” (Gibbs, 2003): the intern teacher draws upon core values and beliefs within his or her meaning perspective to make new sense of the environment, and maintain stability, community and identity (Mälkki, 2010, p. 48). Transformational learning engages mind, emotions and body, potentially leaving the learner exhausted yet more self-assured (Cranton, 2000). The capacity of the individual to transition from non-critical reflection and single-loop (adaptive) learning to critical reflection and double-loop (transformative) learning enables the development of an internal locus of control.

Although the critically reflective approach is highly valued by teacher educators and accrediting bodies, “this kind of reflection seems difficult for prospective teachers to

attain” (Risko, Vukelich, Roskos, & Carpenter, 2002, p. 136). The non-critically reflective stance is more common.

Intern teacher authenticity

Critical reflection (Freire, 1972; Heidegger, 1962; Jarvis, 1992) enables the development of a sense of self, identity and authenticity. Authenticity is an “ongoing developmental process” (Cranton, 2006, p. 19) evidenced in demonstrations of:

- *developing self-awareness* (Mezirow, 2000b) and expressing the genuine self and a passion for teaching in the classroom;
- *congruence between words and actions* (Brookfield, 1990; Cranton, 2006; Ray & Anderson, 2000) balancing one’s credibility by admitting one’s limitations and mistakes (Brookfield, 1997; Palmer, 2000);
- *dialogue* (Freire, 1972) and *relationships* that “foster the growth and development of each other’s being” (Jarvis, 1992, p. 113); and
- *living a critical life* by critically determining how one is different from, and the same as, the collective, and segregating oneself from “the undifferentiated and unconscious herd” (Sharp, 1995, p. 48); in Jungian terms, “individuation” (Dirkx, 2000).

Following these authors, I contend that authenticity for intern teachers develops through integrating the personal with the professional: the sense of self and the teacher self. The process is one of critically questioning what is right in terms of the literature and practice, developing one’s personal style and developing genuine relationships with students and others in the school context (Cranton & Carusetta, 2004). The transformative learning approach and resultant authenticity are the marks of a “self-directed” (Mezirow, 1985a) intern teacher learner.

ADAPTIVE LEARNING: NON-CRITICAL REFLECTION

Not all reflection is critical reflection. Mezirow (1991) makes the distinction between critical reflection and non-critical reflection, between “transformative learning” and “reflective learning”. Likewise, Dyke (2006) differentiates critical from non-critical reflection in that the former draws upon the literature and questions taken-for-granted

HoM, and the latter is a “common sense” approach, lacking critique. Core reflection at the outer levels of the meaning perspective (Korthagen & Vasalos, 2005) is non-critical in nature and engenders “single-loop” learning (Argyris & Schön, 1974). In this study, non-critical reflection engenders “Adaptive learning” (Jones, 2009); the term “adaptive” will be used to differentiate non-critical reflection from critical reflection and transformative learning.

Non-critical reflection involves “intentional assessment” (Mezirow, 1995, p. 44) and the transformation of points of view and meaning schemes (Mezirow, 1991) through assimilating pragmatic strategies. Without the benefit of critical reflection, distorted, inauthentic or invalid habits of mind (Mezirow, 1991, 1995) remain unexamined. Non-critical reflection for the intern teacher can mean a shift towards the values and expectations of others in the school context, rather than developing a “more open, better-justified and self-authored frame of reference” (Cranton, 2006).

Non-critical reflection engenders learning that is “technical and instrumental” (Habermas, 1984 in Mezirow, 1997) learning. Content and Process reflection are akin to Argyris and Schön’s (1978) conceptualisation of “single loop learning” in which, when something goes wrong, the starting point is to look for another strategy that works, within an existing set of goals, values, plans and rules. Pope and Denicolo (2001) raised the concern that reflection in teacher education was primarily focused upon “process”.

Illeris (2003) likened non-critical reflection to Piaget’s (1952) and Flavell’s (1963) conceptualisations of “assimilative” and “accommodative” learning. For example, interns may “rationalise a new point of view without dealing with the deep feelings that accompanied the original meaning scheme” (Kitchenham, 2008, p. 113) or they may adopt a new point of view through a top-down, power-coercion paradigm (Hord, 1992). For the intern teacher, feeling coerced into following someone else’s advice may lead to short-lived changes, but not deep and abiding shifts in perspective.

Adaptive learning and the meaning perspective

As in Figure 3.2, Figure 3.3, “Adaptive (single-loop) learning and the meaning perspective”, draws upon the same authors and conceptualisations. This time, the figure provides an illustration of the components, and the process, of non-critical reflection and learning. It can be noted in Figure 3.3 that:

- The emotions are more active and the edge emotions limit the comfort zone (Mälkki, 2010) to the outer level of the meaning perspective.
- The individual is focused upon the immediate necessities of managing the environment and behaviours of students, and their own competencies assimilate the points of view of others.
- Habits of mind, including beliefs, teacher identity and sense of mission remain unchanged.

Intern teachers who non-critically reflect avoid chaos and maintain stability, community and identity (Mälkki, 2010) by guiding their attention and thinking in ways that align with the points of view of others.

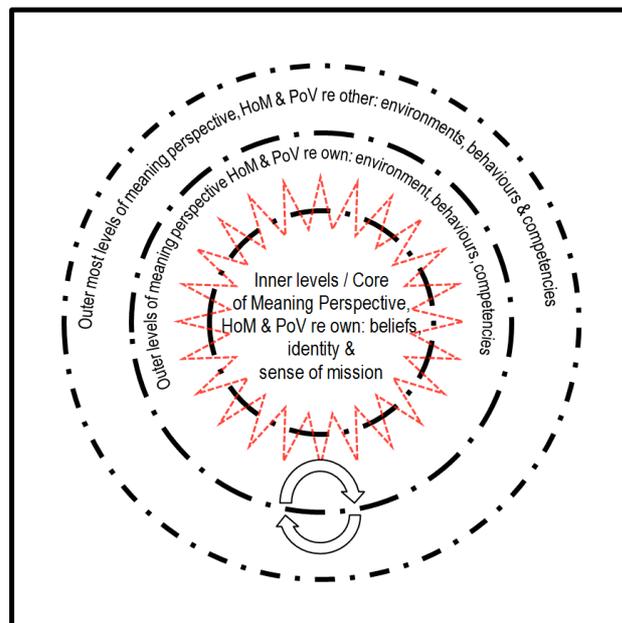


Figure 3.3: Adaptive (single-loop) learning and the meaning perspective

Assimilating points of view can be likened to Piaget’s (1952) and Flavell’s (1963) conceptualisations of “cumulative” learning, or Nissen’s (1970) mechanical learning. Such learning sits in isolated pockets separate from an existing frame of reference (schema). It occurs “only in ... situations where one must learn something with no context of meaning or personal importance” (Illeris, 2003, p. 402). Such learning is automated, and recall and application are limited to contexts similar to the one in which the learning was accumulated. An example of cumulative learning may be found when intern teachers are unable to make the link between theory, learnt in the academic context,

and a pressing learning or behaviour management need in the internship classroom. Cumulative learning fails to contribute to a sense of professional “growth” (Knowles, 1980) and competence because such learning is unconnected. Such behaviour is evidence of an external, rather than internal, locus of control.

Non-critical reflection is the most common

The external levels of environment and behaviour “seem to attract the most attention by student teachers” (Korthagen, 2004, p. 80) leading to a narrowing of available action tendencies. Restricting thinking to within the boundaries of the outer levels provides a potentially problematic framework (Fredrickson, 2002; Korthagen & Vasalos, 2005; Levenson, 1992) within which the individual loses contact with the deeper, inner levels of beliefs, identity and sense of mission.

REFLEX-IVE LEARNING: NON-REFLECTION

This discussion would not be complete without acknowledging that not all individuals engage in critical reflection, or even non-critical reflection. It is the non-reflective approach that also needs to be brought into the discussion, to provide an integrated theory of learning, which can be used to more fully understand the nature of 4th year BEd interns’ learning.

In the case of interns, anxiety and threat provide a significant challenge to their developing identities as teachers (Illeris, 2007). Although “hypothesising, testing and imaginative thinking” (Ixer, 1999, p. 515) within the frame of reflective and critically reflective practice are needed, dissonance may act as a catalyst for non-reflection. Since dissonance can either pre-empt perspective transformation, or entrench habits of mind, this study set out to understand its impact on intern teacher learning.

If, as Mezirow suggests (1981, p. 3), “the outcome of reflection is learning”, it is postulated that the outcome of non-reflection is inhibited learning, or non-learning (Illeris, 2007) as it is referred to for the purposes of this study. Non-learning is characterised by a holding fast to entrenched, perhaps distorted and unhelpful beliefs, values, assumptions and expectations within habits of mind and meaning perspectives. Mezirow (2000b, p. 3) explains that individuals who are unable to make meaning through reflective thinking “often turn to tradition, thoughtlessly seize explanations by authority figures, or resort to

various psychological mechanisms, such as projection and rationalisation, to create imaginary meanings”

Cranton and King (2003, p. 32) warn of the danger of such a limited approach to learning: “If we do not consciously ... reflect on our practice, we become nothing more than automatons following a dubious set of principles ... that are unlikely to be relevant in the ever-changing, complex context of teaching and learning”. Whereas critical reflection and non-critical reflection lead to action, non-reflection prompts a reactive response from the intern teacher.

Non-reflection and non-learning may occur for a number of reasons. As explained in further detail in the following sub-sections, these reasons may include a lack of dissonance, too much dissonance, defence mechanisms as well as socialisation.

Lack of dissonance

In the first instance, Mezirow (1997) explains that as long as new experiences and materials fit comfortably in an individual’s existing frames of reference, there is no catalyst, no need, for transformative change. As Cranton (2006, p. 31) explains, “we operate with selective perception ... pay attention to some things and ignore others. It is easier to pay attention to that with which we already agree”. In the case of the intern teacher, the alternative to non-critical reflection and critical-reflective discourse for assessing and choosing among beliefs is to appeal to “tradition, an authority figure, or the use of force” (Mezirow, 2003, p. 60).

Too much dissonance

A second possible explanation for non-learning is one Dewey (1938) noted when explaining that experiences can be “miseducative ... arresting or distorting” (p. 25). For the intern, when a challenge is perceived as too threatening, growth-inhibiting responses are learned to protect the self and individuals may reject or distort new information to fit their existing meaning perspective (Merriam, Mott, & Lee, 1996). In these circumstances, “change need not be developmental ... indeed, it can be detrimental to the development of the person” (Jarvis, 1987, p. 129).

Defence mechanisms

A third explanation for non-learning and mislearning is the development of more generalised, systematised “defence mechanisms” (Freud, 1942) or “everyday

consciousness” (Leithauser, 1976) that assist the learner to cope with “the gigantic volumes of influences we are all constantly faced with” (Illeris, p. 403). Defence mechanisms emerge automatically, function reactively, and act as a barrier between what is being taught and learnt. Intern teachers may develop an automated sorting mechanism based upon generalised pre-understandings of specific themes (schema). The end result is no new learning and, often, the “cementing of already existing understanding” (Illeris, 2003, p. 403) within habits of mind and the meaning perspective.

Socialisation

A fourth reason for non-learning may be a “normative learning” approach. For example, the intern teacher may adopt a new point of view through a top-down, power-coercive strategy (Hord, 1992) orienting his or her self to the “common values” (Mezirow, 1997, p. 6) of the school context. Alternatively, the mentor teacher or school staff may believe they have a “normative sense of entitlement” (Mezirow, 1997, p. 6), and expect certain behaviours of intern teachers based upon, or in contradiction to, the internship guidelines.

Creating a good impression

A final explanation for non-learning can be related to “impressionistic learning”, which is characterised by “learning to enhance one’s impression on others” (Mezirow, 1997, p. 6). For some interns, rather than making meaning themselves, they accept “any uncritically assimilated explanations by an authority figure” (Mezirow, 1997, p. 5) because they want to make the right impression. Such an approach may be “mindless”, in that the intern teacher relies upon “past forms of action or previously established distinctions and categories” (Langer, 1997, p. 4) that date back to their own schooling experiences, and assume the role of the student trying to impress the teacher. This is a very real concern since their mentor is assessing them. In all situations of non-reflection and/or non-learning, it is problematic to intern teachers’ professional development if they fail to learn how to make their own interpretations and simply act on their own uncritically assimilated beliefs, judgments, and feelings, or those of others.

Reflex-ive learning and the meaning perspective

Neither critical reflection nor non-critical reflection is evidenced in a non-reflective, reflex-ive stance. Non-reflection equates to non-learning. Figure 3.4, “Reflex-ive (non-) learning and the meaning perspective”, captures various qualities within non-reflection and its relationship to meaning making:

- Highly charged emotions push the comfort zone, in which the individual is comfortable to operate, away from a focus upon the self.
- The comfort zone in which the individual is operating is located in the outermost circle of the figure.
- The focus is upon the context (environment) and the behaviour and competencies of others.
- Neither the individual’s inner level of core beliefs, identity and mission, nor the outer level of his or her own behaviour and competencies, is critically reflected upon. This is evidence of an external locus of control: the individual is unwilling, or unable, to critically self-reflect.

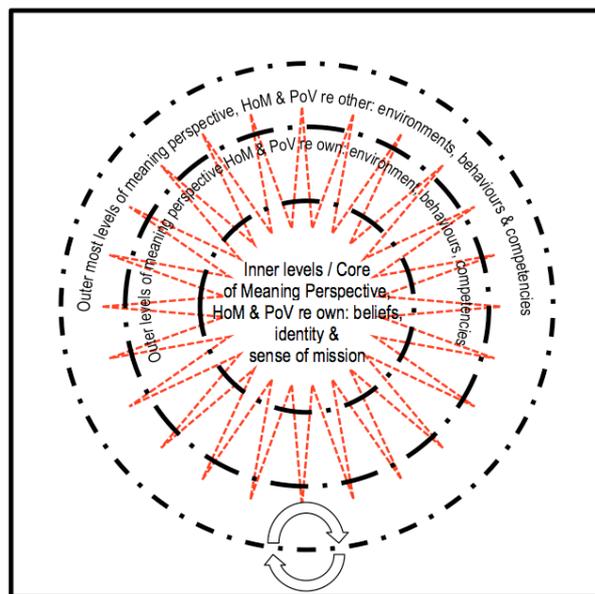


Figure 3.4: *Reflex-ive (non-) learning and the meaning perspective*

Amongst intern teachers, it is possible that evidence of non-reflection can be identified when instances of recounting and describing the context, and competencies and actions of others occur. In instances of non-reflection and non-learning “thought control of action” (Gibbs, 2003) does not occur.

