

**EARLY CHILDHOOD STUDENT TEACHERS' REFLECTION ON
THEIR PROFESSIONAL DEVELOPMENT AND PRACTICE:
A LONGITUDINAL STUDY**

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ABSTRACT

During the past fifteen years there has been increasing interest in the role of reflection in professional development, especially amongst teacher educators. Yet although many preservice programs now place considerable emphasis on encouraging and assisting student teachers to reflect on their practice, reflection remains a problematic notion. There is little consensus, for example, about what constitutes reflection, how it might be identified, and whether it can be promoted.

This thesis reports a longitudinal study conducted over four years which explored the above issues within the context of an early childhood teacher education program, in Sydney (NSW), Australia. The specific purpose of this study was to investigate changes in student teachers' reflection on their professional development and practice during their enrolment in the Guided Practice component of their preservice program.

A strength of this study is its focus on reflection as a multidimensional phenomenon involving far more than the processes of analytical thought typically addressed by most previous research in this area. Drawing on an eclectic range of literature, this thesis argues that emotion, imagination, intuition, and contemplation can also play an integral role. As such, it asserts that reflection can be seen, in effect, as a complex and holistic search for meaning.

Conceptualising reflection in this holistic manner raises numerous methodological challenges. These challenges and the methodological decisions made in response to them are outlined prior to developing profiles of the participants' reflection. These profiles indicated that there was little consistent change in the reflection of eight of the 18 participants. For four student teachers, on the other hand, there was some change, while for six, there was considerable change.

Several factors which appeared instrumental in hindering or promoting these student teachers' reflection are identified. These include commitment (or lack of) to teaching and to reflection; an epistemological perspective of received or constructed knowing; and the extent to which the learning environment was perceived as supportive. The study concludes with a discussion of some

of the implications for teacher educators and for those intending to undertake further research into reflection.

ACKNOWLEDGMENTS

This thesis reports the passage of a group of early childhood student teachers through the practicum component of their preservice program. It also reflects my journey as a beginning researcher - one begun with much reluctance and trepidation but concluded with a sense of excitement, passion and commitment to undertaking further research. That such an outcome, to me, had been previously unimaginable symbolises the significance of this journey.

Throughout the past five years, I have been sustained by the interest and support of many family members, friends, professional colleagues, fellow postgraduate students and early childhood student teachers. Several key people, however, have made a special contribution to making my journey so professionally and personally rewarding.

In particular, I wish to acknowledge the contribution of the student teachers who participated in the study. Without their ongoing interest, involvement, patience and trust, this thesis would not have been possible.

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INTRODUCTION

The past two and a half decades have seen increasing international recognition by governments, international agencies and academics of the importance of the early childhood years (Rodd & Savage, 1997; Ashby, 1996). The consequent growth in the provision of programs for young children during this period has presented many opportunities and challenges, including the need to enhance the professional development of early childhood teachers (Rodd & Savage, 1997; Goffin, 1996; Stonehouse & Woodrow, 1992; Saracho, 1992; Kagan, 1991; Katz & Goffin, 1990). There is a general consensus that the quality of early childhood programs is highly dependent on the quality of the professionals working within them (Spodek, 1995; Wangmann, 1995; Saracho, 1992). It is argued that this, in turn, is influenced by the quality of professional preparation (Ott, Zeichner & Price, 1990). Surprisingly little is known, however, about the impact of early childhood teacher education programs on student teachers' professional development (Day & Goffin, 1994; Fler & Waniganayake, 1994; Tayler, 1992; Katz & Goffin, 1990; Ott et al., 1990).

Effective preparation, regardless of profession, is now widely assumed to involve more than equipping future practitioners with a specific knowledge base and skills (Carr, 1997; Tom, 1992; Schon, 1987; 1983). In addition, it is argued, future practitioners must be assisted to develop the willingness and capacity to deal with the complexities, uncertainties and ambiguities characterising professional roles and responsibilities (Ecclestone, 1996; Copeland, Birmingham, de la Cruz & Lewin, 1993). This realisation, and the accompanying recognition of the impossibility of preservice programs adequately preparing graduates for their entire careers, has created considerable interest in reflection as a basis for professional preparation and ongoing development (Cole, 1997; Munby & Russell, 1993).

Proponents of a reflective orientation to professional preparation claim that an emphasis on reflection encourages and enables developing professionals to take greater responsibility for their professional growth by facilitating their understanding of their practice (Smith, 1997). In particular, they contend that reflection enhances awareness of consistencies or inconsistencies between beliefs and actions and alertness to factors influencing decision making, implications of those decisions and possible alternative courses of future

action (Calderhead & Gates, 1993; Hadfield & Hayes, 1993). The consequent shift from a predominantly technical perspective on professional preparation to a more reflective orientation is especially evident in many preservice teacher education programs (McLean, 1994; Valli, 1992; Tabachnick & Zeichner, 1991).

A case can be made that an emphasis on reflection is particularly relevant in early childhood teacher education programs given the complex decision making expected of graduates, the traditional emphasis on inquiry-based learning in early childhood programs, and the responsibility early childhood teachers are required to assume for their own and, frequently, others' professional development (Goffin, 1996; Lubeck, 1996; Rodd, 1996; Stott & Bowman, 1996; Yonemura, 1994; McLean, 1991; Bowman, 1989). The absence of prescriptive syllabus requirements for children aged under five years and the expectation that early childhood teachers identify and use individual children's interests and developmental levels as a starting point for curriculum planning (David, 1996; Goffin, 1989), for example, mean that early childhood teachers must rely heavily on their professional decisions. To make effective decisions, they require a sound understanding of the influences affecting the children and families with whom they work (Curtis, 1996) and the context in which they work (McLean, 1991). Moreover, they must be aware of how these factors interact with the "personal, social and cultural context in which they are embedded as persons" (McLean, 1991, p.6).

Similarly, the traditional emphasis on inquiry-based learning for young children means that a primary role of early childhood teachers is to assist children "clarify and identify the problem, generate alternatives and find possible solutions" (McLean, 1991, p.13). This highlights the need for early childhood student teachers, themselves, to experience learning through inquiry (Hine & Newman, 1996). Indeed, to paraphrase Smith (1996), how can those who do not inquire into and reflect on their own learning, hope to provide an environment which supports children's inquiries and reflection?

Furthermore, the leadership role of many early childhood teachers employed in preschools and long day care centres requires that they take responsibility not only for children's learning and their own professional development, but also for supporting the professional development of their staff (Rodd, 1996). Those employed in school settings require a similar commitment to

professionalism. In particular, they frequently need a strong sense of professional identity and the ability to articulate the basis for their decision making if they are to retain their commitment to early childhood principles in the face of the institutional constraints and different philosophical approaches characterising many school systems (Siraj-Blatchford, 1993). Proponents of a reflective orientation to professional development (e.g., Perry, 1995; Yonemura, 1994; Bowman, 1989) contend that learning to reflect on their professional development and practice assists in preparing early childhood student teachers for such challenges.

Yet despite widespread interest in reflection as a basis for professional preparation, many argue that it remains a problematic notion. Concerns expressed by Ecclestone (1996), Hatton & Smith (1995) and Korthagen & Wubbels (1995) are typical. These writers contend that reflection is accorded such a variety of meanings that it risks becoming a meaningless term. As well, they refer to the difficulties of identifying evidence of reflection and to the paucity of convincing evidence that it can be promoted. Moreover, they point out that there is little evidence to suggest that reflective teachers are necessarily more effective teachers than their less reflective colleagues. These concerns must be addressed if teacher educators are to defend their current emphasis on reflection. Otherwise, as Tom (1992) warns, reflection is in danger of being seen as merely "another teacher education fad" (p.viii).

PURPOSE OF THE STUDY

The study reported in this thesis addresses three of the above concerns - the need to more fully understand what is meant by reflection; the need to find ways of identifying reflection; and the need to determine whether reflection can be promoted. Its specific purpose was to investigate the reflection demonstrated by a group of early childhood student teachers and to explore any changes or development in their reflection (and factors contributing to such changes) as they progressed through the Guided Practice sequence of their preservice program. This sequence of six semester-long units constitutes the practicum component of the program. It was selected as the focal point of the study because one of its main aims is to foster reflection. Further information about Guided Practice is provided below and in Appendices 1 and 2. Although there was no intention to claim any cause / effect relationship between the participants' enrolment in Guided Practice and

their reflection, the study nevertheless sought to identify possible implications for teacher educators seeking to promote reflection in student teachers.

CONTEXT OF THE STUDY

The study involved 18 student teachers from Macquarie University, Sydney. These student teachers were part of the first cohort to enrol in the three year Bachelor of Teaching (Early Childhood) and four year Bachelor of Education (Early Childhood) programs introduced in 1993. Both programs were identical in structure and content for the first three years. At the end of the third year, student teachers chose either to exit the program with the three year degree or to continue with an additional year of study leading to the four year degree. They graduated with a specialist teaching qualification equipping them to work with children aged from birth to eight years. Most intended to find employment in long day care centres, preschools, or the early years of school.

The first three years common to both programs consisted of four core professional study sequences or strands as well as a liberal study component in which student teachers selected from units offered throughout the university. The Guided Practice sequence, which consisted of six compulsory semester-long units incorporating the practicum and associated theoretical course work, was one of the professional strands. These units replaced "stand alone" practicums previously undertaken at the end of each semester. It was anticipated that embedding the practicum within the Guided Practice units and focusing lecture and tutorial content on issues arising from the practicum might assist student teachers to become more reflective about their practice and develop greater confidence and willingness to take responsibility for their professional development. An overview of the relationship between the Guided Practice sequence and the other professional and liberal study strands is provided in Appendix 1.

All professional strands of the three and four year preservice programs were based on a belief in constructivism as an appropriate basis for working with young children. Constructivists assume that learners construct meaning primarily by engaging in and attempting to making sense of experiences, rather than through explanation or imitation (Guba & Lincoln, 1994). Only the Guided Practice sequence, however, explicitly adopted constructivism as a model for working with student teachers. The teacher educators responsible

for the design and implementation of Guided Practice units, including myself, argued that to be effective teachers of young children, student teachers needed to develop confidence and expertise in constructing their own professional understandings. Like Elkind (1991), we argued the need for greater consistency between these tenets of early childhood education and the learning and teaching environments of early childhood teacher education programs.

The Guided Practice sequence sought to foster student teachers' appreciation of the importance of reflection and to encourage and assist them to develop the ability and willingness to reflect on their experiences as a means of constructing their professional understanding and improving their professional practice. Reflection was used as a generic term for processes involved in the exploration of experience as a means of enhancing understanding. Student teachers were encouraged and assisted to interpret the meanings they gave to these experiences in the light of their beliefs, values and developing professional knowledge. In doing so, they were expected to engage in a number of reflective processes which they were encouraged to incorporate into their professional practice. These processes included looking back on their experiences, decisions and actions; recognising the beliefs and values underpinning these decisions and actions; considering a range of possible consequences and implications of their actions and beliefs; and investigating alternatives and reconsidering former viewpoints. The specific focus of each Guided Practice unit is described in Appendix 2.

Several attempts have been made to categorise the diverse notions of reflection underpinning preservice teacher education programs (e.g., Zeichner, 1993; Sparks-Langer, 1992; Grimmett, Erickson, MacKinnon & Riecken, 1990; Tom, 1985), usually on the basis of underlying philosophical views about the nature and purpose of teaching and learning. Of these, the conceptualisation of reflection adopted by the Guided Practice sequence was most aligned to the *personalistic* (Valli, 1992), *narrative* (Sparks-Langer, 1992) or *developmental* (Zeichner, 1993) orientations which focus on student teachers' personal and professional growth. In other words, it differed from technical orientations which view teaching and reflection primarily as processes of technical decision making.

The orientation to reflection underpinning the Guided Practice sequence also differed from the critical, social reconstructionist tradition which emphasises the socio-political implications of schooling and how teachers might work towards overcoming social and political injustice (Valli, 1992). Although the need to consider the implications of professional decision making for issues associated with equity and the importance of political advocacy as a means of drawing attention to the needs of children and families was emphasised, the political nature of teaching and its potential impact on socio-cultural norms was not a particularly strong focus of attention.

OVERVIEW OF THE STUDY

This thesis consists of eight chapters, the first of which explores the diversity of meanings attributed to reflection. Orientations to reflection cited most frequently in the teacher education literature are reviewed. In contrast to the concerns expressed by many commentators, this chapter posits that the diversity of these orientations need not necessarily be problematic. While none provides an all encompassing view and many appear limited by their attachment to what might be described as traditional Western analytical traditions, each is seen to contribute a potentially useful perspective. The one commonality underpinning these diverse orientations is the notion of reflection as a deliberate search for meaning. For this reason, this is the conceptualisation of reflection adopted in this thesis.

Chapter Two reviews a range of studies which attempt to identify student teacher reflection. These studies vary greatly in their recognition of the complexity of reflection. Some show little recognition. Others acknowledge this complexity but make little attempt to move beyond current conceptual and methodological constraints. A few, highly cognisant of the complexity of reflection, attempt to overcome these constraints, albeit unsuccessfully in most cases. Two key challenges confronting future research into reflection, therefore, are identified: the need to enhance understanding of its complexity and to develop methods to explore, identify and represent this complexity.

Chapter Three responds to the first of the above challenges by investigating how current conceptualisations of reflection might be enriched. Using gaps and inconsistencies in the existing literature as a starting point, it draws on literature about emotion, imagination, intuition, quantum theory and Eastern philosophy to construct a metaphorical kaleidoscope. As the lens of this

kaleidoscope is turned, new possibilities for enhancing understanding of reflection emerge.

Chapter Four considers how the notion of reflection as a search for meaning might be investigated and portrayed, given current methodological constraints. Because decisions concerning the selection of strategies for data collection and interpretation must be consistent with the researcher's ontological, epistemological and methodological beliefs, this chapter begins with a summary of the beliefs about universal interrelatedness which underpin the study. A discussion of the methodological challenges arising from these beliefs follow. The decisions made in response to these challenges and the rationale for these decisions are then explained.

Chapter Five is the first of three chapters which presents profiles of the participants' reflection as they progress through the Guided Practice sequence of their preservice program. It focuses on the eight student teachers whose reflection showed little consistent change and identifies factors which appeared to impede the development of their reflection. Chapter Six presents profiles of the four student teachers whose reflection showed some evidence of consistent development, while Chapter Seven profiles the six participants whose reflection showed considerable and consistent change as they progressed through the Guided Practice sequence. Throughout these chapters, the importance of a commitment to teaching and to reflection, an epistemological perspective of constructed knowing, and a perception of a supportive learning environment are emphasised.

The final chapter discusses some of the key issues arising from the study. It focuses on the individuality of student teachers; the emotional intensity of learning to teach; the complexity of reflection; the centrality of establishing connections; and the ongoing difficulties of identifying reflection, as well as those factors, highlighted in the participants' profiles, that were instrumental in influencing the development of reflection.

CHAPTER ONE

WHAT IS REFLECTION?

The exact meaning of the term "... reflection" is difficult to pin down. Most who use the term would probably agree that the opposite of reflective action is the mindless following of unexamined practices or principles. But within that agreement, there is quite a range of opinion regarding what reflection is and what it looks like in action.

(Sparks-Langer, 1992, p.147)

During the past fifteen years, *reflection* has become a term widely used by those involved in the preparation of professionals, and has proven especially popular amongst teacher educators (Cole, 1997; Wellington & Austin, 1996; Hatton & Smith, 1995; Korthagen & Wubbels, 1995; Calderhead & Gates, 1993; Gilroy, 1993; Zeichner, 1992). Many assume that willingness and ability to reflect on one's practice assist in developing the necessary qualities, skills and attitudes needed for dealing effectively with the complexities, uncertainties and ambiguities inherent in professional lives and responsibilities (Copeland et al., 1993). An emphasis on reflection, therefore, is commonly considered a sound basis for professional preparation (Munby & Russell, 1993). Interest in the role of reflection in professional development is evident in the emergence of a great deal of literature about reflection and how it might be fostered.

As this chapter will illustrate, this literature is characterised by great diversity, particularly in relation to the range of meanings attributed to reflection. Issues arising from this diversity have caused considerable concern. Commentators refer, for example, to the failure of some writers to make explicit the meaning they give to reflection and to the unfortunate tendency in much of the literature to use different terminology interchangeably with little understanding of underpinning epistemological differences (Bengtsson, 1995; Brookfield, 1995; Hatton & Smith, 1995; LaBoskey, 1994; Copeland et al., 1993; Tom, 1992; Houston & Clift, 1990; Calderhead, 1989). They point out that terms such as *reflection-in-action* (Schon, 1983; 1987), *critical reflection* (Zeichner & Liston, 1987) and *reflective teaching* (Cruickshank, 1987) are embedded in different epistemological perspectives and, therefore, have different meanings. Hence, they argue, it is misleading and inappropriate to use these terms interchangeably or indiscriminately (Hatton & Smith, 1995).

Many commentators also emphasise that unless teacher educators are alert to the distinctive epistemologies underlying the different orientations to reflection, they will be unable to position their perspective on reflection within a theoretical framework (Copeland et al., 1993; Munby & Russell, 1993; Tom, 1992; Grimmett et al., 1990). As such, they will remain vulnerable to accusations that reflection is an appealing but essentially meaningless term (Calderhead, 1992; Bullough, 1989). This thesis refutes arguments that reflection is a meaningless term, but acknowledges that frequently it is not well understood.

The aim of this chapter, therefore, is to clarify confusion arising from different meanings given to reflection and from the indiscriminate use of terminology associated with different orientations to reflection. With this purpose in mind, it overviews the orientations to reflection most frequently cited in the teacher education literature. In particular, it focuses on the differing epistemological assumptions underpinning these orientations. Key terms associated with these perspectives are indicated by the use of italics.

Two key recurring themes underpinning this thesis are also introduced. The first is that the diversity of these orientations must be appreciated if understanding of reflection is to be enhanced because each provides a useful but incomplete perspective. Only through an appreciation of this diversity, this thesis argues, can we develop a more holistic and complete understanding of reflection. The second theme is that most orientations to reflection, as commonly interpreted, are overly reliant on what many writers (e.g., Michelson, 1996; Smith, 1996; Shepherd, 1993) refer to as traditional Western analytical perspectives. Moreover, the consequent overemphasis on the role of analytical thought in reflection has impeded our understanding of reflection as a holistic process. Both trends are evident in much of the commentary on Dewey's notion of *reflective thinking*, the first orientation to be overviewed.

REFLECTIVE THINKING: DEWEY

Many who write about reflection, particularly in relation to education, see its roots in the work of John Dewey (Hatton & Smith, 1995; Calderhead & Gates, 1993; Mackinnon & Erickson, 1992; Grimmett, 1988). Dewey, in turn, drew on the work of earlier philosophers including Plato, Aristotle and Socrates (Houston, 1988). Given the seminal nature of Dewey's writing, it seems fitting

to begin this overview of orientations to reflection by describing his conceptualisation of reflective thinking. All references are to the expanded 1933 revision of the 1910 original edition of Dewey's *How We Think*.

To Dewey, reflective thinking differed from routine thinking, rooted in tradition and authority, and random or unregulated, "stream of consciousness" thinking (Farra, 1988). Reflective thinking is deliberate and purposeful, involving "active, persistent and careful consideration of any belief or supposed form of knowledge" (p.12) and "searching, hunting, inquiring, to find material that will resolve the doubt, settle and dispose of the perplexity" (p.13). It has a clear goal, usually the "solution of a perplexity" (p.14) or the appreciation "of the full and adequate significance" of an event or situation (p.139). This may involve looking back to prior experiences for guidance in solving problems, enhancing understanding of the present or suggesting courses of action for the future. Reflective thinking aims to arrive at a conclusion and, as such, is a precursor to action. Hence, in many respects, Dewey's notion of reflective thinking as essentially purposeful problem solving represents a traditional Western analytical perspective (Yinger, 1990).

Yet Dewey's references to inevitably incomplete understanding - such as his claim that "every extension of knowledge makes us aware of blind and opaque spots, where with less knowledge all had seemed obvious and natural" (p.139) - suggest some awareness of a greater meaning beyond that which can be achieved through rational thought. This awareness is evident in his description of what he considered to be the five phases or aspects of the reflective thinking sequence. To Dewey, this sequence began with intuitive and inferential leaps towards possible suggestions and concluded with the testing of hypotheses. He appeared uncertain, though, about the nature of this sequence. At times he referred to a linear sequence proceeding step by step with each step resembling a link in a chain which leads eventually to a conclusion. He noted, for example, that "the successive portions of a reflective thought grow out of one another and support one another" (p.4). Elsewhere, however, he wrote that these aspects or phases "do not follow one another in a set order" (p.115). Rather, he suggested that "each step ... does something to perfect the formation of a suggestion and promote its change into a leading idea or ... hypothesis" (p.115). Here, Dewey seemed to be referring to transformation, rather than linear development. His apparently

interchangeable use of the terms *steps*, *phases* and *aspects* adds to the confusion about the nature, and even the existence, of this sequence.

Likewise, Dewey's seemingly contradictory references to the need for "a firm basis of evidence and rationality" (p.9) and the importance of intuitive leaps which "go beyond what is given and already established" and proceed by "anticipation, supposition, conjecture, imagination" (p.104) highlight the difficulties of conceptualising and articulating the problematic and complex phenomena of reflection. He seemed to have some appreciation of the role of intuitive processes in reflection, but difficulty in resolving the relationship between the analytical and the intuitive. Although he did not appear to reach a resolution in his 1933 volume, it might be argued that he was developing some understanding of reflection as a holistic process.

Moreover, Dewey's assertion that reflective thinking originates from a "state of doubt, hesitation, perplexity, mental confusion" (p.12) suggests that he may have been aware that reflection might also involve emotional aspects. His analogy of a traveller coming to a fork in an unknown and unsign-posted road being "brought to a standstill of hesitation and suspense" (p.13), for example, could indicate that he saw discomfort or inner turmoil playing a role in prompting reflective thinking. His emphasis on the importance of openmindedness; willingness to throw oneself wholeheartedly into the situation; capacity to withstand further uncertainty and ambiguity; and desire and enthusiasm for new points of view and ideas could further suggest some awareness of the affective aspects of reflection.

Dewey's apparent awareness of affective aspects is at odds with what might be considered traditional Western perspectives which tend to see emotions as unwelcome interference in the analytical process (White, 1993). Again, this suggests that Dewey was not so tied to Western views that his orientation to reflection was simply one of rational thought. He did not, however, appear to consider the possibility, more typically associated with Eastern perspectives (Chung-Ying Cheng, 1991), that harmony rather than turmoil might be a foundation for reflection.

Aspects of Dewey's conceptualisation of reflection have been adopted widely but selectively in the contemporary teacher education literature. His notion of reflective thought as purposeful, sequential ongoing inquiry involving looking

back to prior experiences for guidance in enhancing understanding and solving problems of the present, for example, is cited frequently. In contrast, what this thesis interprets as his tentative references to the role of emotion and intuition in reflection (examples of which are outlined above), are mostly ignored. Indeed, as Valli (1990) points out, emotion and intuition are missing dimensions in many contemporary discussions about reflection.

Generally, the selective nature of their adoption of Dewey's work is not acknowledged by those who have incorporated his ideas (see, for example, Loughran, 1996). Possible explanations include a lack of familiarity with Dewey's volume as a whole as opposed to familiarity with widely quoted sections; a failure to recognise his struggle to integrate analytical, intuitive and emotional aspects of reflection; or if this struggle is recognised, a disinclination to explore the implications of acknowledging the contribution to reflection of aspects such as emotion and intuition. In other circumstances, the most feasible explanation for this selective adoption of Dewey's ideas might be that judicious selection had followed extensive critique of his work. This explanation seems unconvincing, though, given the surprising lack of critique of Dewey's conceptualisation of reflective thinking in the literature about reflection. Perhaps Dewey's well deserved reputation as an outstanding educational philosopher has discouraged critical comment. This is unfortunate for, to some extent, it seems to have led to ill informed appropriation of his ideas.

The few criticisms of Dewey's notion of reflective thinking include concerns that he ignored the interactive and social nature of reflection (Cinnamond & Zimpher, 1990) and overemphasised its problem solving (Hatton & Smith, 1995) and analytical (LaBoskey, 1993; Yinger, 1990) aspects. While the first two concerns are difficult to dispute, in some cases the last might indicate a misinterpretation, rather than a weakness, of Dewey's work. It is possible, for example, that Yinger, like most commentators, overlooks Dewey's struggle to understand reflective thinking as more than rational thought (Goodman, 1991). Given Dewey's somewhat ambiguous description of reflective thought, however, such misinterpretations are understandable. Indeed, Farra (1988) suggests *reflective / intuitive thinking* is a more illuminating and appropriate term for Dewey's notion of reflective thinking.

Farra's (1988) suggestion is interesting but problematic in that it appears to overlook what many writers (e.g., Holman, 1994; Fuller, 1990) claim is the unmediated nature of intuition. They contend that intuition involves direct understanding unfiltered through the processes of the conscious mind. From this perspective, the term *intuitive thinking* would be an oxymoron. At best, it could be argued, the manner in which Farra links intuition and thinking suggests a narrow view of intuitive understanding. Overall, though, Farra makes a valuable contribution to the literature because, by highlighting Dewey's attempts to acknowledge and understand the role of intuition in reflection, he helps to counter misinterpretations of Dewey's work.

Similarly, MacKinnon & Erickson (1992) are concerned about possible misinterpretation of Dewey's work, especially his assertion that reflective thinking involves looking back. His notion of *deliberation* about experience and practice, they claim, is often misconstrued to mean *reconstruction* of experience and practice. They argue that while Dewey advocated "broadening one's range of attention to a particular detail" in a situation (MacKinnon & Erickson, p.198), this is quite different from reconstructing a situation which may involve significant change in one's perception of the nature of that situation. Like Schon (1992), they contend that Dewey was not a constructivist because he saw reflective thought as deliberating among pre-existing alternatives. Thus, they assert that it is misleading to impose constructivist interpretations on his work. Although this argument is debatable (Miller, 1990), it further emphasises the potential for misinterpretation of Dewey's work.

Indeed, given the extent of the literature about reflection and the numerous references to Dewey, it is disappointing to find so few writers attempting to critique or extend his work. Rather, there appears an overwhelming tendency to overlook what this thesis would contend was his apparent confusion about the interplay of analytical, intuitive and emotional processes in reflective thinking and to accept the commonly held assumption that he equated reflective thought with rational thought (Goodman, 1991). It could be argued that this typically narrow interpretation of Dewey's work has contributed to unnecessarily limited conceptualisations of reflection.

Despite substantial shifts in epistemological and ontological perspectives since Dewey, his notion of reflective thinking remains influential. Schon

(1983; 1987; 1992), for example, acknowledges that his work owes a great deal to Dewey, although his orientation to reflection differs significantly in several respects.

REFLECTION-IN-ACTION: SCHON

Like Dewey, Schon (1983; 1987; 1992) sees reflection primarily as an ongoing problem solving process. To Schon, however, problem solving is a process of constructing personal meaning rather than a process of deciding upon which of the uncontested facts are most relevant to a particular problem. He contends that problem solving begins by *framing* the problem, or selecting what will be attended to and organising those elements coherently. Moreover, he asserts that individuals recognise and frame problems differently according to their personal perspectives. Because problems are frequently complex, unique and uncertain and often involve conflicting elements and values, they may be insolvable solely through the application of rules. For this reason, he argues, problem solving typically requires improvisation.

Improvisation involves responding spontaneously to a situation as it unfolds. As Schon explains, "the situation talks back, the practitioner listens, and as he appreciates what he hears, he reframes the situation once again (1983, pp.131-132). He uses the analogy of musicians to elaborate this notion of improvisation, noting that:

When good jazz musicians improvise together they also manifest 'a feel for' their material and they make on-the-spot-adjustments to the sounds they hear. Listening to one another, they feel where the music is going and adjust their playing accordingly. (1983,p.55)

Improvisation, or *reflection-in-action*, differs from *reflection-on-action* in two ways (Munby & Russell, 1992; Smith & Hatton, 1992).

First, reflection-in-action occurs during the problem solving event or experience, rather than after. As such, it differs from Dewey's concept of *reflective action* which Schon (1992, p.125) describes as "a stop-and-think" or "a pause during which we think back on what we have done, reasoning about it verbally" which "momentarily interrupts action". In this sense, Dewey's reflective action can be seen as a precursor to Schon's reflection-on-action. In contrast, reflection-in-action is embedded within the action itself. Second, reflection-in-action may involve intuitive, rather than systematic response. This intuitive response is part of what Schon calls *professional artistry*, or the

ability to construct coherence from incoherency "through a web of moves, discovered consequences, implications, appreciations, and further moves" (Schon, 1983, p.131). Artistry entails new ways of seeing, hearing and responding which cannot necessarily be verbalised and, as Goodfellow (1995) highlights, underpins much of the work of early childhood educators.

Schon's orientation to reflection is important because it extends beyond the confines of the analytical tradition (Tremmel, 1993). In particular, it can be argued that he goes considerably further than Dewey in breaking down what many regard as the traditional Western dichotomy between thought and action (Smith, 1996; Wonder & Blake, 1992). He also introduces a language for discussing the non-logical aspects of reflection (Munby & Russell, 1989; Erickson, 1988). Furthermore, by highlighting the interaction of individual and situation, he provides an alternative to the subject-object dichotomy also commonly seen to underpin traditional Western thought (Heshusius, 1994).

Claims that Schon's work has not really advanced the work of Dewey (Smyth, 1992; Munby & Russell, 1989), therefore, appear unfounded. Indeed, in Munby & Russell's case, such claims seem inconsistent in light of their acknowledgment of Schon's contribution to the language of reflection. Their claim is even more surprising given that their work on metaphorical understanding (Russell & Munby, 1991; 1992) is based on (and extends) Schon's notion of framing.

Nevertheless, it can be argued that Schon's conceptualisation of reflection, requires refinement. Like Eraut (1995) and Bengtsson (1995), many contend that the dimension of time during which different types of reflection takes place needs clarification. It has been claimed that the apparent inconsistencies in his use of terminology viz a viz reflection-in-action and reflection-on-action suggest some confusion concerning the time variable (see Eraut [1995] for a more extensive discussion). Indeed, Eraut asserts that much of Schon's work is marred by inconsistencies in his arguments and the limited range of his examples.

Eraut argues convincingly, from an analytical perspective. Like many of Schon's critics, however, he seems resistant to Schon's invitation to distance himself from that perspective and unprepared to consider an alternative perspective (Tremmel, 1993). As Tremmel points out, "it does no disservice to

Schon to simply admit that he does, in fact, fail the tests of the technical rational paradigm" (p.436). Interestingly, Eraut uses his critique to present his own theory of time in professional practice and his criticisms of Schon's work strengthen the case for his own theory. While well argued, in many respects they appear unduly harsh.

Indeed Schon's work, unlike Dewey's, has been criticised extensively. Other criticisms include: his lack of attention to the content of reflection (Gore & Zeichner, 1991) and the socio-political context in which reflection takes place (Martinez, 1990); his equating reflection with problem solving only (Smith & Hatton, 1992); the perpetuation of unhelpful dichotomies, namely the technical rationality / professional artistry dichotomy (Eraut, 1995; Shulman, 1988); the questionable relevance of his work for teachers (Eraut, 1995; Court, 1988; Gilliss, 1988); the lack of empirical evidence to support his claims concerning reflection-in-action (Eraut, 1995; Munby & Russell, 1989; Erickson, 1988); and his failure to resolve Meno's epistemological paradox (Gilroy, 1993).

It is beyond the scope of this chapter to explore these criticisms in depth. In Schon's defence, however, it seems reasonable to argue (in response to Gore & Zeichner, 1991; Martinez, 1990; and Smith & Hatton, 1992), that although Schon's orientation to reflection is not all encompassing, neither are any of the other orientations overviewed in this chapter. Each orientation merely highlights a facet of reflection. Indeed, the complexity of reflection may be beyond the ability of any one orientation to fully portray its nature. As noted previously, the failure of much of the literature about reflection to fully appreciate this complexity is an underlying theme of this thesis.

Similarly, Schon might respond to Eraut (1995), Shulman (1988), Court (1988), and Gilliss (1988) by pointing out that philosophical beliefs about the nature of teaching, learning and knowledge shape responses to conceptualisations of reflection. Differences in conceptualisations of teaching may explain disagreement about conceptualisations of reflection, but do not in themselves constitute valid criticism. Furthermore, the lack of empirical evidence (Eraut, 1995; Munby & Russell, 1989) may say more about the inadequacies of current research methodology than about Schon's notion of reflection-in-action. Finally, Gilroy's (1993) implication that Schon's work lacks credibility because it fails to solve Meno's paradox supports Tremmel's

(1993) comment concerning unwillingness to consider alternative epistemologies.

Despite its flaws, which as the preceding discussion indicates, seem overly magnified by many of his critics, Schon's work appears to make a significant contribution to the literature. In particular, it offers an alternative to primarily analytical conceptualisations of reflection. Yet it seems an alternative which requires further development and refinement. Possible directions for future development are discussed in Chapter Three. Meanwhile, the discussion returns to conceptualisations of reflection based on analytical thought.

LEVELS OF REFLECTION: VAN MANEN

Van Manen (1977) draws on Habermas' (1973) work to identify three different epistemologies - the *positivist*, the *hermeneutic-phenomenological* and the *critical* - which he links to what he suggests are three levels of reflection. He refers to these levels as *technical*, *practical* and *critical*, with technical being the lowest level, and critical the highest level. His use of the term "levels of reflectivity of deliberative rationality" (p.226) suggests that he assumes that all reflection is, primarily, a process of analytical thought. As such, the levels are differentiated by the focus, rather than the process, of reflection.

Technical reflection is based on the belief that for any given problematic situation there is a clearly defined solution and that this solution will be generic to all contexts (Schon, 1983;1987; Louden, 1992). Its goal is the application of knowledge to achieve the expected solution. In other words, "the concern is with the efficiency and effectiveness of the means used to attain the ends, which themselves remain unexamined" (Gore & Zeichner, 1991, p.122). Cuickshank's *reflective teaching*, outlined later in this chapter, graphically illustrates a technical approach to reflection (Wellington & Austin, 1996; Smith & Hatton, 1992) Richardson, 1988).

In contrast, practical reflection is grounded in the interpretation of personal circumstances and specific contexts. It involves "analysing and clarifying individual and cultural experiences, meanings, perceptions, assumptions, prejudgments and suppositions, for the purpose of orientating practical actions" (Van Manen, p.226). The particular needs of each situation must be interpreted when setting goals and deciding upon alternative courses of action. It could be argued that Boud, Keogh & Walker's (1985)

conceptualisation of reflection, discussed later in the chapter, constitutes a form of practical reflection.

Critical reflection differs from technical and practical reflection in that it moves beyond the individual and the immediate context to consider the broader social, cultural, political, economic and historical contexts. Unlike the supposedly lower levels of reflection, it is concerned with moral and ethical issues such as justice, equality and freedom which it regards as the most appropriate foundation for educational decisions. Critical reflection, which provides the basis for the work of Smyth (1986;1989;1992) and Zeichner and his associates (1987;1991) is explored in more depth later in this chapter.

To many commentators (e.g., Brooker & O'Donoghue, 1992; Goodman, 1991; Gore & Zeichner, 1991), Van Manen's strength is his focus on the content of reflection. Unlike Dewey (1933) and Schon (1983; 1987), Van Manen provides some guidance about issues on which teachers and student teachers might reflect (Gore & Zeichner, 1991). Without guidance, the impression can be given that reflection is inherently valuable and that any action arising from reflection is necessarily valid or worthwhile (LaBoskey, 1994; Gore & Zeichner, 1991). The assumption that reflection is valuable primarily as a precursor to action is rarely questioned. Again, this indicates the dominance of analytical perspectives in the literature about reflection.

Concerns about Van Manen's work focus on the hierarchical nature of the levels of reflection. To Gore & Zeichner (1991), the hierarchy mistakenly implies a developmental progression in which "technical and practical reflection are eventually transcended and critical reflection prevails" (p.122). Like Hatton and Smith (1995), Brookfield (1995), LaBoskey (1993) and others, they express concerns that undue emphasis on critical reflection might devalue technical reflection, which they see as also important for student teachers' development.

Not mentioned in the literature is the concern that Van Manen, by equating levels of reflection with epistemological perspectives and then ranking these levels, in effect, ranks the worth of epistemological perspectives. It could be argued that this is an inappropriately judgmental response to epistemological diversity. Indeed, as previously discussed, an underlying tenet of this thesis is

that greater appreciation of this diversity is likely to enhance understanding of reflection.

Van Manen's later work (1991; 1995) indicates a considerable movement away from his earlier conceptualisation of reflection as necessarily analytical thought. He emphasises, for example, the importance of *pedagogical tact* which involves a considerable measure of sensitivity and intuitiveness. Moreover, he comes close to conceding that pedagogical tact is a mode of reflection, albeit not one that involves "separate stages in a sequential process" which characterise analytical thought (1995, p.44). In this sense, pedagogical tact has much in common with Schon's notion of professional artistry. There is little reference in the literature to Van Manen's more recent work, though, which suggests that his apparent movement away from a conceptualisation of reflection as necessarily analytical thought may have gone largely unnoticed.

Consequently, the following discussion concentrates on his levels of reflection with each of the next three orientations illustrating one of these levels. The first, Cruickshank's reflective teaching, focuses on technical reflection.