CONCLUDING THOUGHTS ON THE FIRST MAJOR SECTION: REFLECTION AND THEORY MAKING

In the first major section of this chapter, Mezirow’s theory of transformative learning was discussed, including: core concepts of the meaning perspective; the place of emotions and

cognitive dissonance; objective and subjective reframing, epochal and cumulative transformation; and the place of discourse and context in the process. The focus then moved to the types of reflection, of major relevance to the purposes of this study: reflection-in-action, and various forms of reflection-on-action, including Premise reflection and Core reflection on the inner levels of beliefs, identity and mission (critical reflection); and Content, Process and Core reflection on the outer levels of behaviour, competencies, and the environment. Non-reflection and non-learning completed the picture, since there is much literature to support the view that non-learning and mislearning are not uncommon.

Conceptualisations of the three forms of reflection were combined with understandings of the meaning perspective in a synthesis of the literature in the form of three Figures (3.2, 3.3 and 3.4). These discussions provide the basis upon which an integrated theory of learning is being constructed. The second major section of this chapter focuses upon the relationship between reflection/theory making (learning), and self-efficacy and action. It is not possible to develop an integrated theory of learning without including the intrapersonal aspect of self-efficacy belief.

SELF-EFFICACY AND ACTION

Self-efficacy beliefs are intrinsic to the learning process, determining the extent to which individuals translate their theories (learning) into actions. The next major section of this chapter sets out to: define self-efficacy belief; examine sources of intern teachers' efficacy; explore cautions regarding interns' inaccurate perceptions of efficacy; explore the impact of adaptive, maladaptive or impeding dimensions of intern teachers' learner self-efficacy beliefs on their learning; and then articulate the influence of interns' teacher efficacy in terms of the achieving competencies within the NSW IT Professional Teaching Standards. This section then concludes and turns attention to the synthesis of the literature, which has been synthesised to form the LEARNt theory framework.

SELF-EFFICACY DEFINED

Self-efficacy is “the belief in one’s capabilities to organise and execute the courses of action required to manage prospective situations” (Bandura, 1995). Self-efficacy judgments are task- and situation- (context-) specific (Pajares, 1992a). According to Bandura (1997, p. 11), self-efficacy beliefs are considered “the single most important

determinant of individual behaviour”. They “form the very foundation of human agency and determine the outcome of all endeavours” (Pajares, 2004, p. 1).

Self-efficacy lies at the core of Albert Bandura’s social cognitive theory, in which an individual’s attitudes, abilities, and cognitive skills are described as forming a “self-system”. Self-efficacy beliefs are an integral component of the self-system, determining thinking, feeling, and behaviour. Self-efficacy is intrinsically inter-related to self-regulation (Bandura, 1997a; Schunk, 1990; Zimmerman, 1989).

Gibbs (2003, p. 7) emphasised the importance of self-efficacy belief in developing teacher learning when he wrote:

If teacher education programs are to transform student teachers into innovative and resilient teachers with a strong sense of survival, then less attention must be placed on developing skills and knowledge ... and more on enabling them to develop expertise in exercising self-efficacy and thought control of action during teaching activities.

Here Gibbs makes an important point regarding mastery learning that is not simply focused upon the technical and instrumental, but one that takes account of the role of cognitive-affective (self-efficacy beliefs) and meta-cognitive (thought control of actions) capacities within the student teacher.

Sources of intern teacher self-efficacy

The formation of self-efficacy beliefs, like uncritically assimilated habits of mind and points of view within the meaning perspective, begins in childhood, in response to life and to schooling experiences. It continues to evolve throughout life as individuals acquire new skills, experiences, and understanding (Pajares, 1992b). Intern teachers bring to the internship a set of self-efficacy beliefs that “powerfully predict” whether they will act and if so, how they will act (Gibbs, 2003, p. 2) when faced with cognitive dissonance. There are four major sources of self-efficacy (Bandura, 1997a): Mastery experience, social modelling (vicarious experience), social persuasion, and psychological response. These are explained below in relation to the intern teacher.

Mastery experience

The most effective source of self-efficacy is “mastery experience”. As Witcher et al. write, “Success builds self-efficacy beliefs: failure undermines them” (2002, p. 6). Usher and Pajares (2008) confirm that interpretations of past performance serve as a robust

indicator of self-efficacy. In contrast, failure in a previous situation can lower an intern's self-efficacy for effecting change.

Vicarious experiences

A second source of self-efficacy is "social modelling". Intern teachers who observe that peers succeed by sustained effort experience a rise in their own capability to master comparable activities. Likewise, interns' efficacy is also reinforced when they hear teacher success stories from peers and colleagues (Goddard, Hoy, & Hoy Woolfolk, 2000).

Verbal or social persuasion

A third contributor to self-efficacy is verbal or social persuasion in which professional development opportunities and constructive feedback reinforce efficacy (Goddard, et al., 2000). Bandura (1997a) confirmed that self-efficacy change comes through "compelling feedback that forcefully disrupts the pre-existing disbelief in one's capabilities". Intern teachers may be persuaded to believe that they have the skills and capabilities to succeed by the verbal encouragement of mentor teachers, other school staff, peers, or family members.

Psychological or emotional states

Physiological and emotional responses also impact on self-efficacy. The intensity of emotional and physical reactions to situations of dissonance is not as significant as the way individuals perceive and interpret their reactions (Bandura, 1997a). Intern teachers' emotional states, physical reactions, and stress levels impact on how they feel about their personal abilities in a particular situation (Goddard, et al., 2000). Interns who learn how to minimise the impact of the emotions surrounding the meaning perspective, when faced with a challenging experience, improve their sense of self-efficacy.

Inaccurate perceptions of self-efficacy

As perceptions, self-efficacy beliefs are vulnerable to being an overestimation or underestimation of actual abilities (Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998, p. 211). Pajares (1992a, p. 4), for example, sees a real danger in the possibility of inflated claims and the over-simplification of self-efficacy beliefs, claiming "Individuals cannot accomplish tasks beyond their capabilities simply by believing they can, for competent functioning requires harmony between self-beliefs on the one hand and possessed skills

and knowledge on the other”. Pajares’ warning is particularly relevant in this study. Inflated or deflated perceptions of self-efficacy may have an impact on intern teachers’ approaches to learning and teaching.

INTERN TEACHER LEARNER SELF-EFFICACY AND TEACHER SELF-EFFICACY

This study focuses upon intern teachers’ learner self-efficacy and teacher self-efficacy. The intern teacher is involved in a synchronicity of learning about oneself as a teacher but also as a learner. Learner and teacher self-efficacy are at the heart of interns’ learning. To achieve the purposes of this study in understanding “the nature of intern learning”, it is essential to deepen our understanding of the ways in which intern teachers’ self-efficacy beliefs have an impact on their learning.

Learner self-efficacy

Martin’s (2001) conceptualisations of “adaptive cognitive”, “adaptive behavioural”, “impeding”, and “maladaptive” dimensions of learning provide a framework for understanding learner self-efficacy. Since beliefs are evidenced in actions (Mezirow, 2000a), it is possible to postulate that interns’ conceptions of learner self-efficacy would filter behaviours and actions to these four dimensions.

Martin (2006) explained the four dimensions of learning in this way:

- *Adaptive cognitive* dimensions include self-efficacy, mastery orientation and valuing of school (and university) learning.
- *Adaptive behavioural* dimensions are evidenced in persistence, study management, and planning.
- *Impeding* dimensions are indicated by anxiety and failure avoidance.
- *Maladaptive* dimensions are substantiated by uncertain control and self-handicapping.

Martin (2006) proposed that the adaptive cognitive and adaptive behavioural dimensions “boost” (enhance) learning. It was therefore thought that these were indicative of high learner self-efficacy. Impeding dimensions “muffle” (stifle) learning, and maladaptive dimensions “guzzle” (devour) potential effective learner thoughts and behaviours. It is, therefore, assumed that these dimensions evidence low learner self-efficacy. A discussion of the literature that supports these views follows.

High intern learner efficacy: Adaptive cognitive and adaptive behavioural dimensions

High learner efficacy is evidence by adaptive thinking and adaptive behaviours. Intern teachers with high learner efficacy are understood to bring to their learning a number of characteristics:

- greater effort, persistence, and resilience beliefs;
- mastery-oriented thinking including academic motivation, self-regulation and high outcome expectations;
- a heightened sense of personal and reflective responsibility, positive feelings, expectations and goal setting (Ashton, 1984);
- mastery-oriented behaviours including perseverance, planning and self-regulation (Ashton & Webb, 1986; Bandura, 1997a; Brouwers & Tomic, 2001; R. B. Miller, Greene, Montalvo, Ravindran, & Nichols, 1996; Pajares, 2004; Pintrich, Smith, Garcia, & McKeachie, 1991);
- positive academic efficacy and accomplished academic performance (Gordon, 2001; Schunk & Zimmerman, 1997); and,
- the belief that control of future outcomes lies primarily within oneself, namely an internalised locus of control (Bandura, 1997a; Rotter, 1966; Weiner, 1994).

This literature suggests that individuals, and by extrapolation intern teachers, with a strong sense of self-efficacy take personal control of their behaviour, thinking and emotions (Gibbs, 2002) and are more proficient in using the professional knowledge and skills they secure (Brouwers & Tomic, 2001). Highly efficacious interns are also thought to perceive problems as tasks to be mastered; to develop deeper levels of commitment; and to be more resilient when faced with setbacks and disappointments (Bandura, 1977). The positive conclusions drawn regarding high learner self-efficacy belief and adaptive thinking and behaviours have their antithesis in impeding and maladaptive dimensions.

Low intern learner efficacy: Impeding and maladaptive dimensions

Martin (2003) noted that impeding and maladaptive dimensions, in contrast to adaptive cognitive and behavioural dimensions of learning, are testament to low learner efficacy beliefs. As Pajares (1997, p. 10) explained, “when people experience aversive thoughts and fears about their capabilities, those negative affective reactions can themselves further

lower perceptions of capability and trigger the stress and agitation that help ensure the inadequate performance they fear”.

Impeding and maladaptive thinking and behaviours are understood to be characteristic of individuals with low learner self-efficacy beliefs. It can be expected that intern teachers with low learner efficacy would demonstrate a number of the following behaviours:

- disengagement, perfectionism and anxiety (Pintrich & DeGroot, 1990);
- failure avoidance (Harter, Whitesell, & Kowalski, 1992);
- self-handicapping strategies including limiting success through procrastination (Ashton & Webb, 1986; Midgley, Arunkumar, & Urda, 1996; Nichols & Sorg, 1998); and
- perceptions of uncertain control (Ashton & Webb, 1986; Connel, 1985) akin to an external locus of control (Rotter, 1966; Weiner, 1972) in which control of outcomes lies outside of oneself, either in the hands of more powerful others or due to fate/chance.

In the literature on low learner self-efficacy beliefs there is a relationship between negative perceptions of capability and limitations in success and achievement. In contrast to individuals with high self-efficacy, Bandura (1997a) construes that those with a low sense of self-efficacy: avoid challenging tasks; question their capabilities for managing difficult tasks and situations; focus on personal failings and negative outcomes; and lose confidence in their personal abilities.

The stress created by interns perceiving tasks as more difficult than they are serves to narrow their problem-solving potential, impede constructive thoughts, and limit engagement and success in learning (Pajares, 1996a). This thinking has significant ramifications for the learning of intern teachers. Attention now turns to teacher self-efficacy, with a particular focus upon interns’ teacher self-efficacy and the relationship between teacher efficacy and the development of professional competencies.

Teacher self-efficacy

There is an abundance of literature to support the view that high teacher self-efficacy beliefs mediate the development of professional knowledge and skills and their proficient translation into professional practice. However, before beginning this discussion on the

place of intern teacher efficacy in learning, it is important to state that there is far less literature available on Australian intern teachers' teacher self-efficacy. For this reason literature regarding graduate teachers has been extrapolated to refer to intern teachers. A key goal of this research is to inform the literature specifically related to the relationship between interns' teacher efficacy beliefs and learning.

Teacher efficacy is rated highest during teacher education (of which the internship is the final phase), and falls dramatically in the first year of teaching (Hebert, Lee, & Williamson, 1998; Soodak & Podell, 1997). There is consistent evidence that efficacy is "most malleable" in the pre-service years (Henson, 2010; Housego, 1992; Hoy & Woolfolk, 1990). During this time period intern teachers are mentored by experienced teachers whose teaching efficacy may have "solidified with experience and time" (Henson, 2010, p. 143), to either positive or negative effect for the intern.

Framework for understanding intern teacher efficacy

The NSW IT Professional Teaching Standards (PTS) (2005) (discussed in detail in Chapter 2) provide a framework for understanding the ways in which interns' teacher efficacy impacts on what they learn. The framework describes what intern teachers need to "know, understand and be able to do" (NSW IT, 2005, p. 1) under the dimensions of Professional Knowledge, Professional Practice, and Professional Commitment. The three dimensions are subdivided into seven Elements. Within the Elements are a number of Aspects, and within those Aspects, a range of Standards (46 in all). Interns are assessed against the Graduate Teacher Standards. Literature exemplifying the relationship between high teacher efficacy and achievement of various Elements will now be explained.

Professional knowledge

Within the dimension of Professional Knowledge (NSW IT, 2005, pp. 3-5) are two elements:

- Element 1, Teachers know their subject content and how to teach that content to their students; and,
- Element 2, Teachers know their students and how they learn.

There are many authors who support the relationship between high teacher efficacy and competence in translating *professional knowledge* into practice. Intern teachers with high teacher efficacy are believed to:

- persevere in their attempts to reach learning goals when they encounter obstacles;
- experiment with effective instructional strategies that represent a challenge;
- be more willing to run risks in their classrooms;
- persist with struggling students (Gibbs, 2003);
- realise higher levels of student motivation and achievement (Midgley, Feldlaufer, & Eccles, 1989);
- enhance the engagement, learner efficacy and achievement efficacy of their students (Anderson, Greene, & Loewen, 1988; Hosung, Sharpe, Klockow, & Martin, 2002; Tschannen-Moran, et al., 1998); and
- guide difficult children well by making adjustments to help individual children learn, and develop the skills to teach children who receive no guidance at home (Lin, Gorrell, & Taylor, 2002).