REFLECTIVE TEACHING: CRUICKSHANK

Cruickshank (1987) uses the term *reflective teaching* to describe a specific approach to practice teaching based on controlled, content-free micro-teaching lessons. He claims that reflective teaching helps student teachers to "be made more thoughtful and wiser about their teaching" (p.13) by providing opportunities for analytical and objective consideration of their teaching. As reflective teaching focuses on assisting student teachers to develop specific skills and techniques, his definition of wisdom is presumably very narrow.

Many commentators criticise Cruickshank's notion of reflective teaching for its restricted focus (see LaBoskey, 1994; Adler, 1991; Smyth, 1989; Gore, 1987). Those who espouse the merits of critical reflection are among Cruickshank's harshest critics. As Gore (1987) argues, "Cruickshank essentially restricts the focus of reflection to ... methods for achieving prespecified goals, and in doing so risks these means becoming ends in themselves" (p.33). She describes his approach as one of technocratic rationality and claims that its

emphasis on questions of "How to do it?" rather than "Why do it?" or "Where are we going?" hinders, rather than promotes, reflection.

Some, though, suggest that such criticisms are unnecessarily harsh. As Killen (1989) points out, Cruickshank did not intend reflective teaching to be a vehicle for consideration of the political, social and cultural issues underlying teaching. Instead, he aimed to help student teachers develop an understanding of the complexities of classroom interactions. For this reason, Killen asserts, reflective teaching succeeds in what it sets out to do. Furthermore, he argues that while proponents of critical reflection adopt a different approach to reflection, there is no evidence to suggest that their approach produces better teachers. He concludes that "it seems more appropriate to simply acknowledge that each approach has merits and limitations" (p.50).

Although Killen's contention that philosophical differences, alone, do not constitute valid grounds for criticism appears reasonable, it is weakened by the context in which he argues. His apparent support for Cruickshank's claim that the complexity of teaching can be understood in isolation from the complexity arising from the particular context and cultural influences on that context seems, at best, naive. It could be argued that for philosophical positions to be taken seriously, they must demonstrate some understanding of the complexity of the issued with which they are concerned. From this perspective, Cruickshank's notion of reflective teaching appears to have less to contribute to understanding of reflection than the other orientations overviewed in this chapter.

In contrast to reflective teaching, which illustrates Van Manen's notion of technical reflection, Boud et al.'s (1985) orientation is similar to Van Manen's practical reflection. Like Van Manen, they focus on the interpretation of experience, but unlike Van Manen, emphasise the process, rather than the content, of this interpretation.

MAKING SENSE OF EXPERIENCE: BOUD, KEOGH & WALKER

To Boud et al. (1985), reflection is "a generic term for those intellectual and affective activities in which individuals engage to explore their experiences in order to lead to new understandings and appreciations" (p.19). They argue that the complexity of this process makes a precise explanation impossible,

but suggest that a number of stages are involved. These include returning to the experience, attending to feelings, and re-evaluating the experience. This view of reflection as an active, deliberate and purposeful process of learning from experience owes much to Dewey. Similarly, their emphasis on the striving for connections, synthesis and meaning which underpins this process of reconstructing experience and results in changed perspectives and behaviour has much in common with Schon's notions of reframing and reflection-on-action.

Mclean's (1994) overview of conceptualisations of reflection underpinning Australian teacher education programs suggests that Boud et al.'s orientation is highly influential. Thus, the paucity of published critique of their work is surprising. Boud & Walker (1992), themselves though, note some dissatisfaction with their earlier work, commenting that "while we were satisfied that our first approximation had captured something important, there remained too many loose ends and matters which we believed needed further development" (p.165). Their subsequent revision included more emphasis on what they saw as chronological stages of reflection. In their earlier version, they indicated that returning to the experience was the beginning of the reflective process. Their later version, though, included two prior stages - preparing for reflection and reflection-in-action, in the sense that Schon uses this term, during the experience itself.

Interestingly, the language which Boud & Walker use to describe their revised version seems somewhat inconsistent with their greater emphasis on what they consider the temporal nature of reflection. In their earlier version they referred explicitly to stages of reflection. In their later version they substitute instead the term *clusters* of reflective activity. As they make no mention of this softening of terminology, it is unclear whether this change was inadvertent, or intended to convey growing appreciation of the complexity of reflection. This apparent inconsistency, however, seems to suggest some confusion on their behalf.

In addition, it could be argued that Boud & Walker's revised model retains a number of limitations evident in their previous version. First, like their earlier model, it implies that reflection is a cyclical but repetitive process that fails to build upon itself. A spiral model, on the other hand, would imply a cyclical but

developmental process, which seems more appropriate to their orientation to reflection as personal and professional growth.

Second, contrary to their recommendation in their earlier work, they do not explore further the contribution of emotion to reflection. While they were among the first to emphasise its importance, they fail to explain how emotion contributes to reflection, other than to suggest that "positive feelings ... can provide us with the impetus to persist in what might be very challenging situations" and "help us see events more sharply" (p.29) while "negative feelings ... can form major barriers" (p.11). Their later revision does not advance this somewhat limited understanding of the role of emotion (Michelson, 1996).

Third, they fail to address the dichotomy between intellectual and affective activities which detracted from their previous work. Seemingly equating intellectual with thinking and affective with emotion, they overlook the possibility that both may be inextricably linked and unable to be disentangled meaningfully (Dufty & Dufty, 1994; Dunlop, 1984). Although in some ways their model appears to acknowledge the complexity of reflection, this continuing dichotomy may limit their understanding of this complexity.

Finally, their later version retains a strong emphasis on reflection as making sense of experience. They acknowledge that their model could be criticised for placing too much emphasis on the personal and for its lack of reference to the socio-cultural-political context, which they claim was an oversight. Unlike most advocates of a narrative orientation, they appear apologetic about this emphasis and contend that a critical perspective could be readily incorporated into future revisions. Proponents of *critical reflection* (e.g., Smyth, 1992; Zeichner & Tabachnick, 1991), though, may disagree for they see reflection as an inherently political and collective, rather than personal, process.

CRITICAL REFLECTION

Critical reflection is based on a belief in the collective construction of social practices, concern for their impact on equity and social justice, and commitment to eliminating inequalities and injustices (Zeichner & Tabachnick, 1991; Smyth, 1989). Extending beyond traditional educational concerns, critical reflection involves questioning the broader structures of society and

challenging the status quo (Wellington & Austin, 1996; Adler, 1991). Teaching is seen as a political process taking place in a political context (Smyth, 1989;1992). Fundamental questions underlying critical reflection include "Whose interests are being served?" (Zeichner, 1995; Smyth, 1986) and "In what ways do educational institutions replicate the status quo and how might they work to overcome social and cultural oppression?" (Wellington & Austin, 1996).

Yet, as Smyth (1989) points out, "the idea that teaching is a political process serving certain interests in demonstrable ways while actively excluding and denying others is not a notion that has general acceptance either among teachers or the wider community" (p.4). Proponents of critical reflection suggest that this view, in itself, is an outcome of a political agenda which has encouraged teachers, both inservice and preservice, to see themselves involved in an apolitical process. They argue that teachers must overcome this naivety and learn to question the images and purposes of teaching perpetuated by policy makers (Smyth, 1992). Furthermore, they contest that an emphasis on reflection on personal experience is misleading and counterproductive as it focuses concern on self rather than others and reinforces conservative political attitudes (Buchmann & Floden, 1993). They suggest that it should be promoted as a communal rather than an individual process, arguing that the empowerment of individual teachers is insufficient to achieve institutional, social and political change (Zeichner & Tabachnick, 1991).

While some proponents of a personal orientation to reflection appear to overlook the critical aspects of reflection - as Boud & Walker (1992) acknowledge about their earlier work - others contend that personal transformation is more powerful than the political transformation advocated by critical theorists. Arguing from an ecological and transformational rather than a dialectical perspective, they claim that social problems are more likely to be overcome through personal than political liberation (Wellington & Austin, 1996). Moffett (1994), for example, asserts that the self understanding and inner strength arising from the integration of personal, professional and spiritual growth enhances the individual's ability to contribute to the well being of society as a whole. He argues that because the individual mind is but part of a complex and interconnected universal mind, the attainment of knowledge, understanding and harmony through the development of self will

flow through to the universal, and thus benefit society. As Moffett acknowledges, from their materialist perspective, critical theorists may contest this view as irresponsible and narcissistic. Yet they appear to overlook that from a holistic or spiritual perspective, the individual and collective are one. Indeed, this holistic perspective underpinned Confucianism, which is widely credited with promoting a just and harmonious society (Arcodia, 1994).

Given the extensive critique of many other orientations to reflection, the lack of debate about critical reflection is surprising. Pertinent questions for such a debate might include whether the tendency of some critical theorists to dismiss other orientations to reflection as naive may hint at political pedantry, as Moffett (1994) implies, or whether the rhetoric of critical reflection is ultimately exclusionist (Brookfield, 1995). Are critical theorists, in fact, pursuing an agenda as equally rigid as the political agendas they eschew? What if one concludes, after sustained reflection, that calls for social equity merely constitute a particular socio-political or cultural bias, or that equity is not a viable or worthwhile goal? At a more prosaic level, is it possible or desirable to focus only on critical reflection, to the exclusion of technical or practical reflection? These questions appear to warrant discussion for they suggest that conceptualisations of reflection are informed by ideological as well as epistemological beliefs.

In many respects the remaining two orientations to reflection to be reviewed in this chapter represent the antithesis of critical reflection. That is, they tend to focus specifically on self development rather than social and political reform (although this may be an eventual outcome) and to be individual rather than collective in nature (Wellington & Austin, 1996). The discussion turns first to narrative reflection.

NARRATIVE

The narrative orientation to reflection emphasises the importance of voice and story in inquiry (Elbaz-Luwisch, 1997; Beattie, 1995a; Clandinin, 1992; Richert, 1992; Sparks-Langer, 1992). Proponents see voice as "an instrument of self consciousness that allows teachers to examine their beliefs and experiences" (Richert, p.190). Similarly, story or narrative is seen as a medium which reveals "the unities, continuities and discontinuities, images and rhythms of our lives" (Clandinin, p.124). By talking or writing about "what

they do, feel, or think, teachers raise to a level of consciousness the complex matters of their own work" (Richert, p.190). Thus, from a narrative perspective, reflection entails finding one's voice and constructing one's personal narrative about "what it means to be a teacher" (Goodman, 1992, p.177). As such, reflection "entails a personal search, a search for meaning" (Hultgren, 1987 p.30).

Although the narrative orientation to reflection has some similarities to feminist theory in that both emphasise the centrality of voice, (McEwan, 1997; Goodman, 1992; Richert, 1992), typically the former is seen as essentially constructivist rather than critical (McEwan, 1997; Munby & Russell, 1993). As such, it has been criticised for failing to reach beyond the individual (Buchmann, 1993b; Beyer, 1991; Bullough & Gitlin, 1989). At worst, argue Bullough & Gitlin (1989), narrative "becomes therapy, a form of disconnected but interesting indwelling" (p.287); at best, they claim, it simply maintains the status quo, while doing nothing to confront inequality and injustice. As McEwan (1997, p.87) elaborates:

Critical theorists argue that narratives are subtly persuasive: functioning coercively as a conservative social force to bind belief and action to dominant power structures and established institutional forms ... Stories aim to offer some legitimacy for our present actions and beliefs. They strengthen our prejudices and conceal the weaknesses in our unexamined beliefs.

Rather surprisingly, proponents of a narrative orientation to reflection, in general, seem rarely to have responded to such criticisms. They might do so, however, from a number of perspectives.

First, they might claim that narrative reflection is ideologically different from critical reflection. Emphasising relationships and collaboration (Beattie, 1995b; Clandinin, 1992) and based on an ethic of care (Noddings, 1986), in some ways it is diametrically opposed to critical reflection which emphasises confrontation, conflict and struggle. Alternatively, they might concur with Goodson (1997) that reflection on personal issues can be a precursor to socially critical reflection. Citing Graham (1987), Goodson points out that "stories are pre-eminently ways of relating individuals and events to social contexts, ways of weaving personal experiences into their social fabric" (p.115). In this way, stories can provide a starting point for enhancing understandings of social constructions.

The focus of much of the literature about narrative reflection and inquiry, however, suggests that proponents might be more likely to emphasise the emancipatory power of stories. They might adopt the stance referred to by McEwan (1997, p.88) that narratives offer "a way of giving expression to personal experience" and in doing so "function to free our thought from the oppressive grasp of conformity, and provide us with a means of expressing new meanings". They might further emphasise the emancipatory power of stories by arguing that stories provide a "non-hierarchical way of ordering experience" (McEwan, p.89) which can be less coercive than alternative hierarchically-structured discourses such as argument.

Proponents of a narrative orientation to reflection could develop the notion of narrative as emancipatory rather than coercive even further by emphasising the role of the unconscious mind in writing. As explained in later chapters, advocates of *freewriting* (e.g., Brand & Graves, 1994; Elbow, 1994; Holman, 1994; Macrorie, 1985; Brande, 1934) see it as a conduit between the unconscious and the conscious. In other words, the unconscious intuitively perceives connections which the conscious mind then structures. As such, they argue that freewriting enables the unconscious and the conscious to work together in synergy. Most proponents of a narrative orientation to reflection, though, appear to overlook the role of the unconscious.

Indeed, as this chapter has shown, most orientations, as commonly interpreted, emphasise the role of the conscious and the analytical (Korthagen, 1993; Tremmel, 1993; Houston and Clift, 1990; Yinger, 1990). The following orientation to reflection as contemplation provides some counterbalance to these prevailing conceptualisations.

CONTEMPLATION

Although several commentators criticise the constraints of Western notions of reflection and suggest turning to other traditions for enrichment, few offer guidance as to what alternative conceptualisations might look like. Yinger (1990) and Tremmel (1993), who explore the role of contemplation in reflection, are among the exceptions. Each turns to an Eastern tradition for inspiration, with Yinger drawing on Taoist principles and Tremmel on Zen Buddhism.

From most Western perspectives, Yinger argues, reflection is regarded as the final stage in an analytical process of planning, implementation and reflection. Eschewing this sequence he proposes a holistic process of *improvisation*, *contemplation*, and *preparation*. He describes improvisation as skilled, sensitive and complex action which is "highly patterned", "intelligently composed", and "continually responsive" (pp.85-86). It draws upon and, where necessary, reconfigures patterns of past action to meet present exigencies. In some ways similar to Schon's (1983; 1987) reflection-in-action, it owes much to intuitive feel and artistry. Yet improvisation is inward looking, whereas reflection-in-action has an outward focus, namely the solving of a specific problem.

Interestingly, Yinger rejects the term *reflection* because of his concerns about its Western connotations of sharply focused deliberation, logical analysis and problem solving. Instead, he adopts the term *contemplation* to describe a process of the mind roaming freely as it searches for "order, balance, harmony and symmetry" (pp.87-88). He contends that during this process, the mind is not detached from thought and feeling, rather "the contemplative mind ... uses the heat of feelings to warm the intellect" (p.87).

A similar emphasis on freedom and movement is evident in his notion of preparation. While planning seeks to control uncertainty by imposing "a framework to constrain possibility" (p.88), preparation recognises uncertainty as an integral aspect of professional practice. It involves responding to uncertainty, not by denial, but by becoming receptive to infinite possibilities.

Together, improvisation, contemplation and preparation lead to "holistic comprehension" (Yinger, p.85), an understanding in some ways reminiscent of Eastern notions of enlightenment, explained more fully in Chapter Three. Indeed, Yinger uses a traditional Taoist story to illustrate how planning gives way to instinct in the presence of contemplation and receptivity. In doing so, he presents an alternative to what many see as the traditional Western preoccupation with action (Wonder & Blake, 1992) and concentrates instead on immersion in the experience.

In this sense, Yinger provides a starting point for exploration beyond Western cultural traditions. Yet he does not proceed far with that investigation, for while he alludes to Eastern notions of reflection, he does not consider these

in any depth. Furthermore, some of his claims suggest either a possible misinterpretation of Eastern perspectives, or a deliberate but unspoken departure from them. He sees contemplation as a process of the mind "roaming freely", for example, whereas typically, Eastern traditions see it as a process of stilling or focusing the mind (Shaffi, 1988). Similarly, he claims that feelings and thoughts are involved in contemplation, whereas from most Eastern perspectives, contemplation commonly involves transcending feelings and thoughts. Clarification about whether he intended to base his notion of contemplation on Eastern understandings of reflection or whether these were only incidental would be helpful for those interested in extending his work.

In comparison, Tremmel (1993) adheres more closely to traditional Eastern perspectives. In doing so, he considerably advances Yinger's tentative exploration of the possible contribution of Eastern traditions to Western understandings of reflection. Also interested in the notion of contemplation as an aspect of reflection, he focuses on the Zen Buddhist tradition of *mindfulness*. He explains that "mindfulness in simplest terms means to pay attention to 'right here, right now' and to invest the present moment with full awareness and concentration" (p.443). When the mind wanders, as is its wont, it must be returned to awareness of the present. To be mindful means giving up "mindless absorption in the endless parade of thoughts through the mind" (p.444). To be mindful, one must live in the present and pay attention to the processes of one's mind, and to oneself in one's surroundings. Through mindfulness one may come to a direct and immediate understanding unattainable through analytical thought.

According to Tremmel, attention to the processes of one's mind, and to oneself in one's surroundings is lacking in most Western notions of reflection. Rather than *awareness* of mind, he argues, they tend to emphasise *use* of the mind. He contends that from most Western perspectives, reflection typically involves using the mind for a specific purpose, such as analysis, evaluation, decision making or problem solving. From these perspectives, reflection must have a practical outcome to be valued. Yet, as Tremmel points out, undue emphasis on the outcomes of reflection, may divert attention from awareness of the present to preoccupation with the future. In other words, an overemphasis on outcomes may discourage the development of mindfulness.

While there seems little reason to argue with Tremmel's interpretation of the Zen Buddhist tradition of mindfulness, questions inevitably arise as to its usefulness in enhancing understanding of reflection within a Western context. As explained in more depth in Chapter Three, many Western traditions highly value analytical thought as a means of arriving at practical solutions. Is there any place, therefore, for contemplation or mindfulness? Are there any links between contemplation and practice? Even if one were to accept that contemplation was of value, how feasible would it be to pursue in Western educational contexts? Finally, as critics might argue, could Tremmel's (and Yinger's) interest in pursuing these alternative perspectives constitute an example of uncritical enthusiasm for Eastern ideas? These questions are explored more fully later in this thesis.

Interestingly, apart from notable exceptions such as MacKinnon (1996) and Korthagen (1993) there has been relatively little response to Tremmel's and Yinger's alternative conceptualisations of reflection, especially by researchers attempting to identify evidence of reflection. Perhaps the lack of widespread debate concerning their contributions suggests that their ideas have been judged by many as essentially irrelevant. If so, this could be interpreted as further confirmation of the reluctance to venture beyond Western notions of reflection. Alternatively, lack of debate might simply indicate awareness of the methodological difficulties of investigating these orientations to reflection, as the decisions taken in several studies reviewed in the following chapter seem to imply.

Unfortunately, reluctance to venture beyond the accustomed, compounded by a pragmatic response to methodological challenges, could well contribute to what appears to be an impasse concerning contemporary understandings of reflection. As Tremmel points out, "we are caught in a circle of our own mind's making" (p.441). In other words, despite the diversity of orientations to reflection, our understanding of reflection remains essentially embedded in analytical Western traditions and continues to be shaped by those traditions. One way to enhance our current understanding may be to "try to gain a perspective from outside the ... circle - a perspective born of an entirely different epistemological tradition" (Tremmel, p.441). This challenge is taken up in Chapter Three.

CONCLUDING COMMENTS

The present chapter has highlighted the diversity of orientations to reflection cited in the contemporary teacher education literature and explained their underpinning epistemological differences. Like Michelson (1996), it concludes that as "reflection is a spatial metaphor, by definition it involves positionality and point of view. The angle of reflection ... determines ... what can be seen" (p.447). In other words, "reflection has no one definition; it is perceived in the eye of the beholder" (Sparks-Langer, 1992, p.165).

Nevertheless, it can be argued that these diverse perspectives and orientations share one commonality. As the preceding overview has shown, all incorporate the notion of reflection as a search for meaning. For this reason, henceforth in this thesis, reflection will be referred to as 'a search for meaning'. This conceptualisation recognises the diverse processes which reflection can entail, while emphasising that it is a deliberate act, undertaken with the intent of enhancing understanding.

In this thesis, understanding is interpreted as one's "inner grasp of what is at issue" (Barnett, 1994, p.99). A complex phenomenon, it is seen as a continuum which encompasses explicit, recognisable and communicable knowing (Barnett, 1994), unarticulated, tacit knowing (Polyani, 1967) and enlightenment in which the knower and known are at one (Heshusius, 1994). Meaning, on the other hand, is used to refer to understanding in context. As such, meaning involves awareness and appreciation of interconnections (Fuller, 1990; Bateson, 1979). This thesis posits that holistic processes incorporating cognitive, affective and intuitive aspects are integral to understanding and meaning.

Conceptualising reflection as a search for meaning is consistent with the argument, developed throughout this thesis, that this diversity of perspectives has the potential to enhance rather than hinder understanding of reflection. Realising this potential, however, would seem to require a greater appreciation of the complexity of reflection than currently evident in much of the literature. In particular, heightened awareness of the epistemological differences underpinning different orientations to reflection, greater care with terminology, and commitment to making explicit the meaning attached to reflection would appear to be needed.

This chapter has also argued that no one orientation to reflection provides an all encompassing perspective and that the current tendency to rely heavily on conceptualisations of reflection as predominantly analytical thought constrains our understanding of other aspects of reflection (Korthagen, 1993; Munby & Russell; 1993; Houston & Clift, 1990; Yinger, 1990). Consequently, more awareness of "relative positionality" is required (Michelson, 1996, p.447). Thus, those who seek to identify evidence of reflection should consider such questions as "How does relative positionality determine what is and is not visible? Who is looking? Who is being looked at? Who is standing where?" (Michelson, p.447). As the following chapter shows, these questions have been asked too rarely.

CHAPTER TWO

HOW CAN REFLECTION BE IDENTIFIED?

Perhaps the most central question ... is ... How would you recognise a reflective practitioner if you saw one? Copeland et al. (1993, p.348)

Not surprisingly, given the diversity of orientations to reflection discussed in the previous chapter, studies attempting to identify evidence of reflection in student teachers adopt markedly different methods. The present chapter reviews 16 such studies. These were selected from 45 studies of student teachers' reflection identified by a comprehensive, although not exhaustive, search of the teacher education literature.

Of these 45 studies (listed in Appendix 3), 13 were excluded from consideration for review for this thesis because they did not include a clear description or definition of what they meant by reflection. As explained previously, the diversity of orientations to reflection means that failure to make explicit the meaning one gives to reflection can lead to considerable confusion. Studies excluded on this basis include those by McMahon (1997), Kwan (1996), McLaughlin & Hanifin (1995), Hoover (1994), Tsangaridou & O'Sullivan (1994), Zulich, Bean & Herrick (1992), Cullen (1991), Surbeck, Han & Moyer (1991), Tama & Peterson (1991), Hillkirk & Dupois (1989), Morine-Dersheimer (1989), Bolin (1988; 1990) and Calderhead (1987). An additional study (Baird, 1991) was excluded because it did not indicate how data collected were analysed.

From the remaining 31 studies, I originally intended to select studies which represented different orientations to reflection (see Chapter One). Categorising the orientation underpinning each study proved difficult, however, with only a few studies (e.g., Clarke, 1995; Harrington & Hathaway, 1994; Ullrich, 1992; Trumbull & Slack, 1991) based solely on one orientation. Some studies, including Tsang & Wong (1995), Sparks-Langer, Simmons, Pasch, Colton & Starko (1990), Ross (1989) and MacKinnon (1987), claimed to be based on a particular orientation but closer examination revealed little relationship between the study and that orientation. Other studies (e.g., Chen, 1993; Guillaume & Rudney, 1993; Richert, 1992) draw with varying understanding upon a number of different orientations to reflection. Given these difficulties and the need to recognise the complexity of reflection, I

decided instead to select studies which illustrate the differing extent to which this complexity is acknowledged.

This chapter contends that studies can be located on a continuum according to their awareness of the complexity of reflection. It identifies three clusters of studies: (i) those which appear to show relatively little awareness of this complexity; (ii) those which show greater awareness of this complexity but remain confined by analytical perspectives; and (iii) those which attempt to move beyond analytical perspectives in order to appreciate more fully the complexity of reflection. The following review includes exemplars which represent the diversity of approaches to identifying reflection within each of these clusters.

STUDIES SHOWING LITTLE AWARENESS OF THE COMPLEXITY OF REFLECTION

Overall, studies which show relatively little awareness of the complexity of reflection seem unaware of their responsibility to consider their "relative positionality" (Michelson, 1996, p.447) and little of the tentativeness that might be expected in the face of such complexity. In addition, they tend to share some of the following characteristics. Frequently, they are informed by only one orientation to reflection and fail to consider the existence or potential relevance of other orientations. Often they are based on a simplistic interpretation (in some cases amounting to misinterpretation) and uncritical acceptance of their chosen orientation. As well, they focus mostly on what they regard as measurable aspects of reflection and ignore the non-measurable. The following discussion highlights each of these weaknesses in turn.

Informed By Only One Orientation

In many respects, Pultorak's (1993; 1996) studies exemplify those constrained by reliance on one orientation to reflection (in this case Van Manen's) and a disinclination to consider the potential relevance of others. His 1993 study involved 31 student teachers, most of whom were enrolled in an elementary program. Although the stage of the program in which they were enrolled is not indicated, his 1996 report suggests that they were undertaking a 16 week final practicum. The later study reports findings concerning the reflection of subsequent cohorts of student teachers undertaking this practicum, providing a total of 82 participants. In each study,

a variety of reflective writing and transcripts of supervisory interviews were analysed according to Van Manen's (1977) levels of reflection. In both studies, Pultorak found that interviews provided more evidence of reflection than written products and concluded that some participants found it easier to reflect verbally than in writing. His 1996 study reports substantial development in reflection during the 16 week practicum in both oral and written reflection. It could be argued, however, that these studies were limited by his narrow focus on Van Manen's orientation.

Pultorak's passing reference to individual differences in student teachers' ability to reflect, for example, does not extend to considering the possibility that some student teachers might favour a less analytical and more contemplative style of reflection which might not be identified by Van Manen's levels. He also appears not to consider the possibility that although student teachers may have developed greater mastery of a reflective writing genre (Hatton & Smith, 1995) as measured by these levels during their 16 weeks of practicum, they may not have necessarily become more reflective, but rather simply more adept at meeting program expectations. Had Pultorak also incorporated Dewey's criteria of openmindedness, wholeheartedness and responsibility, for instance, he might have been able to distinguish between genuine development in reflective writing and a strategic (Gibbs, 1992; Ramsden, 1992) response to meeting the requirements of the practicum.

It is unclear why Pultorak seems so disinterested in other orientations. Considering the extent of the literature about reflection, it would appear unlikely that he is unaware of their existence. Perhaps he considers Van Manen's orientation superior to others, although his adoption of the term *categories* in preference to *levels* suggests that he is not totally accepting of Van Manen's hierarchical conceptualisation. More pragmatically, he might regard this framework as simpler to use than alternative strategies emerging from other orientations.

Regardless of the reasons for his singular focus, it could be argued that Pultorak's work would be strengthened by an explanation of his decision to rely solely on Van Manen's orientation. As it stands, his failure to explain his lack of reference to other orientations to reflection could suggest that he may not have considered how Van Manen's work, and hence his own study, might be enriched by other orientations. Given the diversity of orientations and the

rich array of ideas they collectively present, his focus indeed appears unduly narrow. The following writers also relied heavily on only one orientation but their studies were further weakened by their apparently tenuous grasp of these respective orientations.

Simplistic (Mis)Interpretation

The earliest of these studies (MacKinnon, 1987) was undertaken with an undisclosed number of elementary education student teachers at the time of their first practicum. MacKinnon sought to determine the appropriateness of Schon's (1983; 1987) notion of reflection-in-action to student teachers' reflection. Data consisted of transcriptions of lessons taught by student teachers and post lesson interviews between student teachers and supervisors.

Using Schon's concepts of problem setting and reframing, MacKinnon devised an analytical scheme based on a cycle of reflection which consisted of three phases - *initial problem setting*, *reframing*, and *resolve*. He used this cycle to identify the phase to which the data might belong and then applied four criteria or *clues* to distinguish reflection from rationalisation. These were:

Clue 1: Can the phases of the reflective cycle be "seen" in the dialogue? ...

Clue 2: Is there evidence of a change in the perspective from which a classroom phenomenon is viewed?...

Clue 3: Does reframing result in a change in the conclusions about the problematic phenomenon or in the implications that are derived for practice?...

Clue 4: In the course of reframing, does the teacher draw from his or her personal experience as a student to make sense of the pupil's position? (p.140)

These criteria appear to have two major shortcomings.

First, they fail to do justice to the complexity of Schon's orientation to reflection. They do not incorporate, for example, the notions of intuitive feel and professional artistry underpinning Schon's work. Second, they suggest that MacKinnon may have misinterpreted the meaning of reflection-in-action. As discussed in Chapter One, reflection-in-action involves reflection which occurs simultaneously with action. Yet in MacKinnon's study, reflection took place after rather than during the teaching episodes, which suggests that he was investigating reflection-on-action rather than reflection-in-action. His apparent misunderstanding exemplifies the confusion concerning the

terminology and epistemological differences underpinning different conceptualisations of reflection referred to by many writers (e.g., Bengtsson, 1995; Hatton & Smith, 1995; LaBoskey, 1994; Copeland et al, 1993; Tom, 1992; Houston & Clift, 1990; Calderhead, 1989).

Despite the inherent methodological difficulties involved, it could be argued that MacKinnon must find ways to recognise intuitive feel and artistry if he is to more fully explore Schon's notion of reflection-in-action. One possibility might be to include a criteria which relates to student teachers' use of metaphor and imagery to explain decisions made during their teaching in a similar way to which Russell (1989) uses metaphor and imagery to document experienced teachers' reflection-in-action.

While MacKinnon's emphasis on the dynamic nature of reflection makes some contribution to our understanding of reflection, it could be argued that his contribution would be greater if he were more aware of the complexity of this dynamism. He might well consider, for example, Griffiths & Tann's (1992) notion that reflection operates at different levels of speed and consciousness. These writers anticipate differentiating between reflection-in-action and reflection-on-action on the basis of these levels. Yet, unlike MacKinnon, they do not appear to have trialled their conceptualisation. Indeed, in a later study, Tann (1993) appears to retreat from their earlier emphasis on differences in speed and consciousness. Perhaps the methodological challenges involved in identifying differences in these were too great to take this possibility further.

Interestingly, MacKinnon (1996), influenced by Tremmel (1993), revisits the notion of reflection-in-action almost a decade later to explore the potential relevance to reflection of Taoist notions of embodied or tacit knowledge. In his later work, he posits a similar argument to that underpinning this thesis, namely that different perspectives of reflection should be viewed for their potential contribution to a holistic understanding of reflection, rather than explored in a reductionist manner. Unfortunately, he stops short of suggesting how holistic understanding and reflection might be identified and represented. Although his later work is more tentative, it can be argued that it shows a far more sophisticated understanding of the complexity of reflection and thus makes a more valuable contribution to the literature than his earlier writing.

In contrast, it could be argued that Wenzlaff's (1994) apparent lack of awareness of the complexity of reflection limits her contribution to the literature. The focus of her research was to gauge the success of attempts to "train [my emphasis] student teachers to become more reflective thinkers" (p.278). Her choice of language suggests a mechanical view of reflection which is further supported by the simplistic nature of her findings. Data were collected from five participants undertaking a nine week practicum in either an elementary, middle or high school placement. Student teachers' daily journal entries, weekly peer coaching journal entries, notes from weekly supervisory meetings and surveys completed by student teachers at the beginning, middle and end of their practicum were analysed according to Van Manen's (1977) levels of reflection.

All Wenzlaff's data sources suggest a dramatic development in the participants' reflection, with most student teachers supposedly moving from technical to critical reflection. The sample data Wenzlaff provides as evidence of this shift, however, suggest that these findings are unduly optimistic. Her understanding of critical reflection initially seems reasonable as she notes that it is associated with "ethical and political concerns ... Equality, emancipation, caring and justice enter into curriculum planning and student assessment. Teachers begin to ponder the connection between the microcosm of the classroom and the broader setting engendered by social forces and structures" (p.280). Little understanding is evident, though, in her interpretation of the data. Note, for example, her claim that the following excerpt is an instance of critical reflection:

These books (developed by students) will help students develop rules and the reasons why we have them. It will help serve as a constant reminder of how they are supposed to act in school as well as in the grocery store and other public places. (p.283)

Her rationale for her interpretation is that this excerpt shows a "connection between the microcosm of the classroom and the broader setting" (p. 283).

Yet the nature of this connection suggests that this student teacher expects her students to conform to the status quo. As such, it seems to contradict the very essence of critical reflection. There appears no evidence, for example, to indicate any questioning of current practices or structures in terms of their implications for equity and social justice. Indeed, it could be argued that this excerpt illustrates the coercive nature of many widely accepted teaching

practices. Although it supposedly shows that students are encouraged to participate in a democratic process, the subtext strongly suggests that the outcomes or rules have been predetermined. In fact, a strong case could be made that this excerpt, far from showing evidence of critical reflection, indicates no evidence of reflection at all. It could be seen as simply reporting an event and as unquestioning acceptance of that event. That Wenzlaff considers this evidence of critical reflection appears to indicate a gross under estimation of what critical reflection entails. Consequently, her claim that participants in her study demonstrated dramatic development, with most moving from technical to critical reflection, needs to be treated with considerable caution.

The following studies appear to demonstrate a sounder grasp than Wenzlaff of their respective orientations to reflection. Nevertheless, it can be argued that they are limited by their narrow definitions of reflection which focus on supposedly "measurable" aspects of reflection and ignore aspects not amenable to measurement.

Excessive Emphasis On Measurement

All four studies reviewed here (Loughran, 1996; Tsang & Wong, 1995; Sparks-Langer et al., 1990; Ross, 1989) equate reflection with analytical thinking. Indeed, Sparks-Langer et al. prefer the term *reflective pedagogical thinking* which they define as "reviewing, reconstructing, reenacting and critically analysing" one's teaching (p.24). Similarly, Ross sees reflection as "a way of thinking about educational matters that involves the ability to make rational choices and to assume responsibility for those choices" (p.22). Although both claim to be influenced by Schon's orientation to reflection, there is little evidence of this for they make no mention of the notion of reflection-in-action based on professional artistry and intuitive feel which underlies much of Schon's work. Rather, Ross' study, like Loughran's, owes more to Dewey's notion of reflective thinking, as commonly (mis)interpreted (see previous chapter), while Sparks-Langer et al. rely heavily on Van Manen's conceptualisation. Tsang & Wong claim to be influenced by Zeichner's notion of critical inquiry, but their study demonstrates little evidence of this, nor indeed of the complexity of reflection.

Citing Ho & Richard's (1993) non-hierarchical framework of five broad topics of student teacher reflection, Tsang & Wong (1995) coded the journal entries

of seven third year student teachers undertaking a two week practicum in a secondary school. Subsequently, "total frequencies, mean frequencies and frequencies for individual trainees were calculated. Percentage of reflectivity out of the total number of references made was further explored in terms of mean percentages of reflectivity for each trainee" (p.28). This approach enables the tabulation of frequencies of topics of reflection but provides little insight into the nature or quality of that reflection. This lack of insight is evident in their conclusion that a "trainee may thus be described as reflective under two conditions: the individual frequency of reflective traits is above the mean frequency and/or individual percentage of reflectivity is above the mean percentage" (p.28). Their approach suggests an assumption, which many might consider unfounded, that reflection results in "crisp, measurable products" (Yonemura, 1991, p.416). Furthermore, it could be argued that even had their sample been sufficiently large and suitably representative of the range of student teacher reflection reported elsewhere to support their conclusions, their reductionist approach does little to enhance current understanding of reflection.

In many respects, Loughran (1996) adopts a similarly reductionist approach, although his recognition of the complexity of reflection appears considerably greater than that demonstrated by Tsang & Wong (1995). His study involved 19 secondary student teachers enrolled in a one year postgraduate diploma, although he collected intensive data (journal entries, interviews and video footage) from only four participants. His study extended for an academic year and is, thus, of considerably longer duration than other studies reviewed so far.

In contrast to Tsang & Wong (1995), Loughran looks at the processes as well as the content of reflection. He coded his data according to Dewey's phases of reflective thinking, which Loughran refers to as suggestions, problem, hypothesis, reasoning and testing. Although he notes Dewey's concerns about viewing these stages as discrete, he seemed to have no reservations about using them as discrete categories for analysis. He also undertook a content analysis of journal entries, using grounded theory methods (Glaser & Strauss, 1967) rather than a predetermined framework like that used by Tsang & Wong. He found that all participants reflected and that some became more reflective over time. Those who did so were "more likely to reflect on issues that are further removed from themselves" (p.103).