Professional practice

There are three elements included within the dimension of Professional Practice (NSW IT, 2005, pp. 6-10):

- Element 3, Teachers plan, assess and report for effective learning;
- Element 4, Teachers communicate effectively with their students; and
- Element 5, Teachers create and maintain safe and challenging learning environments through the use of classroom management skills.

Again, there are many authors who support the relationship between high teacher efficacy and highly competent *professional practice*. For example, highly efficacious intern teachers are more likely to:

- utilise a diverse range of materials and approaches and develop more adept organisational, planning and questioning skills to increase student engagement and achievement (Ross, 1992; Tschannen-Moran, et al., 1998);
- criticise less after incorrect student answers (Gibbs, 2003);

- experiment with methods of instruction, seek out and employ improved teaching methods, and experiment with instructional materials (Allinder, 1994; Guskey, 1988; Stein & Wang, 1988);
- provide the most beneficial learning environment for students (Yost, et al., 2000);
- make positive classroom management choices and use small-group and cooperative structures for instruction and learning (Allinder, 1994);
- employ proactive classroom management strategies that foster self-control and democratic decision-making within students (Ashton, 1984; Garcia, 2004);
- give more encouragement, praise, attention and rewards while using teaching techniques that are more challenging and difficult to enhance student mastery of cognitive and affective goals (Garcia, 2004); and
- be less threatened by a sense of failure, choose less interventionist approaches, and be more likely to seek help in dealing with discipline concerns (Emmer & Hickman, 1990).

Professional commitment

The third dimension within the Professional Teaching Standards (NSW IT, 2005, pp. 11-13) encompasses Professional Commitment. There are two elements within this dimension:

- Element 6, Teachers continually improve their professional knowledge and practice; and,
- Element 7, Teachers are actively engaged members of their profession and the wider community.

As in the previous two dimensions, there is much support for the relationship between high teacher efficacy and professional commitment. For example, interns teachers with high teacher efficacy:

- enjoy greater job satisfaction (Capara, Barbaranelli, Borgogni, & Steca, 2003; Capara, Barbaranelli, Steca, & Malone, 2006; Klassen, et al., 2009; Trentham, Silver, & Brogdon, 1985);
- evidence higher professional commitment and lower absenteeism (Coldarci, 1992; Evans & Tribble, 1986);

- show higher motivation, greater effort, persistence and resilience (Yost, 2006);
- are less likely to be apprehensive of parent–teacher relationships (Parkay, Olejnik, & Proller, 1986);
- are more likely to involve parents in school conferences, volunteering, and home monitoring (Garcia, 2004); and
- are more likely to be retained in the profession due to their persistence and resiliency (Yost, 2006).

In contrast to the positive relationship between high teacher efficacy and performance are characteristics of low-efficacious teachers who:

- use a more custodial approach to education (Woolfolk, Rosoff, & Hoy, 1990);
- use severe management strategies to maintain a controlled instructional environment (Ashton & Webb, 1986; Woolfolk & Hoy, 1990);
- are more likely to be offended by the behaviour of low-achieving students and project responsibility for student failure to genetics, family environment or the students themselves (Ashton & Webb, 1986);
- when questioning, fail to use “wait time” and give the answer or accept calling out (Dembo & Gibson, 1985); and
- show higher rates of absenteeism and attrition (Richardson, 1996).

It is clear that intern teachers who are highly efficacious in aspects of the Elements within the NSW IT Professional Teaching Standards relating to Professional Knowledge, Practice and Commitment benefit not only themselves but also their students. Many authors thoroughly endorse the view of Tschannen-Moran and Woolfolk Hoy (2001, p. 20) that “teachers’ sense of efficacy is an idea that neither researcher nor practitioners can afford to ignore”. Self-efficacy beliefs are unquestionably a significant factor in the cyclical process of learning and more specifically the development of intern teacher professional learning and competency.

Moreover, self-efficacy and reflection are intrinsically inter-related because building a “sense of ... efficacy is not [just] a matter of programming ready-made behaviour, it involves acquiring the cognitive, behavioural and self-regulatory tools for creating and executing effective courses of action” (Bandura, 1997a, p. 80). The cognitive and self-regulatory tools refer to the reflective process. Having engaged at length in this literature,

I have argued that the qualities within an individual's self-efficacy are directly shaped by the approach taken to reflection: that astute critical reflection will transform and heighten self-efficacy; that non-critical reflection will maintain self-efficacy; and that non-reflection will be detrimental to self-efficacy. This study provided an opportunity to examine these relationships, and thereby understand the "nature of 4th year BEd intern learning" in a rich and important way.

CONCLUDING THOUGHTS ON THE SECOND MAJOR SECTION: SELF-EFFICACY AND ACTION

This second major section of the chapter has concentrated upon the complicit and informing role of self-efficacy beliefs in determining the effectiveness of actions. Discussion began by defining self-efficacy belief, and the four key sources of self-efficacy: mastery, social modelling, social persuasion, and psychological responses. These were followed by a timely reminder that self-efficacy as a perception is vulnerable to over- or under-estimation. In either case, the impact on shaping learning is notable.

Attention then turned to learner efficacy, followed by teacher efficacy, since intern teachers in this study are intensely engaged as learners and as teachers during the internship. A range of efficacy beliefs and actions that intern teachers in this study may have exemplified was used to enrich discussion of the literature.

High learner efficacy was explained in terms of Martin's (2001) adaptive cognitive and adaptive behavioural dimensions. Low learner efficacy, in contrast, was described by drawing upon the concepts of maladaptive and impeding dimensions. Teacher efficacy was explained in terms of the Professional Teaching Standards and competencies against which the intern teachers are assessed. These included Elements and aspects within the dimensions of professional knowledge, practice and commitment. Through analysing and evaluating detailed perspectives in this way, a framework for examining the relations between intern teachers' learner and teacher efficacy and their actions, as well as the nature of intern learning, has been constructed.

The third and final major section integrates key conceptualisations from the first major section, Reflection and Theory-making (Learning), and the second major section, Self-efficacy and Action, creating LEARNt theory.

AN INTEGRATED THEORY OF LEARNING: LEARN T THEORY

LEARnT theory (Jones, 2009) is an integrated theory of learning, synthesised by the researcher after an exhaustive search of relevant literature. As first set out, LEARnT theory is based upon the perspectives of critical reflection, non-critical reflection (hereafter referred to simply as “reflection”), and non-reflection, as discussed in the previous sections of this chapter.

In LEARnT theory, critical reflection is referred to as a “Transformative approach to learning” or “Transformative learning” (Jones, 2009); reflection is referred to as an “Adaptive approach to learning” or “Adaptive learning” (Jones, 2009); and non-reflection is referred to as a “Reflex-ive approach to learning” or “Reflex-ive learning” (Jones, 2009). (Note that reflex-ive refers to a reflex action: a detailed definition of the term is given in the subsection, Reflex-ive approach to learning) Understanding these distinctions is crucial to the purposes of this study, which proposes and tests an integrated theory of learning. The three conceptualisations provide a framework for developing a deeper knowledge and understanding of “the nature of 4th year BEd intern learning”- the goal of the research questions.

LEARnT theory draws together conceptualisations of: prior Learning; Efficacy beliefs informing Actions; and, Reflection informing Theory making (LEARnT), as explained in detail in the preceding sub-sections. To briefly review:

- Prior Learning refers to the meaning perspective, including the habits of mind, points of view and meaning schemes, which individuals bring to their learning;
- Efficacy informs an individual’s Actions; as well as the quality of
- Reflection. In the framework, “reflection” refers to both reflection-in-action (referred to as “monitoring”) and reflection-on-action. Reflection informs the quality, and veracity, of an individual’s Theory-making (learning). For example, critical reflection provokes different levels of learning compared with reflection, and non-reflection produces non-learning.

In the following three sub-sections the three approaches to learning- the transformative, the adaptive, and the reflex-ive- will be introduced and expanded upon, beginning with the transformative.

Transformative approach to learning

Figure 3.5 is a representation of the relationships between prior Learning, Efficacy and Actions, and Reflection and Theory, which engender transformative learning.

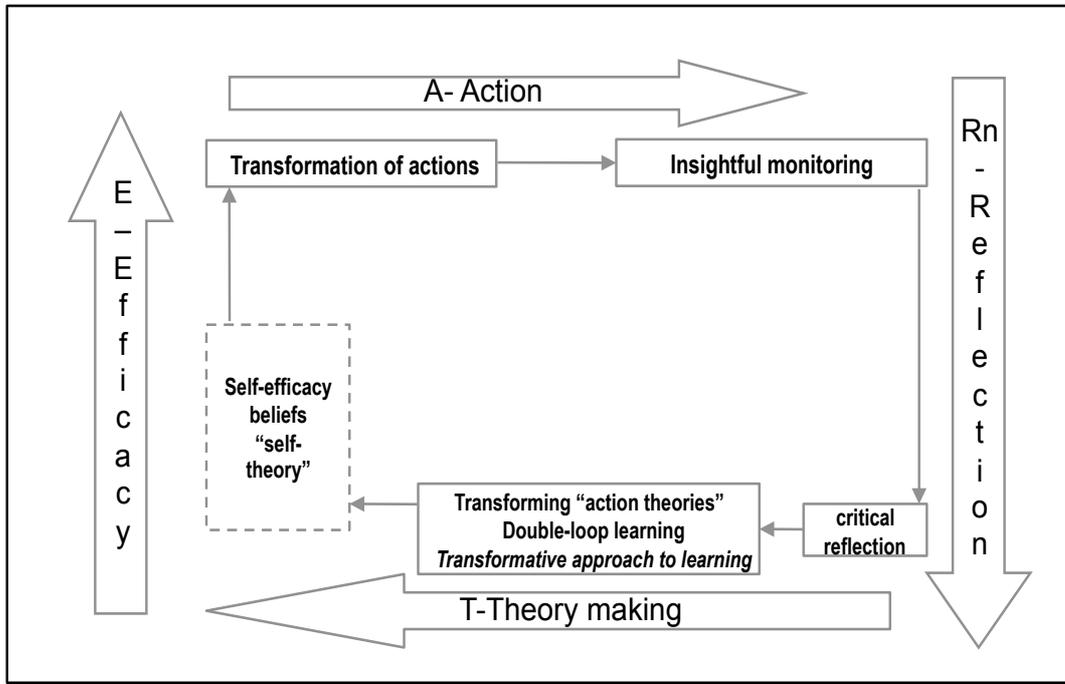


Figure 3.5: *Transformative approach to learning*

A description of the components within this approach commences at “action theories”:

- i. *Action theories* (towards the bottom of Figure 3.5) refer to prior learning (habits of mind, points of view and meaning schemes), which are stored within an individual’s meaning perspectives.
- ii. *Self-efficacy beliefs* filter the effectiveness with which these “theories” are enacted following the literature which suggests that there is a strong connection between high efficacy and critical reflection, the component of self-efficacy beliefs (“self-theory”). However, the box representing self-efficacy beliefs is not made specific to any of the three proposed approaches to learning, remaining open to allowing for a free flow of the empowerment or disempowerment of actions. This decision was made because one of the goals of the research was to garner new data on the relationship between efficacy

beliefs and the approach to learning of a purposeful sample of 4th year BEd interns.

- iii. *Transformation of actions* refers to the capacity of transformative learners to enact fundamental, observable change in the outer level of the environment, their behaviour and/or competencies. Transformation of actions is only possible for the intern teachers through transformation (core reflection) at the inner level of their beliefs, identity and/or sense of mission as teachers.
- iv. Transformation of actions occurs if there is *insightful monitoring*, which includes the capacity for astute, mindful reflection-in-action, namely presence.
- v. *Critical reflection* upon action is the next element in this approach to learning. It extends reflection-in-action (insightful monitoring) to include after-the-event reflection. When faced with a state of cognitive dissonance individuals who take a transformative approach engage in critical self-analysis (subjective reframing) and/or critical judgment (objective reframing). Transformation at the core of the meaning perspective is a double-loop learning process.

As noted earlier, a transformative approach to learning (Cranton, 2000, 2006; Mezirow, 1981, 1991, 1996, 2000a, 2000b) occurs when individuals engage in critical reflection to resolve the anxiety, threat and chaos of an alternative perspective that calls into question their habits of mind (Cranton, 2006). Transformative learning reworks problematic habits of mind within the meaning perspective to make them more “inclusive, discriminating, open, reflective, and emotionally able to change” (Mezirow, 2003, p. 59). The transformative approach to learning liberates the individual from “reified forms of thought that are no longer dependable” (Mezirow, 2000a, p. 27). For intern teachers, transformative learning involves a shift away from uncritically assimilated assumptions and expectations from family and school experience. Intern teachers who undertake transformative learning develop “more open, better-justified and self-authored frame[s] of reference” (Cranton, 2006).

Is all transformative learning positive?

Although it is stated that transformative approaches to learning ensure direction “from relatively narrow and self-centred filters through to increasingly inclusive, differentiated, and compassionate perspectives” (Daloz, 1986, p. 149), is this always the case? For

example, if events are too traumatic can habits of mind, within an individual’s meaning perspective, become less “inclusive, discriminating, open, reflective, and emotionally able to change” (Mezirow, 2003, p. 58)? This question is explored below.

Adaptive approach to learning

Figure 3.6, the “Adaptive approach to learning”, is a representation of the relationship between prior Learning, Efficacy and Actions, and Reflection and Theory, which engenders Adaptive learning.

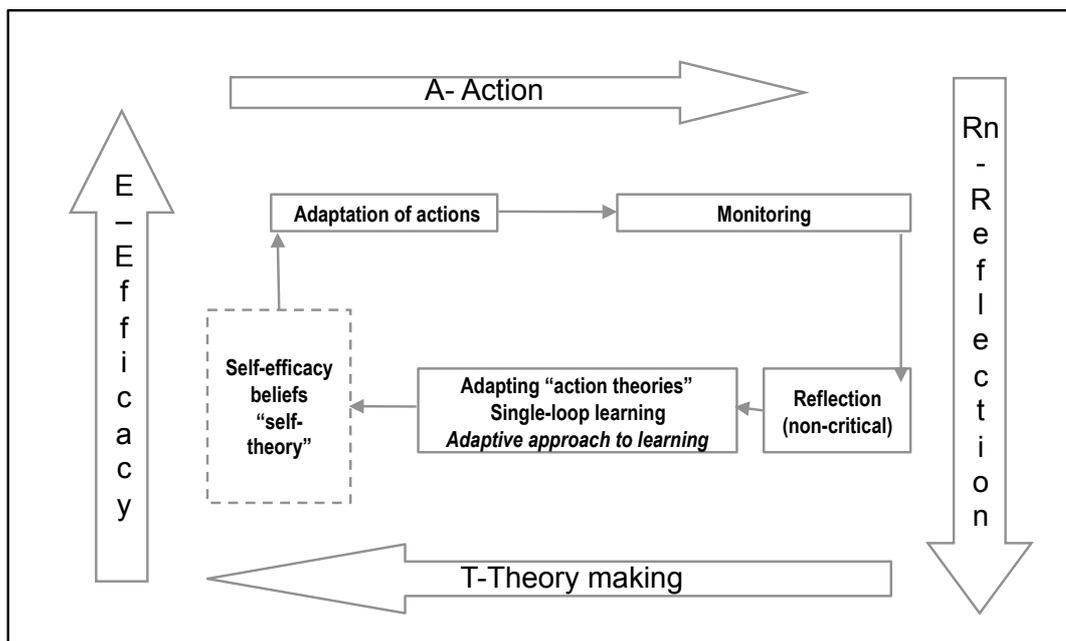


Figure 3.6: Adaptive approach to learning

A description of the components within this approach again begins at “action theories”:

- i. *Action theories* refer to the prior learning (habits of mind, points of view and meaning schemes), which is stored within an individual’s meaning perspectives.
- ii. *Self-efficacy beliefs* determine the effectiveness with which “theories” inform actions.
- iii. *Adaptation of actions* is observable in changes at the outer level of the environment, and an individual’s behaviour and/or competencies. Interns who adapt their actions do so through the assimilation of points of view and meaning schemes of others. The inner level of beliefs, identity and/or sense of mission as teachers remain unchanged.

- iv. *Monitoring* is the next component of the adaptive approach to learning. It differs from insightful monitoring, in transformative learning, to the extent that mindfulness is limited by a focus upon external factors. For the intern teacher, an awareness of one's competency to manage the environment and the behaviour of students may be primary. Presence and authenticity may be compromised; and
- v. *Reflection* (non-critical but not non-reflection) upon action is the next element in this approach to learning. When faced with a state of cognitive dissonance individuals who take an adaptive approach engage in reflection, but not critical reflection. Reflection-on-action, which fails to involve critical analysis at the core of the meaning perspective, engenders single-loop learning. Interns who take an adaptive approach to learning address the incongruity they face by assimilating the points of view of others and applying these to their practice. Neither subjective nor objective reframing take place, meaning habits of mind within the meaning perspective remain unaltered.

A description of the third and final approach to learning within the LEARNt theory framework, the reflex-ive, follows.

Reflex-ive approach to learning

I have coined the phrase, a “Reflex-ive approach to learning”, and the term “Reflex-ive learning” (Jones, 2009), to describe instances of non-learning, mislearning, cumulative and/or impressionistic learning. The word “reflex-ive” is taken from the root word “reflex” and refers to the automatic “fall-back” response of the intern, who unquestioningly draws from existing habits of mind within meaning perspectives. The term “reflex-ive” should not be confused with concepts of reflexive discourse, which refer to critically reflective dialogue.

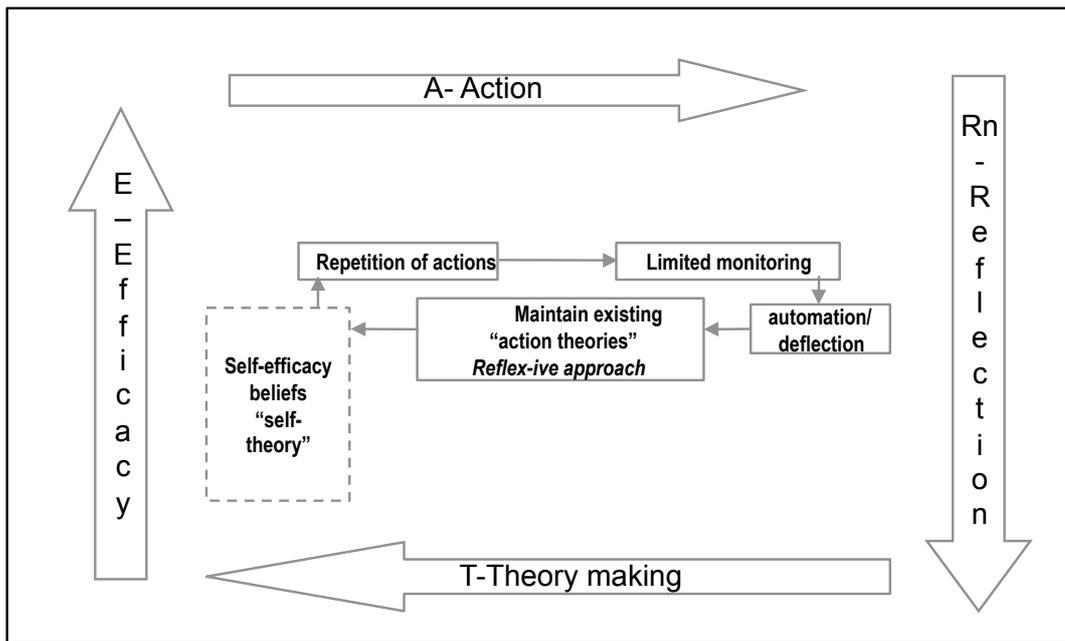


Figure 3.7: Reflex-ive approach to learning

Figure 3.7 displays the components of a reflex-ive approach to learning:

- i. *Action theories* within the reflex-ive approach remain entrenched. Prior learning in the form of meaning perspectives, habits of mind, points of view and meaning schemes, are perpetuated.
- ii. *Self-efficacy beliefs* of ineffective learners are expected to be low, since the literature suggests there is a strong connection between high efficacy, critical reflection and transformative learning. However, as suggested previously, this research-based theory is to be further tested in this study.
- iii. *Repetition of actions* is the hallmark of a reflex-ive approach to learning because, within the individual, core beliefs, identity, and sense of mission remain unchallenged. Reaction rather than action are evidenced in the way the intern manages the environment, and behaves and maintains a limited set of competencies.
- iv. *Limited monitoring* suggests a lack of mindfulness and self-awareness within reflection-in-action, which in turn impacts on potential reflection.

- v. *Non-reflection* is evidenced in non-learning and reactive responses such as automation and/or deflection. Automation refers to the fallback response of either emulating (impressionistic learning) what has been modelled; or deflecting responsibility, thus demonstrating an external locus of control by criticising the context, competencies and actions of others. When faced with a state of cognitive dissonance, intern teachers who take a reflex-ive approach undertake neither critical self-analysis (subjective reframing), nor critical judgment (objective reframing), nor simple reflection. The core of their meaning perspective, and habits of mind, points of view and meaning schemes, are maintained. In reflex-ive approaches to learning, neither double-loop (critical reflection), nor single-loop (reflection) learning occurs.

The reflex-ive approach is one of non-learning, including mislearning, cumulative, normative or impressionistic learning. It is evident that reflex-ive learning is detrimental to the ongoing professional and personal development of the intern teacher.

Having explained the three approaches to learning separately, I will synthesise them in the final section of this chapter into the LEARN_nT theory model.

LEARN_nT THEORY FRAMEWORK

In Figure 3.8, the transformative, adaptive, and reflex-ive approaches to learning are combined and the LEARN_nT theory framework is presented in its entirety.

The LEARN_nT theory framework brings together critical reflection (transformative learning), non-critical reflection (adaptive learning), and non-reflection (reflex-ive learning). The integration of these three approaches to learning provides a comprehensive framework against which to understand and explain intern teacher learning, and meet the purposes of this study.

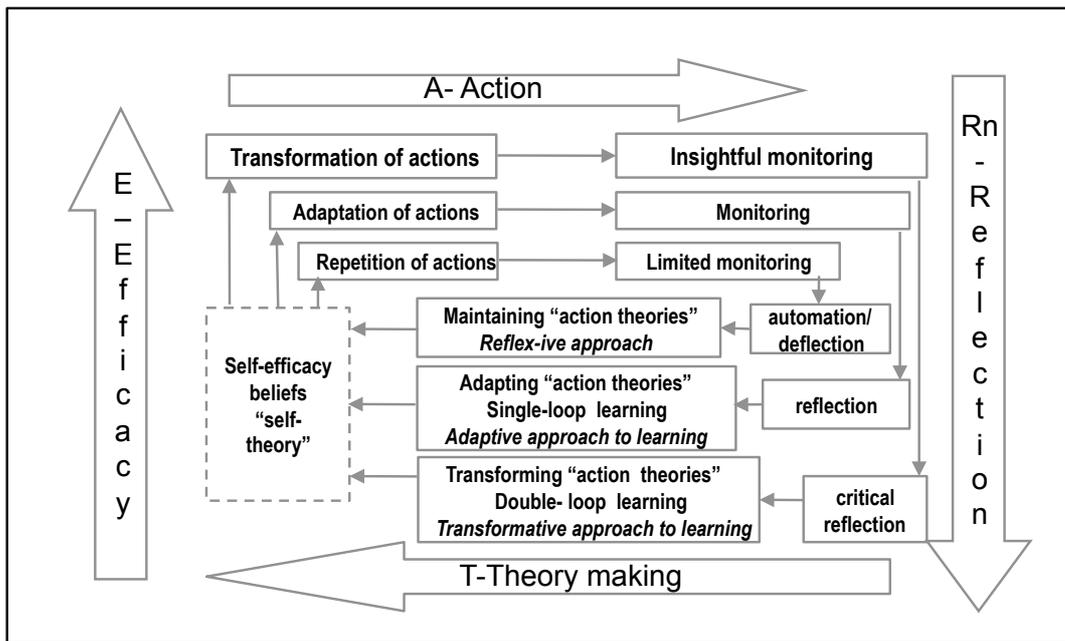


Figure 3.8: LEARNt theory model

Learning, of course, may not be as clear-cut and sequential a cycle as the LEARNt framework suggests. Other components may also be at play. The learner experiences a high sense of efficacy, which is quickly diminished by the reality of the classroom. Alternatively, “insightful monitoring” may remain just that and not inform critical reflection and a transformative approach to learning. Another possibility worthy of consideration is that the intern teacher may well undertake an adaptive approach on the way to developing a transformative approach to learning when working through a serious state of cognitive dissonance. Important to remember in this study is that a snapshot was taken of a specific challenge, and that the focus was upon the approach to learning taken in that instance.

LEARNt theory provides the framework for analysing interview data and addressing the main research question and the two associated sub-questions of this study:

What is the nature of 4th year BEd (Primary) intern teachers’ learning, in terms of LEARNt theory?

- i. What do the reflective practices of intern teachers reveal about the nature of their learning?*

- ii. *What relationships exist between intern teachers' self-efficacy, reflection and depth of learning?*

CONCLUSION

This chapter has provided a variety of perspectives from the literature. By way of introduction a brief historical perspective on adult learning was presented privileging Mezirow's "Transformative learning theory" and its core concept of transformative learning with particular emphasis upon elements of the meaning perspective, including the emotions. Then discussion flowed into the relationship between reflection and the meaning perspective, with a particular emphasis on the place of cognitive dissonance as a catalyst for the learning process. The nature of transformative learning was then explored, in particular the importance of discourse and relationships to meaning making, subjective and objective reframing, and epochal and cumulative transformations.

In the first major section of this chapter, I explained "Reflection and Theory making (learning)" in terms of the relationship between different types of reflection and learning: critical reflection and transformative learning; non-critical reflection and learning; and non-reflection and non-learning. The complexities of relationship between the meaning perspective, the emotions, and reflection allowed the introduction of the concepts of transformative, adaptive and reflex-ive learning.

The second major section of the chapter centred upon "Efficacy and Actions". Efficacy beliefs are a powerful predictor of intern teacher motivation and behaviour as learners, and as teachers. Adaptive, maladaptive and impeding dimensions were presented as ways of understanding intern teachers' learner efficacy. A Professional Standards framework was then presented as a benchmark against which intern teacher efficacy and the effectiveness of their actions could be measured.

The chapter culminated in the articulation of my LEARNt theory framework. This conceptual framework gave rise to the research questions and will subsequently be used as a means of examining the nature of intern teacher learning presented in Chapter 5, Chapter 6, Chapter 7 and Chapter 8.

CHAPTER 4

METHODOLOGY

In the previous three chapters I introduced the study and situated it within a context and within the literature. Having found a niche of uncertainty and contradiction of what is known and not known about final year interns' learning, I now begin a search for answers. This chapter illuminates the principles, theories, methods and values underpinning the process to find the answers to the research questions. Relevant issues of paradigm, ontology and epistemology are discussed prior to the introduction of the research flow chart, research design, data collection and analysis procedures as well as ethical considerations. This chapter concludes with discussion of issues of research quality.

THE RESEARCH QUESTIONS

LEARnT theory provides the conceptual framework guiding investigation of the following research question and sub-questions:

What is the nature of 4th year BEd (Primary) intern teachers' learning, in terms of LEARnT theory?

This major question is divided into two sub-questions:

- i. What do the reflective practices of intern teachers reveal about the nature of their learning?*
- ii. What relationships exist between intern teachers' self-efficacy, reflection and depth of learning?*

THE CONSTRUCTIVIST PARADIGM

In this study knowledge creation is recognised as a product of social interaction (Guba & Lincoln, 2005) and the potency of the constructivist paradigm is welcomed in seeking rich answers to the research questions. This research is constituted in the world of society. It is not of the physical world in the sense that chemistry research is. A positivist methodology would not be appropriate because this work centres on finding out how people learn and, therefore, has to be conducted based upon those people's constructions of their own

meaning.

The constructivist approach used in this research is fleshed out further through discussion of theoretical imperatives related to the following sections:

- what is believed to exist (ontology);
- what are believed to be valid ways of knowing about the world (epistemology);
- the logic of the scientific inquiry (methodology) chosen; and
- the techniques (methods) used to collect and analyse data within this research (Minichiello, Aroni, & Hays, 2008, p. 4).