Loughran reached these conclusions by counting, graphing and tabulating frequencies of content of reflection and the five processes he saw as constituting reflection. He also tabulated what he referred to as instances of wholeheartedness, responsibility and openmindedness. Although willing to accept that attitudes and emotional qualities are linked to reflection, he appears to have relatively little understanding of their importance (Fletcher, 1997). He notes, for example, that :

The affective domain is important because a 'good' lesson can encourage a student-teacher to reconsider the learning from a teaching experience, while a 'bad' lesson (for some) might cause them to dismiss the episode completely and therefore limit their opportunities and pathways into retrospective reflection. (p.114)

Those who find his view of the affective dimensions of reflection simplistic would probably give little credence to his attempts to quantify and tabulate the presence of emotional qualities and attitudes. They might also argue that the inherent difficulties associated with attempting to reduce a complex process to discrete parts require that his charts and graphs be viewed with considerable caution. They might consider his case studies more useful, though, because they provide a context for the participants' reflection and for Loughran's interpretations, as well as allowing him to draw on a range of orientations to reflection where relevant.

Ross (1989) and Sparks-Langer et al. (1990) also emphasise measurement. Drawing respectively on Kitchener & King's (1981) stages of reflective judgment and Gagne's (1968) hierarchy of thinking, they develop hierarchical frameworks consisting of seven levels or stages. Ross' framework constitutes an epistemological model. At stage one, the world is viewed as simple, knowledge is seen as absolute, and authorities are regarded as the source of all knowledge. At stage two, there is a perception of legitimate differences in viewpoint, a beginning ability to interpret evidence, and a growing awareness of the difference between unsupported personal belief and evidence. At stage seven, the highest level, there is an ability to make objective judgments based on reasoning and evidence, and to modify judgments according to new evidence. In contrast, Sparks-Langer et al.'s framework, focuses on the language of explanation. Level two, for example, involves simple description and no explanation; level four involves explanation with tradition or personal preference given as the rationale; while level seven involves explanation with consideration of ethical, moral, political issues.

These hierarchical frameworks were used to code data which, in Ross' study, consisted of assignment papers submitted for assessment by 25 elementary student teachers during the third year of their program. In Sparks-Langer's study, undertaken with 24 third and fourth year student teachers, half of whom were enrolled in an elementary program, and half in a secondary program, data consisted of interview transcripts and reflective journals. As in Tsang & Wong's study (1995), it is not clear whether these journals were assessed.

Ross found that most student teachers usually demonstrated a low level of reflection, although almost all demonstrated a high level of reflection occasionally. Sparks-Langer et al., on the other hand, found most students to be moderately, but not consistently, reflective. These findings need to be viewed with considerable caution, though, for a number of issues warrant further discussion.

First, to what extent might data collected from assignment papers submitted for assessment be influenced by attempts to accommodate perceptions of the reader's expectations (Francis, 1995; Hatton & Smith, 1995)? In other words, how trustworthy (Lincoln & Guba, 1985) is Ross' data? Second, is the effectiveness of these coding schemes limited by their respective emphases on reflective judgment and the language of explanation? Does this emphasis on aspects of reflection more amenable to measurement distort their findings? Third, how can linear coding schemes recognise the complex and multifaceted nature of reflection? Finally, to what extent can such frameworks take account of individual differences in communication skills, and preferred learning styles which might impact on the nature of reflection?

Although Ross appears unconcerned about such issues, Sparks-Langer et al. have some misgivings about their linear framework. Notably, they are the only authors represented in this cluster who express qualms about the adequacy of their approach. While their suggestion that a dual coding scheme be used to distinguish between reflection of a technical and moral nature seems to indicate a growing awareness of the complexity of reflection, a considerably more sophisticated form of representation may be required if the many aspects of reflection indicated by the different orientations reviewed in

Chapter One are to be recognised and validated. This issue is addressed in more detail later when studies representing the third cluster are investigated.

In contrast to the studies reviewed thus far, the following studies show considerably more awareness of the potential contributions of different orientations to reflection. They are also more inclined to explore critically the potential contributions of these orientations to enhancing understanding of reflection. Furthermore, because these studies are more aware of the complexity of reflection, they are less inclined to adopt simplistic forms of measurement.

STUDIES SHOWING GREATER AWARENESS OF THE COMPLEXITY OF REFLECTION

Greater alertness to the complexity of reflection led the writers reviewed below to adopt more sophisticated approaches in their efforts to identify evidence of reflection. As within the previous cluster, there are differences in how they conceptualised and attempted to identify reflection. Three broad approaches are discussed: the development of more broadly encompassing conceptual frameworks; an emphasis on connections and meaning; and a focus on the characteristics of reflective student teachers, rather than on reflection *per se*.

Some of the studies reviewed below were selected because of their seemingly more informed and insightful approach to issues raised earlier in this chapter. Hatton & Smith (1995), for example, address a number of concerns which Pultorak (1993; 1996) raises but fails to explore. Similarly, Rovegno (1992) proposes a conceptual framework which includes, but extends considerably beyond that developed by Ross (1989). Likewise, it could be argued that Harrington, Quinnleering & Hodson (1996), Clarke (1994; 1995) and Tann (1993) develop aspects of Tsang & Wong's (1995) and Loughran's (1996) work. Other studies (e.g., Korthagen & Wubbels, 1995; LaBoskey, 1994) were selected because they adopt different conceptualisations and approaches to identifying reflection than those reported thus far.

More Encompassing Conceptual Frameworks

Like Pultorak (1993; 1996), Hatton & Smith (1995) and later Smith (1997) investigate links between strategies used to promote reflection and the extent

and nature of ensuing reflection. Data, consisting mainly of written reports submitted for assessment, written self evaluations, responses to video tapes of participants' teaching, and interviews between critical friends were collected from 60 secondary student teachers during the fourth and final year of their program. In an extension of the 1995 study, Smith (1997) collected similar but less comprehensive data from 20 additional participants.

Unlike Pultorak, Hatton & Smith drew on a range of orientations to reflection, including Schon's reflection-in-action. Their definition of reflection as "deliberate thinking about action with a view to its improvement" (p.40) in many respects, therefore, seems surprisingly narrow, especially if they associate deliberate thinking with analytical thinking and improvement with solutions. On the other hand, they might readily acknowledge that it is possible to deliberately adopt a contemplative or intuitive approach. Similarly, they might see improvement encompassing not only notions of mastery and problem solving, but also harmony and transcendency. Whether they would acknowledge intuition, contemplation, harmony and transcendency as possible aspects of reflection is unclear. Although their descriptors of different types of reflection suggest not, their definition appears nonetheless to have the potential to incorporate these aspects.

A conceptual framework emerging from Hatton & Smith's preliminary analysis of the data were subsequently used to identify four types of writing - *descriptive writing*, *descriptive reflection*, *dialogic reflection*, which involves "weighing competing claims and view points, and then exploring alternative solutions", (Hatton & Smith, 1995, p.45) and *critical reflection*. All but the first of these were classified as different types of reflection. Hatton & Smith found most evidence of descriptive writing which involved the reporting of events or literature without reflection. Of reflective writing, descriptive reflection was most common and critical reflection least common. They conclude that reflection is most likely to be demonstrated when strategies involving critical friends or collaborative discussion in a supportive and trusting environment are adopted. Although limitations associated with assessed material referred to previously also apply to Hatton & Smith's work, their study raises several important issues.

First, as Hatton & Smith point out, for writing to be identified as reflective, it must satisfy certain criteria which impose particular requirements concerning

language patterns and syntax. In effect, argue Hatton & Smith, these requirements amount to a reflective writing genre. Distinguishing between mastery of a reflective writing genre and reflection thus becomes problematic. If, as Hatton & Smith suggest, socio-economic background impacts on mastery of this genre, then equity as well as methodological issues arise when attempting to identify evidence of reflection:

Second, typical expectations of academic writing "are in many ways the antithesis of the personal, tentative, exploratory and at times indecisive style of writing which would be identified as reflective" (Hatton & Smith, p.42). Such expectations may inhibit reflective writing, but not necessarily reflection. Again, it is necessary to distinguish between the ability and willingness to write in a reflective style and the ability and willingness to reflect. It is also important not to discount the possibility that student teachers may be more reflective than their writing suggests.

Third, it could be argued that studies which analyse written data for evidence of reflection place undue emphasis on the text produced. Given the above concerns, it might be valuable to focus more on the writing process than the product. While proponents of narrative reflection have long argued that writing is a process of constructing meaning and finding one's voice, more recently, there seems to be increasing appreciation in the general literature about reflection of the importance of the writing process. Hatton & Smith (1995), Perry (1995) and Tann (1993), among others propose that description establishes a contextual base for understanding. Thus, it might be more appropriately seen as a vital process in reflection than evidence of low level reflection.

Just as Hatton & Smith extend Pultorak's work by introducing the above complexities which the latter apparently overlooked, Rovegno's (1992) study extends Ross' (1989) conceptual framework referred to earlier in this chapter. Although both Rovegno and Ross were influenced by Kitchener & King's (1981) stages of reflective judgement, Rovegno drew on Belenky, Clinchy, Goldberger & Tarule's (1986) seminal work into women's ways of knowing to incorporate a personal, intuitive and emotional dimension entirely missing from Ross' work. Citing Belenky et al., Rovegno (p.493) describes five ways of knowing, as follows:

- (a) silence (women who felt voiceless and assumed they could not learn from hearing others),*
- (b) received knowledge (women who listened to the voices of others),*
- (c) subjective knowing (women who listened to their own inner voice),*
- (d) procedural knowing (women who listened to the voice of reason), and*
- (e) constructed knowing (women who integrated the voices).*

The ability of her conceptual framework to encompass more than analytical thought suggests that it might have considerably more potential to enhance understanding of reflection than those proposed earlier in this chapter.

Nevertheless, Rovegno's definition of reflection is somewhat unclear. Initially she implies that reflection is a process of "constructing knowledge" (p. 493). Later, she states that reflection is "a personal act of constructing knowledge based on confidence in one's inner voice" (p.508). Has she narrowed her definition to include only subjective knowing, or is she simply emphasising that confidence in one's inner voice is necessary for reflection? Given the developmental nature of her framework one assumes that she sees subjective knowing as the starting point for reflection. Certainly, she emphasises that those who favour silence and received knowing will find reflection extremely difficult as they have not learnt to trust their own voice. Presumably, however, she would acknowledge that reflection may also be involved in procedural or constructed knowing.

Using data from non-participant observation in practicum settings, interviews and documentation including written lesson evaluations, unit evaluations and dialogue journals, Rovegno profiled three elementary student teachers enrolled in an undergraduate physical education program. The stage of the program in which the participants were enrolled is not disclosed. One of the three student teachers strongly preferred received knowledge and discounted her own evident ability to construct knowledge. Consequently, although a dedicated student, she found reflection difficult and unsatisfying. Her image of the teacher as an authority "left little room for ambiguity, recognizing dilemmas, weighing alternatives, or valuing the role of personal philosophy and beliefs in teaching decisions" (p.500). In contrast, the other two students valued making connections among their beliefs, experiences and knowledge learnt from an authority. Rather than listening to one truth, they heard several voices, saw situations from multiple perspectives and constructed their own interpretations.

In comparison to those reviewed previously, Rovegno's conceptual framework has several strengths. It allows her to develop more comprehensive profiles of student teachers' reflection than those enabled by the more limited frameworks outlined in the previous section. In addition, although her study involves only three participants, her framework appears to provide a useful structure for studies involving larger numbers. Furthermore, as noted previously, it acknowledges the emotional and intuitive aspects so often overlooked by other studies. Nevertheless, it could be argued that her framework retains a bias towards analytical thought in that it appears to regard subjective knowing, with its emotional and intuitive components, less highly than procedural knowing based on rational thought.

Emphasis on Connections and Meaning

In a similar way to which Rovegno (1992) extends Ross' (1989) study, Harrington et al. (1996), Clarke (1994; 1995) and Tann (1993) appear to extend Tsang & Wong's (1995) and Loughran's (1996) work. To some extent, the latter five writers all utilised content analysis. Tsang & Wong and Loughran focus much more on measurement, however, whereas Harrington et al., Clarke and Tann are concerned more with meaning, complexity and connections. As such, the latter three seem to make a more meaningful contribution to the literature about reflection.

Like Loughran, Harrington et al. (1996) investigate the role of Dewey's notions of openmindedness, wholeheartedness and responsibility. Yet unlike Loughran, Harrington et al. explore possible variations of these qualities or attitudes and the connections between these variations and consequent reflection. They found that some student teachers appear more able to see situations from a teacher's perspective, others from a child's perspective, and others from a more inclusive perspective. Although all these student teachers could be said to be more openminded than their counterparts who could see no perspective other than their own, there were differences between the reflection emerging from these variations of openmindedness. These writers found similar variations in wholeheartedness and responsibility. In many respects, these finer shades of meaning appear to do more to enhance understanding of reflection than graphs and charts of frequencies of incidents of reflection.

In another example, Clarke (1994; 1995) develops case studies of four secondary student teachers' reflection during a 13 week practicum. He uses a conceptualisation based on Schon's notion of reflection-in-action to analyse data from supervisory discussions and stimulated video recall sessions. Although several of the criticisms related to Mackinnon's (1987) understanding of the complexity of Schon's orientation reviewed earlier in this chapter could also apply to Clarke's work, Clarke nevertheless extends on Tsang & Wong's (1995) and Loughran's (1996) studies.

Of the seven categories of reflective themes which emerged from Clarke's data, one led to a notably more holistic perspective. When participants developed a sense of ownership of their practice, they tended to focus on their practice as a whole. In contrast, those who lacked a sense of ownership, continued to focus on specific aspects of their practice which seemed to preclude them from developing a more holistic understanding. He also noted a range of emotions which seemed to precipitate reflection. These examples suggest that Clarke's emphasis on connections between the data might have considerably more potential for further enhancing understanding of reflection than the reductionist approaches of Loughran (1996) and Tsang & Wong (1995).

Like Clarke, Tann (1993) also focuses on the role of connections in reflection. To Tann, reflection involves identifying, exploring, analysing, problematising, comparing and reformulating one's personal theory or "set of beliefs, values, understandings, assumptions" (p.55) about teaching. She argues that until student teachers are aware of their personal theories they are unlikely to make connections with publicly recognised theories. It is interesting to speculate on links between her notion of personal theory as a medium for connecting with alternative theories in a way that enhances understanding and notions of universal interconnectedness underpinning many Eastern traditions and ecological and holistic perspectives in general. This is explored more fully in Chapters Three and Four as a possible direction for further research.

Tann's study involved 32 first year student teachers in the first year of an elementary B.Ed program during a four week practicum. Data consisted of student teachers' lesson plans and evaluations of these plans. Unlike several studies referred to previously involving similarly large numbers, Tann decided

against basing her analysis on a predetermined conceptual framework. While acknowledging that such frameworks might be useful for initial analysis, she argues that "they might well miss rich insights into student thinking" (p.59). She also rejected linguistic analysis, citing similar concerns to those expressed by Hatton & Smith (1995). As well, she refers to the difficulties in accessing and analysing "deep-structure meanings" by "surface linguistic features" (p.60), a methodological challenge discussed in more depth in Chapter Four. Because of her focus on connections, she decided instead to use thematic analysis.

Surprisingly, given Tann's interest in personal theories, her analysis focuses almost entirely on processes of analytical thought. She shows little awareness of the affective dimensions of personal theories and their potential for establishing connections. Similarly, she seems unaware of the arguments of proponents of narrative orientations with whom, philosophically, she seems in some ways aligned. This apparent lack of awareness leads her to rate relatively lowly evaluations "written in a 'story' style" (p.64) although she acknowledges that "this appeared to be a necessary stage for students to experience before they could begin to see patterns, trends, recurrent issues which could then form the basis of a more analytical approach" (p.64). While Tann seems to have an implicit awareness of the importance of affective dimensions, she has not made this understanding explicit. Despite her interest in connections, her conceptual understanding of the complex nature of these connections seems unduly constrained by an over-reliance on analytical perspectives. A similar tension between appreciation of the complexity of reflection and the constraints imposed by an over-reliance on analytical perspectives is also evident in the studies reviewed below.

Characteristics Of Reflective Student Teachers

Many argue that when dealing with complex phenomena such as reflection, description may be preferable to definition. They point out that efforts to make meanings more precise may result only in loss of clarity (Smith, 1990). As well, they assert that definitions can operationalise and reduce what are best understood as complex processes and abstract values into behaviour that is "generalizable, observable, and teachable" (Richardson, 1988, p.14). The studies reviewed here highlight the issue of description versus definition, and consequent implications for identification of reflection.

Because of its complexity, LaBoskey (1994) prefers to describe rather than define reflection. She sees reflection as a process of constantly envisioning and considering alternatives. While reflection involves making decisions, she argues that these are never conclusive but always subject to reconsideration. In this sense, she considers that reflection is characterised by a state of flux. She asserts that the constant repositioning which constitutes this flux may involve many processes and refers specifically to emotional and intuitive responses, systematic and logical analysis, and contemplation. As such, she draws on a range of orientations to reflection.

In contrast, Korthagen & Wubbels (1995), who are influenced primarily by Schon's orientation, prefer to define reflection. To them, "reflection is the mental process of structuring or restructuring an experience, a problem or existing knowledge or insights" (p.55). Like LaBoskey, however, they acknowledge that reflection is more than "a purely rational process" and argue that "emotions and attitudes play a crucial role" (p.70).

Given their respective preference for description and definition, it seems somewhat ironic, therefore, that LaBoskey initially proceeds to attempt to measure reflection, while Korthagen & Wubbels, perhaps more astutely, recognise the enormity of this task, and concentrate on identifying characteristics of reflective student teachers. Yet it is LaBoskey who eventually appears to develop more insight into the affective aspects of reflection, although ultimately, she arrives at these insights through description, rather than measurement. One wonders whether her decision to describe rather than define reflection, may have allowed her to move beyond boundaries which definitions tend to impose (Bullough, 1989).

LaBoskey's study is of particular interest because its purpose is somewhat similar to that of the present study. She investigates the nature of and changes in reflection of twelve student teachers enrolled in a postgraduate secondary teaching program, and attempts to identify factors which might impact on the development of reflection. Korthagen & Wubbels' investigation into the characteristics of reflective student teachers, on the other hand, constitutes a small part of a larger study into the effectiveness of a secondary mathematics teacher education program. LaBoskey's study is longitudinal, covering an academic year, while Korthagen & Wubbels present a snapshot

taken at a particular period in time during the larger longitudinal study (see also Wubbels & Korthagen, 1990).

The two studies share some similarities, particularly in their selection of participants. In both cases participants were selected on the basis of their scores in a questionnaire. LaBoskey's questionnaire asked participants about their initial perceptions of teaching and learning. Using a simple numerical scale, she then coded the reflectiveness of their responses to determine their initial reflectiveness. Subsequently, she selected six participants identified as reflective and six identified as non-reflective. In a similar way, Korthagen & Wubbels selected three participants, two of whom they regarded as reflective and one as less reflective. They asked student teachers to report on their external / internal orientation to learning, which they then equated with likely reflectiveness. Although both approaches have weaknesses, the self reporting nature of Korthagen & Wubbels' questionnaire might leave less room for misinterpretation by the researcher.

Both Korthagen & Wubbels and LaBoskey then developed case studies of participants, with the former using interview transcripts and the latter data gathered primarily from written assignments. Korthagen & Wubbels' snapshot approach precluded investigation of any changes in reflection while LaBoskey's findings indicated that initial differences between the reflective and non-reflective student teachers remained stable, suggesting that their teacher education program had little impact on their propensity to reflect. If replicated by further research, these findings appear to raise serious implications for teacher education programs which place a particular emphasis on reflection.

There seem several limitations, though, in LaBoskey's method. First, her data consisted mainly of material submitted for assessment. Potential difficulties associated with this have been described previously. Second, she does not explain how she arrived at her initial criteria for identifying reflection. Third, her criteria appear to bear only partial relationship to her description of reflection. Based on three categories - *problem setting*, *means-end analysis* and *generalisation* - they ignore non-analytical aspects of reflection and appear to overlook the importance she supposedly attaches to the potential role of emotion and intuition in reflection. Fourth, the simplistic numerical weighting given to various criteria fit oddly with her acknowledgment of the complexity

of reflection. Fifth, like Loughran (1996) she relies mainly on numerical scoring to identify changes in reflection, rather than exploring instances of change through her much more informative case studies.

It might be argued that many of the above contradictions arise from the inevitable methodological constraints involved in identifying a process as complex as reflection. LaBoskey, however, neither acknowledges nor offers explanations for these contradictions, and in this respect her study is disappointing. That her study, despite its limitations, was awarded a prestigious educational research prize indicates the extent to which research into reflection is still essentially confined to analytical perspectives. So too, does Korthagen & Wubbels' decision to adopt the methods they did, despite Korthagen's (1993) discussion two years previously of the need to move beyond the constraints imposed by analytical perspectives.

Arguably, LaBoskey's most important contribution to the literature is her identification of characteristics typically associated with the more reflective student teachers. In contrast to Korthagen & Wubbels, who identify what could be seen as somewhat predictable characteristics closely associated with analytical thinking, LaBoskey identifies attributes which have the potential to explain and enrich current understanding of the role of emotion in reflection. Key amongst these attributes is the possession of a *passionate creed*.

According to LaBoskey, more reflective student teachers tend to be guided by strong beliefs, or passionate creeds, which permeate their thoughts and feelings about teaching and inspire them to reach towards what is important to them as teachers. Because they actively seek to make sense of their passionate creed and to understand the implications for their teaching, they have a propensity for asking "Why?" questions. Less reflective student teachers, in contrast, are unlikely to have a passionate creed, are more attracted to conformity and more likely to ask "What works?". LaBoskey argues that because passionate creeds play such an important role in reflection, they need to be explored further if reflection is to be more fully understood.

In summary, the studies reviewed above reveal considerably more appreciation of the complexity of reflection than those in the previous cluster.

On the whole, however, they remain unwilling or unable to move beyond the constraints of analytical perspectives. In contrast, those reviewed below seek to transcend these constraints, albeit with varying success.

STUDIES ATTEMPTING TO TRANSCEND ANALYTICAL PERSPECTIVES

Only two of the 45 identified studies of student teacher reflection considered for inclusion in this review (Sumsion, 1995; Yonemura, 1991) attempted to any great extent to move beyond what this thesis contends are the overly analytical perspectives dominating much of the research into reflection in teacher education. Consequently, to add depth and breadth to the following discussion, two studies involving experienced teachers (Miller, 1994; Loudon, 1992) which seek to venture beyond analytical perspectives are also included. The studies reviewed below focus respectively on the use of two dimensional conceptual frameworks, exploration of personal theory, and contemplation as tools and techniques for transcending these constraints.

Two Dimensional Conceptual Frameworks

Both Loudon (1992) and Sumsion (1995) posit that two dimensional frameworks might provide a more effective means of acknowledging and investigating the complexity of reflection than the one dimensional frameworks referred to previously. Consequently, both develop matrixes to identify evidence of reflection, determine the nature of that reflection and develop profiles of reflective styles. Conceptually, however, their matrixes differ.

In many respects the more conventional of the two, Loudon's matrix draws upon the range of orientations to reflection identified in Chapter One. He labels one axis *interests* and the other *forms*. The former refers to the goal or purpose of reflection; the latter to the process. The interest dimension derives primarily from the work of Habermas (1973) and Van Manen (1977) and includes the categories *technical*, *personal*, *problematic* and *critical*. As such, Loudon subdivides Van Manen's level of practical reflection into personal (in the narrative sense) and problematic (resolution of problems of professional action). Unlike Van Manen, however, he does not imply a hierarchical relationship between the categories. The categories on the form dimension - *introspection*, *replay and rehearsal*, *enquiry*, and *spontaneity* - represent the different processes of reflection and are distinguished according to the interrelationship between thought and action. Introspection, for example, is "a

process of thinking or feeling separated from action" (p.192) while spontaneity is akin to Schon's notion of reflection-in-action which takes place at the moment of action.

Adopting a more encompassing view, Sumsion argues that different orientations to reflection highlight different facets of what is ultimately a holistic process and that reflection is best conceptualised as a search for meaning. She asserts that there are two fundamentally different approaches to this search for meaning. One is dependent on what could be called traditional Western conceptions of logical and systematic analysis; the other is not. Thus, she labels her axes *rational* and *non-rational* dimensions of reflection. Derived from Ross (1989) and Sparks-Langer et al. (1990), the categories on the rational dimension are *description, explanation, recognition of alternatives, recognition of inconsistencies* and *consideration of consequences and implications*. Drawing on literature associated with emotions, intuition, and beliefs, Sumsion develops corresponding categories for the non-rational dimension which she terms *reaction, insights into reaction, recognition of beliefs, values and attitudes, contemplation of beliefs, values and attitudes, and reconsideration of beliefs, values and attitudes*. Succeeding categories build on those before and are, therefore, indicative of more complex reflection. She emphasises, though, that more complex levels are not inherently more worthwhile but that different types of reflection may be more appropriate in different contexts.

Sumsion uses the matrix to develop profiles of the reflective styles of 12 early childhood teachers, half of whom were in the second year of their program and half in their third and final year. Her study provides a snapshot of these student teachers at a particular point in time and has no longitudinal dimension. In contrast, Loudon profiles an experienced secondary teacher, Johanna, over a 12 month period.

Interview transcripts constitute the main source of data for each study and are coded according to the categories on the respective matrixes. Noting interrelationships between processes and content, Loudon concludes that Johanna tended to reflect on personal issues through introspection and on problematic issues through replay and rehearsal, enquiry, and spontaneity. Neither he nor Sumsion found much evidence of technical or critical reflection. Yet, like LaBoskey (1994), Sumsion found that more reflective

student teachers appear to be guided by underlying themes which appear to act as scaffolds for their developing understanding of what it means to be a teacher. The considerable variation in reflective style amongst the more reflective participants led Sumsion to conclude that logical analysis should not necessarily be viewed as an inherent component of reflection.

Compared to others reviewed thus far, in some respects, these studies offer alternative schemas with considerable potential to recognise the multifaceted nature of reflection. Louden's introspection category, for example, seems potentially able to incorporate Eastern traditions of contemplation as previously described by Tremmel (1993) and Yinger (1990). Similarly, Sumsion's non-rational axis provides a justification for the inclusion of aspects such as passionate creeds. In addition, it might be argued that the non-hierarchical nature of their frameworks validate different aspects of reflection and are thus less biased towards conceptualisations of reflection as solely or predominantly analytical thought than many linear schemas (e.g., Rovegno, 1992; Sparks Langer et al., 1990; Ross, 1989). Furthermore, Louden and Sumsion argue that their two dimensional frameworks provide more scope for acceptance of individual styles of reflection, and "a more subtle and textured account" of reflection than a linear framework (Louden, p.209). Moreover, as Sumsion points out, while not offering the depth of narrative accounts, they can be used in studies involving a relatively large number of participants.

Both studies are seriously flawed, however, particularly in a philosophical sense. Although Louden and Sumsion argue that the categories of their matrixes are not rigid or definitive distinctions, the very nature of the matrix structure contradicts their arguments. The dualism inherent in Sumsion's matrix is especially contradictory, given her emphasis on the holistic nature of reflection. As Sumsion acknowledges, matrixes encourage "a reductionist approach to analysis which artificially fragments and distorts" (p.138). Furthermore, she admits that while her non-rational dimension usefully highlights a long overlooked aspect of reflection, this paradox remains problematic. So, too, does "the use of an indisputably analytical tool to understand the non-rational" (p.138). Ironically, therefore, these matrixes perpetuate many of the limitations associated with an over reliance on analytical thought which Sumsion, in particular, seeks to overcome.

Methodologically, these matrixes present additional difficulties. Sumsion, for example, notes that the complexity of the matrix hinders inter-coder reliability, especially for data which do not obviously involve a second dimension. She concludes that her matrix is "too complex to use reliably, yet too simplistic to do justice to the complexity of reflection" (p.138). While Louden remains silent about such issues, it seems likely that these methodological difficulties would apply equally to his matrix. If such conceptual frameworks are to be used, it seems essential that their limitations be acknowledged.

Exploration Of Personal Theory

In contrast to the conceptual frameworks described above, Yonemura (1991) adopts a narrative approach to investigating and identifying reflection. She sees reflection as a process of understanding one's *inner world* and its implications for practice. To Yonemura, inner worlds are best described in terms of "images, personal philosophy, rules, practical principles, rhythms, and narrative unity" (p.398, citing Connelly and Clandinin, 1988).

Yonemura's study focuses on a graduate student teacher, Kate, during the two years in which she was enrolled in a Masters degree program in early childhood education. One of only five of the 45 studies originally identified to focus on early childhood rather than elementary or secondary student teachers, Yonemura's study also adds a longitudinal dimension lacking in most other studies of student teacher reflection.

Using data collected through interviews, observation of practice teaching supervisory conferences, journal entries and various assignment papers, Yonemura explores Kate's personal philosophy, values, beliefs and images to understand her inner world. Kate's story begins with an overview of her *cherished values*, and tells of the tensions and conflicts which arise when she attempts to put her images, personal philosophy, and cherished values into practice. Kate's cherished values, or passionate creed (LaBoskey, 1994) include a belief in the need for children to experience autonomy in their learning. Interestingly, Rovegno (1992) and LaBoskey (1994) found a similar belief in the more reflective students in their studies, which suggests that reflective student teachers may share some common characteristics and interests.

Kate's profile supports Tann's (1993) argument that understanding personal theories or inner worlds assists in establishing connections with public theories. It also illustrates what Yonemura refers to as a dialectical relationship between past and present experiences and the role of emotion in making sense of those experiences. In elaborating on the importance of images, emotions and beliefs as primary aspects of reflection, Yonemura extends the tentative efforts of several studies reviewed in the previous cluster to transcend conceptualisations of reflection as essentially analytical thought.

As Hadfield & Hayes (1993) point out, critics of narrative approaches might argue that Yonemura's study, like narrative accounts in general, focuses too heavily on the person and insufficiently on the process of reflection. On the other hand, if reflection is indeed an inherently personal process, then it can be argued that one must first understand the person to understand reflection (Tann, 1993). Additionally, it could be argued that those who are accustomed to reports of reflection which focus on analytical thought might find it difficult to recognise the significance of other aspects of reflection, such as emotions and images. Those who aim to heighten awareness of these aspects, therefore, appear to have a responsibility to make explicit why they consider these aspects equally important to reflection. This challenge is addressed in the following chapter.

The final study differs from others reviewed in this chapter. Instead of attempting to identify or describe evidence of reflection, Miller (1994) focuses on the experience of reflection. Moreover, his is the only study reviewed which derives solely from a contemplative orientation to reflection.

Experience Of Contemplation

Miller (1994) advocates contemplation as a means of transcending the dualism characterising Sumsion's (1995) and Louden's (1992) studies. Like Tremmel (1993), he sees contemplation involving a form of understanding beyond that attainable through rational thought. Rather, it is based on a deep sense of connectedness such that "the person is not thinking or reflecting on something but in some sense has become part of what he or she sees" (Miller, p.55).

Unfortunately, the details of Miller's study are vague. Basically, he describes his graduate students' experiences of meditation, a form of contemplation, as reported in their journals maintained as part of course requirements. He does not disclose the number of participants, nor does he explain whether the journals were assessed. Data analysis involved identifying key themes emerging from journal entries.

Initially, Miller notes, many participants found meditation difficult, possibly because of their strong task-orientation. As he explains, "one way to look at meditation is that it is simply being present in the moment, which runs counter to the whole concept of striving to achieve a specific task or objective" (p.61). With perseverance, though, participants reported several benefits. These included heightened self understanding; feelings of calmness and centredness; an ability to view their experiences from a larger perspective; and a growing sense of interconnectedness and interrelatedness. Some of these benefits, such as the broadening of perspectives, are similar to those associated with more analytical perspectives. This appears to add weight to claims (e.g., MacKinnon, 1996; Sumsion, 1995) that reflection is a holistic process, only partially understood from any one perspective or orientation.

While it could be argued that Miller's study offers few insights concerning identifying evidence of reflection, at least from an analytical perspective, it suggests that an alternative approach to identifying evidence of reflection might be to look for indications of reflection having taken place. The benefits of contemplation as reported by Miller's participants might well constitute such an indication. If combined with LaBoskey's (1994) and Korthagen & Wubbels' (1995) interest in the characteristics of reflective student teachers, a more indirect approach of this nature may ultimately do more to enhance understanding of reflection than approaches which concentrate solely on direct observation and measurement.

CONCLUDING COMMENTS

As this chapter has demonstrated, studies attempting to identify evidence of student teachers' reflection have been characterised by their diversity of approach; the varying extent to which they recognise the complexity of reflection; their frequent reluctance to challenge the constraints imposed by a reliance on analytical perspectives; and the methodological difficulties encountered in the few attempts to transcend those constraints.

Consequently, despite the considerable number of studies which have sought to identify evidence of student teacher reflection, our understanding of this phenomenon remains limited. Many but by no means all studies, for example, suggest that student teachers tend to engage in relatively little critical reflection. Similarly, there is little agreement about the extent to which other aspects or types of reflection can be promoted.

As such, it could be argued that there is a lack of convincing evidence to support the current emphasis on reflection in preservice teacher education programs. On the other hand, this lack of evidence, in part, might be due to the paucity of longitudinal studies, especially those involving more than a very small number of participants, and extending beyond a few weeks or months. Further studies, preferably of a longitudinal nature, therefore, seem warranted provided they attempt to address issues which appear to contribute to the apparent impasse in current research.

In particular, it seems that future studies must confront three major challenges. The first is to develop greater understanding of the complexity of reflection, particularly the contribution of aspects other than analytical thought. The second is to find ways of loosening the methodological constraints currently impeding the exploration, identification and representation of this complexity, even though this may involve taking considerable methodological risks. The third involves acknowledging that "there are elements of understanding that will always evade any theoretical understanding" (Gillette, 1988, p.308) and that any representational mode will have a limited ability to capture the richness, complexity and diversity of reflection. These challenges are addressed in the following two chapters.

CHAPTER THREE

TRANSCENDING HORIZONS: ALTERNATIVE CONCEPTUALISATIONS OF REFLECTION

*At the centre of any tradition, it is easy to become blind to alternatives.
At the edges, where lines are blurred, it is easier to imagine that the
world may be different.* (Bateson, 1989, p.73)

The previous chapter concluded by highlighting three challenges for further research into reflection. This chapter responds to one of the challenges, namely the need to more fully understand the complexity of reflection. In particular, it focuses on how we might transcend the limitations of the current over-reliance on conceptualisations of reflection as essentially analytical thought. Adopting Heidegger's (1971) view that "a limit is not where something stops, it is where something begins" (cited by Fuller, 1990, p.272), this chapter explores and extends possibilities and perspectives overlooked by much of the contemporary literature about reflection.

In many respects, this chapter can be likened to looking at reflection through a metaphorical kaleidoscope. The prisms of the kaleidoscope are constructed from the shadows of the previous chapter, that is, the inconsistencies, gaps in understanding, questions and half-sensed possibilities which briefly emerged before being overwhelmed by the weight of analytical tradition and pragmatic methodological constraints. These prisms are reinforced by contributions from the literature related to emotion, imagination, intuition, quantum theory and Eastern philosophical traditions.

As the lens of the metaphorical kaleidoscope (like any other) is turned, the ensuing movement of glass prisms within alters the frequencies of light passing through these prisms. The interconnecting patterns of light consequently change to reveal new forms, interrelationships and perspectives unable to be glimpsed otherwise. The view from each of these prisms and possible implications for our understanding of reflection are explored below. Italics indicate key terms associated with these perspectives.

EMOTION

Despite Dewey's (1933) suggestion that emotions have significance for reflection, relatively little attention has been given in the literature about

reflection to the role that emotions might play. Yet the tentative explorations by a few writers of possible links between reflection and emotion suggest that these investigations are worth pursuing. Previous explorations, however, appear to have been hampered by a lack of theoretical understanding of emotion. For this reason, the following discussion begins with a brief overview of theories of emotion.

Theoretical Overview

Contemporary theorists of emotion, like those of reflection, do not agree on a common definition (White, 1993; Crawford, Kippax, Onyx, Gault & Benton, 1992; de Sousa, 1987). Emotions have been defined in terms of physical feelings, perceptions and sensations by behaviourists and physiologists (e.g., Cacioppo, Klein, Berntson & Hatfield, 1993; Davidson, 1993); as evaluative judgments by cognitivists (e.g., Scheffler, 1991; Solomon, 1989); as socio-cultural beliefs and values by social constructivists (e.g., Crawford et al., 1992); and as links to an organic, interconnected universe by cosmologists (e.g., Heron, 1992). As with reflection, however, it may be more helpful to assume that emotions can manifest themselves in diverse ways and that different theories of emotion focus on different aspects of those manifestations (de Sousa, 1987).

The purpose of this discussion is to explore how an understanding of emotion may enhance understanding of reflection. The discussion focuses, therefore, on theories which see emotion as more than a passive or spontaneous event. This is because reflection, regardless of orientation, is acknowledged to be an active and deliberate process (see Chapter One). Essentially, these theories of emotion contend that emotion is more than physical sensation but rather a means by which we consider the possibilities of experience and incorporate meanings into our lives (Fuller, 1990). As Fuller explains, pain occurs when we feel something sharp penetrating our body; fear occurs when we think that sharp object is a snake. Hence, pain is a sensation; fear is an emotion. In other words, "people react not to events, but to their interpretation of events" (Epstein, 1993, p.319).

More formally, cognitive theories of emotion view emotions as a complex and multidimensional system of evaluative judgments, based on values and beliefs (Stein, Trabaso & Liwag, 1993; Jaggar, 1989; Solomon, 1989). As Jaggar points out, "my pride in a friend's achievement necessarily

incorporates the value judgment that my friend had done something worthy of admiration" (p.137). Emotion is not "merely a collection of opinions and random evaluations" but "an organized way of perceiving, acting, and living in the world" (Solomon, p.141). To cognitivist theorists, emotion is a way of finding meaning.