Ontology

Constructivism depends upon relativist ontology. The relativist ontological assumption embraces the understanding that multiple realities exist dependent upon an individual's construction of personal meaning (Denzin & Lincoln, 2000). The question, "What is there that can be known about the nature of Bachelor of Education (Primary) intern teachers' learning?" has the potential for as many answers as there are respondents. Denzin and Lincoln (2005) support this view stating that multiple realities emerge from the meaning-making and attributive thinking that shape the actions of individuals. LEARN theory supports this view also and goes further still to state that an individual's perceptions inform, and are informed by, that individual's self-efficacy, actions, reflective thinking and theory-making dimensions. In this constructivist work the relativist ontology allows for different beliefs and behaviours to be tapped so that a more comprehensive understanding is developed of Bachelor of Education (Primary) intern teachers' reflection and learning.

Epistemology

The very question "How can I be sure I know what Bachelor of Education (Primary) intern teachers' learning looks like?" elicits a "transactional-subjectivist" epistemological orientation, and a "hermeneutical/dialectical" methodology. Answering this question necessitates engaging interns in the very act of learning. Denzin and Lincoln (1994, p. 13) refer to the "literal creation of the inquiry process". In this study, the intuitive and hermeneutic nature of the interview interaction (Guba & Lincoln, 1989) provides the opportunity for interns to verbalise their thoughts, feelings and problem-solving approaches, when reflecting upon/or recounting the most "challenging experience" of

their internship. Their responses will provide insight into the nature of their reflective thinking and learning. Table 4.1 summarises the preceding discussion on the methodological features of this study within the constructivist paradigm.

Table 4.1: Summary of methodological assumptions

Methodological Features	Theoretical Framework	Features
Paradigm	Constructivist	Enquiry aims to understand the nature of 4th year BEd (Primary) learning. Knowledge is socially constructed through dialogic reflection.
Ontology	Relativist	Individual socially constructed realities. For example, $n=26$ in-depth interviews from $n=66$ questionnaire participants.
Epistemology	Transactional/ Subjectivist	Findings in the form of new knowledge and understanding are the literal creation of the inquiry process between researcher and intentionally selected high, medium and low efficacy interns.

The following sections of the chapter present discussion of the role of the researcher, the research design, and the introduction of the Research Management Matrix.

THE ROLE OF THE RESEARCHER

As researcher I am an active participant in the research process. My experiences, knowledge and theory (Guba & Lincoln, 1989) are the reasons why the research questions have arisen (Minichiello, et al., 2008). I bring to this research extensive experience as a primary school teacher who transitioned directly from learning and teaching within the primary school classroom into the role of teacher educator with responsibility for Learning and Teaching units within the BEd (Primary). I have supervised BEd practicum students (in the first three years of the degree) and internship students (in the final semester of the degree) in my primary school classrooms over many years, and in my position as a teacher educator. Alongside this teacher and teacher education expertise, I have developed a deep knowledge and understanding of the literature (evidenced in Chapter 3) concerning the nature of learning and what is known of learning in teacher education. With this depth of praxis and theory I am well placed to design and implement this study, and to analyse my own and participants' constructions of reality (Creswell, 2007; Merriam, 1998; Minichiello, et al., 2008).

As identified in the previous section, I am aware that this constructivist qualitative research is “fundamentally interpretive” (Creswell, 2003, p. 182), and that my

assumptions and theoretical filters of “science, people and the social world” have an impact on my choices and “influence what [I] the researcher see” (Minichiello, et al., 2008, p. 8). This dilemma is, in fact, one that all social researchers face. Later in this chapter I discuss how I addressed, on the one hand, issues of mindfulness of subjectivity and, on the other hand, bias in data collection, analysis and reporting.

RESEARCH DESIGN: A CASE STUDY APPROACH

The logical choice of a qualitative design and research method emerged from deliberation upon the semantics of the research questions, and the most apt paradigmatic, ontological and epistemological stances to take regarding these questions. A qualitative design enabled “planning, and the systematic collection, analysis and interpretation of the most relevant data” (Mouly, 1978) to address the research questions. Scholars such as Denzin (1989) and Strauss (1987) support this reasoning also, as do Minichiello et al. (2008, p. 8) who add that method choice is a matter of “training, ideology and the research question asked”. Although in this study “training” was to come with experience, it was clear that the literature and emergent research question: “What is the nature of intern teachers’ learning, in terms of LEARNt theory?” could be answered by a qualitative method.

Having established that a qualitative study was essential, I selected a case study design with the intern as the unit of analysis. This empirical form of inquiry into contemporary real-life situations and issues (Babbie, 2004) is a choice made by researchers across many disciplines. Criticisms of Case Study method, including concerns about small sample size and its effect on reliability and generalisability, and concerns of bias due to intense exposure within each case, have been addressed through careful planning and checks. (See sections below on Quality Criteria, Trustworthiness.) The Research Flow diagram (Figure 4.1) integrates Creswell’s (2003) six steps in case study design. It scaffolded the longitudinal and cross-sectional approaches taken to this case study research.

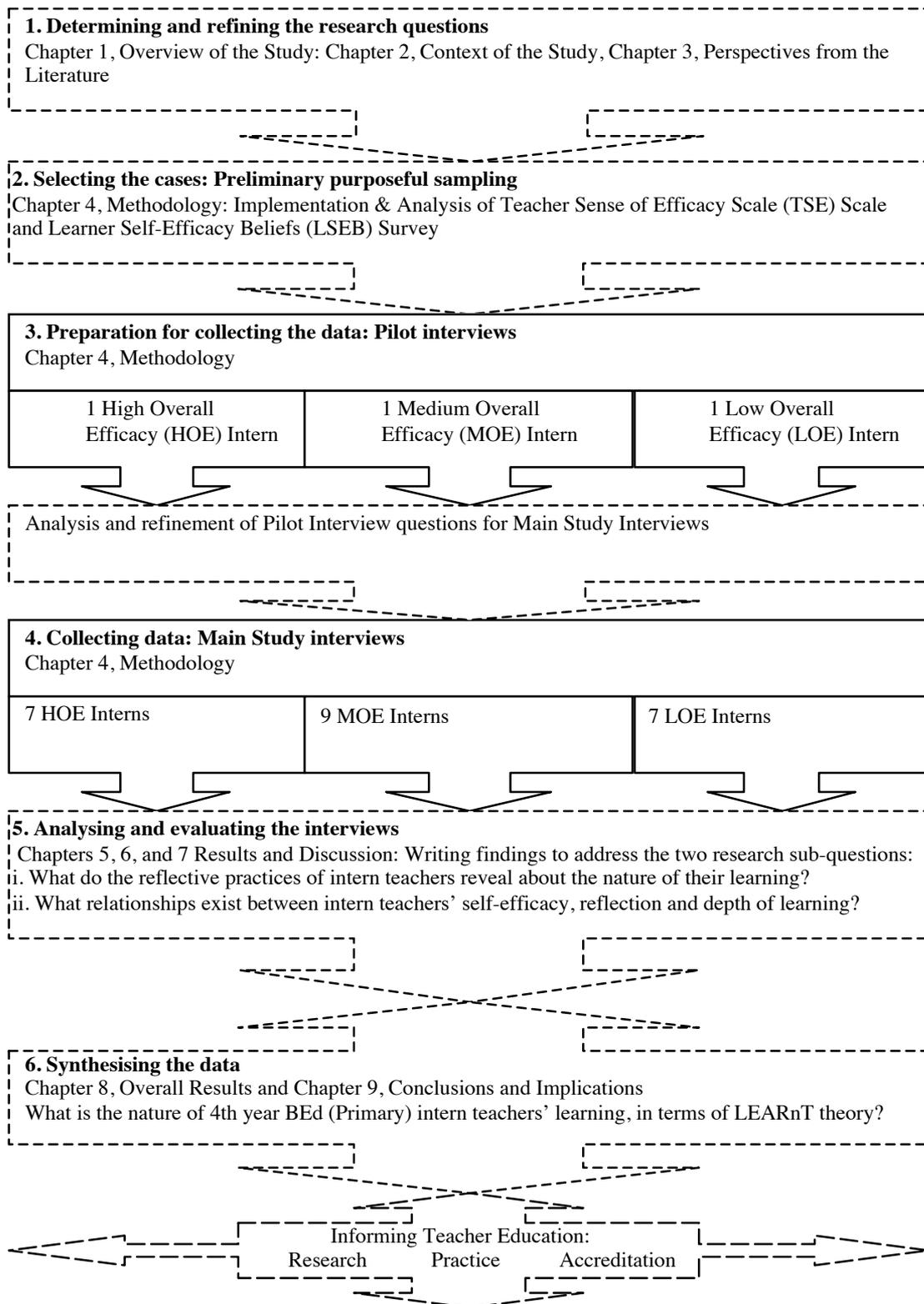


Figure 4.1: Research Flow Diagram

1. DETERMINING AND DEFINING THE RESEARCH QUESTIONS

Creswell's (2003) steps provide the framework for the remainder of this chapter. An astute and deliberate review of previous research, reported in Chapters 1 and 2, provided a rich description of the conceptualisation of LEARNt theory and the gap in the literature that I intend to fill with answers to my research questions. The precise research questions have been identified, and a rationale for their selection discussed previously.

2. SELECTING THE CASES: PRELIMINARY PURPOSEFUL SAMPLING

Such broad and important research questions required two key understandings. Firstly, the focus in this study was on the “storied experiences” (White & Moss, 2003) of BEd students on their internship. Much of the information about intern teachers “has not been written by them, but by people who assume they know what it means to be a beginning teacher” (White & Moss, 2004). Returning to the source and listening firsthand to interns’ “sacred stories ... and secret places” (Clandinin & Connelly, 1996, p. 25) was essential.

Secondly, to undertake this task respectfully and professionally it was essential to take a deliberate, sequential and manageable approach to the “selection” (Creswell, 2003) of those interns. It was neither possible to garner the involvement of all 4th year BEd students (there were one hundred of them and to involve them all would not have been manageable or feasible) nor analyse and report on the findings from all these potential participants, within the restrictions and timeframes of the study. Therefore, it was necessary to look to the literature on how to access representative samples. Miles and Huberman (1994) and Neuman (2007) suggest approaching a larger probabilistic group with an efficient (quantitative) means of data gathering to establish a smaller “purposive” sample. Creswell (2007) and Stake (2005) also endorse the imperative of making informed choices about the most appropriate individuals, and number of individuals, to inform the next step in an investigation.

It was clear that collecting a rich source of primary data by way of questionnaires would lay the foundations for developing the case study approach. But which questionnaires to use was a crucial question best addressed by returning to the LEARNt framework, the literature that informed it, and the research questions that arose from it. To summarise, the literature supports the notion that quality of self-efficacy belief determines the nature of learning.

A number of self-efficacy researchers distinguish between two filters, “self-efficacy for learning” and “self-efficacy for performance” (teaching) (Schunk, 1989; Schunk, Hanson, & Cox, 1987; Zimmerman, Bandura, & Martinez-Pons, 1992). This distinction is particularly relevant to this study since the 4th year BEd students, at the time of preliminary purposeful sampling, were tertiary students in the final two weeks of their BEd coursework. When these students began their internship, just three weeks later, they became intern teachers engaged in the demands and complexities of learning to teach and teaching to learn. These undergraduates were transitioning between the roles of learner and teacher.

The place of efficacy in determining the nature of interns’ learning could not be overlooked, since the intern’s learner-efficacy beliefs filtered their learner actions (behaviours) and their teacher-efficacy beliefs filtered their teacher actions. A combination of these beliefs would provide the basis for learning/teaching behaviours. I therefore decided that the goal of preliminary purposeful sampling would be capturing learner-efficacy and teacher-efficacy beliefs, combining these into an overall efficacy ranking, and selecting interns for interview on the basis of that ranking. The next step in the investigation, therefore, was to understand how to capture those “elusive” efficacy beliefs.

INSTRUMENTATION

In spite of their inherently “sterile, ritualistic and rigid” structure (de Vaus, 1995, p. 8), questionnaires were considered the most pragmatic tool for capturing a general “sense of efficacy”. They have been widely used by experienced researchers for such purposes. Two questionnaires were used in this study, the:

- i. Teacher Sense of Efficacy Scale (TSE Scale) (Tschannen-Moran & Woolfolk Hoy, 2001); and
- ii. Learner Self-Efficacy Beliefs Survey (LSEB Survey) (Jones, 2006).

The former scale is relatively well known and the latter is one that was prepared as part of this study (see below).

Teacher Sense of Efficacy Scale

There was no Australian instrument for capturing the 4th year students' teacher self-efficacy beliefs, so the Teacher Sense of Efficacy Scale (TSE Scale) (Tschannen-Moran & Woolfolk Hoy, 2001, see Appendix 4.1)¹ was settled upon. (Although sometimes referred to as the Ohio State Teacher Efficacy Scale, in deference to the authors' preferred name the instrument is referred to as the Teacher Sense of Efficacy Scale (TSE Scale) throughout this study.) The TSE Scale was suitable for two reasons: firstly, it had good validity and reliability measures of: Efficacy in Student Engagement; Efficacy in Instructional Practices; and Efficacy in Classroom Management; and secondly, because the authors had used the full 24-item scale (rather than the 12-item short form) effectively with student teachers.

Tschannen-Moran and Woolfolk Hoy (2001, pp. 783-805) provide a detailed and convincing discussion of the debate surrounding the development and use of a number of questionnaires designed to encapsulate teacher efficacy. This debate was carefully considered in the selection and development phase of this study. Although instruments such as the Gibson & Dembo Teacher Efficacy Scale (1984) and Bandura's Teacher Efficacy Scale (1997b) were considered, they were found to have limitations in terms of dimensions of teacher efficacy. The TSE Scale was considered by Tschannen-Moran & Woolfolk Hoy as a superior measure of teacher efficacy due to its "unified and stable factor structure" and its ability to "assess a broad range of capabilities that teachers consider important to good teaching" (2001, p. 801). The capacity of the TSE Scale to capture a broader range of dimensions related to teacher efficacy (including instructional practices, student engagement, and classroom management) meant it was the most suitable instrument available to meet the purposes of this study. The language was also appropriate for the target group.

Structure of the TSE Scale

The TSE Scale is a 24-item instrument with subscales designed to assess the three dimensions of:

- Efficacy in Student Engagement: Items 1, 2, 4, 6, 9, 12, 14, 22;
- Efficacy in Instructional Strategies: Items 7, 10, 11, 17, 18, 20, 23, 24; and

¹ Appendices are numbered according to the chapter to which they refer. Hence Appendices relating to Chapter 4 begin with 4, such as Appendix 4.1.

- Efficacy in Classroom Management: Items 3, 5, 8, 13, 15, 16, 19, and 21.

The instrument also assesses the most potent challenges to teacher efficacy, including how to “engage” students, how to “instruct” and what is commonly understood to be foremost in the minds of teacher education interns- “classroom management”. In asking, “how much can you do?” after each of the items, the participants have the opportunity to respond on a Likert scale from 1, “nothing” to 9, “a great deal”.

The TSE Scale, validated by Tschannen-Moran and Woolfolk Hoy (2001, p. 798) was considered “reasonably valid and reliable ... and should prove to be a useful tool for researchers interested in exploring the construct of teacher efficacy” (Tschannen-Moran & A. E. Woolfolk Hoy, 2001, p. 801). It has consistently been found to have three moderately correlated factors: Efficacy in Student Engagement, Efficacy in Instructional Practices, and Efficacy in Classroom Management. Although confirmatory factor analysis (CFA) of the TSE Scale by Henson & Roberts (2001) claimed support for only a two-factor correlated structure of “Efficacy in instructional practices” and “Efficacy in student engagement”, Tschannen-Moran and Woolfolk Hoy (2001) established further construct validity by examining the correlation of the TSE Scale with other existing measures such as Hoy and Woolfolk’s (1993) adaptation of the Gibson and Dembo TES (1984); Willower, Eidell and Hoy’s (1967) pupil control ideology; and the Forsyth and Hoy (1978) work alienation scale.

The TSE Scale was chosen for administration in this, a regional Australian study, in light of these varied arguments. Gibson and Dembo’s (1984, p. 579) assertion that “construct validation should continue to be investigated across different populations and settings” was also considered.

Learner Self-Efficacy Beliefs Survey (LSEB Survey)

A second instrument was needed to ascertain Learner efficacy. At the commencement of the study, however, no such validated tool for capturing learner self-efficacy beliefs existed. Therefore, I devised and implemented the Learner Self-Efficacy Beliefs Survey (LSEB Survey) (Jones, 2006, see Appendix 4.2) with the same cohort of teacher education students.

LSEB Survey Design

Development of the LSEB Survey stemmed from the question “What did I want to know?” The answer was “to develop a deep knowledge and understanding of the learner efficacy beliefs held by the 4th year BEd (Primary) students”. Literature confirmed teacher efficacy “to be powerfully related to many meaningful educational outcomes such as teachers’ persistence, enthusiasm [and] commitment” (Tschannen-Moran & Woolfolk Hoy, 2001, p. 783) and it was believed that learner efficacy would likewise have an impact on the nature of intern teachers’ learning.

Since no instrument had been developed that would achieve ascertain learner efficacy I decided to develop one. However, the construction of a questionnaire is a difficult matter and considerable care is needed. “Persistent measurement problems” have accompanied measures of teacher self-efficacy (Tschannen-Moran & Woolfolk Hoy, 2001, p. 738) and it was important to keep these in mind when designing a questionnaire to capture learner self-efficacy beliefs. Importantly for the development of a questionnaire, Lent and Hackett (1987) cautioned against achieving specificity and precision at the expense of external validity and practicality. Similarly, Lent, Lopez & Bieschke (1993) demonstrated that efficacy judgments address varying levels of academic outcomes and still remain highly predictive. To ensure that the LSEB Survey was both explanatory and predictive, it was important to ensure that each Item was tailored to seek a domain-specific self-efficacy belief.

Reason and Bradbury (2001, p. 2) recommend that in order to meet this challenge items within the LSEB Survey should be informed by the literature. Appendix 4.3, “Design of the Learner Self-Efficacy Beliefs Survey”, sets out the specific literature informing the LSEB items to ensure detailed links exist between item development and the literature on learner efficacy. In Appendix 4.3, four tables clearly set out the literature that informed the choice of items designed following Martin’s (2003) dimensions of learning. The appendix also addresses concerns relating to item format, ordering and response type.

Martin’s (2003) Student Motivation Wheel advocates that adaptive, impeding and maladaptive dimensions are believed to mediate learning beliefs and behaviours. The LSEB Survey has thirty closed items. Each item invited participants to focus upon specific learner self-efficacy beliefs and behaviours. The closed items were structured in terms of Martin’s “Student Motivation Wheel” (2003), with:

- twenty adaptive items (“boosters”, Martin, (2001) addressing both cognitive and behavioural dimensions;
- seven impeding items (“mufflers”, Martin, (2001); and
- three maladaptive cognitive items (“guzzlers”, Martin, (2001).

Responses to each of the items in the LSEB Survey enabled participants to articulate specific self-efficacy beliefs about themselves as learners, and the researcher, through the analysis process, to construe the characteristics of beliefs shaping participants’ learning.

Crano and Brewer’s (2002, p. 278) advice that “the more direct the question, the more likely is the true meaning of the query to be understood”, was heeded as each item was written. A decision was also made to include twelve “reverse-phrased” items to reduce the likelihood of response bias (Field, 2009, p. 675) (See Items: 6, 7, 8, 9, 14, 15, 16, 18, 19, 21, 25, and 29 in Appendix 4.2). These items required more careful reading, thus avoiding the risk of automated responses when individuals are faced with the sameness of positively construed items. The reverse phrased items were recoded when the questionnaire data was recorded on an Excel spreadsheet prior to analysis using the Winsteps Rasch Analysis program (Bond & Fox, 2007).

RASCH ANALYSIS OF THE QUESTIONNAIRES: DEVELOPING A PRELIMINARY PURPOSEFUL SAMPLE

The 4th year BEd (Primary) enrolment of one hundred students was to be the source of the main study interviewees. Two thirds (66 participants) volunteered to complete the questionnaires, to ascertain different levels of efficacy. Completion of the questionnaires occurred in the students’ own time. The resultant data were carefully transcribed into an Excel spreadsheet and checked.

Meticulous attention was paid to choosing and applying the most effective tool for “bringing order, structure, and interpretation to the mass of collected data” (Marshall & Rossman, 1999, p. 150) in the questionnaires. Rasch analysis was the chosen means of “attaching meaning” (Silverman, 1993, p. 19) and “making sense” (Reason & Bradbury, 2001, p. 36) of the data in order to address the research questions (Coffey & Atkinson, 1996; Denzin & Lincoln, 1994; Ryan & Bernard, 2000). The following sections explain the purpose and product of Rasch analysis applied to the LSEB Survey and the TSE Scale, and its contribution to informing the research questions.

Rasch Analysis was an ideal tool for examination of the quantitative data for two main reasons; it provided

1. a means of assessing the construct validity and reliability of the LSEBS, TSES and Overall Efficacy data; and the
2. capacity to combine separate survey items to form an Overall Efficacy ranking of teacher education students.

These two points are now explained in detail.

Validity and reliability testing

Rasch Analysis was used for validity and reliability testing of the LSEB and TSE Surveys as instruments for capturing “conceptualisations of the construct” (Bond & Fox, 2001, p. 230) of teacher, and learner, efficacy (see Table 4.2). These findings would also inform increased validity and reliability constructs within future iterations of the LSEB Survey.

Table 4.2: Rasch fit statistics for survey data (after Bond & Fox, 2007)

Criteria	Acceptable Values	LSEB Survey	TSE Scale	Overall Efficacy
Item summary				
Infit (mean squared)	0.6 to 1.4	1.01	1.00	1.02
Infit <i>t</i>	-2 to +2	0.1	-0.1	0.00
Outfit (mean squared)	0.6 to 1.4	1.04	1.00	1.03
Outfit <i>t</i>	-2 to +2	0.1	-0.1	0.00
Item reliability	> 0.7	0.97	0.89	0.95
Case Summary				
Infit (mean squared)	0.6 to 1.4	1.03	0.99	1.02
Infit <i>t</i>	-2 to +2	-0.1	-0.2	-0.10
Outfit (mean squared)	0.6 to 1.4	1.04	1.00	1.03
Outfit <i>t</i>	-2 to +2	-0.1	-0.2	-0.10
Item reliability	> 0.7	0.76	0.93	0.91

Validity

Validity is the extent to which a particular instrument measures what it purports to measure (Cohen, Manion, & Morrison, 2000). The Rasch model is based upon the concept of unidimensionality (Bond & Fox, 2007). Data shown to fit the Rasch model are considered to be measuring a single underlying construct (Brentari, Golia, & Manisera, 2006). If the LSEB and TSE data were shown to fit to the Rasch model, then this could be considered as confirmation that these surveys were measuring a single construct; in this case, self-efficacy. In Rasch analysis, the degree to which a given set of data conforms to the Rasch model is referred to as its “fit” (Bond & Fox, 2007). Rasch item and case fit statistics for the LSEB, TSE and Overall Efficacy are presented in Table 4.2. All fit statistics (infit and outfit) were in an acceptable range suggesting that LSEB, TSE and the combined Overall Efficacy were measuring a single construct.

Reliability

Reliability may be considered as the consistency of the measure of a concept (Bryman, 2008). Reliability is generally expressed as a reliability coefficient: the higher the coefficient, the higher the reliability (Burns, 2000). One of the most common measures of reliability is Cronbach’s Alpha (Field, 2009). However Rasch item and case reliability estimates can be considered as being equivalent to Cronbach’s Alpha (Bond & Fox, 2007).

Rasch modelling determined whether similar data could be replicated should the LSEBS and TSE instruments be administered to comparable cohorts. Rasch item and case reliability estimates for both LSEB and TCE surveys separately are presented in Table 4.2. For reliability estimates, a value of 0.7 or more is considered reasonable (Nunnally & Bernstein, 1994). Item and case reliability estimates for both the LSEB and TSE surveys were above the 0.7 values considered to be to a valid indicator of replicability (Field, 2009) with the Overall Efficacy reliability quite high (>0.9).

Combining LSEBS and TSES data into a measure of Overall Efficacy

Due to the capacity of the Rasch Analysis to convert the raw Likert-scaled questionnaire data from ordinal-level to interval-level data (Brentari, et al., 2006; Somekh & Lewin, 2005), it became possible to make “very clear comparison of Items and persons along a common measurement scale” (Cooksey, 2007, p. 363). Survey responses from the LSEB and TSES survey were tabulated and combined using an Excel spreadsheet. The

combined data were then loaded into the Winsteps Rasch Analysis software (Bond & Fox, 2007). Using the in-built functionality of the Rasch Analysis software to analyse multiple survey items, the combined data were processed and fit statistics, person and item estimates were generated for the LSEBS, TSES and Overall Efficacy data (see Appendices 4.4, 4.5 and 4.6 respectively). The fit statistics were used to assess the validity and reliability of the LSEBS, TSES and Overall Efficacy data, while the person and item estimates were used to rank the participants according to Overall Efficacy.

The rank-ordered list of case estimates in the Overall Efficacy measure (“Measure” in Appendix 4.6) was divided into thirds and labelled High Overall Efficacy (HOE), Medium Overall Efficacy (MOE), and Low Overall Efficacy (LOE). Eight HOE participants, ten MOE participants and eight LOE participants were approached, and agreed to be interviewed. One intern from each group was chosen for Pilot Interview, based upon their immediate availability. The remaining 23 interns were interviewed in the Main Study.

Consideration of Questionnaire Sample size

Having considered Rasch analysis in preliminary purposeful sampling, I need to turn a moment and address the issue of “sample size”, since it was particularly pertinent to this study. The 4th year BEd (Primary) enrolment was limited to one hundred students, of whom two thirds (66 participants) volunteered to complete the Preliminary Purposeful Sampling questionnaires. Although this may not be considered a large sample in terms of other studies, MacCallum, Widaman, Zhang and Hong (1999) and Guadagnoli and Velicer (1988) support the view that if a factor has four or more loadings greater than 0.6, then it is reliable regardless of sample size. Rasch analysis would confirm communalities above 0.6 and confirm the 26 participants as an adequate sample size. The ratio of male to female interns was representative of the cohort.

So far in this chapter the focus has been on the methodological features of the study and the “counting and measuring” (Berg, 1989) of quantitative data collection and analysis. Attention now turns to the means of qualitative data collection and analysis to answer the research questions.

3. PREPARATIONS FOR COLLECTING THE DATA: PILOT INTERVIEWS

The in-depth interview was chosen as the main method for this study. It is considered “one of the most common” (Fontana & Frey, 2005, p. 697) instruments for collecting rich qualitative data and a “more valid way in which to study social reality” (Taylor & Bogdan, 1998). Constructions of the intern’s “motives, meanings, actions and reactions” (Minichiello, et al., 2008, p. 10) emerged through dialogic reflection within the interview.

The interview questions were designed to capture qualities within constructions of interns’ prior Learning, Efficacy and Actions, Reflection and Theory making (LEARnT), “research-relevant information” (Cohen & Manion, 1997) to address the first sub-question:

- i. What do the reflective practices of intern teachers reveal about the nature of their learning?*

The intention was also to take what was learnt about interns’ reflection and examine its relationship to self-efficacy and depth of learning to address the second sub-question:

- ii. What relationships exist between intern teachers’ self-efficacy, reflection and depth of learning?*

Addressing the two sub-questions meant the synthesising of new knowledge and understanding of intern learning, to address the main research question:

What is the nature of 4th year BEd (Primary) intern teachers’ learning, in terms of LEARnT theory?

To achieve these purposes the interview process needed careful consideration.

Type of Interview

The semi-structured, in-depth telephone interview was considered the most appropriate for this study because no other means of data collection (Guba & Lincoln, 1989, p. 175) would have suited the purposes and timeframes as well. A semi-structured set of open questions provided flexibility and guidance within the conceptual framework, ensuring the data “made collaboratively by the researcher and the researched” (Richards, 2009, p. 49) were relevant to the research questions. An in-depth approach is a “specific kind of

interaction” (Minichiello, et al., 2008, p. 47) which enables the opportunity to dialogue and listen astutely to each “individual’s words and interpretations”.