Like cognitivist theorists, social constructivists emphasise the evaluative judgment component of emotions, arguing that the beliefs, values and attitudes underlying these evaluative judgments are determined by cultural beliefs, conventions and morality (Armon-Jones, 1986). Indeed, these beliefs, conventions and morality are regarded as the medium through which sense is made. For this reason, emotional development, like language development, is seen to involve the acquisition of cultural norms (Jaggar, 1989). According to Jaggar, "children are taught quite deliberately what their culture defines as appropriate responses to certain situations" (p.150). Emotions recognised in some cultures may be unrecognised in others. Social constructivists would be inclined to argue, for example, that sexual jealousy is only possible in cultures where there is a sense of ownership of sexual partners and/or where monogamy is valued. Likewise, de Sousa (1987) suggests that it is impossible to experience an emotion for which there is no name, and queries whether people would fall in love if they had neither heard or read about love. It could be argued, particularly from Eastern perspectives (discussed later in this chapter) that a weakness of cognitivist and social constructivist theories is their apparently unquestioning and somewhat naive belief in the supremacy of the power of language.

On the other hand, from the perspective of this thesis, a strength of these theories is their focus on meaning, particularly if emotions are seen as a combination of social constructions and individual improvisations - that is, as a process of construction undertaken by individuals in socio-cultural contexts (Kemper, 1993; Crawford et al., 1992; Averill, 1980). These theories, though, can be interpreted in ways which lead to excessive fragmentation (Plutchik, 1993). Examples include imposing arbitrary labels to categorise various dimensions and intensities of emotional responses (such as irritation, anger, rage, and fury) and identifying these as primary or secondary emotions. These categorisations are unhelpful because they divert the focus away from meaning (Plutchik, 1993). This propensity for fragmentation characterises

and detracts from most contemporary Western theories of emotion (Flynn, 1995; White, 1993).

Contemporary Western theories of emotion have also been criticised for their tendency to assume that emotions can be represented as a linear schema, and that their primary purpose is to trigger actions such as appraisal / self appraisal, goal setting, planning and problem solving (Flynn, 1995; Goldsmith, 1993). Yet it can be argued that linear conceptualisations (see for example, Stein et al., 1993; Frijda, 1986) are of some value in that they legitimise emotions by creating a construct perceived to be logical from most Western perspectives. As such, they assist in overcoming the positivist misconception of emotions as uncontrollable passions or "nonrational and often irrational urges that regularly swept the body, rather as a storm sweeps the land" (Jaggar, 1989, p.146). Critics argue, however, that linear conceptualisations overlook the complexity of emotions. They claim that emotions are conceptualised more effectively from a systems or a network perspective of dynamic interactions (Flynn, 1995; Goldsmith, 1993). These interactions involve not only processes of a linear nature, but also non-linear processes such as those of attraction, bifurcation, oscillation, resonance and magnification (Haviland & Kahlbaugh, 1993).

From a dynamic perspective, emotions link environments, experiences and identities in unpredictable and unstable but often vitally important ways (Flynn, 1995; Haviland & Kahlbaugh, 1993). Small, apparently isolated incidents can resonate with other such incidents to magnify the effect far beyond the insignificant impact likely to have been predicted by linear, or logical, processes. A "one-off", seemingly unimportant experience in childhood, for example, can magnify and assume a significance far beyond what might have been expected. If this experience resonates with experiences of others, then the effects can be even more far reaching. So called butterfly effects, whereby small one-off events can influence whole systems through underlying webs of interrelationships, can open up infinite possibilities for change (Le Compte, 1994; Haviland & Kahlbaugh, 1993).

Indeed, Fuller (1990) suggests that *possibility* is a useful dimension for exploring emotions and meaning - far more so than the typical linear dimensions of *time* or *effect*. To Fuller, emotions represent possibilities of experience and knowing. He differentiates between possibilities which

culminate in "troubled meaning" where "tensions have failed to attain harmony" (p.208) and those in which a sense of harmony, or wholeness of meaning is attained. He represents these possibilities not as dichotomies, but as complementary polar tendencies operating along a continuum, with one most dominant at one end and the other at the other end. As Heron (1992) explains, this notion of complementarity is fundamental to systems theory.

Like Fuller, Heron (1992) emphasises the importance of harmony. He argues, though, that it is beyond reach of the individual and cannot be conceptualised adequately by theories which focus solely on the individual. In Heron's view, most contemporary theories of emotion are constrained by their emphasis on the individual (although presumably he is not referring to dynamic theories of emotion). He maintains that they are overly concerned with *individual consciousness*, that is, with individuals making sense of experience within their distinct and individualised contexts. Attention also needs to be given, he argues, to *participatory consciousness* - "a form of consciousness" which "resonates with the universal flow of events" (p.113) and represents "the capacity of the psyche to participate in wider unities of being" (p.16). In simpler terms, it involves attunement, or a deep sense of involvement, connection, belonging and harmony with the world rather than preoccupation with the concerns of the individual.

To Heron, participatory consciousness represents a higher order understanding than individual consciousness. In this sense, he adopts a similar stance to most Eastern philosophical traditions (discussed later in this chapter). His use of the term *feeling* to describe experiences of participatory consciousness is potentially confusing, however, given that in the context the debate about theories of emotion, feeling typically refers to perception or sensation. For this reason, while sympathetic to Heron's conceptualisation, this thesis uses the term emotion to encompass both individual and participatory consciousness.

In summary, the preceding overview of conceptualisations of emotion indicates that theorists of emotion, like those of reflection, do not share a common view. To what extent, therefore, might they provide a useful prism through which to look at reflection?

Possible Implications For Reflection

Despite the diversity of the above views of emotion, it seems reasonable to conceptualise emotions as responses to experiences, filtered through beliefs and values and, indeed, a range of personal-socio-cultural considerations (Kemper, 1993). As such, emotions fulfil "a signalling function - indicating to us where we stand in the world, and defining our relationships to others and to our own goals, motives and interests" (Kemper, 1993, p.47). In this sense, they orient us to our environment, enabling us to interpret experiences and events. In addition, they provide information which assists us to operate effectively within that environment and initiate processes such as goal setting and problem solving (Greenberg, 1993). From a dynamic or systems perspective, emotions can also establish connections, highlight possibilities and initiate changes beyond the level of the individual. In other words, they can be a medium for the development of communal as well as individual awareness and understanding (Flynn, 1995; Heron, 1992).

If the above broad interpretation of emotion constitutes the prism through which we look at reflection, and the literature about reflection, what perspectives or insights might it offer? First and foremost, it highlights the relative lack of attention to emotions in the literature about reflection. While the above discussion shows that many theorists of emotion now challenge the supposed dichotomy between reason and emotion, the previous chapters have indicated that, in general, researchers into reflection do not.

Second, the few references to emotion in the literature related to reflection are, for the most part, ambivalent about the contribution of emotion to reflection. Boud et al. (1985), for example, claim on the one hand that "the reflective process is a complex one in which both feelings and cognition are closely interrelated and interactive" (p.11). Yet, on the other hand, they contend that people need "to work through the attitudes and emotions which might colour their understanding in order to make sense of new ideas and information" (p.11). As such, they imply that emotions are less trustworthy than reason and express concerns that emotions may hinder reflection. They state, for example:

Even though our emotions and feelings are a significant source of learning, they can also at times be barriers. Depending on the circumstances and our intentions we need either to work with our emotional responses, find ways of setting them aside, or if they are positive ones retaining and enhancing them. If they do form barriers they need to be recognized as such and removed before the learning process can proceed. (p.29)

They do not distinguish between emotions and feelings and appear to use these terms interchangeably. Essentially, they seem to see emotions as a possible accompaniment or hindrance to reflection, rather than a medium for reflection (Michelson, 1996). Richert (1992) adopts a similar usage and stance, evident in her assertion that "feelings need to be expressed before any substantive analysis can be done" (p.177). Possibly, these writers have some implicit understanding of cognitive / social constructivist theories of emotion. Positivist perspectives, though, remain very evident in their conceptualisation of the relationship between emotions and reflection.

Third, LaBoskey's (1994) references to reflection as a state of flux involving processes of thought, emotion and intuition, and her emphasis on the importance of passionate creeds suggest implicit recognition of emotion as a connecting force. As noted in Chapter Two, however, her methodology did not incorporate and was inconsistent with her implicit understanding. Conceivably, dynamic theories of emotion and systems could provide a conceptual framework which might assist researchers with similarly implicit understandings of the contribution of emotion to reflection to develop more congruent methods for investigating reflection.

Fourth, similarities in the language frequently used by theorists of emotion and researchers into reflection suggest many, albeit mostly unrecognised, links between theories of emotion and orientations to reflection. Social constructivist theorists of emotion, for example, assert that emotions are "ways of organizing and making sense of the world" (Jaggar, 1989, p.135). Likewise, Grimmett et al. (1990) contend that reflection is a process by which people attempt to "make sense of the phenomena of experience that puzzle or perplex them" (p.20). Although it could be argued that this search for meaning has a broader focus than Grimmett et al. imply, the similarities in the above stances are startling.

The analogy of frame as a key component of this sense-making process is also common to theorists of emotion and reflection. De Sousa (1987), for instance, points out that emotions "frame, transform, and make sense of our perceptions, thoughts and activities" (p.3) and "serve as explanations, excuses, or justifications for other acts or states" (p.1). Similarly many researchers into reflection (e.g., Barnes, 1992; Russell & Munby, 1992; Schon, 1983; 1987) use the same analogy to explain the process of

interpretation inherent in reflection. Barnes, for example, writes that "the frames that we bring to any context allow us to both categorize what we see and to attempt to interpret what is going on" (p.16). Given the closeness of these semantic and conceptual links, it seems timely that these commonalities be made more explicit.

In summary, this glimpse of reflection through the prism of theories of emotion suggests that there is ample reason to investigate more fully the links between the two. With a few notable exceptions, including Conle (1996) whose work is discussed later in this chapter, investigation of the potential contribution of emotion to reflection has been tentative and, indeed, rarely undertaken. A greater understanding of emotion appears likely to enrich and invigorate these preliminary explorations by suggesting new possibilities for conceptualising the contribution of emotion to reflection. It may also suggest ways of overcoming methodological constraints which, to date, appear to have discouraged researchers like LaBoskey (1994) from pursuing these links.

MEMORIES, IMAGES AND IMAGINATION

Although not emphasised in the above discussion, emotions are influenced by memories or images of the past and anticipation or imagination of the future (Crawford et al., 1992). In effect, memory, images and imagination, like emotion, are a medium for making meaning (Buchmann, 1993c; Heron, 1992). As such, their potential contribution to our understanding of reflection warrants exploration.

Theoretical Overview

The terms *memory*, *images* and *imagination* are used in so many different contexts that each has many divergent meanings (Jagla, 1994; Buchmann, 1993c; Walters, 1992). The following discussion is not intended to critically review the range of meanings accorded each term (for this, see Noddings & Shore, 1984). Instead, it focuses on conceptualisations of memory, images and imagination which emphasise their role in constructing meaning, rather than representing or reproducing predetermined visual models. It can be argued that the former are more likely to have potential relevance for reflection, particularly if the highly technical orientations to reflection, such as Cruickshank's (1987) reflective teaching are ignored. Within these

parameters, the discussion focuses on similarities in the contribution of memory, images and imagination to the construction of meaning.

Etymologically, *imagination* is derived from the Latin *imago*, meaning representation or image while *memory* originates from the Latin *memoria*, meaning that which is called to mind. Although from different origins and accorded different meanings in common usage, memory and imagination essentially involve constructing images or representations (Jagla, 1992; Kerby, 1991). While Sloan (1983) refers specifically to imagination as "the image-making power of the mind" (p.140), his description applies equally to memory. Both are a way of seeing or "a way of representing reality to ourselves" (Pickard, 1990, p.5). In effect, they provide a "personal window on the world" (Heron, 1992, p.11).

Within the broad conceptualisation of memory and imagination as a way of seeing, three themes are evident. Memory and imagination are seen variously as: (i) a means of interpretation; (ii) a source of new possibilities; and (iii) a means of making connections. These processes are intertwined and difficult to extricate. Rather than attempt to unravel them, the following discussion presents a holistic overview of the contribution memory and imagination can make to enhancing understanding of reflection.

Fundamentally, because they provide the images through which we interpret the world, memory and imagination shape our understanding of the world. They constitute a medium for interpretation which is unbounded by the constraints of time, logic or reality, thus enabling us "to suspend ordinary assumptions" (Walters, 1992, p.139). Once limiting assumptions have been removed, previously undisclosed possibilities may emerge. Walters uses the term *seeing-as* to describe how memory and imagination can reveal previously undisclosed possibilities or unrecognised aspects of a phenomenon. She contrasts *seeing-as*, a novel and multidimensional way of seeing, with *seeing-that*, a literal, routine and unidimensional way of seeing where phenomena are accepted to be as they appear. In comparison to *seeing-that*, Walters claims, *seeing-as* is "laden with a multitude of interpretative possibilities" (p.136). Metaphors, which involve seeing something in terms of another (Lakoff & Johnson, 1980), are an example of these interpretive possibilities.

Both scientifically and metaphorically, image and light are interlinked. In a metaphorical sense, memories and imagination constitute a "source of understanding and illumination" (Greene, 1993, p.6) which can refocus attention from the familiar to the often overlooked or the previously undisclosed (Walters, 1992). This illumination also allows us to "look beyond things as they are" (Greene, 1988, p.45) to what is not actually present (Sloan, 1983); to "envisage possibilities in and beyond the actualities in which we are immersed" (Hansen, 1988, p.49); and to "anticipate what might be seen through a new perspective or through another's eyes" (Greene, 1988, p.45). As such, memories and imagination may illuminate hitherto unrecognised connections (Sloan, 1983). For this reason, Greene (1993) likens memories to a "luminous thread of life and meaning" (p.6) connecting past, present and future.

Ainsworth-Land's (1982) model of image creation illustrates some of the above possibilities and, for this reason, is discussed in some detail below. Essentially, Ainsworth-Land proposes that it is possible to categorise the dynamic processes of image creation according to their complexity. He refers to four orders of imaging, the first of which involves the perception and creation of "a mental warehouse of imprints" (p.11). In a teacher education context, an example might include student teachers spontaneously remembering and adopting methods of classroom behaviour management used by their own teachers. From an analytical perspective, images of this order are not associated with reflection because they involve the unconscious, rather than deliberate action. From a holistic perspective, on the other hand, this process could be seen to involve the unconscious informing the conscious (Allender, 1991) and thus a form of reflection.

Second order images are created when seeking to improve, extend or modify "an existing idea, object, pattern or behaviour" (Ainsworth-Land, p.14). Typically, they involve analysis, goal setting, experimentation and evaluation. Student teachers seeking to improve their behaviour management techniques might first replay in their mind's eye a specific incident where they had difficulty managing children's behaviour effectively and their responses to that incident. They might then recall different theories and approaches and imagine their possible impact. Finally, they might use these images to select, implement and evaluate an approach and, subsequently, to modify their

practice. As Ainsworth-Land notes, the creation of these images requires considerable conscious control of ideas.

Third order imaging is characterised by innovation and synthesis. It involves letting go of preconceived ideas and encountering new ways of thinking, imaging and discovering. To create images of this type, one must "be able to create a mood of receptive spontaneity, to be open and have access to more conscious material, yet to direct and manipulate imaging to fit with a purpose or goal" (Ainsworth-Land, p.15). To improve behaviour management, student teachers might utilise techniques such as journal writing (Francis, 1995; Holly, 1989) and mind mapping (Oldfather, Manning, White & Hart, 1994) to tap into a flow of ideas and images, not necessarily accessible through the analytical approaches associated with second order imaging. The intent is to find a solution through "deliberate spontaneity" (Ainsworth-Land, p.22).

Fourth order imaging, similarly to Heron's (1992) notion of participatory consciousness referred to in the earlier discussion of emotion, involves "seeing oneself as part of a larger reality" (Ainsworth-Land, p.17) or interconnected universe. Sense of individuality disintegrates and "one becomes an agent through whom a larger idea can be expressed" (Ainsworth-Land, p.18). Student teachers concerned about behaviour management techniques would abandon any conscious striving for improvement. Instead, through meditative techniques (Miller, 1994), they would aim to become one with the universal flow of consciousness so that meaning might be revealed and appropriate behaviour management strategies illuminated.

Ainsworth-Land's model seems unlikely to have universal appeal. In particular, his assertion that analytical reasoning is a lower level form of understanding than more intuitive, unconscious forms of understanding could concern some critics. Others might find inconsistency in the sharp distinctions implied between orders, given his apparent belief in universal relatedness. Yet, as Ainsworth-Land points out, "a model does not assert that something *is* so, it simply illustrates a particular mode of observation" (p.25). Given that the purpose of this chapter is to speculate on new perspectives from which reflection might be usefully observed, it could be argued that Ainsworth-Land makes an interesting contribution.

To summarise, this overview has suggested that images generated by memory and imagination can enhance an individual's understanding of his / her world. To what extent, however, can this glance through the lens of the metaphorical kaleidoscope enhance understanding of reflection?

Possible Implications For Reflection

Considerable attention has been given to memory, images and imagination by some orientations to reflection especially by those conceptualising reflection in the broader sense of making meaning. Boud et al. (1985), for example, acknowledge the role of memories when they include *returning to experience* as an integral stage in their reflection cycle. Their emphasis on the analytical replay of events suggests that their conceptualisation of the role of images in reflection is similar to Ainsworth-Land's 2nd order imaging.

From a narrative orientation, Connelly & Clandinin (1988) emphasise the importance of images, particularly in relation to their potential to foster connections. They describe how an image "reaches into the past, gathering up experiential threads meaningfully connected to the present" and "reaches intentionally into the future and creates new meaningfully connected threads" (p.60). Their language is strikingly similar to that used by writers about imagination. So, too, is Eisner's (1993) emphasis on the importance of grasping connections and interrelationships and recognising recurring patterns as a means of making sense of experience through reflection. Interest in the use of metaphor in reflection (e.g., Bullough & Stokes, 1994; Griffiths & Tann, 1992; Bullough, 1991; Russell, 1989) also indicates an awareness of the role of images. Because of their emphasis on connections and synthesis, these writers' conceptualisations of the role of images in reflection appear to correspond most closely to Ainsworth-Land's (1982) third order imaging.

Similarly close links between the literature about imagination and the literature about reflection are evident in Schon's (1983;1987) work. Indeed, Schon also uses the term *seeing-as*, although in a more limited context than Walters (1992). To Schon, reflection is primarily about problem solving, an important part of which, he argues, is "our capacity to see unfamiliar situations as familiar ones ... and to bring our past experience to bear on the unique case" (1983, p.140). Moreover, he claims that "it is our capacity to see-as ... that allows us to have a feel for problems that do not fit existing

rules" (1983, p.140). His work corresponds to Ainsworth-Land's (1982) third order imaging in that he harnesses the power of imagination and memory to a concrete problem solving situation. Little attention is paid in the literature about reflection to the possibilities raised by Ainsworth-Land's (1982) fourth order imaging, apart from the references to contemplation by Miller (1994), Tremmel (1993) and Yinger (1990).

Given that some of the literature related to reflection already refers to the role of memory, imagination and images how can this glimpse through this prism of the metaphorical kaleidoscope contribute to current understanding of reflection? In effect, it can be argued that it makes two contributions. First, it legitimises the significance attached to memory, imagination and images by some orientations to reflection, but ignored by others. Second, using the notion of image (which as the preceding discussion shows is reasonably well accepted in the literature about reflection), it begins to establish a conceptual link between emotion and intuition. Thus, it may assist those researchers of reflection who seem implicitly aware of the importance of emotion and intuition (e.g., LaBoskey, 1994) but who have not been able to conceptualise adequately the role these play in reflection. The link between image and intuition is developed more fully below.

INTUITION

As indicated in Chapters One and Two, there are occasional references in the literature about reflection to the importance of intuition. Its role in reflection, however, is inadequately conceptualised or clarified. The following overview aims to overcome this shortcoming by providing a theoretical basis for considering intuition in relation to reflection. It also highlights interconnections between intuition and analytical thought, and between intuition, imagination and emotion.

Theoretical Overview

The term *intuition* is accorded a variety of meanings (see Jagla, 1992; Goldberg, 1989; Noddings & Shore, 1984). Etymologically, it is derived from the Latin verb *intueri* meaning "to look upon", "see within", or "consider or contemplate" (Goldberg, 1989, p.31). Broadly interpreted, intuition, like memory, imagination and image, can be considered a "way of seeing" (Noddings & Shore, p.7) or, in turn, a "way of knowing" (Noddings & Shore, p.

46). It is posited that two key features characterise intuitive understanding and distinguish it from analytical understanding.

First, it is claimed that intuition is a direct way of seeing that is neither filtered through a cognitive screen (Noddings & Shore, 1984) nor mediated by the conscious mind (Holman, 1994). Unlike analytical thought, which involves contact with "the concepts attached to an object", it is asserted that intuition allows "contact with the object itself" (Noddings & Shore, p.7). Second, intuition and analytical thought are seen to differ in their awareness of interconnections (Myers & Myers, 1990; Bastick, 1982). Linear analytical thought is based on an awareness of "detailed defined relations between two elements at a time" (Bastick, 1982, p.61). In contrast, intuition is assumed to be based on simultaneous awareness of a multitude of dynamic interconnections (Fuller, 1990).

Analytical thought, like language, is linear in nature (Loy, 1986) and, as such, can be described relatively easily by language (Smith, 1996; Doeringer, 1994). The non-linear processes of intuition, on the other hand, are described much less easily (Puk, 1996; Fuller, 1990). Indeed, Noddings & Shore (1984) assert that "our contemporary conceptual terms and schemes are inadequate" (p.79) to describe intuition. Nevertheless, it can be argued that if intuition is to be acknowledged as an aspect of reflection, efforts must be made to find appropriate constructs to conceptualise its contribution.

One option is to consider intuition in relation to analytical thought. At least two pitfalls, however, must be avoided. First, any temptation to see intuition as simply "a rapid and unconscious form of analytical thinking" must be resisted as unduly simplistic (Noddings & Shore, 1984, p.19). Second, it seems important to recognise the inherent inconsistencies in attempts to conceptualise the interplay of analytical thought and the non-linear nature of intuition as a linear process involving stages such as saturation, incubation, illumination and verification (e.g., Brown 1989, cited by Holman, 1994), even though these phenomena may play some role in intuition. A more useful approach might be to focus on the complementary nature of analytical thought and intuition (Puk, 1996; Goldberg, 1989; Noddings & Shore, 1984).

Noddings & Shore (1984) argue that because "intuition acts in complementary fashion with reason ... it is impossible to isolate the two

meticulously and discretely" (p.69). Instead, they distinguish between dominantly intuitive and analytical modes. The former, they claim, involves a conscious decision to cease striving, a letting go of the "attempts to control" (p.74) which characterise the analytical mode. In other words, there is a commitment to receptivity. Structures and patterns are not imposed but simply emerge as in a "sense of receiving something, of being spoken to" (p.73). This sensation may be accompanied by an intense energy which penetrates previous barriers to understanding to reveal a new association, meaning or solution (Bohm, 1984). Typically, this phenomenon is referred to as illumination (Holman, 1994; Wheeler-Brownlee, 1985).

Interestingly, Noddings & Shore seem reluctant to explore the notion of illumination. They merely emphasise that it should not be regarded as "an unflinching source of truth" (p.7) and disassociate themselves from writers such as Heron (1992) who assert that illumination constitutes the flow of universal consciousness through the individual being and is, therefore, an intimation of ultimate wisdom. This notion, a key tenet of many Eastern philosophies (Smith, 1996) is investigated more fully later in this chapter. Meanwhile, it could be argued that Noddings & Shore's somewhat cursory discussion of illumination limits the potential of their conceptualisation to contribute to our understanding of intuition.

Alternative conceptualisations with arguably more potential to enhance understanding of the interplay between intuition and analytical thought than Noddings and Shore's (1984) contribution include those which involve some form of adaptation of Skolimowski's (1992) notion of interconnected webs or dimensions. Skolimowski contends that we live our lives intertwined in a "multitude of webs signifying different orders of being" (p.53). He refers, for example, to the analytical web and the intuitive web. The former, he claims, is characterised by "a preference for the straight line and for the simple geometric web" (p.188). The latter, in contrast, is characterised by irregularity. These different webs or dimensions, he asserts, overlay each other, creating numerous interfaces or connections. The interface between these webs is often "transparent and therefore imperceptible" (Bateson, 1979, p.14), especially to those who emphasise compartmentalisation rather than connectedness. Yet, for those seeking holistic understanding, these interconnections or interfaces could be key.

Using a slightly different metaphor, Puk (1996) elaborates on how the notion of interface between different ways of knowing might apply to intuition and analytical thought. He introduces the concept of "reciprocal permeation" (p.130) and posits that "one might think of rational and extrarational processes being separated by a permeable membrane ... through which either set of processes 'flow' as the need arises" (p.130). In this way, he argues, intuitive and analytical processes are able to work in conjunction, creating a synergy of understanding and meaning.

The interfaces of different ways of knowing can also be permeated through imagination or image formation (Bateson, 1979). As explained previously, imagination (and memory) can dispense with analytical structures and open up new possibilities not accessible through analytical thought. Intuition can then work with these new possibilities to illuminate new understandings. In this sense, imagination can be likened to the raw material for intuition.

It seems that emotion, too, can transcend these interfaces of different ways of knowing. The link between emotion, memory and imagination was discussed earlier in this chapter. The emotion of empathy, and its connection with intuition, is referred to here as an example. Conceptualisations of empathy vary but include various combinations of the analytical, the emotional, and the intuitive (Teich, 1994). Essentially, empathy involves attunement and sensitivity to others (Moffett, 1994). For empathy to develop, there must be a loosening of the boundaries around oneself (Jordan, 1991). There must also be an awareness of interdependency, that is an understanding that the individual is part of a network of connections that extend beyond the self (Jordan, 1991; Kohut, 1978). From this perspective, empathy, in effect, is "the resonance of essential human likeness" (Kohut, p.713). It involves hearing, "accepting, confirming and understanding the human echo" (Kohut, p.705). By loosening boundaries and heightening sensitivity to interconnections which, as discussed previously, is integral to intuition, empathy can enhance intuition (Holman, 1994).

Although the above writers refer specifically to empathy, it is possible to extend their arguments to emotions generally, via the dynamic theories of emotion referred to earlier in this chapter. Indeed, it could be argued that it is possible to extend these notions to different ways of knowing, including intuition. Kohut's (1978) notion of resonance or sympathetic vibration, for

example, might well complement Skolimowski's (1992) interconnected webs. Resonance refers to "amplification and enhancement of natural qualities through interaction with an *other* that is sufficiently related, so that a transfer of energy can occur" (Conle, 1996, p.299). As such, it could be argued that resonance accounts for the energy which enables movement to occur across interfaces of different ways of knowing.

In summary, this overview suggests that intuition is a way of seeing which differs from, but complements, analytical thought. It contends that emotion and imagination also complement and enhance intuition. As such, it highlights the holistic nature of understanding and the synergy from different ways of seeing. Yet, despite much speculation, the exact nature of these links between different ways of seeing and understanding remains unknown.

Possible Implications For Reflection

We return now to the metaphorical kaleidoscope to consider what insights into reflection we might gain from looking through the perspective of the literature about intuition. Two strong impressions emerge. First, the assertion arising from the earlier review of the literature related to reflection is reinforced. That is, much of this literature seems either unaware of, or unable to conceptualise adequately, the role of intuition to reflection, or its synergistic and holistic relationship to other ways of knowing and understanding.

Schon (1983; 1987) is an exception to this general tendency. As explained in Chapter One, essentially he sees reflection-in-action as improvisation to a situation as it unfolds, just as jazz musicians, when they improvise, respond continually to the feel of their music. Improvisation, he argues, requires the intuitive capacity to hear and see differently in order to reach alternative interpretations to those which might be attained through formal reasoning. It also requires familiarity and experience with contexts or schemas and the ability to recognise patterns as they emerge within these contexts or schemas. It relies more heavily on tacit than explicit understanding. As such, his conceptualisation of reflection-in-action indicates considerable awareness of the importance of receptivity to dynamic interconnections which, as discussed previously, is inherent in intuition. Similarly, his emphasis on the complementary nature of reflection-in-action and reflection-on-action demonstrates awareness of the potential for interplay between intuition and

analytical thought described earlier in this chapter. Looking at reflection through the metaphorical prism of intuition, therefore, reaffirms the importance of Schon's contribution to the literature about reflection, especially in terms of conceptualising reflection as more than analytical thought.

The second impression which emerges from the overview of intuition, and its links with emotion and imagination, is that conceptualisations of reflection as linear or cyclical processes are unnecessarily constraining. These models are unlikely to portray adequately the complexity of reflection, especially if reflection is ultimately about understanding, a holistic process. Could an alternative involve conceptualising reflection as a flow of energy across different webs of meaning networks and resonance within and between these networks - as described by Skolimowski, (1992) and Kohut (1978) in relation to holistic understanding? This possibility is explored in more depth below.

QUANTUM THEORY

Many might contend that Skolimowski's (1992) and Kohut's (1978) notions of interconnections, while interesting, lack theoretical foundation. Yet there appear many links between their conceptualisations and the basic principles of quantum theory. Investigating these links requires some understanding of quantum theory. The following overview provides an elementary explanation of the complex theoretical concepts involved. It relies heavily on Zohar's (1990) explanation, which is exceptionally lucid and easily accessible to readers with no background knowledge of quantum theory.

Theoretical Overview

Basically, quantum theory "stresses dynamic relationships as the basis of all that is" (Zohar, 1990, p.220). As such, it deals with possibilities and becomings, rather than with fixed states (Shepherd, 1993; Zohar, 1990). Three key tenets are the Principles of: (i) Duality and Complementarity; (ii) Uncertainty; and (iii) Interconnectedness of Observer and Observed. These principles are explained briefly below.

The Principle of Duality and Complementarity asserts that, at the subatomic level, all being exists simultaneously in both predominantly particle-like and wave-like states. Each state of being complements the other, and each must be appreciated in efforts to fully understand a phenomenon. Yet it is

impossible to focus on both particle-like and wave-like states simultaneously. As Zohar points out, "while *both* are necessary to get a full grasp of what being is, only *one* is available at any given time" (p.10). Which state is apparent at any one time depends on circumstances, including "whether or not anybody is looking, or when they are, what they are looking for!" (p. 10). How long any one state remains apparent is also uncertain. Indeed, electrons jump from one state to the other in random, discontinuous and unpredictable quantum leaps. The Principle of Uncertainty arises from this essential indeterminacy and elusiveness.

This underlying uncertainty is compounded by the tendency of subatomic entities in either a predominantly wave-like or particle-like mode to retain some elements of the other mode. That is, at any one time, they are neither purely wave-like or not particle-like. Thus, even assuming that a state remains constant long enough to measure its position (for particle-like states) or its momentum (for wave-like states), these readings will be "fuzzy" (Zohar, p.11). As Zohar explains, "an electron *might* be a particle, it *might* be a wave, it *might* be in this orbit, it might be in that - indeed *anything* might happen" (p.11). In other words, the Principle of Uncertainty suggests that reality is "an unfixd, indeterminate maze of probabilities" (Zohar, p.12).

These probabilities can best be conceived as a "probability wave" which spreads out infinitely in all directions. An electron within this probability wave can move simultaneously in every direction, unbounded by time and space. As such, all potential objects and events are integrally linked. In Zohar's words, "all things and all moments touch each other at every point" (p.18). Because there is no notion of separateness, one object or event can influence another instantaneously. In a sense, quantum theory provides an explanation for the butterfly effect referred to earlier in this chapter, although according to quantum theory, the processes and impact of this influence are simultaneous.

At the same time as the probability wave is spreading out in all directions, Zohar (p.15) explains how it:

puts out temporary 'feelers' towards its own future stability by way of trying out - all at once - all the possible new orders into which it might eventually settle, in much the same way that we might try out a new idea by throwing out imaginary scenarios depicting its many possible consequences.

Temporary "feelers" or virtual transitions might eventuate into final transitions, as illustrated in the classic analogy of the quantum hussy (sic). Zohar describes how a quantum woman, unable to decide amongst many suitors, becomes involved simultaneously with all of them. After exploring all possibilities, she eventually settles down with one suitor, but not without leaving traces of her numerous simultaneous temporary liaisons. In this sense, virtual transitions can have ongoing impact, even though the possibilities which they represent may have been negated at some stage.

Frequently, Zohar explains, final transitions are caused by the act of observation under the Principle of Interconnectedness of Observer and Observed. This principle can be explained by another classic quantum analogy - Schrodingers' cat. The cat is placed in an opaque experimental laboratory cage where it has an equal chance of either triggering or not triggering a lethal dose of poison. The possibility of it being dead or alive fans out like a probability wave throughout the cage. When the cat is observed, the probability wave collapses. That is, the cat no longer exists simultaneously in both wave-like or particle-like forms as it did before it was observed, simply because the human eye is unable to absorb both at once. To the human eye, the cat is either dead or alive. Upon observation, the possibilities which the probability wave describes "suddenly gel into one fixed reality ... [and] we get a cat that we can either bury or fondle" (Zohar, p.23).

The point of this analogy is that unobserved quantum phenomena are radically different from observed phenomena. In other words, the process of observation changes quantum systems into recognisable objects. Furthermore, how we "observe quantum reality partly determines what we shall see" (Zohar, p.28). This is not to say that the observer actually creates reality. Rather, "at the moment of observation, some dialogue between the quantum wave function and the observer ... gives concrete form to one of the many possibilities inherent within that wave function" (Zohar, p.32). According to Zohar, what it actually is about observation, or consciousness, that collapses the wave function and "fixes" possibilities remains one of the many unresolved issues in quantum theory.

Possible Implications For Reflection

As interesting as quantum theory might be, what contribution could it possibly make to enhancing understanding of reflection? No mention appears to have

been made in the literature about reflection to quantum theory, nor do explanations of quantum theory refer to reflection. Yet if we look at reflection through the prism of quantum theory, interesting possibilities emerge. The way in which observation or consciousness impacts on quantum reality, in particular, appears to have clear links to reflection.

As Zohar points out, "the word *consciousness* is used to embrace a whole panoply of meanings and associations - mind, intelligence, reason, purpose, intention, awareness, the exercise of free will" (p.202). However we choose to define consciousness, it may be "in some important sense, continuous with other things in the universe" (p.35). In other words, "we are, in our essential being, made of the same stuff and held together by the same dynamics as those which account for everything else in the universe" (p.83). For this reason, Zohar argues that thought, used in a loose sense to imply a quest for understanding, can be described in quantum terms.

As in quantum systems, Zohar asserts, the processes we use in seeking understanding are integral to each other. They cannot be analysed effectively in terms of discrete elements, because when focusing on one, inevitably sight is lost of the others. Using quantum terms, Zohar distinguishes between the wave-like nature of unfocused musing and the particle-like nature of focused thought. The former is characterised by possibilities, the latter by position. Unfocused musing, Zohar argues, can be likened to "the free play of thought and imagination" (p.62). It could be argued that her notion of free play could include intuition and emotion as well. In contrast, focused thought collapses the wave function of possibilities, resolving the musings into "a settled idea" (p.62). Thus, quantum theory might present an alternative explanation for the interplay between logical thought and other mediums for understanding. For some, the scientific basis of this explanation might add credibility to arguments that reflection be conceptualised as a holistic process rather than primarily one of analytical thought.

To return now to the question foreshadowed at the beginning of this section: Is there any connection between quantum ideas of consciousness and Skolimowski's (1992) notion of interconnected webs and Kohut's (1978) notions of resonance and echo? It appears so, assuming interconnected webs are analogous to different wavelengths. According to Bronowski (1973), different wavelengths result in different visions, images and revelations.

Relatively short wavelengths are more visible to humans. These wavelengths determine what we see. Fiumara (1990) and Bowers & Flinders (1990) extend this notion to cultural wavelengths. They suggest that rationality is a dominant wavelength in the Western "cultural frame of reference" (Fiumara, p.128). Within that cultural wavelength, however, there will be individual responses, presumably based on dominant personal wavelengths. Unlike sound or light waves, these cultural waves and personal waves are not confined to any particular medium. Thus, they are not bound by the characteristics of waves in these mediums. It is possible, therefore, that they might overlap, creating a situation analogous to Skolimowski's interconnected webs of meaning.

Kohut's (1978) notions of resonance and echo also complement quantum notions of consciousness. Although Kohut refers specifically to the resonance of empathy, from a broader metaphysical perspective, it seems that this notion could be extended to include understanding resonating through space and time, from one person to another. Indeed, this is the key principle underlying the notion of morphic resonance in which energy from the events of the past are seen to influence events of the present and future (Sheldrake, 1988). Similarly, while echo, in a scientific context, specifically refers to the reflection of sound waves, in a broader context it could well refer to the reflection of all waves, or forms of meaning. In a literary context, for example, it could be argued that themes echo across different literary works. It seems likely that themes could also echo across different ways of knowing.

The above conceptualisations can be interpreted as either actual or metaphorical representations of metaphysical processes. How they are interpreted depends essentially on one's world view. That reflection itself is a term from traditional wave theory suggests, however, that theoretical advances such as the emergence of quantum and other associated theories might inform understanding of reflection. Conceivably, for example, Cruickshank's (1987) notion of reflective teaching and Van Manen's level of technical thinking, could be considered focused, particle-like manifestations of reflection. As explained below, contemplation and narrative orientations, on the other hand, appear to refer to reflection which is more wave-like in nature.

From an orientation of reflection as narrative knowing, Conle (1996) develops the notion of internal resonance. She argues that when a story, image or emotion "reverberates within us and calls forth another in an echo-like fashion" (p.301), often prompting us to say "Oh, that reminds me ...", the phenomenon of internal resonance is at work. In this sense, she asserts, resonance is a key process in establishing connections and constructing meaning and is therefore a vital aspect of reflection. Although her reference to wave theory extends no further than resonance and echo, it could be argued that her work highlights the potential contribution of quantum theories and other associated theories to enhancing understanding of reflection. It is surprising, therefore, that few other writers appear to have explored these links.

In contrast, numerous writers (e.g., Kesson, 1996; Zohar, 1990; Pelletier, 1985; Wilber, 1983, Capra, 1975) see links between quantum theory and Eastern philosophical perspectives. As indicated in the preceding chapters, there are also occasional references in the literature about reflection to the potential relevance of Eastern philosophies (see, for example, MacKinnon, 1996; LaBoskey, 1994; Miller, 1994; Korthagen, 1993; Tremmel, 1993; Loudon 1992; Yinger, 1990). It seems appropriate, therefore, to conclude this investigation of alternative ways of conceptualising reflection through the prism of Eastern perspectives.

EASTERN PHILOSOPHICAL PERSPECTIVES

The immanent nature of most Eastern philosophical traditions suggests that they are more likely to have developed sophisticated conceptualisations of inner processes such as reflection than many Western traditions which, arguably, have focused more on developing understanding of the external world (Inada, 1994; Chung-Ying Cheng, 1991; Organ, 1987). If Western understanding of reflection is to be enhanced, it seems important to explore the potential contribution of Eastern perspectives.

Yet such an exploration should be undertaken with caution, given the many difficulties inherent in translation, interpretation and comparison. Oversimplifying important distinctions in assumptions, conceptualisations and vocabulary is a particular danger (Rosemont, 1988; Streng, 1988; Scharfstein, 1978a). As Scharfstein points out, "it is only too easy to lift ideas out of their cultural contexts, to translate the terms in which they are

expressed into familiar ones, and to come to plausible but misleading conclusions" (p.9). Similarly, it is necessary to guard against gross generalisations (Organ, 1987) and uncritical enthusiasm for unfamiliar ideas (Stambaugh, 1986).

The following discussion attempts to avoid these pitfalls. In an exploratory and initial incursion into unfamiliar territory, however, it is not always possible to realise the above ideals, particularly concerning overgeneralisations. It could be argued, though, that the possibility of enhancing understanding of reflection by examining it through the prism of Eastern perspectives appears to outweigh the inherent risks involved. From the outset, it must be emphasised that within Eastern and Western traditions there are many diverse perspectives. Thus, some Western philosophers might be seen to have more in common with what tend to be thought of as "typically" Eastern perspectives, than with what might be perceived as "typically" Western perspectives (Tarnas, 1991).

Theoretical Overview

The following discussion focuses mainly on Indian (Hinduism, Jainism, Buddhism) and Chinese (Zen Buddhism, Taoism and Confucianism) philosophical traditions for these are seen by many (e.g., Krishna, 1988; Organ 1975; Nakamura, 1964) to be the major traditions of the East. Reference is made occasionally to the mystical Islamic tradition of Sufism but not to Islamic traditions as a whole because of their close derivative links with Greek philosophy, a foundation of Western traditions (Krishna, 1988). The term *Western perspectives*, in this context, refers primarily to Newtonian scientific thought and its antecedents in some aspects of the Hebrew-Greek-Christian-Roman traditions. In some form or another and despite fundamental differences in conceptualisations of self and knowing, the theme of "knowing thyself", transcends all the philosophical perspectives referred to above (Organ, 1987). For this reason, the following discussion focuses specifically on perceptions of self, knowledge, and the nature of knowing.

Self

Most Western perceptions of self emphasise the uniqueness and power of the individual (Smith, 1996). People are valued for their knowledge and their ability to use their knowledge to make their mark on the world (Smith, 1989; Organ 1987). In contrast, Eastern traditions value the potential of the

individual to merge with the world. As Shaffi (1988) writes, "when a drop of water returns to the ocean, although it outwardly loses the identity of dropness, it gains the permanency of the everlasting ocean" (p.37). While he refers specifically to Sufism, the notion of communion of the individual with the universal in a state of universal harmony is common to Eastern traditions. Hindus, for example, refer to universal harmony as *atman*, Buddhists to *nirvana* and Taoists to *tao* (Organ, 1987).

Indeed, most Eastern traditions regard the attainment of universal harmony through the fusion of the individual with the universal as the ultimate goal (Smith, 1996). The path to universal harmony is through personal equilibrium and only attained by relinquishing attachment to needs, wishes, goals, possessions, opinions and similar binds (Chung-Ying Cheng, 1991; Laycock, 1989; Wawrytko, 1989). The importance of relinquishing attachments is highlighted in the following Zen story, cited by Organ (1975, p.175):

A university professor once came to Nan-in, a Zen master, to enquire about Zen. Nan-in served teas. He poured his visitor's cup full, and then kept on pouring. The professor watched the overflow until he could no longer restrain himself. 'It is overfull. No more will go in,' he said. Nan-in said, 'Like this cup, you are full of your own opinions and speculations. How can I show you Zen unless you first empty your cup?'

This story suggests that the more attachments that can be relinquished, the closer the individual becomes to the celebrated state of *non-being*. A state of emptiness, like the void within an empty bowl or between the spokes of a wheel, non-being represents infinite possibilities and is inherent to universal harmony (Chung-Ying Chen, 1991). From this perspective, the typical Western emphasis on self as individual being with a multitude of attachments to the physical world hinders attainment of *non-being* and ultimately, universal harmony (Smith, 1996).

Knowledge

Traditionally, many Western perspectives have regarded knowledge as largely absolute, unchanging and exact (Inada, 1994; Shepherd, 1993; Berman, 1989). Knowledge is considered part of a logically ordered and structured reality, accessible through abstraction and deduction, and communicable through language (Chung-Ying Cheng, 1991). Because of this emphasis on order, much Western thought tends to be antagonistic to paradoxes, contradictions, and ambiguity (Organ, 1987). This distrust is apparent in the dualism also characterising much Western thought. The

separation of subject and object, the main criteria for the legitimacy of knowledge, typifies this duality (Heshusius, 1994).

In contrast, it could be argued that Eastern traditions tend to see reality, and consequently knowledge, as dynamic and non-dualistic. In Hindu, Jainist and Buddhist traditions, reality has a vertical context with hierarchical levels determined by degrees of consciousness (Organ, 1987). Thus, reality has depth and being is but a moment in the eternal process of becoming, hence the belief in reincarnation (Smart, 1988; Goldman, 1986). In many Chinese traditions, reality is similarly dynamic, although the process of harmonisation is considered equally as important as the process of evolution (Chung-Ying Cheng, 1991; Allinson, 1989; Wawrytko, 1989).

In some traditions, harmony is perceived as continual "dialectical interchange between yin and yang" (Chung-Ying Cheng, 1991, p.87). Yin and yang are degrees of a continuum in which yang is in the process of developing into yin, and vice versa (Allinson, 1989). This process is like the harmony underlying surf, with its rhythmic balance between the vibrant breaking waves upon the beach, and the unseen backward thrust into the ocean (Inada, 1994). Both waves and backward thrust are inextricably interwoven in the process of becoming one another. The analogy of the surf represents the constant interplay between the states of visible and vibrant state of being and the non-discernible but equally important state of non-being (Inada, 1994).

Ultimately, though, from most Eastern perspectives, the dynamic nature of reality and knowledge precludes expression through language. This is partly because language is far less fluid than reality and thus unable to capture the essence of reality (Doeringer, 1994; Tang Yi, 1985). In addition, the complexity of understanding is beyond the explanatory power of language which is why Taoists refer to the tao as *that which cannot be named* (Chung-Ying Cheng, 1991). Indeed, Chinese philosophy as a whole has been described as the study of "what language cannot describe, define, or otherwise capture" (Hansen, 1989, p.75).

From many Eastern viewpoints, words can be as much a trap as a tool if the inherent limitations of language are overlooked. A traditional Buddhist saying, for example, likens words to fingers that point to the moon, but warns that

fingers must not be confused with the moon (Organ, 1987). At best, words can only seek to illuminate the otherwise unperceived.

Similarly, in many Eastern traditions, sequential deductive thought, because of its inherent limitations in understanding higher levels of consciousness, is seen to have a limited role in understanding reality and accessing knowledge. Empirically verifiable levels of reality are regarded as relatively lowly, as higher levels of reality cannot be reached by the logical mind (Loy, 1986). As an old Sanskrit saying asks, "How ... can you grasp what is beyond the mind with the mind?" (cited by Goldman, 1986, p.352).

Furthermore, over-reliance on logic can be seen as inhibiting. If one "clings to a thought by allowing the thoughts to link up in a series, which means having one's next thought 'caused' as it were by previous thoughts" then this may result in "self conscious paralysis of all thought" (Loy, 1986, p.304). Much of the energy involved in logical thinking may be regarded as wasted as "most of the effort involved ... is due to selecting and organising into a rational pattern thoughts which naturally arise, which in themselves have no such pattern" (Loy, p.305). This is not to imply that logic is not valued. Indeed, most Eastern traditions have developed highly complex systems of logic (Staal, 1988) but, because of its perceived limitations, regard reason as less significant than the intuitive understanding associated with the fusion of the individual with the universal (You-Yuh Kuo, 1996).

In Buddhism, for example, *prajna* is valued more highly than *vijnana*. *Prajna* is immediate, spontaneous, and unpredictable, akin to a flash of lightning with no intervening moment for deliberation, interpretation or analysis (Loy, 1986). It is holistic, often paradoxical and essentially incommunicable. *Vijnana*, in contrast, is deliberative, analytical and predictable, concerned mainly with parts and concepts and considered "the raft to be abandoned upon reaching the other shore" (traditional Buddhist saying cited by Organ, 1987, p.100). The following account of the Taoist butcher illustrates these differences:

*When I first began
To cut up oxen
I would see before me
The whole ox
All in one mass.
After three years
I no longer saw this mass
I saw the distinctions.*

*But now, I see nothing
With the eye. My whole being
Apprehends.*

*My senses are idle. The spirit
Free to work without plan
Follows its own instinct*

*Guided by natural line
By the secret opening, the hidden space,
My cleaver finds its own way
I cut through no joint, chop no bone.*

In this account of Merton's (1965) cited by Yinger (1990, p.73), the butcher did not acquire his expertise "by ever more advanced courses in bovine anatomy" (Neville 1989, p.71). Rather, through intuitive understanding, he, his cleaver and beast became as one.

Knowing

Some Western perspectives recognise and value intuitive understanding (Tarnas, 1991). As the discussion earlier in this chapter suggests, though, they are less likely than Eastern perspectives to extend their recognition of unmediated interconnections to include the interconnectedness of the individual and the universal. More typically, Western perspectives associate knowing with reasoning and language (Shepherd, 1993). Consequently, they tend to distrust knowing which fails to fit within established hierarchies or is not directly communicable (Doeringer, 1994; Blofeld, 1981). In contrast, most Eastern traditions acknowledge knowing based on reason and language, but emphasise the need for deeper understanding. They see meditation as a means to more significant understanding (Shaffi, 1988).

Meditation involves appreciation of the "significance of silence" as a means of gaining insights and understanding (Shaffi, 1988, p.126). Silence represents a stilling of the body and mind and the gaining of freedom from "repetitive and compulsive use of body movement, language and thought processes" (Shaffi, p.146). Through internal silence, one becomes more perceptive to "invisible rhythms within and around"; to "wholes rather than parts"; and to "internal and external clues" (Shaffi, p.146). Silence opens up new dimensions of understanding by transcending the limitations of thought and language and gaining access to the unconscious (Laycock, 1989; Podgorski,

1985). In other words, to draw on previous analogies, meditation assists in exploring the space in the empty bowl and between the spokes of a wheel.

At the core of the unconscious, and attainable only through the state of non-being, lies the link between the individual and the universal (Inada, 1994). When the external and the internal, the individual and the universal, the knower and the known are in harmony, enlightenment occurs (Chung-Ying Cheng 1991; Shaffi, 1988). Enlightenment has been likened to an infinite chamber of mirrors with each mirror arranged in a way that it reflects all the other mirrors in the chamber (Laycock, 1989). The effect is a "vast, universal, multidimensional network of independence and intercausation" (p.179). Enlightenment can only occur when there is no obstruction impeding the projection and reflection of light. Concepts and abstractions, like opaque objects, obstruct the path of the light and conceal what is behind, thus impeding enlightenment (Laycock, 1989).

Enlightenment can be sudden (Chung-Ying Cheng, 1991) but is more frequently the outcome of a lengthy process of transformation through the unfolding of successively higher levels of consciousness (Wilber, 1983). Many Eastern traditions have hierarchical dimensions of consciousness, just as Western traditions have hierarchies, for example, those developed by Kohlberg (1981) and Piaget (1978). Epstein (1990) and Wilber (1983) argue that at lower levels of consciousness, there are many similarities between Western and Eastern hierarchies. They point out, however, that in the former rational thought constitutes the highest level while in the latter it is only middle-ranking. Eastern conceptualisations of levels of consciousness continue for several stages beyond rational thought, concluding with universal consciousness or enlightenment (Epstein, 1990; Wilber, 1983).

Possible Implications For Reflection

To what extent might these Eastern conceptualisations of self, knowledge and ways of knowing enhance Western understanding of reflection? It could be argued that relevance might be determined, to a large extent, by three factors: the prevalence of culture-boundedness, the likelihood of overcoming the limitations of language, and the possibility of new developments in research methodologies. Each of these factors is discussed below.

In relation to culture-boundedness, the first of the above factors, one could claim that people are born into "a set of cultural constructions and constraints" and live their lives "in the embrace, or stranglehold, of various ... socially invented systems of perceptions, meaning, and knowledge" (Spretnack, 1991, p.14). Add to this a human tendency to see one's own cultural norms as the most desirable, and the outcome may well be a tenacious adherence to one's cultural traditions (Spretnack, 1991). Those who support this argument are unlikely to perceive any relevance of traditional Eastern perspectives to a contemporary Western context. As illustrated in Chapters One and Two, this stance appears to underpin much of the contemporary Western literature about reflection.

Conversely, one might contend that at a time of global cross-cultural interaction, it becomes more feasible to move beyond the confines of one tradition and to develop greater awareness of "the cultural construction of concepts" (Spretnack, 1991, p.4) rather than assuming them to be natural, universal and unquestionable. Such awareness could help to overcome the constraints of particular cultural and conceptual backgrounds. This notion of the loosening of cultural binds is illustrated in the philosophical shifts in the writing of Van Manen (1977; 1991) and MacKinnon (1987; 1996), discussed in earlier chapters, as they moved from an essentially analytical perspective to a far greater appreciation of more holistic ways of knowing.

Despite their interest in alternative perspectives, as yet, Van Manen and MacKinnon do not appear to have found ways of overcoming the limitations of language and current research methodologies. In other words, their access to appropriate methodological tools for investigating reflection appears to lag behind their appreciation of its complexity. This also seems the case for those who, like Tremmel (1993) and Yinger (1990), are interested in contemplation and meditation as an aspect of reflection. Attempting to understand meditation from an analytical perspective is problematic, however, because of the different levels of consciousness involved (Epstein, 1990). As Goldman (1986) points out, ultimately, it is not possible to use reason to explain that which is beyond reason.

Although higher (or different) realms of consciousness cannot be grasped in terms of lower (or other) realms, it has been asserted that they sometimes leave behind *footprints* (Wilber, 1983) or *cosmic echoes* (Wawrytko, 1989). By

nature, faint and indistinct, these connections between different realms of knowing can be difficult to recognise or describe, especially given the limitations of language (Wawrytko, 1989; Wilber, 1983). Doeringer (1994) argues that European languages are particularly limited in their ability to describe interconnections because of their emphasis on the individual, the objective, external action and control. Consequently, he contends, they have no concepts or names for many ideas intrinsic to Eastern notions of interconnections, such as the union of opposites through a middle path.

For contemporary Western understanding of reflection to be enriched by Eastern perspectives, therefore, it appears that there would need to be a greater commitment to recognising and appreciating more complex interconnections than traditional Western notions of cause and effect (Doeringer, 1994). From a perspective of interrelatedness, notions such as balance, rhythm, cadence and resonance might be more significant. Exploring interconnections of this nature would require moving beyond the continuing preoccupation with rationality and reductionism evident in much of the literature about reflection. This methodological shift would appear difficult, though, given the lack of alternative methods conducive to exploring the inner processes of reflection. In particular, there appears an urgent need for methods with the capacity to recognise and describe nonverbal experiences and to transcend the subject-object dichotomy characterising current investigations (Heshusius, 1994).

CONCLUDING COMMENTS

The metaphor of kaleidoscope adopted in this chapter has enabled reflection to be explored from a range of perspectives occasionally hinted at, but mostly overlooked, by much of the contemporary literature about reflection. As this chapter has shown, each of these perspectives or metaphorical prisms is located within its own substantial body of literature and more in-depth understanding of these phenomena would be required to fully realise their potential contribution to enhancing current understanding of reflection. Nevertheless, these perspectives have highlighted the complexity of reflection and the paucity of those conceptualisations of reflection which focus primarily on analytical thought.

Interestingly, despite the eclectic nature of the literature informing the prisms of this metaphorical kaleidoscope, a strong unifying theme has emerged. All

perspectives investigated in this chapter emphasise the importance of interconnections and their contribution to holistic understanding. Yet conceptualising reflection as a complex and holistic process appears likely to raise many methodological challenges. Some of these challenges, and their implications for the present study, are explored in the following chapter.

CHAPTER FOUR

SEARCHING FOR MEANING: METHODOLOGICAL CONSTRAINTS, CHALLENGES AND DECISIONS

To get closer to the sense ... requires a different manner of proceeding, a manner not dependent on language, rationality or culture; it requires a simple openness to that which meets us at every turn, in every thing, every thought, feeling, idea, person. (Smith, 1996, p.9)

The previous chapters concluded that reflection is best conceptualised as a complex and holistic search for meaning. This chapter considers how that search for meaning might be investigated and portrayed, given current methodological constraints. As with any research question or challenge, there are numerous methods from which to choose (see, for example, Cooper & Hedges, 1994; Denzin & Lincoln, 1994; LeCompte & Preissle, 1993; Tesch, 1990). Decisions ultimately depend upon the researcher's ontological, epistemological and methodological beliefs (Guba & Lincoln, 1994; Pitman & Maxwell, 1992) and purpose in conducting the research (Morse, 1994; Bogdan & Biklin, 1992; Eisenhart & Howe, 1992; Ely, 1991). For this reason, this chapter begins with a summary of the beliefs underpinning the present study. The methodological challenges arising from these beliefs are then discussed and the decisions made in response to these challenges outlined.

PART 1: BELIEFS AND CHALLENGES

Beliefs shape the researcher's view of the world, and perceptions about how it should be studied and understood (Denzin & Lincoln, 1994). As such, they constitute interpretive frames through which research is conducted and affect all aspects of research design. Because we cannot divorce ourselves from our beliefs (Olesen, 1994), and as there is no neutral epistemological, ontological or methodological vantage point (Rothberg, 1990), it is essential to clarify the beliefs and assumptions underpinning any research project (Enz, 1992).

This thesis reflects three fundamental beliefs: an ontological belief in the reality of an interconnected universe; an epistemological belief that meaning is created and revealed rather than acquired; and a methodological belief in

the significance of meaning as a basis for inquiry. These beliefs and the key assumptions arising from them are outlined below.

FUNDAMENTAL BELIEFS

The fundamental ontological assumption underpinning this thesis is that the universe consists of complex interconnections of dynamic energy events rather than solid structures or substances (Kesson, 1996; Zohar, 1990; Berry, 1988; Sheldrake, 1988). Given this state of flux, interconnections and relationships, not supposedly static entities, are of primary importance (Ross, 1993; Bateson, 1979). These interconnections and relationships might best be described in terms such as energy, rhythm, pattern, tension, possibilities, chaos, stability, balance, harmony and movement (Ross, 1993; Skolimowski, 1992). Because "unrelated separateness" (Spretnack, 1991, p.21) is an illusion, compartmentalisation and rigidity are likely to constrain understanding. Awareness of connectedness and fluidity, on the other hand, might enhance understanding.

Epistemologically, this thesis assumes that understanding is more likely to be constructed from perceived connections or revealed through the medium of human consciousness, than acquired through the accumulation of independent entities of knowledge. Given the natural urge to fill vacuums in understanding with connections arising from the interplay of experience, memories, images, emotions, insight, logic, beliefs and values (Skolimowski, 1992; Fuller, 1990), understanding can be seen as a dynamic process of exploring and balancing possible connections in order to make meaning (Fuller, 1990). Yet, from the perspective of this thesis, the interconnected nature of the universe means that human consciousness "is rooted in a deeper reality" (Tarnas, 1991, p.435) than the surface reality of individual interpretations and constructions. When consciousness is receptive "the world's truth realizes itself within and through the human mind" (Tarnas, p.434). Just as "the plant at a certain stage brings forth its blossom, so does the universe bring forth new stages of human knowledge" (Tarnas, p.435). This thesis uses the terms participatory epistemology (Tarnas, 1991) and participatory consciousness (Heshusius, 1994) to describe meaning arising primarily from revelation. It assumes that constructed and revealed meaning interact fluidly on a continuum of meaning.

Methodologically, this thesis is based on a belief in the primacy of meaning as a medium for inquiry. Focusing on meaning involves investigating how people interpret their experiences in order to make sense of their worlds (Spradley, 1979). Experience is not discrete but "multifaceted, multilayered, inextricably connected with other experiences" (Boud, Cohen & Walker, 1993, p.7). Often this interconnectedness is "transparent and therefore imperceptible" (Bateson, 1979, p.14). While fractures and irregularities provide a starting point for exploring this apparently seamless web of interconnected experience, we need to move beyond these to the connections themselves (Bateson, 1979). Focusing on meaning, therefore, involves emphasising the whole, and connections within that whole, rather than fragments and the frequency with which they occur (Janesick, 1994).

RISKS AND CHALLENGES

The above beliefs necessitate moving beyond the conceptual and methodological boundaries characterising much of the research into reflection to date. Transcending conventional perspectives and traditional boundaries might bring new insights, but also entails risks. As foreshadowed in Chapter Three, for example, available methodological tools may prove inadequate to investigate potential insights revealed through an exploration of reflection from different perspectives. Unless risks are taken, however, understanding will not be enhanced - which could explain why Western understanding of reflection seems to have advanced little in recent years (Korthagen, 1993). In the present study, these risks were viewed as challenges, the most significant of which are outlined below.

Challenge 1: Locating A Research Paradigm

The primary challenge confronting this study involved finding ways to ensure consistency between its underpinning ontological, epistemological, and methodological beliefs and the methodological decisions taken. Usually, this is done by locating one's study within a recognised research paradigm. Essentially, a paradigm is a set of basic beliefs about the nature of knowledge, reality, and means of gaining knowledge about that reality (Denzin & Lincoln, 1994). These beliefs are a matter of faith and their ultimate truthfulness cannot be established (Denzin & Lincoln, 1994). With varying degrees of freedom, the paradigm determines the design of the research project and, as such, provides considerable structure and guidance (Denzin & Lincoln, 1994).

Because this study is based on an ontological belief in universal inter-relatedness and an epistemological belief in participatory consciousness, it falls outside the four commonly recognised research paradigms of positivism, postpositivism, constructivism and critical theory (Guba & Lincoln, 1994). Its closest links are to the constructivist paradigm, which assumes that meaning is constructed by individuals, and that multiple meanings are possible (Guba & Lincoln, 1994). Typically, constructivists assert that because meaning is created, reality is also "constructed by the mind, not simply perceived by it" (Tarnas, 1991, p.396). Hence, they recognise multiple realities as well as multiple meanings, arguing that the world does not exist independently of interpretation (Guba & Lincoln, 1989; Lincoln & Guba, 1985). Belief in universal interconnectedness, on the other hand, implies a belief that there is a reality, albeit ever changing, which exists independently of interpretation. This belief appears to preclude the present study from fitting neatly into the research paradigms recognised by Guba & Lincoln.

Nevertheless, the ontological and epistemological beliefs underlying this study are consistent with a shift in perspectives reported by many writers (e.g., Kesson, 1996; Ross, 1993; Skolimowski, 1992; Spretnack, 1991; Tarnas, 1991; Rothberg, 1990; Zohar, 1990; Pelletier, 1985). They argue that these changing perspectives arise from disenchantment with the dualism and rationalism commonly associated with traditional Western thought, and from the sense of spiritual disconnection and dislocation often associated with postmodernism. In times of such crises, people search for new paradigms (Kuhn, 1962). A new paradigm is likely to emerge and be recognised as valid when it "resonates with the current state of the evolving collective psyche" (Tarnas, 1991, p.438). The above writers argue that the current shift in ontological and epistemological perspectives heralds the emergence of a new holistic paradigm which emphasises the universal interconnectedness, interdependency and dynamism of all phenomenon (Kesson, 1996). They assert that because these connections are unable to be grasped reductively, this emerging paradigm represents the antithesis of reductive and dualistic thought.

Challenge 2: Overcoming A Methodological Lag

Typically, there is a lag between the emergence of a new paradigm and the emergence of methodologies for that paradigm (Forman, 1990; Allport, 1981).

This seems especially the case with the emergent holistic paradigm because of the value it places on understanding beyond language (Schwandt, 1994). Attempting to undertake research from within this paradigm has been likened to the quandary of "a musician who faintly hears a melody deep within the mind, but not clearly enough to play it through" (Berry, 1988, p.47). While calls are beginning to be made for the amplification of this melody (e.g., Heshusius, 1994), as yet there have been few suggestions about how it might be played.

Challenge 3: Recognising Opportunities For Interaction Between Paradigms

Freedom from the epistemological, ontological and methodological commitments of widely recognised paradigms presents inherent challenges but also provides many opportunities to recognise and make new connections. While established paradigms guide researchers in their attempts to "impose ... order on the world" (Denzin, 1994, p.502), they inevitably shape the nature of that order. As such, paradigms make research possible but can limit the nature of that research, especially if they evolve into rigid parameters for inquiry. Rigidity heightens the risk that limitations of a particular paradigm will be interpreted as absolute limits to inquiry, instead of recognised as limits of that paradigm (Pelletier, 1985), as has seemingly been the case with much Western research into reflection.

Recognising the constraints of established paradigms is one matter; envisaging methodologies capable of overcoming these constraints is another. Conceivably, there might be some scope for paradigms to "inform and interact with each other" (Denzin & Lincoln, 1994, p.560) as long as consistency between ontological and epistemological beliefs and decisions is maintained. This proposition provides a starting point for exploring methodological implications of the emerging holistic paradigm for the present study.

Challenge 4: Identifying Connections Between The Holistic And Constructivist Paradigms

The constructivist and holistic paradigms share a similar methodological belief in the primacy of meaning. To what extent, therefore, can the former inform the latter, given ontological and epistemological differences? To find connections, one must move beyond the commonly perpetuated assumption

(e.g., by Guba & Lincoln, 1994) that constructivism is a monolithic perspective (Phillips, 1995).

Writers such as Schwandt (1994) argue that while knowledge is constructed, a world independent of human interpretation also exists, but because of human limitations, including the reliance on language to express meaning, it might not be possible to know this other world. Similarly, Rothberg (1990) claims that surface (constructed) structures coexist with deep (universal) structures. Likewise, Katz (1978) refers to interaction between the constructed and universal, emphasising that participatory consciousness experiences, like all other experiences, are shaped by the individual's linguistic, social and cultural background. These perspectives suggest that despite ontological and epistemological differences, the constructivist and the emerging holistic paradigms are not necessarily incompatible. Consequently, methods appropriate for research undertaken from a constructivist perspective might also be appropriate for research undertaken from a holistic perspective.

Challenge 5: Compensating For The Inadequacy Of Language

Constructivist methods rely primarily on language (Punch, 1994) because, in Western traditions, language is the main means by which meaning is constructed and shared. Although access to meaning is through language (Altheide & Johnson, 1994), language is a problematic medium for investigating meaning for several reasons. First, meaning varies with linguistic, social and cultural contexts (Altheide & Johnson, 1994). Moreover, as meaning is relatively fixed, it lacks the fluidity of experience and understanding, and hence is unable to express much of what is experienced or understood. Thus, much meaning remains tacit, inarticulated and inaccessible (Ely, 1991; Polyani, 1967). As well, language may distort meaning for, to be communicated, it must be encoded into predetermined symbols and interpreted. Because meaning must be twice translated, inferences may differ from intended meaning (Spradley, 1979).

The culturally bound nature of language is a further limitation (Doeringer, 1994). Language provides a schemata for interpreting the world (Perry, 1988) but, in doing so, highlights what it values and renders "mute and invisible" what it does not (Du Bois, 1983, p.108). In this sense, it "constrains as much as it enables" (Fielding, 1996, p.413). Given that Western languages tend to

focus on categories, logic, quantification and control (Doeringer, 1994; Skolimowski, 1992) and are arguably less attuned to interconnections, insight, fusion, balance and harmony (Chung-Ying Cheng, 1991), they appear not particularly well suited to exploring the holistic paradigm. As language provides a "semantic lens" (Fielding, 1996, p.413) which largely determines the nature of thought (Boud et al., 1993; Du Bois, 1983), Western researchers might be relatively poorly equipped for research within the holistic paradigm.

The complexity of these challenges suggests they might not be resolved, especially within the context of this thesis. They cannot be ignored, however, for they arise directly from the ontological, epistemological and methodological beliefs underpinning the thesis.

PART 2: METHODOLOGICAL DECISIONS

The following discussion outlines the methodological decisions concerning the current study which were made in response to these challenges. It focuses on decisions concerning the recruitment of participants and the selection of strategies for gathering, analysing and presenting the data. It also discusses ethical considerations and proposes criteria for evaluating the study.

RECRUITMENT OF PARTICIPANTS

In March 1993, at the end of their third week at University, I outlined the study to the 200 first year student teachers enrolled in the internal study mode of the first Guided Practice unit. I explained that the study would focus on aspects of their professional development, particularly their reflection, and would continue for the three years during which the participants were enrolled in Guided Practice. They would meet with me twice each semester, for approximately an hour, and keep a reflective journal. They would also allow me to visit them in their practicum placements. Student teachers were invited to complete an expression of interest profile which provided more detailed information about the study to potential participants (see Appendix 4).

From those who responded, I intended to select twelve participants. My aim was not to create a representative sample but to highlight the diversity of student teachers enrolled in the program. Thus, for several reasons, twelve

seemed an appropriate number of participants. First, it would enable diversity in terms of age, socio-cultural backgrounds, academic and employment background, prior experience with children, political orientation and general life experiences. Potentially, this diversity would yield a broad range of perspectives and illuminate connections and patterns (Morse, 1994, Patton, 1990). Second, it would provide a rich array of data but enable the amount of data collected to remain manageable within the constraints of my personal and professional commitments. Third, it would allow for a small number of student teachers to withdraw from the study without affecting its viability.

Disappointingly, however, only four student teachers expressed interest initially in joining the study. Feedback from the cohort as a whole suggested that the journal writing requirement was a major deterrent. When this requirement was abandoned, three more student teachers volunteered. The seven intending participants were asked to nominate interested friends. All five nominees invited to join the study accepted, bringing the number of participants to 12, as originally intended.

Unfortunately, the withdrawal rate from the first year of the common preservice program proved unexpectedly high, as did the failure rate for student teachers remaining in the program. Of the original 12 participants, three withdrew from the program during the first year, and three failed to meet the prerequisites for enrolment in Guided Practice in the second semester of 1993. This trend continued until mid way through 1994 when only two of the original 12 participants were still enrolled in the program and continuing with Guided Practice in an uninterrupted sequence. Five had withdrawn from the program, while five were progressing through the Guided Practice units at a slower than expected rate due to illness or failure. As participants withdrew from the study, either permanently or temporarily, other student teachers were invited to join. Invitations were extended on the basis of ability to add diversity to the group of participants. All invitations were accepted, but two participants later chose not to continue in the study for undisclosed reasons. The last participants to join the study did so in July 1994. Those participants temporarily ineligible to continue their enrolment in Guided Practice rejoined the study as they passed the prerequisite units and resumed their enrolment in Guided Practice. Appendix 5 provides further details of the full participation pattern.

As shown in Appendix 5 and summarised in Table 1, a total of 18 student teachers participated in the study for at least 2 semesters. Where possible, similar data were gathered regardless of the time the participants were involved in the study. As such, data gathering became correspondingly more intensive for student teachers who joined the study after their first semester in the program, or who rejoined after being temporarily excluded from the Guided Practice sequence.

TABLE 1: SUMMARY OF PARTICIPATION

Period of Participation (Semesters) *	Participants
2	2
3	5
4	4
5	3
6	3
7	1 **
Total	18*

* excludes the five student teachers who participated for less than two semesters

** 1 participant failed and later repeated a Guided Practice unit.

OVERVIEW OF PARTICIPANTS

Approximately half of the 18 student teachers involved in the study for a minimum of two semesters were school leavers from Anglo-Australian backgrounds. This proportion reflected the approximate composition of the student body as a whole. As Table 2 shows, though, overall the participants were reasonably diverse in terms of age on entry to the program, education and employment history, cultural background and prior experience with children.

TABLE 2: OVERVIEW OF PARTICIPANTS

Name	Age on Entry to Program	Education / Employment History	Cultural Background	Prior * Experience with Children
Colin	23	Incomplete university studies in Law & Secondary Teacher Ed.	Anglo-Australian	Practicums in Secondary Teacher Ed. program
Erica	18	School leaver	Anglo-Australian	Swimming instructor
Felicity	18	School leaver	Anglo-Australian	Minimal
Genni	22	TAFE Diploma in Accounting	Phillipino-Australian	Minimal
Gerry	33	Incomplete University studies in Pharmacy; Personnel & Administration	Eastern European - Australian	Voluntary work in an alternative school
Heather	19	First year University studies in Science	Anglo-Australian	Minimal
Jessica	19	International exchange student between school and University	Anglo-Australian	Minimal
Josephine	18	School leaver	Greek-Australian	Minimal
Kasey	19	First year University studies in Science	Anglo-Australian	Voluntary work in a preschool
Kathleen	18	School leaver	Anglo-Australian	Minimal
Kel	18	School leaver	Anglo-Australian	Minimal

* other than family experiences

TABLE 2: OVERVIEW OF PARTICIPANTS (CON'T)

Name	Age on Entry to Program	Education / Employment History	Cultural Background	Prior Experience with Children *
Kristy	18	School leaver	Anglo / Greek -Australian	High school work experience in a preschool
Marcelle	20	School leaver	Indigenous Australian	Voluntary work in a preschool
Marina	18	School leaver	Anglo-Australian	Minimal
Nina	23	BA (philosophy / psychology)	Italo-Australian	Voluntary work in long day care centre
Pamela	18	School leaver	Anglo-Australian	Minimal
Pia	19	First year University studies in Early Childhood elsewhere	Italo-Australian	Babysitting
Sarah	18	School leaver	Anglo-Australian	Sunday school teaching; music teaching; baby sitting; High school work experience in a preschool

* other than family experiences

DATA COLLECTION STRATEGIES

Data collection strategies were selected for their potential to highlight the holistic nature of the student teachers' constructions, connections and understandings as they sought to make sense of becoming a teacher. This emphasis on student teachers' perceptions of teaching and of their development as teachers was consistent with the developmentalist tradition of teacher education (Zeichner, 1993) underpinning the program. Conceivably, this focus could be criticised as not conducive to critical reflection (see Chapter One), yet the data collection process itself was sufficiently flexible to allow student teachers to concentrate on issues of interest and concern to them. Hence, critical reflection was not precluded.

Six data collection strategies were used in the study: 1:1 interviews, visual representations, practicum visits, reflective writing, small group discussions and relaxation and visualisation sessions. Apart from visual representations and visualisation and relaxation sessions, these strategies are commonly associated with the constructivist paradigm (Guba & Lincoln, 1994; Punch, 1994). Nevertheless, they are consistent with the ontological, epistemological and methodological assumptions underlying this study which were discussed earlier in this chapter. Visual representations and visualisation and relaxation sessions, on the other hand, represented attempts to explore strategies particularly relevant to holistic understanding and the holistic paradigm. An explanation of each of the six strategies, and a rationale for its use, follows.

1:1 Interviews

For several reasons, indepth, loosely structured 1:1 interviews modelled on a "conversation between two trusting parties" (Bogdan & Biklin, 1992, p.47) constituted the primary source of data. Because they were indepth, they allowed time for the student teachers to explore and make explicit their thoughts, feelings, beliefs and perspectives, and to identify connections between these. In effect, they provided the opportunity for the student teachers to find their voice (Hogan & Flather, 1993). Because they were loosely structured, they enabled the student teachers to concentrate on issues significant to them, and to respond in terms of their own frames of reference (Bogdan & Biklin, 1992). Because they were modelled on a conversational style, they seemed to elicit confidence and trust (LeCompte & Preissle, 1993). This enabled ongoing exploration of the personal context of each participant, providing insight into their experiences and perceptions and the opportunity to revisit issues and earlier responses.