Although face-to-face interviews (Fontana & Frey, 2005) would have provided an added richness to the data collection, they were not possible. Interns were undertaking their internships in schools from Sydney to the Queensland border and pragmatic issues of time, money and distance had to be considered. These considerations meant using the most feasible alternative, that of telephone interviews. Although some interns were in the same city as the researcher, and face-to-face interviews may have been possible with these individuals, it was decided to use the same methodology for all participants.

The “structure and purpose” (Kvale, 1996, p. 6) of the semi-structured, in-depth telephone interview suited the purpose of the study: to understand the nature of BEd intern teachers’ learning. Semi-structured interviews were also thought to be more adaptable, and a far richer collaborative data gathering approach than structured interviews.

Focus of the interview

Having decided that the interview was the most appropriate form of data collection for this study, I then needed to decide on the focus of the interview questions. A decision was made to focus upon the “most challenging experience” of the internship. This was based on Flanagan’s critical incident technique (1954) and the later work of Tripp’s (1993) critical incident theory. Flanagan (1954, p. 338), the first to describe the critical incident technique, observed that:

Such incidents are defined as extreme behaviour, either outstandingly effective or ineffective with respect to attaining the general aims of the activity. The procedure has considerable efficiency because of the use of only the extremes of behaviour.

Since “extreme incidents” are more memorable and test one’s sense of efficacy, it was clear that this was a crucial angle to take in the interviews. However, the term “critical incident” was not used within the interview scaffold because it may have biased the intern teacher to consider only negative rather than positive experiences. Instead, the phrase the “most challenging experience” was settled upon after “most memorable experience” and “most significant experience” were piloted. (See discussion of the Pilot Interviews following.)

Preparing the interviews

Thus in preparing the interview questions, elements of Tripp's critical incident theory (1993) were applied. It was believed that by delving into a situation in which the intern experienced challenge, and perhaps a state of cognitive dissonance, that evidence of efficacy and action, reflection and theory making (learning) would emerge. The interview questions relied upon conceptualisations and relationships within LEARNt theory.

Careful consideration was given to the wording of the interview questions to ensure that interns were not led to believe that the interviewer was simply looking for the negative and the "traumatic". Although "disruption", "significant danger or risk" and "traumatic affect" may have been a significant part of some intern teachers' "most challenging experience", it was important to ask questions free from this bias. For example, question 3, "Tell me about the 'most challenging experience' that you faced", left open the possibility of "challenge" being perceived as either a positive, or a negative, experience.

Undertaking the semi-structured, in-depth telephone interview

Before undertaking the Main Study interviews it was important to pilot the interview questions. As noted above, one High Overall Efficacy (HOE) intern, one Medium Overall Efficacy (MOE) intern and one Low Overall Efficacy (LOE) intern, identified through Rasch analysis of the LSEB Survey and TSE Scale questionnaires, were approached.

Pilot Interviews

Piloting was seen as a pragmatic way of developing the expertise of a relatively unskilled and inexperienced interviewer. As Richards (2009, p. 43) explained, "first interviews will teach you much about the topic, people's experiences and the ways they can be helped to explain what they see and do." For example, it is important to know "when to probe for more in-depth responses or guide the conversation to make sure that all topics on the outline are covered" (Minichiello, et al., 2008, p. 52). Secondly, piloting clarifies the interpretations that interns might make of the questions, enabling refinement of the interview questions to elicit a "more valid explanation of the informants' perceptions and constructions of reality" (Minichiello, et al., 2008, p. 51). Thirdly, piloting allows the researcher to explore her need to find a delicate balance between allowing space for interns to tell their story and collecting data in such a way that it is feasible to analyse and is relevant to the research questions.

Findings of the pilot interviews that informed the main study

The three Pilot Interviews were transcribed before the main study interviews commenced in the following week. Initial analysis was conducted using the word-processing tool of “track changes” to record observations and alterations for the Main Study interviews. (For a closer examination of the preliminary analysis of one of the Pilot interview transcripts, see Appendix 4.7 Audit Trail: Pilot Interview of MOE 110, 20.9.08). Following analysis and evaluation of all three Pilot Interviews (in a similar vein to MOE 110), the Main Study Interview Questions were refined. Discussion of the process follows.

Question 1 of the Pilot Interview was, “Tell me about your internship”, which was followed by the probing questions:

- *What were some of the expectations you had of your internship?*
- *In what ways did the internship live up to your expectations? Why was that?*
- *In what ways did the internship fail to live up to your expectations? Why was that?*

In the Main Study, however, Question 1 was amended to, “Tell me about your internship experience.” The probing questions were deleted since they were found to be far too prescriptive, reproducing “quantitative modes of research which had previously been criticised for not being adequate for the study of social reality” (Minichiello, et al., 2008, p. 51). Delving into expectations sidetracked participants from the main thrust of the interview, that is, intern teachers talking about a specific experience.

Question 2 of the Pilot Interview was, “Tell me about some of your positive experiences”, followed by the probe:

- *In what ways did these experiences support your assumptions about teaching/yourself as a teacher?*

Also, “Tell me about some of your negative experiences”, followed by:

- *In what ways did these experiences challenge your assumptions about teaching/yourself as a teacher?*

In the Main Study, Question 2 evolved into “What were some key beliefs you developed about teaching and learning, teachers and learners during the degree?” with the possible probe:

- *Which of these key beliefs were challenged during your internship? How?*

These alterations were made because Question 2 in the Pilot Interview tended to sidetrack the intern into generalised lists of “positive” and “negative” experiences, so that by the time Question 3 was asked participants expressed a sense that they had already addressed the question. It took time in the Pilot interview experience to engender a deeper level of reflection rather than a simple recounting of events.

Question 3 of the Pilot Interview was, “Describe the most memorable experience/incident of your internship”, with rather extensive probes:

- *What demands did this make on you?*
- *How did you handle it?*
- *Do you feel you handled it adequately?*
- *Did you need support? What did you do to obtain this?*
- *Whose responsibility was it to resolve the situation?*
- *Was the situation resolved? How? If the situation was not resolved, why was this?*
- *Describe the impact of this experience on you.*

Using the term “memorable” elicited “feel good” experiences, for example, a barbecue with students and families, but such responses were more akin to reminiscence than challenge and learning. It was clear that the description “memorable experience” lacked specificity and that higher modality language was needed (Flanagan, 1954, p. 341) to assist participants to make the shift from merely recounting memorable moments to focusing upon an experience that had specifically impacted upon their teaching and learning. The probing questions were also problematic; they were far too detailed, and interfered with the intern teachers’ chance to reflect more deeply.

Question 3 in the Main Study was simplified to, “Tell me about the “most challenging experience that you faced.” If the intern was unsure of what I was getting at, I added:

- *One in which you questioned your belief in yourself to cope?*

I then followed on with further probes to capture reflection-in-action and reflection-on-action:

- *What made it such a challenge?*
- *What were your thoughts and feelings during the experience (“in action”)?*
- *What did you believe about yourself in this situation?*
- *As you look back (“on action”) on this experience, what thoughts and feelings do you have?*

The slight change in wording to, “the most challenging experience you faced” and “one in which you questioned your belief in yourself to cope” generated substantial change in the nature of the incidents reported and addressed the research questions far more efficiently and explicitly.

Question 4 of the Pilot interviews was, “If you were confronted with this situation again, what would you do differently?” It was followed by the probe questions:

- *Describe your plan of action.*
- *How successful do you believe you will be?*
- *Describe how you would feel if you achieved your goal/if you did not achieve your goal.*

A number of changes were needed to this question, to engage the interns more specifically with addressing the purposes of the research. Within the Pilot interviews, interns found it difficult to project into any future “plan of action” let alone determine any success they might experience. The question of how they would feel, once asked, seemed superfluous to the purpose of the interview and indeed appeared to irritate interns. It seemed that pushing in this direction was fabricating a piece of futuristic fiction rather than benefiting the study by staying more focused on ascertaining evidence of reflection and learning.

Question 4 of the Main Study Interview therefore evolved into, “What did you learn about your professional self, from this most challenging experience?” then, “What did you learn about yourself as a person, from this most challenging experience?”

- *Did your belief in your ability to teach change as a result of this experience?*
- *How? Why?*

These changes kept the focus of the interviews on understanding the impact of the challenge on the interns, the manner in which they reflected and evidence of the type of learning that had taken place; all of which were essential to addressing the research questions.

Question 5 of the Pilot study, “In what ways has this memorable experience changed you?” was captured in the revised Main Study Question 4, through asking, “What did you learn?” A new Question 5 was, therefore, added to the Main Study Interview scaffold. This question was aimed at engaging interns in a meta-cognitive process of thinking about, and articulating the processes of, their reflective thinking by asking, “What do you do when you reflect?”

The final question in the Pilot Study, Question 5, “Is there anything else you would like to say?” was far too general and tended to elicit negative rather than constructive responses. This finding gave cause for re-evaluation and clarification of exactly what I needed to know before the interview concluded, which was to better understand the intern’s approach to reflection. Therefore I asked, “Tell me about what you do when you reflect.”

The question was an attempt to elicit the meta-cognitive awareness of the intern and to unearth the approaches individuals were taking to their reflective thinking. As previously stated in extensive discussion of the literature, “the outcome of reflection is learning” (Mezirow, 1981, p. 3). Understanding the nature of the interns’ process of reflection contributed to the ultimate goal of answering the overall Research Question, “What is the nature of 4th year BEd (Primary) intern teachers’ learning, in terms of LEARNt theory?”

Questions 6 and 7 were added to the Main Study Interview: “Where to from here?” and “Do you have any further comments that would better prepare our intern teachers?” These questions were helpful in tying up the interview conversation in such a way as to gauge the ambitions of participants after their internship, and to allow the intern teacher to inform the teacher education process. It was not just a question of “doing no harm” but one of inclusivity of the intern teacher in the research process.

Conclusions from the pilot interview process

Transcribing and this preliminary analysis provided a “general sense” of each intern’s responses. I was simply asking, as Creswell (2003, p. 192) suggests, “What is this about?” in particular, “Is this about each intern teacher’s: prior Learning, or Efficacy and Actions or Reflection and Theory making?” I then considered, “What qualities are evident in these constructs?” It was important to hold the evidence up to the light of the LEARN_T framework and begin to develop an eye for evidence of transformative, adaptive and reflexive approaches to learning or for evidence that LEARN_T theory needed to be modified. Finally, content from the three Pilot interviews was used in the main study qualitative data analysis because the main content still addressed the research questions, and to avoid restricting the sample to 23 interviews.

4. COLLECTING DATA: MAIN STUDY INTERVIEWS

The fourth of Creswell’s (2003) six steps in case study design is one of collecting the main study data. Once the interview questions were revised in the light of the pilot study, twenty-three more participants — seven HOE interns, nine MOE interns and seven LOE interns — were approached over a period of weeks and an Interview Schedule was drafted as interns made themselves available for interview.

Interview sample size

Time was a particularly relevant factor in determining the number of interviews possible. Since the interviews were designed as “snapshots” of interns’ learning, the window of opportunity for capturing these was bounded. Travers (2002, p. 3) supports my experience by stating: “There is no hard and fast rule for how many people you need to interview, since it will partly depend on the time available to collect, transcribe and analyse your data.”

In effect, time constraints and the intention of the interviews determined the sample size. It was possible to interview 26 interns from the 66 participants who completed the preliminary purposeful sampling questionnaires.

Interviewing occurred over an eight-week period, commencing with the three pilot interviews in the third last week of the ten-week internship. The Main Study Interviews commenced in the last two weeks of the internship. The window of opportunity for capturing reflection upon the immediacy of the internship experience was limited by the

fact that the interns, once they had completed their internship were, on the whole, being immediately employed as casual teachers.

Researcher as Interviewer

As a researcher, there were significant advantages in undertaking all 26 interviews myself. In doing so the integrity and consistency of the approach to each interview was assured. It was also possible to direct each conversation “towards the researcher’s need for data” (Minichiello, et al., 2008, p. 47) and to vary the wording and order of the interview questions to allow for flow in the dialogue whilst maintaining an awareness of the tone and overall purpose of the interview.

After gaining more experience as an interviewer, my confidence grew and the Main Study questions were used as they had been intended, that is, as a semi-structured rather than prescriptive scaffold. This approach meant that the data gathered were systematic and thematic, whilst the interview process remained dialogic and sequential.

5. ANALYSING AND EVALUATING THE INTERVIEWS: CASE STUDIES

Creswell’s (2003) fifth step in case study development includes analysis and evaluation of the case study data. It was not possible to address the research questions by taking a “broad panoramic view” of intern learning. Instead, this study took a micro-analytic approach, scrutinising each step in each of the twenty-six interns’ approaches to learning. Idiographic, descriptive and explanatory insights (Babbie, 2004, p. 293) of interns’ subjective experiences were gleaned through “inductive and deductive processes” (Creswell, 2003; Thomas, 2006). The aim was to “exhaust the idiosyncratic” (Babbie, 2004, p. 21) thereby laying the foundation for a “broader range of overall explanations” (Babbie, 2004, p. 22) through “cross-case” (nomothetic) analysis providing explanations. Idiographic and nomothetic approaches to understanding were “powerful tools” in addressing the research question regarding the nature of what we can know about each intern’s learning. “Careful reading and re-reading of the data” (Rice & Ezzy, 1999, p. 258) enabled the identification of patterns, which became the basis upon which thematic analysis unfolded. Detailed discussion of thematic analysis within and across case studies follows.

Developing the case studies using the “hybrid approach” (Schutz, 1967) to thematic analysis

The task of developing 26 case studies, by means of thematic analysis, involved processing a large amount of data. It was a daunting task and so I drew upon Creswell (2003, pp. 191-195) for a scaffold and Schutz (1967) for directions in the analytical approaches necessary. Like the thematic analysis work of Fereday and Muir-Cochrane (2006), I used the “hybrid approach” to examine the “nature of interns’ learning”. This approach involved two distinct strategies of thematic analysis:

- a data-driven inductive coding approach (Boyatzis, 1998) enabled “the theory [themes] to emerge from the data” (Strauss & Corbin, 1998, p. 12) in first-level analysis; and
- a deductive, “an a priori template of codes” approach, outlined by Crabtree and Miller (1999), achieved second-level interpretive understanding.

These approaches are now discussed.