Interviews ranged in duration from approximately 30 to 75 minutes and tended to increase in duration the longer the participants were involved in the study. The interviews were usually conducted in my office because of the lack of suitable alternative meeting places available on campus. The relative privacy and peacefulness of this environment seemed to outweigh any discomfort arising for participants from meeting in a venue which had the potential to reinforce the unequal power relationship between participants and researcher emphasised by McWilliam (1993a). This impression was

evident from the tendency, particularly as the study progressed, for the participants to drop by for informal chats between scheduled sessions.

Although guiding questions provided a focus for these interviews (Appendix 6), there was ample opportunity to explore issues raised by the student teachers. Interviews were audio-taped, thus avoiding the intrusive presence of a video camera, while overcoming the limitations of note taking (Bogdan & Biklin, 1992). Transcripts were returned to participants for verification with an invitation to participants to suggest changes which might represent more accurately their intended meaning. The few changes requested were made but, being of a procedural nature, had no impact on the meaning conveyed.

Visual Representations

In an attempt to counterbalance the inevitable emphasis on language, at the beginning of each 1:1 interview conducted on the University campus, participants were invited to represent visually their responses to the guiding question for that interview. It was anticipated that this might illuminate for participants the connections they were making on a more intuitive, less verbal level and assist them to make explicit images underpinning their interpretation of the process of becoming a teacher.

The choice of representation was left to the participant. Drawings were mentioned as one possibility, however, for they can "offer a different kind of glimpse into human sensemaking than written or spoken texts" (Weber & Mitchell, 1996, p.304). In particular, "they can express that which is not easily put into words: the ineffable, the elusive, the not-yet-thought-through, the subconscious" (Weber & Mitchell, p.304). Moreover, as Weber & Mitchell point out, "much of what we have seen or known, thought or imagined, remembered or repressed, slips unbidden into our drawings, revealing unexplored ambiguities, contradictions and connections" (p.304).

Mind maps, essentially "a visual non-linear representation of ideas and their relationships" (Oldfather et al., 1994, p. 16), were mentioned as another possibility because of their potential to encourage and portray dynamic, openended and holistic connections (Oldfather et al., 1994). Apart from an explanation of the purpose of mind maps and the opportunity to look at some examples, no particular training in their use was provided. This might explain why fewer than half the participants chose to use them at any stage during

the project. As student teachers who preferred to express their ideas in written form were encouraged to do so, in the remainder of this chapter the generic term *representation* is used in preference to *visual representation*.

Practicum Visits

Practicum provides first hand experience of the multiple demands and dilemmas of teaching (Cole & Knowles, 1993; Britzman, 1991; Armaline and Hoover, 1989; Calderhead, 1988). In part because of the "reality shock" (Cole & Knowles, 1993), the inherent inequalities in power (Dobbins, 1995), and the stress of establishing oneself in a new environment (Edwards, 1993), practicum is frequently an emotionally intense experience. As indicated by the number of studies reviewed in Chapter Two which include data collected during practicum, it is also widely assumed to be a context in which reflection, including reflection-in-action (Schon, 1983; 1987) is likely to occur.

To better understand the nature of the student teachers' experiences of practicum and their potential tendency to reflect on these experiences, participants were visited during the final three of their five practicums. Visits were limited to these practicums because of time and resource constraints. Because student teachers were required to take more responsibility for teaching during these practicums than earlier ones, it seemed possible that some student teachers might be more likely to engage in reflection during these later practicums.

Adopting procedures outlined by Bogdan & Biklin (1992), I made field notes containing details about the context and the participants' actions and interactions, as well as my responses during these observation periods (see Appendix 7). An indepth 1:1 interview of approximately one hour followed. Student teachers were encouraged to share their perceptions of their teaching during the period for which they were observed and to discuss issues of interest and concern to them which had arisen during the practicum. To enable the student teachers to speak freely, interviews were conducted either within a secluded area within the practicum setting, such as an empty classroom or unused section of the playground or, if no sufficiently private space was available, in a local park or coffee shop. Interviews were audio-taped and transcribed and transcripts returned to participants for verification prior to the next scheduled 1:1 interview.

Reflective Writing

While interview data is widely recognised as useful in providing evidence of reflection (see Chapter Two), data gathered from written sources, such as reflective journals and description of critical incidents (Tripp, 1994), have the potential to contribute different perspectives from data gathered through conversational interviews (Bogdan & Biklin, 1992). In much of the literature about reflection (e.g., Loughran, 1996; Pultorak, 1996; Hoover, 1994), journals are regarded as a valuable source of data, although some writers (e.g., Francis, 1995; Hatton & Smith, 1995) warn of possible problems associated with their use. As previously explained, the original intention that student teachers maintain a journal specifically for the purposes of the current project and unrelated to program requirements proved an unacceptable imposition to all but one student teacher. Instead, the other participants agreed to allow me access to their reflective writing undertaken as part of practicum requirements.

During each practicum, student teachers maintained a professional folder consisting of six sections, each having a particular focus for recording. In one section, for example, student teachers were required to document their teaching plans, while in another they recorded their observations about individual children. In another of the six sections, student teachers were expected to write reflectively about their practicum experiences and their perceptions of their professional development. Guidelines, available for students who wished to follow them, were not prescriptive (see Appendix 8 for an example). The folder as a whole was assessed as either satisfactory or unsatisfactory, but the component sections, including the reflective writing, were not assessed. Consequently, most participants reported being able to write reasonably freely, without undue concern for assessment processes. This was important for, as Hatton & Smith (1995) caution, reflective writing undertaken for assessment purposes might not represent student teachers' actual perspectives.

Small Group Discussions

The usefulness of focus group interviews in exploring issues of interest and concern (Mok & Krause, 1994; Morgan, 1993) and the effectiveness of "critical friends" in fostering reflection (Golby & Appleby, 1995; Hatton & Smith, 1995; Baird, 1991) suggested that small group discussions could contribute valuable data about student teachers' reflection. Consequently,

group discussions were planned with the intention of focusing on scenarios which contained some element of dilemma. Such scenarios are said to provide an opportunity to "use analytical and critical thinking skills ... common sense and collective wisdom to identify and analyse problems and to evaluate possible solutions" (Silverman, Welty & Lyon, 1992, p.xix). Equally, it could be argued that they provide opportunity for alternative modes of making meaning. They might also be expected to encourage student teachers to draw on critical incidents (Kelchtermans & Vandenberghe, 1994; Tripp, 1994) arising from their own experiences, thus providing ample opportunity for reflection. Scenarios were selected on the basis of student teachers' developmental concerns (Katz, 1972). A sample scenario is included in Appendix 9.

The discussions (of approximately 30-60 minutes in duration) were limited to four participants at a time to minimise possible difficulties associated with audio-taping and transcribing. For similar reasons as the 1:1 interviews, they were held in my office. The composition of each discussion group varied and was determined mainly by individual student teachers' timetable commitments and other constraints, rather than by previously established friendships. Hence, in some small groups, participants knew each other, but in others they did not. Although the latter discussions were not between critical friends, as described by Hatton & Smith (1995), there seemed no reluctance by participants to contribute to the discussion, nor any discernible difference in the incidence of reflection. In other words, the extent to which the student teachers had previously established relationships did not appear to unduly influence the reflection generated through small group discussion.

Because of variations in individual's class timetables, their work and family commitments, the time pressures which all student teachers seemed to experience, and the tendency for some participants to sometimes miss interview appointments, the discussions proved increasingly difficult to arrange. It was not uncommon, for example, for all but one of the student teachers scheduled to participate in a discussion to be unable, at the last minute, to keep their appointment. Moreover, a number of participants expressed a preference for individual interviews because of the opportunity to explore personally relevant issues in more depth. Given the logistical difficulties in arranging small group discussions and my wish to respect participants' needs and preferences, it became clear that they could not be

relied upon as a major source of data. Thus, small group discussions were discontinued in mid 1994, the second year of data collection.

Relaxation And Visualisation Sessions

Similar difficulties were experienced in arranging relaxation and visualisation sessions. The purpose of these sessions was to provide opportunities for contemplation and the cultivation of mindfulness (Tremmel, 1993). It was anticipated that student teachers might experience similar benefits to their reflective capacities to those reported by Miller (1994) and described in Chapter Two - namely a heightened sense of awareness, self understanding, clarity, interconnectedness and peacefulness, as well as a broader perspective.

Logistical difficulties and constraints of the type described above precluded relaxation and visualisation sessions from being offered throughout the duration of the study. In Semester 1, 1995, though, it was possible to offer a series of weekly lunch time sessions. Of one hour duration, these sessions were intended to continue for five consecutive weeks. Unfortunately, however, my sudden and lengthy hospitalisation led to the cancellation of the final session.

To accommodate the timetable variations and other commitments which had made small group discussions so difficult to arrange, relaxation and visualisation sessions were conducted during three lunch times for each of the four weeks in which they were held. Apart from one student teacher who preferred not to attend, participants made a commitment to attend weekly. Although some participants expressed interest in attending more frequently, and were welcome to do so, as it happened, none were able to devote more than one lunchtime each week to these sessions. Indeed, other commitments and constraints prevented two student teachers from attending on any of the days in which sessions were offered. Of the 15 student teachers enrolled in the program in Semester 1, 1995, 11 participated in the sessions as indicated in Appendix 5.

The sessions were held in a carpeted tutorial room. A colleague with extensive professional experience in relaxation and visualisation methods, who was well known to the participants, conducted these sessions with me. Student teachers involved in another project (Sumsion & Thomas, 1995) also

attended, bringing the average attendance at each session to six. As with the small group discussions, not all participants knew each other previously but again, from impressions of willingness to contribute and the incidence of reflection, this did not appear to influence their responses to the sessions.

Each session incorporated guided relaxation and visualisation based on progressive muscle relaxation and visual imagery techniques (Margolis, 1990), representation as described above, and group discussion of the experience of relaxation. Again, guiding questions provided a focus for the group discussions (see Appendix 10) although student teachers had opportunities to raise issues of interest and concern. As soon as possible following each session, 1:1 interviews were conducted with participants about their experience of the session to enable them to discuss issues which they might have felt uncomfortable sharing in a group situation or which they wanted to explore in more depth. Group discussions and 1:1 interviews were transcribed and transcripts returned to participants for verification.

The above mix of data collection strategies was consistent with the purpose of the study and its underpinning beliefs. In addition, this mix assisted in overcoming the limitations associated with an over-reliance on any one strategy and, as discussed in more detail later in this chapter, contributed to the rigour of the study.

DATA COLLECTION SCHEDULE

As noted previously, the study was timed to coincide with the introduction of the new Bachelor of Teaching / Bachelor of Education (early childhood) program in 1993, following a pilot study undertaken in 1992 and reported elsewhere (Sumsion, 1995). Thus, participants were drawn from the first cohort to complete the Guided Practice sequence of units.

Data collection was planned for the period March 1993 to December 1995 as participants moved through the Guided Practice sequence. As previously mentioned, however, seven participants had to delay their enrolment in the next unit in the Guided Practice at some stage. This meant that they took at least four, rather than the minimum three, years to complete the Guided Practice sequence. Consequently, the data collection for these student teachers was extended until December 1996.

Although there were some variations according to the structure of the particular Guided Practice unit in which the participants were enrolled, in general data were collected each semester via:

- (i) a 1:1 interview based on some form of representation to a guiding question;
- (ii) reflective writing recorded in practicum folder; and either
- (iii) a small group discussion;
- or
- (iv) a practicum visit.

Contact was maintained with participants during the semesters in which they were not enrolled in Guided Practice through either a 1:1 interview, small group discussion, or the relaxation and visualisation sessions conducted in Semester 1, 1995.

DATA MANAGEMENT

Data collected from each participant were filed chronologically under that student teacher's name. Excluding audio-tapes, two complete sets of data were maintained. For security reasons, one set was kept in a locked filing cabinet in my office on campus, and the other at home.

All interviews and small group discussions were transcribed, but not always verbatim. Extraneous conversation, conversational place markers and procedural points, for example, were not transcribed. Especially lengthy descriptions of highly specific circumstances and events of only tangential relevance were not transcribed in full. Totally verbatim transcription was not possible given the number of interviews and small group discussions conducted (a total of 172) and time and resource constraints. Nor was it necessary for, in keeping with the holistic perspective of the study, interpretation focused on broad chunks of situated meaning, rather than the fine detail involved in linguistic analysis, (Wolcott, 1994). Indeed, it could be argued that verbatim transcriptions might contribute to a false sense certainty and premature closure by encouraging the unwarranted perception that the act of transcription renders the data unproblematic. In my experience, the use of partially verbatim transcripts provided a valuable, ongoing reminder that the fluidity of meaning is such that it "always exceeds and transgresses our attempts to categorize" (Scheurich, 1995, p.249).

The location of the data on the corresponding audio tape was indicated on each transcript using the audio tape counter number. Where both sides of the tape were used during an interview, data from the reverse side of the tape were indicated by the prefix B. On the rare occasions that a second tape was used, this was indicated by referring to sides C and D. Data from an interview with Sarah on November 10, 1993 found on the reverse side of the first tape at counter number 95, for example, were identified as Sarah (10/11/93, B95).

INTERPRETATION OF DATA

In this study, *interpretation* was adopted in preference to *analysis* as the generic term to describe the process by which meaning was obtained from the data. This decision was made for several reasons. First, it can be argued that the former term is more likely to imply insights arising from the constructions and connections made by the researcher whereas the latter can imply the discovery of information in the data (Brodkey, 1987). Second, interpretation has been described as "unbounded ... inductive ... holistic, generative" (Wolcott, 1994, p.23); analysis as "controlled, structured, formal, bounded ... systematic, logico-deductive ... reductionist" (Wolcott, 1994, p.23). Interpretation can be characterised as centrifugal in nature, reaching out to what is beyond the possibility of understanding, while analysis is more centripetal, focusing on what can be understood with reasonable certainty (Wolcott, 1994). Moreover, interpretation is more likely to acknowledge the intuitive hunches accompanying the revelatory type of meaning referred to previously (Denzin, 1994; May, 1994). While interpretation and analysis are complementary modes of generating meaning (Wolcott, 1994), it could be claimed that, in general, interpretation is more appropriate to the emergent holistic paradigm. As this study relied more on interpretation than analysis, the former was adopted as the generic term, although, as the following discussion shows, the latter also played a role.

Many of the challenges identified in Part 1 of this chapter influenced decisions concerning interpretation of the data. To review, methodological lag meant that strategies used within the holistic paradigm must be informed by strategies from other paradigms, but without compromising the fundamental beliefs underpinning the holistic paradigm. Although the holistic paradigm recognises that much meaning is tacit, the process of interpretation must somehow find a way to articulate tacit understanding of the data, and to chart the movement from unspoken to voiced understanding (Ely, 1991).

Attempting to move beyond current "boundaries of interpretation" (Denzin & Lincoln, 1994, p.ix) does not negate the responsibility to explain the process of interpretation (Constas, 1992), even though the limitations of language preclude a complete explanation of the interpretive process (Scheurich, 1996). Language cannot describe the intuitive and imaginative leaps, for example, which often accompany interpretation (Fine & Deegan, 1996). Consequently, the following account is only partial. It focuses on five key concurrent, continuous, and interactive processes underpinning the interpretation of the data.

Drawing Upon The Literature

Some writers (e.g., Strauss & Corbin, 1990; Lincoln & Guba, 1985) caution against drawing on the research literature to suggest possible directions for interpretation, warning that this can narrow one's focus and predetermine one's findings. In my experience, however, the eclectic nature of the literature reviewed in Chapter Three, in particular, provided interesting possibilities (Morse, 1994), multiple perspectives and sensitising concepts (Keltchermans & Vandenberghe, 1994) which enriched the process of interpretation. I documented my responses to the literature, including possible connections to the data through reflective memos (Bogdan & Biklin, 1992) - see Appendix 11 for an example -and reviewed these frequently. Free writing techniques advocated by Elbow (1986; 1994) assisted me to make emerging understandings explicit.

Immersing Myself In The Data

To immerse myself in the data, I listened and relistened to tapes, revisited representations and read and reread transcripts and written reflections. After reading and reading transcripts and reflective writing, I transferred photocopies of this data to cards using a process similar to that advocated by Wolcott (1994) and Delamont (1992). This required preliminary interpretation of the data which involved focusing on identifying chunks of meaning, using the paragraphing in the participants' writing and interview transcripts as a guide.

Most paragraphs contained one key idea and, in such cases, each paragraph was simply transferred to a card. Where several ideas were embedded in the one paragraph in such a way that they could not be isolated without losing the meaning of the paragraph, I made multiple copies of the paragraph and

pasted these on to separate cards (see Appendix 12). This enabled the context in which ideas were expressed and their relationship to other ideas in the paragraph to be retained. In this manner, all data, other than that involving purely procedural points or social conventions, were transferred systematically to cards. Because the cards could be easily manipulated, all textual data could be explored from different perspectives by shuffling and reshuffling cards into different formations and combinations. As such, the cards greatly assisted in playful exploration of the data as recommended by Bogdan & Biklin (1992).

Exploring Different Formations And Combinations

My underlying belief in dynamic interconnections required that I retain as much fluidity and flexibility in the interpretation process as feasible. This precluded the use of computer assisted analysis for despite considerable advances in design, software programs lack the fluidity, subtlety and intuitive capability of the human mind (Richards & Richards, 1994; Wolcott, 1994; Agar, 1991; Seidel, 1991). Their inbuilt structure can lead to rigidity and a tendency to "coerce a project along a particular direction" (Richards & Richards, p. 460). Moreover, as Richards & Richards also point out, the routines they require can inhibit insight, thus limiting their usefulness in the exploration of explanatory links and emergent ideas. In addition, it could be argued that their predetermined, linear nature inhibits understanding of dynamic interrelatedness, thus further contributing to their unsuitability to the present study.

Nevertheless, the grounded theory procedures of constant comparison (Strauss & Corbin, 1990; 1994) commonly underpinning software programs (Tesch, 1990) had some relevance. This is because they use, in part, inductive approaches which are advocated "where the terrain is unfamiliar and/or excessively complex ... and the intent is exploratory and descriptive" (Huberman & Miles, 1994, p.431), as was the case with the current study. Yet although grounded theory procedures can uncover regularities (Huberman & Miles, 1994), they assume that there are regularities to be uncovered. Moreover, they assume that this can be done by reducing and fragmenting data, albeit as a precursor to later synthesis. As well, illuminating fragments (apparently independent entities with supposedly rigid boundaries) can overshadow connections (Schwandt, 1994). Even when grounded theory procedures recognise connections, they assume them to be fixed (Scheurich,

1995). They tend to overlook the possibility that boundaries might be fluid rather than rigid, and that connections, regularities and patterns might be dynamic, like a "a dance of interacting parts" (Bateson, 1979, p.13) featuring movement, rhythm and repetition.

In the current study, these limitations were counterbalanced by initially adopting the metaphor of data as clouds for, as Janesick (1994) and Oldfather & West (1994) point out, metaphors can partially illuminate the tacit processes of interpretation. Clouds, by nature indeterminate and indefinite, are also geometrically irregular and their movement unpredictable. They vary in density and shape, and have vague boundaries and unexpected gaps. Furthermore, "a cloud may have a clear shape on the background of the sky or of other clouds, and yet, in a clear sense, it may not begin at all at any very definite line, or begin or end at all" (Scharfstein, 1988, p.92). This metaphor was a useful reminder of the need to safeguard against inflexible classification strategies. In my experience, viewing the various arrangements of the cards containing data as changing cloud formations discouraged premature closure of the interpretive process.

I arranged the cards many times from many different perspectives during the four year period in which data were collected. Some arrangements involved all cards pertaining to each of the participants; others focused on participants who demonstrated particular similarities or differences in their attitudes or approach to reflection. Some arrangements were cross sectional; others longitudinal. Some began with the purpose of exploring a idea encountered during my reading of the literature; others had no initial focus. Each arrangement remained spread over the floor of my study for several days. This provided further opportunity for kineasthetic involvement with the data. Sitting and walking amongst the cards, and stretching to see and reposition them, contributed considerably to my familiarity with the data, as had transcribing audio tapes and cutting and pasting the data on to cards.

When arranging the cards, I used a combination of analytical and contemplative processes. Using analytical techniques, I compared and contrasted the data to form categories and clusters. Through contemplation, I attempted to transcend the distance between myself and the data and to develop the "deeper level of kinship between the knower and the known" of participatory consciousness (Heshusius, 1994, p.16). Using progressive

relaxation techniques (Margolis, 1990), I sought to "temporarily let go of all preoccupation ... and move into a state of complete attention" (Heshusius, 1994, p.17) which would enable me "to hear what the material has to say" (Keller, cited by Heshusius, 1994, p.17). I anticipated that analytical and contemplative techniques would play a complementary role in illuminating the data.

Displaying And Documenting The Data

As suggested by Miles & Huberman (1994) and Bogdan & Biklin (1992), I documented and displayed the key points and issues emerging from each arrangement of the data. Following their recommendations, I experimented with a variety of formats, including reflective memos, mind maps and diagrams, to highlight the patterns, connections, commonalities, possibilities, rhythms, paradoxes and tensions emerging from the data (see Appendix 13 for examples). When time permitted, these ideas were developed into manuscripts which have since been accepted for publication in refereed journals (Sumsion, 1996; 1997; in press).

Identifying Themes

Drawing upon the literature, immersing myself in the data, exploring different formations and combinations using analytical and contemplative processes and documenting and displaying possible interpretations eventually enabled me to recognise recurring messages (Eisner, 1991) or themes in the data. Themes were an highly appropriate medium for interpretation because of their focus on connections. As Hogan, Clandinin, Davies & Kennard (1993) explain, themes connect past, present and future experience and in doing so highlight continuities and fractures in experiences. Like a melody, themes are fluid, not rigidly bound. For this reason, like the basic chords which guide jazz musicians, they facilitate improvisation by creating "a pathway for making explicit the tacit understandings that enable us to make our way as researchers without fully orchestrated scores" (Oldfather & West, 1994, p. 22). In my experience, they provided a medium through which my initially tacit understanding of the data resonated with increasing strength and clarity. They also illuminated previously unrecognised connections between the various arrangements of the data.

Of the many themes which emerged from the data, four resonated especially strongly: the importance of a commitment to both teaching and reflection; the

impact of epistemological perspective on the participants' search for meaning; and the influential role played by the environment. For each participant, I then arranged the cards according to these themes. Cards which appeared unrelated to these themes were set to one side; those that appeared to contradict any of the themes were tagged for further discussion and clarification with participants. The small number of cards in each of these categories, together with the fact that the themes were a culmination of three to four years of immersion in the data, suggested that a relatively stable system of meaning had emerged (Reinharz, 1983) and that new understandings were unlikely to emerge within the time frame for the completion of the study.

Using these strongly resonating themes as a basis, I then developed a profile of each participant which I shared with the 15 participants who were contactable at the end of 1996 when the profiles were written. I requested feedback about the accuracy of my representation of their responses to their experiences as student teachers and my interpretation about their reflection and about their development as teachers. The feedback received from the 13 participants who responded confirmed that the profiles were authentic representations of their experiences and reflection during their enrolment in Guided Practice.

To sum up, interpretation took place concurrently with data collection and was based on indepth familiarity and holistic (analytical, intuitive, and kineasthetic) understanding of the data. It was not procedure-driven, and, ultimately, the limitations of language preclude a full account of all the processes involved. The participants' responses, however, suggest that the interpretations were trustworthy (Guba & Lincoln, 1985). These profiles, which are presented in the following three chapters, constitute a crystallisation of meaning at a particular point in time for the purpose of communication, however, rather than fixed and immutable truths.

REPRESENTATION OF FINDINGS

The profiles were developed in narrative form because stories have a powerful communicative and interpretative potential (Goodfellow, 1995; Carter, 1993; Thomas, 1993). Indeed, they constitute an essential form of human experience and understanding (Polkinghorne, 1995; Connelly & Clandinin, 1990; Bruner, 1986). Typically, we impose a narrative structure to

organise our images and experiences. Likewise, we "hear and understand in narratives" (Gudmundsdottir, 1996, p.291). Powerful stories can resonate with the experiences of others to contribute some degree of shared meaning (Gudmundsdottir, 1996), even though because of the multiplicity of readers' constructions, they resist "singular interpretations" (Carter, 1993, p.6). Narrative resonance can also contribute to shaping the formlessness of tacit understanding into a recognisable and communicable form (Gudmundsdottir, 1996) by temporarily "capturing the complexity ... and interconnectedness of the phenomenon with which we deal" (Carter, p.6).

The profiles presented in the following three chapters establish a context for understanding the participants' reflection. They provide a rich description of the complex and holistic process of becoming a teacher (Beattie, 1995b). They also highlight the interface between the personal and the professional (Thomas, 1993, Ash, 1992) and "the tensions that run beneath the surface" of ... professional and personal life" (Beattie, 1995a, p.2). In addition, they illuminate the threads that link past, present and future (Beattie, 1995a), especially important in a longitudinal study.

The participants' profiles are organised in clusters according to the extent to which their reflection appeared to change during their enrolment in Guided Practice. Although it could be argued that this organisation can result in the imposition of somewhat arbitrary boundaries on what is essentially a continuum of change, it nevertheless allows an accumulation of parallel, overlapping and complementary profiles (Fairbanks, 1996). The patterns inherent in these profiles suggest that reflection develops in the presence of certain conditions rather than as a result of serendipity. One of the purposes of these profiles is to generate conceptual understanding of the conditions required for reflection. As such, they are located within the *paradigmatic* rather than *narrative analysis* genre of narrative inquiry (Polkinghorne, 1995). In the former, narratives are interpreted and analysed to develop conceptual categories; in the latter, the narrative itself encapsulates the interpretation and analysis of the data (Goodfellow, 1995; Polkinghorne, 1995).

ETHICAL CONSIDERATIONS

The study adhered to the requirements of the University of Sydney's Human Ethics committee, including informed consent, confidentiality, and the right to withdraw from the study at any time without prejudice. Consequently, in

accordance with these requirements, pseudonyms were used in the participants' profiles to preserve anonymity. Despite these precautions, several ethical issues and dilemmas surfaced during the study, some of which are discussed below.

Countering Imbalances Of Power

As noted previously, given inequalities in position, influence and professional expertise, teacher educators indisputably enjoy more power than student teachers (McWilliam, 1993a; Thomas, 1993). I attempted to minimise this power differential by negotiating my teaching responsibilities so that at no stage of the project was I required to assess any of the participants. Apart from one 300 level (third year) elective unit in which two participants chose to enrol, I ensured that none of the participants was assigned to any of my tutorial groups. In addition, I arranged study leave for the semester in which, in my role as practicum coordinator, I was likely to be most visible to participants. Thus, I was able to minimise contact with students in my normal teaching, administrative and practicum advising roles.

Such steps were vital, yet for a teacher educator undertaking a longitudinal study with student teachers, the power imbalance may not be so great as is typically imagined. Indeed, it could be argued that the participants have the ultimate power because, by withdrawing from the project, they can jeopardise its viability. For me, this reversal of power became apparent in the angst created when student teachers missed interview appointments without explanation. Did they simply forget? Should they be contacted and another meeting time arranged? Should I offer to make reminder phone calls the day before our arranged meetings? Alternatively, did missed appointments signify a withdrawal, a subtle signal that the student teachers no longer wished to be involved in the study? Was to assume and act on the former, an act of optimism or an abuse of power?

Two participants (both of Asian background) continued to miss appointments, without ever explicitly indicating that they had chosen to withdraw from the project. Many participants, however, began to initiate their own appointments (and several student teachers not involved in the project asked to join). All claimed they felt free to speak their minds. As the study progressed, interviews increased in duration, presumably as trust developed and probably also because the student teachers, having acquired more practical

experience and theoretical insights, had more to say. From my perspective, at least, trust appeared to alleviate many of the potential problems associated with an imbalance of power.

Negotiating A "Fair Trade"

As mentioned previously, juggling family responsibilities, study requirements and the part-time work required to survive financially occupied a large part of student teacher's lives. Given the competing demands on student teachers' time and the subsequent high levels of stress experienced by many, could I reasonably ask student teachers to set aside the time required to participate in my research? Would there be "a fair trade"? (Goodson & Fliesser, 1995) for their involvement? Seemingly, yes, for all student teachers expressed their appreciation of the opportunities provided by the study to talk through their experiences, triumphs, concerns, problems and hopes. Sarah, for example, commented:

I wonder whether I would have got as much out of Uni. if I hadn't been involved in this project. If everybody could be involved in a project like this, it would be amazing. Imagine the growth if everyone could have someone to help them work through the issues. It's really helped me to get to know myself as a teacher and to know what's important to me and to learn to trust myself. (15/11/95, B145)

Nina's comment was also typical:

Although the interview sessions have sometimes come when I've been feeling stressed or under a lot of pressure from assignments, and although sometimes I've felt as if I've been forced to assist you with your research, it's all been very worthwhile, and I'm very glad that I've done it. (5/12/95, 58)

For some participants, the trade was more pragmatic. When requested by some participants, I assisted them to prepare appeals against failure and exclusion, despite my concerns about their suitability as teachers.

Acknowledging Conflicting Interests

Although I had intentionally sought diversity when selecting participants for the study I had not anticipated the wide variation in the participants' interest in, commitment to, and aptitude for teaching. This variation became especially evident during practicum visits. In a number of cases, had I been visiting these student teachers in my usual role of practicum adviser and coordinator, I would have identified these student teachers as "at risk" of failing. In not identifying those participants, I was aware of neglecting my responsibility to ensure that the program produced only high quality graduates. I was also conscious of potentially disadvantaging the children

and families with whom these participants would eventually work. Yet to breach the trust of participants was unthinkable.

Avoiding Harm To Participants

Although aware that research can involve unforeseen risks, I found my obligation to avoid harm to the participants (Australian Association for Research in Education Code Of Ethics, 1994) more difficult to uphold than I had imagined. During the data collection phase of the project, for example, an unexpected risk requiring police intervention emerged to a participant's well being. Both the student teacher and myself received a series of threatening anonymous letters, purporting to be written by each other, to each other. The style and content of the letters strongly suggested that they were written by a participant in the project. After intervention, the letters stopped without the anonymous letter writer being identified. While these letters seriously impacted on the emotional well being of the student teacher who received them, what of the emotional well being of the letter writer? Did involvement in the research project contribute in some way to this unacceptable behaviour?

Crises Of Representation

Less dramatic, but also concerning, were the risks to participants' self esteem of interpretations of the data that might be conceived as less than positive. I had been careful to heed Gambell's (1995) warning of the common tendency to idealise participants, especially those with whom one has worked over a considerable period of time. He argues that the bonding which takes place between researcher and participants creates a distorted lens through which the researcher interprets the data, leading to an unduly favourable portrayal of the participant. While his caution had some relevance when developing the profiles presented in Chapter Seven, ironically, I found the opposite concern more confronting.

While I liked and respected all the participants as individuals, as indicated above, in some cases I had reservations about their suitability as potential teachers of young children. I found it difficult to decide whether I should attempt to disguise these reservations or discuss them openly with the participants concerned. As I shared preliminary interpretations of the data with participants I became increasingly aware of the sensitivity and tact required to prevent damage to their frequently fragile self concepts as

developing teachers. These concerns intensified as I prepared the draft profiles to share with participants.

Torn between my concern for their well being and my commitment to an authentic representation of the data, I decided to soften the language in the drafts I showed to some student teachers. To prevent participants recognising references to other student teachers, I also removed comparisons from all draft profiles shared with participants. It was not possible to tell "the whole story" (Gudmundsdottir, 1996, p.203) and some of the profiles, especially those presented in the following chapter are not particularly positive versions. Furthermore, like all narratives, they reflect the biases of the narrator (Carter, 1993). I was determined, however, not to compromise authenticity for narrative coherence (Carter, 1993) and present the following profiles as trustworthy accounts of my perception of the participants' attempts to make sense of becoming a teacher.

RIGOUR

A holistic approach to data collection and interpretation does not obviate the need for rigour in the research process (Denzin & Lincoln, 1994). There has been considerable debate about what constitutes rigour (see, for example, Heap, 1995; Janesick, 1994; Richardson, 1994; Wolcott, 1994, 1992; LeCompte & Preissle, 1993; Pitman & Maxwell, 1992; Ely, 1991; Eisner & Peshkin, 1990; Patton, 1990; Lincoln & Guba, 1985) for perceptions vary according to ontological, epistemological and methodological beliefs (Scheurich, 1996). This debate, however, appears to make no reference to the emergent holistic paradigm.

Positivist criteria of validity, reliability and objectivity were clearly antithetical to the epistemological and ontological beliefs underpinning the study. In demanding generalisability to other settings, they fail to acknowledge that the reader with knowledge of other settings is likely to be better equipped than the researcher with knowledge of one setting to make this judgement (Lincoln & Guba, 1985). In expecting the study to be replicable in other settings, they overlook the often idiosyncratic and unique nature of human experience (LeCompte & Preissle, 1993). In assuming that another researcher should come up with identical findings when interpreting the same data they ignore the multiplicity of perspectives and interpretations that researchers bring to the process of interpretation, precluding any "permanent telling of a story ...

There are always only different versions" (Denzin, 1994, p.506). In stipulating that findings be free from bias, they erroneously presume that the researcher can maintain detached from the data (Heshusisus, 1994; Ely, 1991).

Debate within the postpositivist, constructivist and critical paradigms, on the other hand, suggested that the following criteria would be appropriate for evaluating the study.

Explicitness

Explicitness requires that all aspects of the study be explained as far as fully possible (Alvermann, O'Brien & Dillon, 1996). Where the limitations of language preclude explicit explanation, this should be acknowledged. Explanations should be sufficient to allow readers to determine the relevance of the findings to other settings (Lincoln & Guba, 1985) and to determine the competence with which the study was undertaken (Eisenhart & Howe, 1992).

Coherence

Coherence implies connectedness. Consequently, the study should demonstrate links to previous studies through awareness of, and ability to challenge, prior understandings. It should also contribute to ongoing dialogue by suggesting directions for future studies (Eisenhart & Howe, 1992; Marshall, 1990). Moreover, the research design should fit the aim and purpose of the study (Eisenhart & Howe, 1992; Eisner, 1991) and decisions should be consistent the ontological and epistemological beliefs underpinning the study (Pitman & Maxwell, 1992). The language used should also reflect these beliefs (Reinharz, 1983).

Comprehensiveness

Comprehensiveness encompasses adequacy and diversity. The former requires prolonged and persistent data collection. It also implies that interpretation should continue until no new insights emerge (Lincoln & Guba, 1985). The latter necessitates a variety of strategies for data collection and interpretation because of the limitations of any one approach (Huberman & Miles, 1994). Diversity also demands a variety of theoretical and interdisciplinary input (Janesick, 1994; Morse, 1994; Eisenhart & Howe, 1992) as this contributes to a multiplicity of perspectives and to deeper, more complex and more holistic understanding (Richardson, 1994).

Reflexivity

Despite the infinite possibilities of the interpretive process and the inevitability that the interpretation presented is but one version, at one point in time (Reinharz, 1983), I clearly had a responsibility to avoid seeing in the data only what I wanted to see. This responsibility required an awareness of the impact of beliefs, values, experiences and expectations on my perspectives (Bogdan & Biklin, 1992); a willingness to acknowledge rather than gloss over ambiguities (Eisner, 1991) and explore further data which did not fit my expectations (Fontana & Frey, 1994; Lincoln & Guba, 1985); a commitment to seeking feedback on interpretations from participants (Lincoln & Guba, 1985); and sensitivity to my relationship with the participants and to the possible effects of this relationship (Ely, 1991).

Authenticity and Trustworthiness

Authenticity refers to the adequacy and credibility of the representations of the experiences and understandings of the participants (Lincoln & Guba, 1985). Determining authenticity requires thick description "in which the voices, feelings, ideas and meanings" (Denzin, 1989, p.83) of the participants are heard. Trustworthiness, the ultimate criteria for authenticity, is "satisfied when source respondents agree to honour the reconstructions" of the researcher (Lincoln & Guba, 1985, p.329).

Relevance

Finally, the study should be reported in a form which is "readable and usable" Reinharz (1983, p.183). Findings should have the potential to inform and improve practice (Eisenhart & Howe, 1992) although the extent to which they will be generalisable to other contexts can only be determined by those who seek to apply the findings elsewhere (Lincoln & Guba, 1985).

While I submit that this study meets these criteria, ultimately the reader must judge for him / herself.

CONCLUDING COMMENTS

This chapter has explained the epistemological, ontological and methodological beliefs underpinning the study, the constraints and challenges arising from these beliefs and the decisions made in response to them. In particular, it has explored the implications of attempting to undertake research from within an emerging holistic paradigm, for which, as yet, there

are few guidelines. Given this methodological vacuum, the study drew heavily on strategies for data collection and interpretation typically associated with the constructivist paradigm, which is the most closely linked to the emergent paradigm. As indicated previously, the data collection and interpretation strategies outlined in this chapter culminated in the development of profile of each student teachers' reflection during their enrolment in Guided Practice. These profiles are presented in the following three chapters.

CHAPTER FIVE

PROFILES OF PARTICIPANTS WHOSE REFLECTION SHOWED LITTLE CHANGE

I don't think it hurts to reflect but I think that we are expected to do too much of it ... It's ridiculous! ... We've got other things to do! We've got assignments to do! (Erica, 8/11/96, 294)

This chapter draws on the data collected from the 1:1 interviews and other data sources reported in the previous chapter to develop profiles of the eight student teachers whose reflection seemed to change little during their enrolment in Guided Practice. Despite the individuality of their views about teaching and their approaches to learning to teach, some commonalities between some of these student teachers emerged. These included a lack of commitment to teaching and / or reflection, an epistemological perspective of received knowledge, and a perception of an unsupportive learning environment. While there tended to be considerable interplay between these factors, the following profiles highlight arguably the most instrumental factor for each student teacher.

LACK OF COMMITMENT TO TEACHING: KEL AND ERICA

An apparent lack of commitment to teaching seemed to hinder the development of reflection for four of the eight student teachers profiled in this chapter. It appeared particularly significant, however, for Kel and Erica whose profiles are presented below.

Kel And Erica: An Overview

Kel and Erica shared some similarities. Both came from economically and socially advantaged Anglo-Australian backgrounds and both entered the program as school leavers. Neither had intended to become early childhood teachers but their Tertiary Entrance Rankings (TERs) were insufficient to gain entry to primary teacher education, their first choice of University program. Yet, in many respects, their differences overshadowed their similarities.

Kel had lived overseas with her family for some years and had welcomed the opportunity to experience different lifestyles and values. As such, she regarded herself as different from most of the other student teachers in the program whom she considered rarely questioned what she saw as their

traditional middle class lifestyles and values. Dressed habitually in black, and with her nose-ring and dreadlocks, Kel was much less conventional in appearance than her peers and enjoyed an alternative inner city lifestyle. She rejected the option of undertaking her first practicum in the middle class suburb in which her family now lived, commenting: *"What's the use? I know about this. I've experienced this"* (30/3/93, 42). Instead, hoping for new experiences, she requested a placement in a culturally diverse inner city preschool.

Unlike Kel, Erica lived with her family in the high socio-economic suburb in which she had grown up and was ambivalent about venturing beyond her accustomed circle. She commented:

I don't want to sound snobbish ... but circulating in the same sort of group that I have all my life ... makes it a lot easier (13/9/93, 22) ... *I'm not saying that there aren't great places out there, but there is more of a risk that there won't be.* (25/10/93, 282)

She saw herself as *"pretty uncomplicated - what you see is what you get"* (May, 1993), and an active person who needed *"to be busy all the time"* (2/6/93, 215), much preferring to *"run around a football field"* (17/3/95, 338) than to sit and read.

Erica worked part time as a swimming instructor, a job which she described as immensely rewarding: *"It's unreal! I get the biggest buzz out of teaching swimming"* (2/6/93, 68). After she failed to gain entry to any of her four preferred choices of University programs, she decided to become a teacher, mainly because of her enjoyment of teaching swimming. She was not entirely comfortable with this decision, though, for as she explained: *"All my friends are doing high flying things like tourism and law and physiotherapy and medicine and art. It's not easy saying that I'm doing teaching"* (2/6/93, 186). She would have much rather *"done something more glamorous"* (8/11/96, 74) and was adamant that she would not follow what she saw as a conventional teaching career path. As she put it: *"I don't want to be someone who does their degree, goes into teaching, gets married, has children, stops teaching for a while, then goes back to it. NO!!!"* (2/6/93, 363). Rather, she would look for opportunities *"to do something that really grabs me - something that is go! go! go! the whole time"* (2/6/93, 312). These mixed feelings about teaching were to dominate Erica's experience of the program.

Initially, Kel was more positive about teaching than Erica. She chose to become a teacher because she considered that *"schooling is very important"* (30/3/93, 70) and envisaged that teaching would contribute to her *"personal and emotional growth"* (30/3/93, 25). She elaborated: *"Teachers see so many different values and beliefs ... This makes them think about their own lives a lot more - about what they have achieved, and what they don't know, and how they feel about certain things"* (30/3/93, 28). Yet, like Erica, she had reservations, explaining: *"I'm really sick of being in the educational system as a student. I just want to get out and join the work force"* (30/3/93, 59). She, too, became preoccupied with doubts about her career choice.

"Not Ready To Teach"

Although Kel considered teaching an important role, she did not elaborate on the reasons for her belief, or how she intended fulfilling this role. There are several possible explanations. First, she might have been influenced by Colin (introduced later in this chapter) whom she admired, without necessarily understanding his well developed ideology of teaching. Second, she might not have had the capacity to reflect on this belief in relation to her development as a teacher. Third, her uncertainty about whether she wanted to teach might have overwhelmed any tendency to reflect in broader terms on the importance of education and her potential contribution as a teacher. It is difficult to determine the relative importance of these factors, particularly as Kel participated in the study for only three semesters.

More certain was Kel's realisation that she was not ready to teach. Unlike Erica, who always knew the reasons for her doubts, Kel seemed to experience sudden flashes of insight. Midway through her second semester, for example, she noted:

I was sitting in a child development lecture, thinking 'This is interesting. I'm enjoying learning about this. So what is it? What am I so unhappy about?' I knew that there was something wrong, but I hadn't worked out what it was. Then suddenly it really hit me. I don't like communicating on an immature intellectual basis. But the thing is, that's a really important part [of early childhood teaching] - because that's what you're there to do. I like learning about it, but I don't like practising it. So then I wondered, is this really what I should be doing? (9/9/93, 74)

Similarly, the following year, while explaining her dislike of practicum, she remarked:

I didn't realise it until just then. But it just struck me as I was explaining it to you. I prefer to know and then go out to prac., rather than go out to prac. and then come back and learn. I know that it's important to have a practical situation so that you can apply theories, but at the moment, I'm not ready to connect all the theories. (13/5/94, 159)

She experienced another sudden insight during a conversation with her University practicum adviser, explaining:

All of a sudden I realised that I had never 'reviewed' prac. within myself. I'd never thought about what I was supposed to be getting out of it, and what I was supposed to be giving. I'd never asked myself 'Well, what's happening here?' And then I realised that it was all about giving.

(13/5/94, 52)

Soon afterwards, she concluded that *"teaching is a really giving profession ... and I just don't want to deal with that responsibility"* (13/5/94, 257). Midway through her second year, Kel discontinued her enrolment to undertake an extended overseas working holiday.

Interestingly, Kel's comments in relation to these insights were by far the most reflective she made during her involvement in the study. Although she described flashes of understanding, it could be argued that her disquiet about becoming a teacher provided a medium for their incubation (Holman 1994; Wheeler-Brownlee, 1985; Noddings & Shore, 1984). In two instances, they were triggered by discussion with a critical friend (Hatton & Smith, 1995) able to offer a *"sympathetic ear"* (13/5/94, 27). While Kel demonstrated an ability to reflect about the reasons for her ambivalence about teaching, in turn, her ambivalence seemed to constitute a barrier to reflection about teaching. It is interesting to speculate about whether she would have become more reflective about teaching had she continued in the program. Erica's experience, below, suggests not.

"Getting It Over And Done With"

Kel spoke little about her developing image of herself as a teacher, and her ideas seemed vague and unformed. In contrast, perhaps because of her success in teaching swimming, Erica had a clear image of herself as a teacher. She noted: *"I'm more of a tough teacher than a soft teacher ... I like the respect that you get from children. I like the fact that ... they learn something from my lessons"* (13/9/93, 218). Her image of teaching as discipline and transfer of knowledge seemed to change little during her enrolment. As she entered the program very confident of her ability to teach - *"I could teach now, no worries, as*

far as I'm concerned! (25/10/93, 192) - perhaps she saw little need to reconsider her ideas.

During much of her first semester Erica reported feeling *"so bored ... a lot of it was just common sense"* (2/6/93, 196), although as assignment pressures mounted, she became more *"stimulated and pushed. It's rush, rush, rush the whole time. I suppose I really haven't got time to think about whether I'm bored because I'm doing so much work"* (2/6/93, 205). She enjoyed her first practicum for similar reasons, remarking: *"You were on the go all the time ... the days absolutely flew ... That was lucky because otherwise, God it would have been boring!"* (25/10/93, 12). By the end of her first year she was almost certain that she did not want to teach, but given family pressures - *"Mum is hell bent on me getting a degree"* (2/6/93, 225) - she decided to *"stay and get it over and done with"* (2/6/93, 232). Completing the program, however, proved more challenging than she had envisaged, possibly because the difficulties she experienced were not counterbalanced by the desire to teach. The most daunting of these challenges are outlined below.

Given her expertise in teaching swimming, Erica was extremely frustrated by what she saw as an overemphasis on theoretical understanding. She complained: *"I don't like the theory ... I don't like learning it ... I don't like being tested ... I hate being marked on assignments ... It's not my strong point"* (25/10/93, 200). Indeed, she found the theoretical aspects of the program difficult and described how: *"I'm working so hard, but I've already failed one course. I don't understand what I'm doing wrong. It's just like I'm beating my head against a brick wall"* (25/10/93, 248). Although she appreciated the opportunity to learn new skills - *"It's important that they teach us better ways of attacking situations"* (13/9/93, 202) - she was disconcerted to find herself questioning what she had previously taken for granted. She elaborated:

Since I've been taught all these things (communication skills), I'm questioning the way I interact with children. I always thought that I communicated with children really well (and I know that I do), but now I say to myself 'Is that right? Would I be doing something wrong by saying to that child what I was going to say?' ... I don't like the fact that I'm questioning myself so much at the moment. I feel uncomfortable about it all, because I don't know what's right or what's wrong a lot of the time. (13/9/93, 214)

Her comments, reporting reflection of a dialogic nature (Hatton & Smith, 1995), suggest that her discomfort was compounded by her apparent reliance on received knowledge.

These frustrations plagued Erica throughout her enrolment in the program. She continued to struggle against boredom for, in her words: *"Working with children is just so boring sometimes. I get frustrated because so many people have such interesting lives and do such interesting things. I don't want to be stuck indoors looking after somebody else's children all day long"* (17/3/95, B37). She remained unconvinced by the value of much of the theoretical input, commenting: *"Sometimes the lecturers get caught up with so much rubbish! I mean, they are just children! Give them the activities and don't get all psychological about it!"* (17/3/95, B17). Moreover, she remained *"revolted by the stress of the assignments, and that cycle of cramming and passing or failing"* (15/6/94, 171) and, particularly in relation to assignments, continued to depend on received knowledge. As she put it:

Why fail somebody if there is not enough depth in the assignment? If you do all the sections you should get a pass. Then for the extra stuff you put in, you should get extra marks. Why weren't we told what they expected? In Unit X, she basically told us what to do, so we couldn't go wrong.

(12/10/95, 32)

In addition, she still found reflection on her own practice difficult. This became especially evident during her third practicum.

Erica's cooperating teacher and University adviser for this practicum were concerned that she did not use sufficient positive reinforcement with the Kindergarten children with whom she was working. Erica reported that during a visit from her adviser *"Ezekihal really played up"* (19/9/95, 181) and that consequently Erica *"got really angry"* (19/9/95, 182). Subsequently, her adviser:

told me things about my teaching which no-one has ever told me before.

And I know that they weren't true. It was just that it was a bad day, and it looked really bad ... It was so annoying. I felt like saying 'But I never do that!'

(19/9/95, 178)

Her dismissal of these concerns as pertaining only to an isolated incident was interesting given my concerns about Erica's response to Ezekihal during an observation visit some days later (see Appendix 7).

As well as seeming not to reflect on the appropriateness of her own practice, Erica appeared disinclined to question established practices. When asked whether, in hindsight, she would have approached a traditional handwriting lesson for these kindergarten children differently, she replied:

No, not really, because they did it well. There are other ways of learning to write the letter 'K'. That was a fairly boring, structured way. But unfortunately, in a school system, kids are going to have to learn to do that sort of work. And it's important that they do! That's just the structure of school ... School is school, and I don't think that it's ever going to change. (19/9/95, 74)

Her response shows no sign of the reforming zeal of many of the more reflective student teachers.

Yet Erica was not unaware of the dilemmas and complexity of teaching. She showed some evidence of technical, and possibly practical, reflection (Van Manen, 1977). Referring again to the Kindergarten class, she commented:

There were so many different types of kids in that class. And you really have to think, right down to the kid who can't even hold a pen for five minutes, all the way up to those kids who are really ready for first class ... When you see kids not concentrating, it's not that they are stupid, it's just that they are bored with what they are doing. (12/10/95, 112)

Her previous comment about the handwriting lesson, however, suggests that this awareness did not prompt a reconsideration of her own and others' practices. Nor did she seem to sense any tension between these two statements. This apparent lack of awareness is intriguing, given her relatively reflective comments about teaching swimming.

"You Sort Of Know It All"

Indeed, in many respects, Erica seemed considerably more reflective as a swimming instructor than as a student teacher. Note, for example, her following comment about a problem solving situation. She recalled:

I was teaching a stroke correction class. One man had a problem - he couldn't float. I couldn't understand it. I had to think to myself 'Now hang on, this person has no idea what I'm talking about - no idea of the concept. I have to work out how I can teach it'. And I did! I know that when I'm swimming my diaphragm is concave because my lungs are filled with air. I feel like I'm pushing up in my diaphragm. So I told him to push up in his diaphragm, and because his lungs were full, he could float! (2/6/93, 55)

Erica considered that she had learnt a lot about teaching through experiences like this and commented: *"I'm learning and growing and changing the whole time I am teaching swimming. I'm always trying new approaches because what works well with one adult or child or baby won't work with another"* (29/6/93, 67). Why was Erica able to reflect about teaching swimming, but apparently much less able to reflect about teaching in more conventional contexts? A number of possible reasons emerge.

First, Erica's ability to draw on her personal practical knowledge (Connelly & Clandinin, 1988) while teaching swimming, suggests that she may have found it easier to reflect in situations in which she had considerable practical experience (Calderhead & Gates, 1993). Second, her difficulties with the theoretical components of the early childhood program might have led her to adopt a mode of received knowing (Belenky et al., 1986). From this epistemological perspective, reflection would appear much more difficult. Her reliance on the voices of experts, for instance, might have dissuaded her from embarking on her own search for meaning. Only when she was confident that she had the necessary knowledge might she have then felt empowered to construct her own meaning. The following extract from an interview towards the end of Erica's final year, in which she explains that she is beginning to find reflective writing more worthwhile, supports this possibility. She commented:

I suppose that now I'm four years down the track - you sort of know it all, don't you? Well, you're supposed to, and you're supposed to be able to think about it ... I think that it [reflective writing] is easier now, because you've got all the knowledge ... You think 'Well, that's where that happens, and that's where that comes in'. (11/9/96, 145)

This excerpt suggests that there is a possibility that she might have become more reflective had she continued to move more towards constructed knowing (Belenky et al., 1986).

For this to happen, though, Erica would have needed to place more value on reflection. At the time she was about to complete her final Guided Practice unit she did not appear to especially value reflection as a learning strategy and had little interest in broadening her range of reflective strategies. She resented, for example, the requirement student teachers return to the campus for one day each week during their final two practicums to reflect on issues arising in their placements. She complained:

At first, it wasn't too bad, but basically ... after a week of prac..., it's just too much ... It would be better to be given the day to do assignments. It's beneficial in that we talk to each other and solve our problems but, other than that, it doesn't seem relevant ... They ask us to write about where we are up to now in prac. and how we feel about things. Blah! Blah! Blah! It was okay at first. But you don't change from one week to the next. And it's not marked. So who's going to care? (11/9/96, 232)

Furthermore, although earlier she had commented that she was beginning to find reflective writing helpful, she decided not to continue with it. Instead, to fulfil the practicum requirements, she "photocopied it [reflective writing] from my

last prac. and changed the names because I didn't have time to write" (4/11/96, 238). She explained: "I've just got so much on! I'm still teaching swimming and working in the gym. I just couldn't get it done ... And I couldn't think of anything to write, so I thought 'Oh bugger it! Who's going to know?' "(4/11/96, 240). Her comments suggest that a number of factors contributed to her disinclination to reflect. Given Organ's (1975) observation that "activity is an opiate which deadens ... awareness" (p.35), Erica's frequently mentioned need for activity may have been one such factor.

Third, it could be argued that teaching swimming, in comparison to other teaching, involves working towards a more clearly defined and unambiguous goal. Obstacles to achieving this goal are likely to be relatively easily overcome by using the type of problem solving approach Erica referred to previously. Those encountered while teaching in other contexts, because of greater inherent complexities, might be less amenable to this type of problem solving. Take, for example, the issue of anti-bias practices. Referring to a recent tutorial discussion, Erica commented:

What got me was the question 'How do you react to dirty or smelly children?' I had never thought about that. But now, it's my job to solve it. So, wipe the nose, get rid of the snot, and it's done. The child is clean again, and you don't have that yucky feeling about them. Because it's not their fault. If their nappy stinks, well it's not very nice, but you can change it and give them a cuddle, and it's over. (11/9/96, 159)

Her technical problem solving approach, which seemed to be her preferred reflective strategy, appeared inadequate in providing insight into the broader socio-cultural issues underlying this scenario. In this sense, her limited understanding of the complex interconnections inherent in teaching seemed to preclude critical and other wide ranging reflection.

Finally, and arguably most importantly, despite her enthusiasm for teaching swimming, Erica had little commitment to teaching generally. Since the end of her first year in the program, she had little intention of teaching. Thus, it is highly likely that she would have seen little point in investing a great deal in a search for meaning about what it might mean to be a teacher. The following extract from the final interview, in which Erica discusses her representation of herself as teacher supports this view:

Jennifer: Tell me about your representation.

Erica: Well, the first thought that came to mind was that I have no idea how I see myself as a teacher (laughs).

Jennifer: Are you joking?

Erica: Well, sort of. I just haven't thought about it. (8/11/96, 6)

Likewise, her comment:

I'm really glad that I've stuck to this ... I'll have a degree by the age of 22 ... But I want to learn something different now ... I'm ready to go out and start making something of my life, maybe in human resource management, or advertising, or marketing. (11/9/96, 106)

effectively sums up her lack of commitment to teaching and her lack of interest in developing further as a teacher.

In summary, a number of factors seemed to hinder the development of Erica's reflection. Yet, as with Kel, a lack of commitment to teaching appeared particularly instrumental. To a considerable extent, it also seemed to explain why Marina and Pamela failed to become more reflective. In their case, though, an epistemological perspective of received knowing appeared an even greater barrier.

AN EPISTEMOLOGICAL PERSPECTIVE OF RECEIVED KNOWLEDGE: MARINA AND PAMELA

According to Belenky et al. (1986), from an epistemological perspective of received knowledge, learning is perceived as a process of transferral, rather than construction. Correspondingly, knowledge is seen as an entity originating outside of self and achieved by absorbing what others have to say. As Belenky et al. explain, received knowers value clarity and predicability (for they simplify the transferral process) and find ambiguity difficult to tolerate. In this sense, Marina and Pamela, whose profiles are developed below, were typical of received knowers.

Marina And Pamela: An Overview

Like Kel and Erica, Marina and Pamela entered the program as school leavers from professional Anglo-Australian backgrounds. Neither had much experience with children prior to entering the program, nor did they have a strong commitment to teaching. Pamela was tired of the intense study she had done for the Higher School Certificate (HSC) and wanted to enrol in what she hoped would be a relatively undemanding University course. Several people had commented that she would be "*good with kids*" (14/9/93, 32) and she thought that "*compared to the HSC, teaching would be a breeze*" (14/9/93, 92). Marina's decision to become an early childhood teacher because "*there wasn't anything else that I really wanted to do*" (14/9/93, 85) seemed to show a similar lack of commitment.

Both Pamela and Marina appeared to enter the program with a subjective epistemological perspective (Belenky et al., 1986). They tended to see knowledge as tacit, and hence difficult to articulate beyond "It feels right" or "I just know". For this reason, they were also inclined to resist alternative views which did not coincide with "gut feelings". Marina, for example, initially dismissed the theoretical component of the program, commenting:

Piaget, Froebel, Rousseau, Montessori ... I just think there's no point to it. I suppose it's good to have a background knowledge, but there is no way I'm going to relate to it and follow it. You work out your own theory.
(14/9/93, 400)

She did not elaborate, however, on how she might do this, or what her theory might be.

Similarly, Pamela seemed to see teaching and learning to teach as an intuitive process stemming from an inherent ability, which some people had and others did not. She considered that the teacher with whom she worked in her first practicum had this ability. She described her as: "*a really kind person and so sensitive to the children ... The parents loved her! The children loved her! Everybody loved her! ... She's just naturally got it!*"(14/9/93, 76). Pamela also thought that her friend Sarah (introduced in Chapter Seven) whose mother was a teacher had a similarly innate ability. "*I think that when it's in your family*", Pamela commented, "*it comes a bit more naturally*" (21.7.94,79). At first, she felt confident that she, too, would have this same ability and, unlike many of her peers, experienced little anxiety. She commented, for example: "*Some people were borrowing books from the library on how to plan but I didn't think that was necessary. I felt that it would come with experience ... it's fairly much common sense*" (3/11/93, 169). As Pamela became more aware of the qualities, skills and knowledge base expected of student teachers, however, her confidence began to waiver and she became increasingly concerned about her capacity to cope with the complexities of teaching.

"We Are Not Shown What To Do"

Having decided by the end of her first year that she did not, after all, "have" an innate ability to be a good teacher, Pamela assumed that she could only become a good teacher by being "given" the strategies and solutions she needed. As she moved more and more towards a perspective of received knowing, she became increasingly resentful that her lecturers and cooperating teachers would or could not give her the definitive answers she sought. She complained: "*I need ideas for what to do ... You never get enough*

ideas from the courses ... Maybe if we were given lots of ideas, I could do it ..." (21/7/94, 510). Her anxiety escalated during practicum. She explained: *"I feel so dumb when I go to prac. We are given all the theory, but we are not shown what to do"* (21/7/94, 520). In her second practicum, particularly, she was perturbed to find her cooperating teacher using *"a lot of my strategies, which I thought was quite strange. I'd see things that I'd done popping up in her teaching"* (13/5/94, 74). To Pamela, the idea that teachers might learn from her as well as she from them was almost inconceivable, and certainly not reaffirming. In her opinion: *"I was the one who was meant to be picking things up! I wanted to see some original ideas rather than have her take my ideas!"* (13/5/94, 99). As she became even more entrenched in this perspective of received knowing, her feelings of frustration intensified.

Marina seemed to undergo a similar epistemological shift, at least in relation to practicum. Like Pamela, she relied heavily on received knowledge and resented cooperating teachers who did not provide this type of support. She complained: *"I am the one who is supposed to be learning, and she [cooperating teacher] is supposed to ... give me ideas about how to do different things"* (26/10/95, 73). The approach she used on previous practicums - *"I just sort of 'went along'. I did things which made my teacher pleased."* (14/6/94, 19) - proved increasingly ineffective and she became equally frustrated.

Neither student teacher appeared to value reflection as a means of working through their frustration. Indeed, given their craving for clarity, predicability and clear cut solutions and their lack of tolerance for ambiguity and uncertainty, they resented the emphasis placed on reflection. *"We were expected to do too much reflecting"* (21/7/94, 292), complained Pamela who considered that her needs as a learner were not taken into account. She elaborated: *"I can't cope with people saying 'Well, you could do this, although the research says that you might be able to do that'. To me, you're either right or you're wrong!"* (13/5/94, 312). She frequently responded by *"making up things"* (21/7/94, 386) to include in her reflective writing required during practicum.

Ironically, she demonstrated considerable mastery of a reflective writing genre (Hatton & Smith, 1995) with some of her reflective episodes suggesting evidence of wide ranging reflection, including critical reflection (Zeichner & Liston, 1987; Van Manen, 1977). During her first practicum, for example,

undertaken in a preschool with a large enrolment of Asian children, she wrote:

How will I ensure that I don't pass on my own stereotypes and prejudices to the children I teach? How will I acknowledge and act respectfully to different cultures' customs and taboos? What will I do if the customs and beliefs of different cultures are conflicting?
(October, 1993)

The discrepancy between her mastery of the genre and her lack of commitment to reflection support Hatton & Smith's (1995) claim that the ability to use a reflective writing genre is not necessarily evidence of reflection.

Marina, too, saw little point in reflective writing. During her first practicum, she commented: "Some of the things we had to write were unnecessary ... I didn't see why I had to write them down - especially as Rhonda [cooperating teacher] hardly ever looked at my folder" (10/11/93, 61). An almost identical comment two years later suggested little change in her views. She noted:

Susan [cooperating teacher] hasn't looked in one other section of my folder, apart from my plans. So what's the point of doing it, if she's not even going to look at it?... The whole idea of my folder is that my teacher should look at it everyday.
(18/9/95, 203)

Unlike Pamela, she showed little evidence of mastering a reflective writing genre. In the following extract from reflective episodes written during her third practicum, she refers to behaviour management, an issue of considerable concern. She wrote:

I have tried to use positive reinforcement, instead of negative reinforcement. This includes mentioning the children who are behaving beautifully rather than the children who are behaving badly. This shows that I am concentrating on the well-behaved children and not always putting down the misbehaving children. This would hopefully make the misbehaving children take notice.
(October, 1995)

Typical of her reflective episodes, it showed little attempt to analyse or consider broader educational issues. Nor did it convey her sense of powerlessness as she struggled to implement effective behaviour management strategies, very evident during my practicum observation visit.

The following extract from an interview during the same practicum conveys much more effectively the emotional intensity of Marina's struggle. She recalled:

My cooperating teacher asked if I wanted to read them a story and I thought 'Why not?'. She gave me this terrible book to read. It's really hard to read a story that I'd never seen before to a large group of children. It was all about the Jewish New Year holiday. [NB. Marina is Jewish]. There were lots of Hebrew words in the story that I didn't know how to pronounce. The kids were bored. I didn't know what to do - and she [cooperating teacher] walked out of the room and left me! ... I tried to separate the three boys who caused a lot of the trouble, but they made their bodies into dead weights, so I couldn't move them because they were too heavy. I just didn't know what to do. I tried everything, but I couldn't do anything! ... I got so frustrated and upset!
(18/9/95, 153)

Yet the intensity of her powerlessness did not prompt her to consider her own role in this situation. Instead, she focused on the perceived lack support from her cooperating teacher. She commented: *"And I'm thinking 'Why don't you help me?' That's what you are supposed to do. You are getting paid for this...so why don't you do your job?"* (18/9/95, 370). She seemed to show little understanding of how she might have contributed to her difficulties, or how she might attempt to overcome them. As such, she exemplified the external orientation to learning that Korthagen & Wubbels (1995) claim characterises less reflective student teachers.

Given the mismatch between their epistemological perspective and the program's expectations, it is not surprising that Marina and Pamela eventually decided to discontinue their enrolment. Interestingly, in explaining their decision, they showed more evidence of reflection than at any other time. Pamela's sudden realisation that she should withdraw from the program was reminiscent of Kel's equally sudden insights referred to previously. Pamela explained:

It just came like a bang. I was talking to Sarah and I said 'I'd love to study part-time and get a job in a department store, or something like that, but getting a job in a [preschool or long day care] centre is the last thing I'd want to do!' Then I knew that I had to get out of the course. (21/7/94, 97)

In order to justify her decision to others, she subsequently identified a number of contributing factors. She referred to her lack of career planning, noting: *"Looking back, I don't think I was ever really keen ... I couldn't think of anything else so I picked teaching ... I didn't know my options well enough"* (21/7/94, 181). As well, she acknowledged her lack of tolerance for the ambiguities and uncertainties of teaching, admitting: *"I think I am much more suited to a more 'yes' or 'no' course. I need to know that I'm either right or wrong"* (21/7/94, B58). Marina arrived at the same decision more deliberately. She explained: *"I decided that I really had to be honest with myself. I knew that I'd been kidding myself."*

I sat down and thought about what I was going to do for a long time" (26/10/95, 39). The following year, she enrolled in speech pathology; Pamela in occupational therapy.

Pamela's parting words -*"In occupational therapy there will only be a right or a wrong way to put a splint on some-one!" (21/7/94, B70)* - summed up the difficulties she and Marina encountered in their attempt to make sense of what it means to be a teacher from an epistemological perspective of received knowledge. Her comment also highlighted their difficulty in accepting the complex and problematic nature of teaching. Given their lack of commitment to teaching, the challenges posed by the inherent uncertainties of teaching eventually became overwhelming.

LACK OF COMMITMENT TO REFLECTION: HEATHER AND KATHLEEN

Like Pamela and Marina, Kathleen (profiled below) also encountered many challenges as a student teacher but was sustained by her growing commitment to teaching and a developing sense of personal and professional efficacy. She attributed her achievements and her development as a teacher mainly to persistence. Although she claimed to value reflection, it did not appear her preferred strategy for dealing with the difficulties she experienced. There seemed a similar discrepancy between Heather's espoused and actual commitment to reflection. These student teachers' apparent lack of a strong commitment to reflection, to a large extent, appears to explain why there was relatively little consistent change in their reflection during their enrolment in Guided Practice.

Heather And Kathleen : An Overview

Heather and Kathleen, too, came from financially and socially advantaged Anglo-Australian backgrounds. The previous year, as a school leaver, Heather had enrolled in a science degree intending to major in psychology but failed several units. The following year she enrolled in the early childhood program mainly because she enjoyed young children and was attracted by teachers' working conditions. She elaborated: *"I would be able to be there for my children in the holidays. My mum was teacher and she was always there for us" (9/9/93, 253).* In her view, she was *"not terribly career-oriented ..."* (16/3/95, B89) but had *"always known that I wanted to get married and have a family" (16/3/95, B91).* Although somewhat daunted to realise that *"teaching is*

going to be a lot of work" (16/3/95, B108), she decided that she was willing "to put in the hours" (16/3/95, 107) needed to become an effective teacher.

Kathleen, who entered the program as a school leaver, also enjoyed children's company and, indeed, saw herself as child-like. As she explained: *"I think that I have a lot in common with little kids. When I'm with them, I almost regress to being a little kid" (30/3/93, 72).* She envisaged that teaching would provide a relatively stress-free working environment. This was important to her, for as she elaborated:

I have to be in a peaceful environment, otherwise I get very anxious. I can't be around people like me. I have to be around calm, passive people who have a good effect on me. I think that kids would have that good effect on me, and that I would feel more relaxed when I was around them.
(30/3/93, 145)

When she entered the program, she described herself as *"constantly muddled and disorganised ... That's how I am and I don't think that I could change that. I do try not to be, but sometimes I get myself into more confusion by trying not to get into confusion" (30/3/93, 44).* These difficulties had emerged as a child and consequently she had been *"labelled as having a learning difficulty" (22/11/95, 215).* She had unhappy memories of these years, recalling: *"There used to be a merit badge in primary school. I very rarely got it, which made me feel very small and very unimportant. I can remember coming home from school crying and thinking that I was very dumb" (15/3/94, 335).* During her first practicum she began to reassess her perception of herself as vulnerable and her assumption that teaching would provide a haven.

In this practicum Kathleen worked closely with a child with special needs and *"realised that I could make an impact. That gave me a lot more confidence. I didn't feel muddled and silly any more. I felt like that I could do something! I felt that I had underestimated my ability" (8/12/93, 268).* As a result, she commented: *"I came out of the prac. feeling much stronger within myself than I did going into it" (8/12/93, 128).* Teaching no longer seemed a retreat, but rather an opportunity to contribute, especially to children with special needs. To her surprise, she found that *"I can achieve more with children with special needs. I feel that I've got to do something. I feel that I've got to make a difference" (11/5/94, 93).* She began to realise, though, that learning to teach would present many challenges.

Heather appeared much more self confident than Kathleen and was unperturbed that her strongly held beliefs about young children did not

necessarily coincide with those to which she was exposed in the program. She remained adamant, for example, that *"young children should be at home with their parents"* (10/11/93, 222) because she considered that a home environment provided higher quality care. Yet at the same time, she objected to what she perceived as the program's overemphasis on the vulnerability of young children as *"ridiculous"* (10/11/93, 296). She explained: *"I don't like this 'We've got to be so careful attitude' ... You shouldn't treat children as if they are very fragile. They are very resilient. They bounce back"* (10/11/93, 282). Unaware of a possible contradiction between her views, in the early stages of the program she seemed to rely more on conviction in her ideas than strong supporting arguments.

Nevertheless, Heather demonstrated early mastery of an analytical reflective writing genre (Hatton & Smith, 1995). In the month prior to her comments reported in the preceding paragraph, for example, she wrote:

While the teacher presented many and varied art experiences, she did not seem to give the children much scope for creativity. She always seemed to give very definite instructions about which colours and what methods they should use. I understand that she was trying to teach the children techniques, but she did not seem to allow the children choice of how they might apply these techniques. On the few occasions that the children were left room for creative input, some of them seemed less able to complete the task.
(October, 1993)

This led her to question: *"Where should the teacher draw the line between teaching new techniques and allowing for creativity"* (October, 1993). The apparent depth of reflection in her writing contrasted oddly with her responses during initial interviews. This discrepancy seemed to disappear during the middle semesters of the program.

"You Had To Stop And Think About It"

As Heather progressed through the Guided Practice sequence, she began to make more use of supporting arguments to justify her views. During her third practicum, for example, she decided to focus on *"things that have happened on this prac... that have reaffirmed or made me question what I wrote in my philosophy [of teaching] essay last semester"* (20/9/94, 216). She considered this important, explaining: *"When I wrote the essay, I wasn't sure whether I really thought like that, or whether that's just what I had been taught to think"* (20/9/94, 217). It was time, she thought, to determine her *"real opinion"* (20/9/94, 218). Reflection seemed integral to this process, as the following extract illustrates:

I noticed something during prac. that really supported what I believed. It reinforced the importance of a developmentally appropriate environment. Alex [cooperating teacher] likes to have a 'pretty' room. She has lots of attractive little trinkets around the room, and at first, I thought that it seemed really nice. But the children aren't allowed to touch them even though they are really interested in them. Why have things in the room that children aren't allowed to touch? It's their environment, too! And most of the children are there for longer than Alex. (October, 1994)

Here, Heather shows considerably more awareness of the importance of congruence between beliefs and practices than she did 12 months previously. Her oral reflection, too, now seems far more consistent with her reflective writing.

Heather's interest in developing arguments to support her views continued the following semester when she enrolled in two literacy units with fundamentally different philosophies. She referred frequently to the impact of these units, commenting, for example, in her final interview:

They had such a big impact because they were presenting almost opposite points of view ... So I had to do a lot of thinking about literacy and about education in general. I'd recommend that combination of units to anyone because it really makes you sit down and think about it. It was different from doing a unit that said 'This is how you do it'. You couldn't just say 'Well, okay, fine'. The ideas that they were presenting were conflicting ... so you had to stop and think about them. (22/11/96, 108)

Likewise, she continued to focus on competing arguments in her reflective writing.

The following excerpt from what was to have been her final semester of Guided Practice suggests that she had become more prepared to reconsider her ideas than when she entered the program. She seemed to be beginning to engage in critical reflection (Van Manen, 1977) when she wrote:

As part of the afternoon indoor activities, the staff brought out Barbie dolls as part of an activity to promote dramatic play. My initial reaction was negative. Barbie, and the stereotype that she represents, are contradictory to an anti-bias curriculum. They do not present a realistic image of women and do not suggest that individual differences exist between people. They are limited to representing adults from an Anglo-Australian background. (September, 1996)

She then qualified her concern, arguing that as both boys and girls used these dolls in play activities which extended their fine motor and social skills, the use of Barbie dolls was defensible under these circumstances. In conjunction with her interview data, her mastery of a reflective writing genre demonstrates her growing capacity to reflect.

There was less evidence, however, of sustained willingness to reflect. Heather rarely referred to instances of incidental reflection, for example, although her second and third practicums were noticeable exceptions. In her second practicum she reported that *"when something didn't work, I had to stop and think about it"* (16/5/94, 155). While most of her reflection during this practicum was about *"really common-sense things"* (16/5/94, 142), she *"also found myself thinking about what the effects of what I was planning to do might be"* (16/5/94, 148) which suggested that she was beginning to reflect about more than technical concerns. She also reported sudden flashes of understanding, noting: *"Sometimes I would have insights. I would be aware that something wasn't really working, but didn't know how to fix it. Then sometimes, I'd realise 'Aha! That's what I should have done before!'"* (16/5/94, 197). In addition, she frequently engaged in "self talk" during practice akin to reflection-in-action (Schon, 1983; 1987), as illustrated below:

Alex and Tina tended to repeatedly warn children who were doing something wrong, and then they would tend to 'blow their tops'. I noticed that I was starting to pick up on that and I'd find myself becoming almost aggressive with the children. I had to keep saying to myself 'Stop! This is a bad habit to get in to! Stop it right now!'" (13/10/94, 64)

Her relative lack of reference to reflection in other practicums could simply indicate that she did not see this as a noteworthy topic for discussion. On the other hand, it could suggest a tendency not to reflect unless specifically required. When asked about this in the final interview, she replied: *"I do reflect and I'm doing it constantly. It's part of my nature now, so I'm not so aware that I'm doing it. It wasn't second nature earlier, but it is now"* (22/11/96, B45). Yet her response to her final two practicums suggests otherwise.

"I'm Burnt Out ... It's Hard To Keep Going"

During these practicums, against her University advisers' and cooperating teachers' advice, Heather worked long hours as a shop assistant to fund her forthcoming European holiday. Consequently, she found it difficult to devote adequate time to daily preparation and, apparently, to reflection. During the first of her final practicums, when asked to reflect about a science activity investigating the root functions of plants, for example, she commented: *"I would have liked to have used some celery, so that they could watch the dye being absorbed - but I didn't have time to go to the supermarket, so I couldn't"* (10/9/96, 37). Similarly, when asked what she had learnt from the practicum she replied: *"Mmm ... I don't know, really. Ideas, I suppose"* (10/9/96, 229) and did not

elaborate. There seemed little evidence in these responses of the constant reflection to which Heather referred. Ironically, according to Van Manen's criteria, Heather's reflective writing (as, for example, in the Barbie doll episode) attained a higher level than in any previous practicum.