First-level thematic analysis: Data-driven inductive approach using the NVivo tool

In the initial stage of preparation for data analysis I transcribed, formatted and imported the 26 interviews into the NVivo 9 software program. NVivo served as a data management tool: “segments of similar or related text” (Crabtree & Miller, 1999 in Carcary, 2009) were “coded and categorised ... as verbatim or documentary records” (Yin, 2003, p. 110). The coding process involved recognising an important moment, capturing the essence of what was being said and encoding for later interpretation (Boyatzis, 1998).

The “code manual” of nodes included: Internship context; Significant stakeholders; Key beliefs; Experience focused upon; Elements within which “most challenging experience” occurred; “What do you do when you reflect?”; and Recommendations for BEd educators. Within these nodes, tree nodes capturing the specific approach to learning each intern took are captured. Appendix 4.8: “NVivo node summary”, provides a more detailed overview of the code manual, including node and tree node codes.

Some limitations were revealed within this first-level, data-driven inductive approach using the NVivo tool. For example, although codes provided the basis upon which to compare and contrast “themes” or patterns in cross-case analysis (nomothetic), they were

far less effective in providing a detailed (idiographic) explanation of each case study. Dissecting each interview transcription into chunks and grouping them under codes and themes was important for cross-case analysis, but it was inadequate as a framework in which to develop a deep knowledge and understanding of the “nature of [one] intern’s learning”. It was very difficult to follow the complex inter-relationships within one intern teacher’s experience using NVivo.

Critical evaluation of an initial interpretation of the data highlighted two further key concerns with relying solely upon the inductive analysis using NVivo. Firstly, due to my initial fear of leaving any valuable data behind, “chunks” coded within nodes and tree nodes were just that, “chunks”. It was necessary and time consuming to refine these chunks, whilst also interpreting and writing the findings. Secondly, when coding, I was less mindful of the need to first of all develop each interview into a case study (within-case analysis) and so moved too quickly to “cross-case” analysis. However, NVivo analysis was an effective means of getting familiar with the interview data.

It became evident through closer examination of work that a specific form of analysis and writing was needed to address the research questions important to this study. In light of the difficulties inherent in the early coding process, and the insights of authors such as Carcary (2009), Boyatzis (1998) and Crabtree and Miller (1999), I made a decision to return to the original transcripts and to heed the advice of Yin (2003, p. 112) that:

The first and most preferred strategy is to follow the theoretical propositions that led to your case study. The original objectives and design ... presumably were based on such propositions, which in turn reflected a set of research questions, reviews of the literature, and new ... propositions.

By a combination of first-level thematic analysis and second-level deductive analysis the research questions underpinning the study were fully addressed.

Second-level thematic analysis: Deductive, “an a priori template of codes” approach

The second approach I took, in addition to the inductive (Boyatzis, 1998), involved the “an a priori template approach” (Crabtree & Miller, 1999). The template used was the LEARnT theory framework, which made absolute sense since it was developed as an a priori theoretical framework. Use of this framework was also valuable because it provided “a clear trail of evidence for the credibility of the study” (Carcary, 2009, p. 84).

LEARnT theory was used as a means of organising pertinent sections of each interview transcript within the template of codes of: prior Learning; Efficacy and Action; and Reflection and Theory making. (Interns' experiences of context and support were also gleaned since it was known that learning does not occur in a vacuum.) Having coded thus it was then possible to analyse and synthesise the complexities of key factors at play within, and the nature of, the learning process for each intern (within case) and to draw conclusions (within and across cases).

Undertaking the "template of codes" approach required total immersion in, and was best aided by, a return to the interview transcriptions. Time was needed to "dwell in the data" (Noone, 2002). This approach was very valuable in addressing the research questions because it provided a far more specific "sense of the information" (Noone, 2002).

Every attempt was made to be true to each intern's story by returning time and again to the original transcription rather than being restricted to isolated pieces of dialogue identified in the early stages of analysis. As further insights emerged from deeper and deeper analysis, it was particularly exciting and informative to return to the complete interview and perceive even more illuminating details. When such a realisation occurred, it was an important prompt for me to recall if and when this had been the case for other interns. Had such an in-depth and iterative process not been undertaken, the synthesising of knowledge and understanding would have been more superficial and limited in value.

As time consuming and challenging as it was, taking inductive and deductive approaches provided invaluable opportunities for sitting and listening (again and again) to each intern through the interviews and transcriptions. A rich knowing and understanding emerged, which resulted in shifts in my schema. These shifts had previously been informed by the literature but were now further informed by meticulous analysis and synthesis of primary data. Mastery knowledge and understanding led to (my) transformative learning.

Detailed examination the 26 case studies in this research are found in the following chapters: Chapter 4, High Overall Efficacy (HOE) Results and Discussion contains eight case studies, Chapter 5, Medium Overall Efficacy (MOE) Results and Discussion presents ten case studies, and Chapter 6, Low Overall Efficacy (LOE) Results and Discussion details eight case studies.

6. SYNTHESISING THE DATA

The sixth and final stage of Creswell's (2003) case study design involves the synthesis of new knowledge and understanding. The two final Chapters, Chapter 8 Overall Results and Discussion and Chapter 9, Implications and Future Research, provide a synthesis of what we now know about the "nature of intern learning" in terms of LEARNt theory, and its extensions.

ETHICAL CONSIDERATIONS

Both ethics of and ethics within the research process were carefully considered throughout the stages of the study. The following two sections describe these considerations.

ETHICS OF THE RESEARCH PROCESS

Qualitative inquiry poses greater potential ethical risks than quantitative inquiry (Guba & Lincoln, 1989). The relationship between researcher and participant is quite different, the research is less precise and both participant and researcher have the potential to make an impact on the process (Bogdan & Biklen, 1982). Planning the purpose, design and conduct of the research involves ethical considerations (Bouma, 2002; Robson, 2002). I imagined all pragmatic ethical decisions within ethical frameworks. As Mason (1996, p. 29) explains:

We should be as concerned to produce an ethical research design, as we are to produce an intellectually compelling one. This means attempting not only to carry out our data generation and analysis in an ethical manner, but also to begin by framing ethical research questions.

Many authors (Dehyle, Hess, & Le Compte, 1992; Kvale, 1996; Moustakas, 1994; Sieber, 1992) and professional and academic associations (e.g. American Psychological Association, 1992; American Educational Research Association, 1992; Australian Association for Research in Education, 1993) emphasise ethical research practices, as does the University of New England (UNE), under whose auspices this research was taken. UNE's Human Research Ethics Committee approved this study (HE08/083).

ETHICS IN THE RESEARCH PROCESS

Issues of informed consent, privacy, confidentiality, deception and coercion were addressed. To ensure informed consent (Bouma, 2002; Cohen & Manion, 1997; Ellis, 1994), participants were provided with an "Investigation into the Self-efficacy Beliefs and Reflective Practices of Bachelor of Education students" Information Sheet (see Appendix

4.9) and Consent form (see Appendix 4.10), with the LSEB Survey and TSE Scale questionnaires. The Consent Form also collected biographical data: gender, age, means of entry into the Bachelor of Education, and email and mobile phone contacts for approaching participants for interview. To avoid deception (Cohen, Manion, & Morrison, 2000; Crano & Brewer, 2002), the nature of their involvement and the ways in which the research would be presented were made transparent to the interns.

Intern privacy (Cohen, et al., 2000) and confidentiality (Ellis, 1994) were ensured at each stage in the research process. Interns' consent, interview recordings, transcriptions and analysis were coded assuring anonymity. The Consent form was the only place in which an intern's name and code were recorded together. These forms were secured in a separate location to the primary source data. Access to the raw questionnaire and interview data was restricted to my thesis supervisors and myself.

My previous lecturer–student relationship with the interns necessitated mindfulness of the concept of coercion (Bouma, 2002; Robson, 2002). An ethical consideration was the perceived power differential (Holloway & Jefferson, 2000, p. 85); I had taught many of the student cohort in the first year of the BEd in 2005 but they were no longer my direct students. To this end, general invitations were given to students to remain after a class to attend an oral information session in which the nature, purpose and process of the research was explained. Those willing to participate completed the consent form and preliminary sampling questionnaires in their own time.

Participant wellbeing was addressed by ensuring awareness of the “right to withdraw” at any time. A number of individuals declined at the point of preliminary sampling and others when approached for interview. Interns' “rights to withdraw” were respected, and interns' willingness and time, by those who agreed to participate, were greatly valued. Intrusion into interns' lives was limited to no more than an hour.

I was particularly mindful of the ethical imperative of causing “no harm” (Bogdan & Biklen, 1982; Spradley, 1979). Individuals were listened to empathetically. Where the critical incident being reflected upon was continuing to cause anxiety, interns were encouraged to access their own support network or the support services of the University. The vast majority of students, however, related that they had found the experience of the

interview positive, as they had been able to clarify for themselves the factors at play in the challenging experience they had faced.

QUALITY CRITERIA

Strategies to establish trustworthiness were integrated into the research process through the development of an audit trail (Lincoln & Guba, 1985). The audit trail provided a catalogue of theoretical, methodological and analytical choices (Koch, 2006) and addressed issues of quality assurance (Akkerman, Admiral, Brekelman, & Oost, 2006), enabling others to assess the significance of the research. Two types of audit trail were necessary: the “intellectual” and the “physical” (Rice & Ezzy, 1999).

Designing the research framework

A rigorous organisational framework, the LEARnT Theory Research Management Matrix (LTRM Matrix) (after Smyth & Maxwell, 2008) was iteratively developed to clearly reflect the development of the study over time. (See Appendix 4.11, the LEARnT Theory Research Management Matrix.) The LTRM Matrix drew together the complexities of the “intellectual” and the “physical” tasks within the six steps of Creswell’s (2003) case study design. Multidimensionality emerged from the interplay between the “intellectual work and [the] practical realities” (Smyth & Maxwell, 2008) of the research. The LTRM Matrix provided a “record of the signposts and milestones of the research journey” (Smyth & Maxwell, 2008).

In the process of the LTRM Matrix development, the research questions and methods were refined to explicitly scaffold the research within Creswell’s “generic steps” (2003, p. 191) of case study design. In its final form the LTRM Matrix portrayed the manner in which Bachelor of Education intern teachers’ learning was examined within the LEARnT theory framework, and the research questions were answered. Following is an explanation of key features of the intellectual audit trail and the physical audit trail prior to, and then including discussion of, the final iteration of the LTRM Matrix.

Intellectual audit trail

The intellectual audit trail documented how my thinking evolved. This has been set out above but key elements are mentioned below.

Starting philosophical position and questioning that position

I began this research with a constructivist paradigm. However, whilst still maintaining elements of a constructivist epistemology, for example, that as the researcher I am also part of the research process (Rowlands, 2005), I also came to realise that in delving well below the surface to understand the nature of interns' learning and "interrelationships in the situations being researched" (Saunders, Lewis, & Thornhill, 2007), I have also undertaken an Interpretivist epistemology.

The search for a philosophical stance

Considerable examination of research methodologies was undertaken before concluding that the foundation of the study was constructivist. The holistic approach taken endeavoured to capture the contextual depth of each interview, since it recognised and addressed the problematic nature of subjectivist inquiry, and the difficulties in understanding the "social world" as opposed to "physical law-like rules" (Carcary, 2009).

Interpreting the evidence

Several techniques were used to "describe, decode, translate, and ... come to terms with the meaning" (van Manen, 1983) within the interview transcripts. NVivo 9, Computer Aided Qualitative Data Analysis Software (CAQDAS), facilitated preliminary "creation, linking and hierarchical management of data concepts and enabled [some] cross tabulation of the key issues" (Carcary, 2009). In-depth knowledge of the data was established through NVivo coding and this enabled a trustworthy account to be developed.

Physical audit trail

The physical audit trail was most succinctly documented in the stages of the study, including identification of the research problem, methodological decisions and the enrichment of LEARNt theory. These were key steps in the auditing process, as described below.

Identification of the research problem

During my Masters of Education (Honours) research, focused upon the reflective practices of BEd students in the second year of the Bachelor of Education (BEd Primary), a larger question emerged: What did we actually know about BEd student learning? In particular what beliefs did they hold about themselves as learners and teachers? The

nature of the BEd interns' learning was a contemporary issue in light of attempts within the NSW Institute of Teachers Professional Standards to describe what our emerging teacher graduates would "know, do and commit to" (NSW IT, 2005). I believed that our Graduate Teachers did not necessarily possess the capacity to "reflect critically upon their teaching practice". In fact, there appeared to be a lack of any substantiated evidence of the approach these interns were taking to their learning.

Developing the research proposal

In response to this identified issue, an application and a research proposal were submitted to the University of New England's Research Directorate, requesting an upgrade of the MEd (Honours) to Doctor of Philosophy (PhD) status. The application included an outline of the enlarged research proposal including the study's aim, objectives and reinvigorated research questions. The study was registered with the Directorate in June 2009.

Gaining perspectives from the literature

I discovered many decades of research into the impact of teachers' and novice teachers' efficacy and reflection on teacher resilience, persistence and performance. Notable, however, were limitations in what is known about teacher education intern learning. Although the emergence of teacher accreditation imperatives are upon us in the form of the NSW IT Professional Teaching Standards (New South Wales Institute of Teachers, 2005) and the National Professional Standards for Teachers (Australian Institute for Teaching and School Leadership, 2011), what appeared to be needed was evidenced-based knowledge and understanding of how developing teachers learn, and a more holistic view of the teacher, including qualities beyond those of instrumental and technical competencies; this goal was the driving force of my study.

CONCLUSION

This chapter has scrutinised methodological considerations deemed most effective in answering the research questions. These methodological preferences affected the ontological, epistemological and ethical imperatives of the study. I have discussed the selection of a qualitative research design embedded in a constructivist paradigm, and have also justified the primary data sources and analytical tools. Ethical research procedures were established and followed, and a clear audit trail set out. The next chapter is the first of three Results and Discussion chapters; it begins the process of analysing each intern

teacher's interview in casebook format, so as to inform the eventual synthesis of new knowledge to address the research questions:

What is the nature of 4th year BEd (Primary) intern teachers' learning, in terms of LEARnT theory?

- i. What do the reflective practices of intern teachers reveal about the nature of their learning?*
- ii. What relationships exist between intern teachers' self-efficacy, reflection and depth of learning?*