Heather found the second of her final practicums more rewarding. She attributed this to *"an instant rapport with Diana [cooperating teacher]"* (5/11/96, 18), adding *"My problems with my last prac. were the people"* (5/11/96, 113). Like Marina, she showed little understanding that her minimal effort in her previous practicum had contributed to the difficulties she had experienced. She also considered that she had learnt more during her final practicum, mostly *"about behaviour management - little tricks, like lowering the pitch of my voice ... Diana has given me lots of tips"* (5/11/96, 123). Again, her response demonstrated surprisingly little evidence of reflection.

Interestingly, Heather seemed content to adopt her cooperating teacher's strategies even though they conflicted with many of the more child-centred views she espoused in other contexts. When asked to reflect about a maths activity, for example, she replied: *"Ideally, I'd love to have them work in small groups. But I have to do it as a whole class because I just don't have the resources to do small groups"* (5/11/96, 41). As the activity had involved measuring standard classroom furniture and equipment using parts of the body as informal units of measure, her reasoning seemed unconvincing.

There might have been other constraints which Heather did not mention at the time. In her final interview, for example, she commented: *"When you're on prac., you've really got to do what your teacher wants you to do and what your adviser wants you to do"* (22/11/96, 323). Given her rapport with her cooperating teacher and her adviser's encouragement to attempt less formal activities, though, it seems likely that she would have had more scope for experimentation than she perceived. In any case, it could be argued that while others' expectations might impede action, they need not impede reflection.

Lack of time seemed a more severe constraint. As Heather commented: *"When you're on prac., you're so much on the go that you don't really have time to stop and think about things"* (22/11/96, 443). Furthermore, because of her heavy work schedule, she found it difficult to find time for reflection outside of school

hours. For this reason, she decided not to *"do things that I don't absolutely have to do"* (5/11/96, 323) and discontinued her reflective writing. Exhaustion, too, seemed a related factor, with Heather feeling *"burnt out ... [and finding] it hard to keep going ... it's really exhausting having a job and not being able to take time off"* (5/11/96, B8). Finding the time and energy for reflection appeared difficult.

In different circumstances, Heather might have been more reflective. It is possible, for example, that her excitement about the future - *"I really can't wait until I graduate! ... I'm dying to get into the real world and to start teaching"* (5/11/96, B7) - might generate renewed energy for reflection once she began teaching. In less stressful periods, though, she had not shown a particularly strong commitment to reflection, evident from her comment: *"Every holidays I think 'I'm going to rewrite my philosophy - just in note form - as a way of getting ready for the next semester. But I never get around to it'"* (22/11/96, 73). Such procrastination may not be unusual but suggests that in a situation of conflicting interests where she was *"really torn between wanting to go on my holiday and my University work - which has really suffered"* (22/11/96, 462), reflection was likely to be a low priority for her. Perhaps not surprisingly, she eventually failed her final Guided Practice unit.

In short, Heather's tendency to become more reflective in the middle stages of the Guided Practice sequence did not continue. Indeed, a noticeable gap emerged between her espoused commitment to reflection and the extent to which she appeared to engage in reflection. Her commitment to reflection seemed insufficient to generate consistent change. Kathleen, too, lacked a strong commitment to reflection, but in her case it was because it was not her preferred strategy for dealing with the challenges she encountered in learning to teach.

"I Don't Give Up, I Just Keep Going"

Instead, Kathleen relied more on persistence. During her first practicum, for example, when she became aware of the difficulties of working with a child with special needs, she thought: *"I can't go on! I can't do this! I can't teach this problem child! I'm going to fail!"* (8/12/93, 128). Eventually, *"there was a breakthrough"* (8/12/93, 267), which she did not explain further, leading her to conclude that *"if I could get through that, then I must be able to get through a lot more"* (8/12/93, 130). This theme of "persistence" resurfaced frequently. She represented her third practicum, for instance, by writing, in large capital

letters, "*PERSISTENCE*" (8/12/93). She commented: "*That sums me up. I don't give up! I just keep going! Although I was going through all of that turmoil ... I just kept going!*" (21/10/94). Similarly, during her next practicum, which she also found difficult, she thought: "*Well, I've been through all this before, so I know that I can get through it now* (22/11/95, 178). Her comment: "*I just go along with it. I braved it really, I suppose*" (5/10/95, 17) again showed persistence as her preferred strategy. Likewise, she attributed her failure of her fourth practicum (on the basis of an assignment she was required to complete) to having temporarily "*lost the will*" (5/9/96, 7).

Mostly, Kathleen managed to maintain her persistence. She established a "*routine for coping*" (5/10/95, 175), which mainly involved talking with her family. She explained: "*They've got persistent natures, too, and they kept saying "Keep going! Keep going! You can do it! That's another day gone - you've almost finished!"*" (21/10/94). During her most difficult practicum, she also found meditation helpful. As she put it: "*I felt as if I was doing something. I felt a bit more empowered*" (5/10/95, 181). Reflection was not part of her routine because she found that:

It wasn't helpful when I got home to think about all the bad things that were happening. I knew what they were. It was too upsetting to think about them when I got home. I couldn't change my cooperating teacher, so there didn't seem to be any point. (13/10/95)

Her entries in her reflective journal were cursory, as the following extract shows: "*Ann was angry and shouted at the children today. I'm upset about this but feel powerless to raise the issue with Ann. I'm glad that I'm going back to Uni. tomorrow*" (August, 1995). Moreover, as Kathleen pointed out, her journal entries were written only to fulfil the practicum requirements.

"I Saw A Lot Of Myself In Alexander Brown"

Although reflection was not Kathleen's preferred strategy, this is not to imply that she did not reflect. Her sensitivity and empathy for children with special needs were particularly apparent. They appeared the primary medium for her reflection which, as the following excerpts show, included some evidence of all of Van Manen's (1977) levels. During an early group interview, for instance, she responded to a comment about children with learning difficulties by suggesting a technical solution. She elaborated:

I would prefer to put them in so-called 'normal' classes - a few in each class, and give them special attention. They would be in a better environment. If they were all in the one class, they'd all be distracting each other. (28/3/93, 196)

After her first practicum she commented: "Although Nick didn't appear to be concentrating or taking anything in, I think that he actually learnt a great deal. He just expresses his learning in a different way, and I had to learn to accept and respect that" (8/12/93, 64). By beginning to question what constitutes evidence of learning, she appeared, here, to be engaging in practical reflection. During her next practicum she focused on issues of equity arising from differential treatment of children with special needs, suggesting that she might have been beginning to reflect in a more critical manner. She commented:

I saw a lot of myself in Alexander ... What affected me so deeply today was the realisation that although the children single him out so blatantly, it goes unnoticed by the staff. Even they always call him 'Alexander Brown', even though there are no other children at the centre called Alexander, and all the other children are always called only by their first names.
(April, 1994)

She showed stronger evidence of some movement towards critical reflection the following year, when concerned about moral and ethical implications of inequitable practices, she noted:

Ann would always work with the children of high academic ability. I found that students of lesser ability were very frustrated because of the lack of interaction with their teacher. I think that they were suffering emotionally and academically by being excluded.
(5/10/95, 98)

These comments exemplified the main focus of her reflection but highlighted the diversity of the nature of her reflection within this focus. They also suggested that she drew heavily on her own childhood experiences.

A secondary medium for Kathleen's reflection was her belief that, as a teacher, she should be actively involved in children's play. The following incident, during her second practicum, led to what Hatton & Smith (1995) refer to as dialogic reflective writing. Here, Kathleen mulled over her beliefs and their implications when she wrote:

As the children climbed up the rope ladder to the cubby house, I thought to myself 'Hey, I'm bored standing around here with the other teachers. I want to join in the fun'. So I climbed the rope ladder, as well. Soon, there was a stampede of children to the cubby house! ... I thought that this was significant because I could see (as an outsider, and a visitor to the centre) aspects of staff's behaviour that would go unnoticed by them. I could see that by standing there 'monitoring', they had automatically isolated themselves and put up a barrier which prevented full interaction with the children. The teachers were statues amongst a field of dynamic children. Why can't teachers be dynamic, too? I'm sick of conforming and being static, like a statue with children.
(May, 1994)

For the most part, however, she seemed not to pursue further the questions which she raised. In this sense, her reflection differed from that of the student teachers referred to in the following chapters.

Basically, reflection seemed to offer Kathleen less support than it provided the student teachers referred to later. Two likely reasons emerge. First, she seemed able to reflect only about situations with which she could personally identify. This tendency was highlighted during her third practicum, where for the first time, she worked with children from a low socio-economic background. She considered that they "nearly all had behavioural problems" (21/10/94, 20) and concluded: "I think it stemmed from where they lived and that sort of background. They lived in Housing Commission places and a great majority of the parents were single parents" (21/10/94, 21). She seemed unaware of the questionable assumptions underpinning this statement.

Second, she found it difficult to reflect in situations which were not particularly supportive or positive, as illustrated by the following extracts from an interview during her third practicum. The first concerns her perceived lack of support from Fiona, her cooperating teacher. She recalled:

Kathleen: Yesterday, I was in the classroom with the children for two and a half hours without a teacher.

Jennifer: Why was that?

Kathleen: Fiona is doing the 10 am shift this week and I'm doing the 7.30 am shift. We should be on the same shift because she is my cooperating teacher.

Jennifer: Couldn't that be arranged?...

Kathleen: Yes, but I don't have a car and it's easier for mum to get me here at 7.30 am than 10 am because she works.

Jennifer: There is probably a bus that you could get.

Kathleen: Yes, there could be but I don't know where. I'd have to find out the bus routes.

Jennifer: There seems to be a train station nearby.

Kathleen: Is there? (13/9/94, 204-250)

Kathleen's lack of awareness that she might have contributed to the difficulties which she experienced in this practicum suggested that she found reflection in this context difficult.

The second extract refers to a less than successful story reading session which had taken place immediately prior to the interview (see Appendix 14).

Jennifer: *I wonder why the children were so unsettled?*

Kathleen: *I don't know. I watch Fiona with the class and I don't think she manages them very well. I do the best I can.*

Jennifer: *Were you trying to use any particular strategy when you were reading the story?*

Kathleen: *No. I was just trying to settle them.*

Jennifer: *By using the finger play?*

Kathleen: *Yeah.*

Jennifer: *Were you using other strategies to try to settle them?*

Kathleen: *My adviser said to use strategies like [telling the children to] 'Look at the ceiling; look at the floor; look at the window'. But I tried that, and it didn't work.*

Jennifer: *Have you thought of any other strategies to use that might help to make it easier for you?*

Kathleen: *Not really. I just don't know what to do (weeping). (13/9/94, 19-45)*

Her distress might have hindered her ability to reflect on this incident immediately after it had occurred. A month later, however, when asked whether anything stood out to her in the transcript of the above interview, she replied: *"Only that it was an upsetting three weeks. I'm glad it's all over now" (21/10/94)*. Again, there was little evidence of reflection.

Two years later, after reading the description of the story reading session included in Appendix 14, she laughed and commented:

Well, I think, now ... that I would have just stopped it, got everyone to pack away the equipment, done a transition activity to settle them down, and read the story. But there were a few unfortunate things, like the plane, which were out of my control. As a teacher, you've got to work on that and learn to say 'Well, I can't do that now. Things have changed'. So I should have just stopped it because all the children were so restless, and it was raining. Perhaps it was completely inappropriate to have done that activity at that time. I'd try it again later. (5/9/96, 182)

This comment is interesting in that it again highlights her emphasis on persistence in the face of difficulties. As well, it suggests that her additional experience enabled her to identify reasons for her difficulties, which had previously eluded her. It could also suggest that reflection about a distressing incident becomes easier with the passing of time, especially when given the opportunity to revisit and respond to a written record of an earlier reaction. As such, it supports Hatton & Smith's (1995) emphasis on the value of rereading and responding to previous reflective writing.

Kathleen appeared at her most reflective in situations which she perceived as supportive. During her second practicum, for example, she reported frequently *"stepping back and asking: 'Now, what am I doing here? Is it right, or is it wrong? All*

of those questions going on constantly..." (11/5/94, 136). This suggests that she engaged in considerable reflection-in-action (Schon, 1983;1987). She noted:

Evaluating my teaching skills and myself as a teacher was important to me. I constantly asked myself questions! 'Am I doing the right thing? Is this what my teacher wants of me? What am I portraying as a teacher?'... When I was reading a story for example, when a child was talking, I'd ask myself what I should do when a child wasn't participating. 'Should I say the child's name, or should I tap her on the head?'. I knew that I didn't want to ask the child to stand up in front of other children, because I felt that was wrong. I wanted to make it as unobtrusive as possible. I didn't know what the effect of different strategies would be. (11/5/94, 63)

A supportive environment appeared to encourage, but not guarantee, reflection, as the following extract from an interview during her final practicum seems to suggest:

Jennifer: *What's it been like doing the prac. again?*

Kathleen: *(Sighs) It kind of feels like 'Oh, I've already done all of this' ...*

Jennifer: *Do you find that you've learnt anything?*

Kathleen: *Well, I've learnt some strategies for getting children's attention, and some transition activities. When I first came, I found it hard to get their attention ...*

Jennifer: *What's made the difference?*

Kathleen: *Beth [cooperating teacher] and I went through some strategies ... so I have learnt things like that.*

Jennifer: *And have you learnt other things?*

Kathleen: *No, that's about it. (5/9/96, 11-124)*

Her comments contrast to those of the student teachers referred to in later chapters who were more likely to see all practicum placements offering opportunities for continual development.

Kathleen considered discussion the most helpful strategy for promoting reflection. She commented that she had "*learnt to reflect*" (22/11/95, 296) through discussion in Guided Practice tutorials. She found it difficult, though, to explore issues by herself, explaining: "*In my mind, it floats around, and sometimes gets worse. I find it best to express it and get it out, rather than bottle it up*" (5/10/95, 293). In contrast, talking "*helped put everything back into perspective*"(22/11/95, 310), enabled her become "*more adaptive and resilient*" (22/11/95, 295), and assisted her to develop more "*strategies for coping*" (22/11/95, 297). Again, her reference to persistence is noticeable. Her comments also suggest that she valued discussions for the reassurance they offered, rather than their potential to challenge. As such, it could be argued that they served mainly to fuel her persistence, rather than to foster reflection.

In summary, Kathleen presented as a caring and increasingly committed student teacher. Although she encountered many challenges in her development as a teacher, persistence rather than reflection appeared her preferred strategy for dealing with these challenges. For this reason, it could be argued that, like Heather, she was not strongly committed to reflection and that, consequently, there was little consistent change in her reflection during her enrolment in Guided Practice.

PERCEPTION OF AN UNSUPPORTIVE ENVIRONMENT: JOSEPHINE AND COLIN

Like Kathleen, Josephine and Colin were caring and committed student teachers. Although both showed a considerable capacity for reflection, they are included in this cluster of student teachers, because their reflection showed surprisingly little sign of consistent development during their enrolment in Guided Practice. While Josephine and Colin were strikingly dissimilar in most respects, both perceived the learning environment of the program to be unsupportive of their development as teachers. As the following profiles show, this perception seemed to play a major role in hindering the development of their reflection.

Josephine And Colin: An Overview

Although Josephine was from a Greek-Australian background, English was her first language. She entered the program as a school leaver after having been unsuccessful in gaining entry into physiotherapy, her first choice of University program. In retrospect, she was relieved as she considered herself fairly shy and non-assertive and doubted that she would feel comfortable working with people in a physically intimate way.

Josephine made the decision to become an early childhood teacher in close consultation with her parents. *"It mattered to me what my parents thought"* (9/5/94, 339), she explained. Initially, her parents advised against early childhood teaching because *"I'd done well in the HSC and the course was easy to get into. My parents said that I would be wasting my marks"* (9/5/94, 341). Josephine, on the other hand, thought that *"it would be an advantage to have those extra marks"* (9/5/94, 344). Had she enrolled in physiotherapy, she *"would have had to have worked a lot harder, and I wouldn't have liked that"* (9/5/94, 345). She had always been *"fascinated by little kids"* (9/5/94, 319), and looked forward to children of her own. *"Having a family and being at home with them is really important to me"*

(9/5/94, 335), she emphasised and early childhood teaching would allow her to "work part-time once I've got children" (9/5/94, 334).

Josephine's parents warmed to the idea when they heard "about the good employment prospects" (9/5/94, 360) for graduates. She elaborated: "They especially liked the idea that I could open my own centre. They liked the idea of me being able to be my own boss, and that there could be money involved" (9/5/94, 269). Laughing, she explained that her father, an architect, "has already drawn up plans for a centre at the back of our house" (9/5/94, 270). Eventually, Josephine and her parents decided that "early childhood [teaching] would be a good thing" (9/5/94, 359) and she enrolled in the program.

Colin, a 23 year old from a professional Anglo-Australian background, had very different aspirations from Josephine. Since leaving school, he had sought opportunities to put into practice his strong commitment to tolerance and social justice. He was eligible for entry to a wide range of University programs and initially enrolled in a law degree but became discouraged by its "conservatism" (29/3/93, 65). Attracted to education because "it's so incredibly important to society" (29/3/93, 76), he decided to enrol in a secondary teacher education program. He was confident that teaching would enable him to work towards achieving his ideals of greater tolerance and social justice.

After two years in the secondary program, though, he explained that he had become:

increasingly cynical about secondary education ... I felt there had to be more to it than just churning kids through the system. I was supposed to be the boss, and they were just the kids. That didn't sit comfortably with me.
(1/11/93, B133)

As well as disliking the atmosphere of power and control he had found during his secondary school practicums, he was disappointed to discover that "the glimmer of excitement about finding out about the world" (1/9/93, 179) which he had noticed in primary school children "had been completely extinguished by high school" (1/9/93, 180). Anticipating that younger children "wouldn't just have that glimmer - their eyes would be alight with it" (1/9/93, 181), he decided to transfer to the early childhood program.

"I'm Someone Who Will Always Ask Questions"

Colin envisaged that working with young children would provide an opportunity to create a more egalitarian, liberal and empowering learning

environment. To him, education was ultimately about empowerment. As he explained: *"I truly believe that being a teacher means being in a position to empower children. I believe there is no point in teaching if you are not going to empower children. To me, that is paramount"* (1/11/93, 239). He described himself as an idealist and hoped that he *"would be able to get out there and really make a difference"* (1/9/93, 42). Driven by a passionate creed or "mission to accomplish" through his teaching (LaBoskey, 1994, p.90), his reasons for entering the program were very different from those of the other students profiled in this chapter.

Colin attributed his strong beliefs about education to his unhappy early school experiences. He described the atmosphere of the school he had attended as a child as *"extremely judgmental and very narrow minded"* (29/3/93, 240). He found this restrictive atmosphere difficult to accept, recalling: *"I always wanted to question things, but you were not supposed to question, so I was always getting into trouble for asking questions"* (29/3/93, 266). Throughout his childhood he had questioned what he was told by those in authority, commenting: *"When I was growing up I would question what is right and what is wrong ... I felt that I had to work out for myself what was right and what was wrong"* (29/3/93, 268). The importance of questioning remained an important personal theme and he considered that *"I'm someone who will always ask questions"* (1/11/93, B266). It was through questioning that he intended to make sense of becoming a teacher.

"The Knowledge Is There Somewhere"

Josephine, in contrast, regarded learning to teach as primarily about *"defining your role"* (9/5/94, 7) and developing the necessary skills to fulfil that role. She became increasingly aware of what she referred to as the many dilemmas faced by early childhood teachers, as shown by the following example of dialogic reflective writing (Hatton & Smith, 1995). She wrote:

There are dilemmas. What if a child comes through unnoticed? What if a child is wrongly labelled? What is the difference between 'slow progress' and 'being at-risk'? It is the fine line between these last questions that makes it so difficult. At what point should a child's development be a cause for concern? How long should you leave everything to try to resolve itself before you step in?
(September, 1995)

Rather than acting as a springboard for wide ranging practical or critical reflection, though, her awareness of these dilemmas tended to lead to a rather narrow technical outlook. By the end of the program, she was confident that she had solutions for them. She wrote:

Knowing the answers to all other early childhood questions, I have the feeling that the answers are the same for these questions, too. It would be up to the individual child and the individual situation - what the risk is, what the family wants, and what resources are available. (September, 1995)

Indeed, in her final interview, to represent her image of herself as teacher, Josephine drew herself holding a bag of skills (see Photograph 1). As she explained: "I feel that I have a lot of skills and teaching is one of them ... Now I have the confidence to go into a centre and say 'I've got these skills. I can do it too' " (20/11/95, 95). That her bag of skills, as well as teaching also included driving a car, further highlighted her technical approach.

PHOTOGRAPH 1: Josephine's Bag of Skills



Like several student teachers referred to previously, Josephine entered the program with an epistemological perspective of received knowing (Belenky et al., 1986). She recalled feelings of panic in her first year "because no-one had given me a booklet which set out what I had to do. I remember thinking 'When are you going to tell me what to do? What are you teaching me?' " (20/11/95, 348). For this reason, she wished that she had gone to a vocationally orientated Technical and Further Education (TAFE) College before enrolling at University. In her

opinion: "People who go to TAFE get all the resources, and then they come to Uni. and get all the theory" (9/5/94, 380). She elaborated:

I think that I had a very activity-based approach. I think that I had come to Uni. expecting to be taught how to set up the blocks and where to set out the puzzles - the actual things that we were going to do, rather than the theory behind it. I was still struggling with the fact that there were no set guidelines ... that was what first year was about. (20/11/95, 289)

Gradually, she realised that she needed to take a more active role in learning to teach. As she commented: "After two and a half years of study, I am convinced that the knowledge is there somewhere. I just have to find it and put it together in a way that gives me maximum results" (August, 1995). She also reported moving away from the absolute position which characterises received knowing towards a position of constructed knowing. "I think that I can see things more holistically. Things are not black and white. And I can see continually that there are different arguments" (20/11/95, 335), she explained.

Initially, there seemed to be a corresponding change in her reflection, which in her early practicums, was mainly technical (Van Manen, 1977) in nature. She referred, for example, to:

thinking all the time about the right way to respond to the children. It wasn't that I didn't know how to respond- we'd been taught how to respond at Uni. - but I was trying to practice what we had learnt. (9/5/94, 33)

During her third practicum, however, where she worked with children from culturally diverse, low income and often dysfunctional backgrounds, her reflection extended beyond a narrow technical focus to include broader educational issues.

Behaviour management was a major issue for Josephine during this practicum, but rather than focus only on technical strategies, she reflected on underlying causes and possibilities for long term action. After witnessing the children fight over classroom materials, for example, she commented:

It was a real shock to me to realise that they weren't able to handle materials on their own ... I guess that I had assumed too much ... The reason that they started fighting was that they hadn't learnt to be more independent. It was linked to their lack of social skills, but they'd never really been given opportunities to take responsibility or make decisions. I realised then that I had to start by keeping lots of control, but gradually handing more and more control over to the children. (14/10/94, 322)

Essentially, she considered that the pre-determined curriculum and traditional classroom environment failed to meet these children's needs and was, therefore, inappropriate. She elaborated:

If I could, I probably would have scrapped most of the curriculum. I would have had lots of games that would have helped them to see that they were worthy people - because a lot of kids didn't - and that in the classroom they were safe - that we could all share and be friends. They were told that school was a safe place, but it wasn't, because they knocked each other around.

(14/10/94, 180)

In these examples of practical reflection, she concluded that this mismatch between the curriculum and children's needs, exacerbated by teachers adopting inappropriate practices, contributed greatly to the children's behaviour.

This practicum provided many opportunities for critical reflection (Van Manen, 1977). Indeed, in the preceding paragraph Josephine seemed about to question the moral and ethical implications of a curriculum and teaching practices which failed so miserably to meet these children's needs. Yet she did not question her assumptions about the impact of the children's backgrounds on their behaviour. As she put it:

There were two extremes. Either the kids did anything they wanted too because the parents were too busy fighting with each other or you had kids who got away with everything because mum would want the kid to be happy, otherwise dad would have something to pick on. (14/10/94, 56)

Her comment showed little consideration or understanding of the economic-socio-political circumstances which might have had an impact on these children's backgrounds and contributed to the difficulties they experienced within the school environment.

On the other hand, Josephine demonstrated an ability to see situations from other than her own perspective, or as Dewey (1933) would say, the prerequisite openmindedness for reflection. She vehemently disagreed with her cooperating teacher's approach, recalling: "*Sometimes when she talked to the children, I'd think 'This is unbearable. I can feel my heart breaking just listening to you say that' "* (14/10/94, 230). Yet she empathised with her predicament, explaining:

I could sympathise with the teacher though, because I could see the stress that she was under. It must have been very difficult for her. She told me that she still had to get through 20 units of maths before the end of the year so that the kids could go into Year 2 but that she knew that she wouldn't be able to because the kids still couldn't do the simpler work. So what is she going to do?

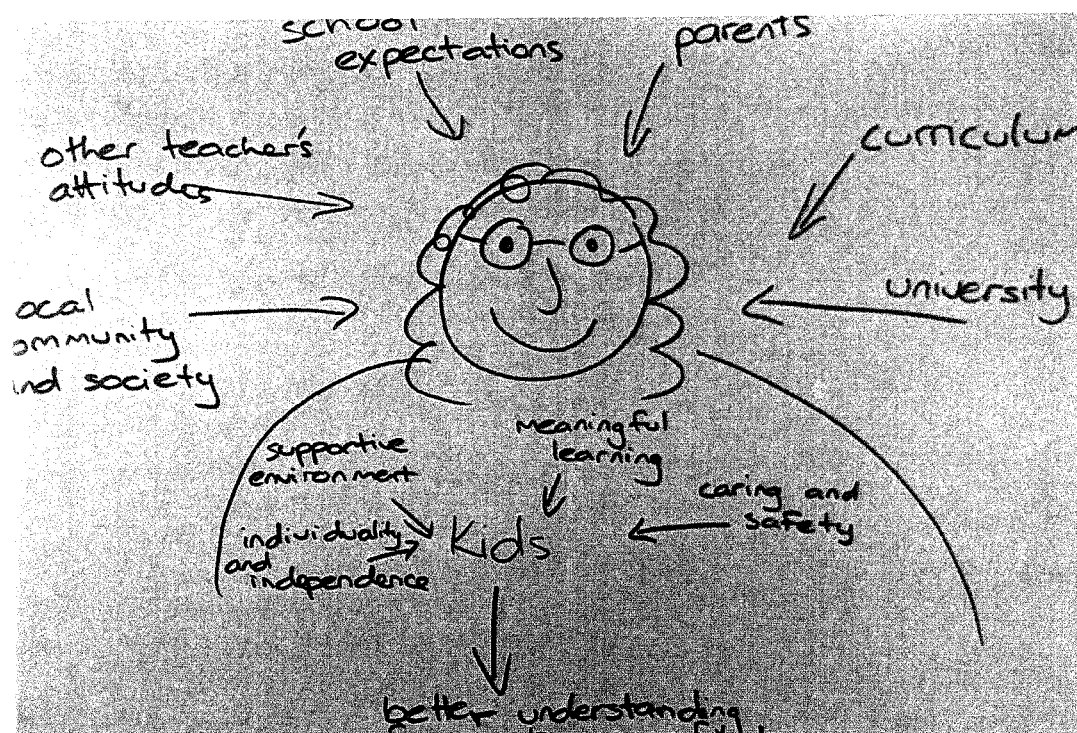
(14/10/94, 232)

She later commented that "learning to put myself in someone else's position and to think about why people think what they do (20/11/95, 335) was one of the most important skills she had developed during her enrolment in Guided Practice.

This notion of recognising and balancing different perspectives was also evident in her representation below of the many "dilemmas and debates" (14/10/94, 28) which characterised this practicum (see Photograph 2). She explained:

I am balancing everything from the outside and filtering it through to the kids ... Things from the outside include the local community and what they see as valuable learning and what should be taught. Then you've got the other teachers' attitudes, and then you've got the school's expectations. If they don't like your lessons, you're in trouble!. Then you've got the parents ... you really have to respect that it's their child, not yours! But at the same time, you're trying to help this child learn and become a decent person. That's a debate I spent a lot of time on prac. (14/10/94, 38)

PHOTOGRAPH 2: Josephine Filtering Influences Affecting Children



Here, Josephine seemed very aware of her moral and ethical obligations as a teacher, and in many respects, this practicum at the end of her second year of Guided Practice could be seen as the pinnacle of her reflection because of the complexity and diversity of the connections she was making. Given her

ability to reflect, her growing commitment to teaching, and her shift towards a more empowered epistemological perspective, why did she not become more reflective as she progressed through the program?

Perhaps it was simply that Josephine, like Kathleen and Heather, was not strongly committed to reflection as a learning strategy. As she expressed it:

I think that in positive situations, you think about things less because everything is going so well. You are just going through the motions and you're thinking 'Yes, this is good. This is working'. Whereas in negative situations, you have to work harder, especially if you've got to prove it to someone, so you're looking for what works and what doesn't. In a good situation, you fall into the trap of getting a bit lazy, in a way.

(20/11/95, 246)

It seemed more likely, however, that Josephine's deep distrust of her learning environment, to some extent evident in the above excerpts was more instrumental in hindering the development of her reflection.

"Maybe I'm Just Paranoid"

Josephine referred frequently to this distrust, often asking herself: "Why is it that no matter how friendly and supportive my cooperating teacher and adviser are, I still can't shake the feeling that someone is going to complain? Maybe I am just paranoid" (August, 1995). What she termed her "paranoia" seemed to stem from her acute awareness of the power of those in authority. She recalled:

In every prac., there was always that uncertainty. I suppose that sometimes I'm paranoid about it, but even when people are telling me nice things, I worry that they are not telling the truth ... I'm one of those people who need to see it on paper. Once they've ticked all the boxes [on the assessment form] then it's fine.

(20/11/95, 169)

She considered that:

You go to prac. to learn, but you'd be lying if you didn't admit that basically you're aiming to get a tick in the right box. That's what prac. is like! And that's what university is like. You're just trying to get results. You are learning and you want to be a good teacher, but prac. is so artificial because basically you are 'just kissing up' to the right people. You don't want to upset your cooperating teacher, because if you do, where are you then?

(20/11/95, 148)

Essentially, her aim was to please people in powerful positions. She attributed her difficulties during practicum to inconsistencies in their expectations:

The difficulties that I have on prac. come down to the difficulties negotiating between Uni. and the centre. There are always two completely different sets of expectations and you're trying to make both parties happy ... Because in the end, it all boils down to that elusive tick. It puts you in a really awkward position. I think that's where I've always had a problem - with that conflict.
(17/11/95, 137)

The strategic negotiation of this maze of expectations appeared, in general, to leave little opportunity for reflection.

All the same, Josephine considered herself, by nature, a reflective person. As the following excerpt shows, she equated reflection with self-criticism. She explained:

Everyone has always said that I am very critical of myself and that I don't gloss over things and that I will think about alternatives. I think that you can walk away from any experience and think 'This is what should have happened. This is what could happen next time'. (20/11/95, 240)

She also equated reflection with protection, noting: "As long as I can justify myself, then I'm safe. If you have a quick answer to justify what you're doing, then I don't think that anyone can argue with you" (20/11/95, 138). It seemed that Josephine perceived reflection (or self criticism) as a defence against a hostile environment. By self criticism she might be able to forestall others' criticism of her. In this sense, she seemed to see reflection less as a search for meaning than a tool for deflecting possible criticism.

Indeed, in Josephine's final interview (when presumably she would have no longer perceived any need to create a favourable impression), she confided that, in most of her practicums, her reflective writing had been tokenistic. She elaborated:

I'd see something and I'd think 'Oh, that would make a nice reflective episode'. They were just something more to be done. They were honest, and I did them with the intent of thinking about what had happened, but there wasn't the feeling that I was really working through something as I was doing them. It was like 'Well, I've typed a page, so that's enough'.
(20/11/95, 218)

She found reflective writing more valuable in her final practicum, explaining:

I've never found this before, but actually, writing reflective episodes is quite therapeutic. I usually just write them thinking 'I've got to get this done', but this prac. as I sit there writing them, I feel as if I'm getting it all out and I feel a sense of relief once I've written it down, it seems to relieve the pressure building up inside. (7/11/95, 16)

Nevertheless, an element of protection remained. She "chose to write them so that they became a type of affirmation" (20/11/95, 194) to help her realise that "the

prac. wasn't as bad as it seemed, and that I wasn't as bad as she [cooperating teacher] thought" (20/11/95, 196). While she considered the reflective episodes from her final practicum more meaningful than those from earlier practicums, by Van Manen's (1977) standards they compared unfavourably with those from her earlier practicums. This is evident in the following extract from her final practicum which refers to difficulties with behaviour management. She wrote:

I was quite devastated by the music time on Tuesday, but to keep it in perspective, I had only been at the centre for five days; it was only the second music time that I had taken; and most of the children hadn't been the previous time. I feel that as long as I realise the problems with these periods, and continue to work on and refine my skills, they can only improve.
(October, 1995)

Here her descriptive reflective writing (Hatton & Smith, 1995) appears less insightful than above extracts from her third practicum which were also concerned with behaviour management. This discrepancy adds weight to Hatton & Smith's (1995) argument that conformity to a reflective writing genre need not correspond to the authenticity of the reflection.

Given these apparent contradictions, it is difficult to draw conclusions about Josephine's reflection. In many respects, she appeared more aware of dilemmas than the student teachers referred to previously, and more able to consider them from a range of perspectives. Her commitment to reflection, though, seemed less certain than her ability to reflect, but not because she did not value reflection. Rather, she seemed so consumed by her distrust of authority figures and so determined to satisfy them, that she used her remaining energy for public, and possibly tokenistic, rather than personally meaningful reflection. Her third practicum was an exception, perhaps because the emotional intensity of her response to this practicum created more incentive (and energy) to reflect on the dilemmas she encountered.

In summary, Josephine seemed to see reflection more as a defence against what she saw as an unsupportive, even hostile, learning environment than a tool for inquiry. In this sense, she seemed to have a somewhat distorted perception of the value of reflection. On the rare occasions she perceived her environment to be supportive, she commented that she became less inclined to reflect. Again, this suggests that she valued reflection as a means of protection rather than growth, and explains why her reflection did not develop in a way which was more consistent with her shift in epistemological

perspective. As such, her perception of an unsupportive learning environment seemed to hinder the development of her reflection.

"My Ideals Aren't Valued"

Colin also perceived the learning environment of the early childhood preservice program to be unsupportive, albeit for very different reasons. Ultimately, however, the effect was similar in that there was less development evident in his reflection during the two semesters he was enrolled in Guided Practice than might have been expected.

Initially, Colin was very positive about the early childhood program and particularly excited by its underpinning philosophy. He commented: *"I find the whole philosophy behind early childhood education absolutely wonderful and inspirational"* (1/9/93, B35). It coincided with his own views about education and gave him confidence that he could put his ideals into practice. He admired what he considered the passion, dedication, achievements and expertise of the lecturers and tutors and looked forward to their support in helping him achieve his ideals. These positive first impressions of the program were soon overshadowed, however, as he began to feel increasingly isolated, socially and intellectually.

Socially, Colin missed the camaraderie he had found in his secondary teacher education program. He recalled: *"I was friends with all the people I was studying with. We had a sense of common unity and a sense of common direction"* (1/11/93, 59). In contrast, in the early childhood program he had *"met only two or three people with whom I would want to continue a friendship and that makes me sad"* (1/11/93, 90). His social isolation stemmed, in part, from ideological differences. He found it disappointing and frustrating that few of his fellow early childhood student teachers shared his ideals. As he expressed it: *"It's difficult to find somebody with whom I can sit down and discuss something a little deeper than nightclubs"* (1/9/93, 52). From his perspective, it seemed that most student teachers *"rather than being movers and shakers and really getting out there and making a difference, just want to go to middle class preschools where they will never be confronted with anything alien"* (1/11/93, B49). He confided: *"I get really angry with some students because of their attitudes"* (29/3/93, 275).

Colin also felt isolated and overwhelmed by the gender imbalance. Only 10 of approximately 1,000 students enrolled in the program were male. As the great

majority of teacher educators as well as student teachers were female, it seemed to Colin that he found himself in "a female bastion of academia" (1/11/93, 215). In some ways, he reported, he found this positive: "I actually prefer working with women". Yet, in other ways, it contributed to his isolation. As he pointed out: "At times the fact that there are only four males in first year is almost too much to handle, especially as it seems to be expected that because we are males we will automatically have a lot in common" (1/9/93, 44). The combination of gender imbalance and ideological differences often made him feel as if he had unexpectedly found himself "in a finishing school for private school girls" (1/9/93,50).

Social isolation from other students may have mattered less to Colin had he been able to develop with teacher educators the type of relationship he had valued in the secondary teacher education program. He recalled how, in the secondary program, he had enjoyed "sitting down and arguing with my tutors" (1/11/93, B99) and noted that "they enjoyed it too" (1/11/93, B100). He was disappointed, therefore, that he was unable to develop a similar relationship with early childhood academics. Indeed, it seemed to Colin that many viewed him with some suspicion. He gained the impression that some questioned his commitment to becoming an early childhood educator and described how in one tutorial, "when we explained what we had done before we came here the tutor just looked at me and sniffed" (1/9/93, B76). He was furious at the implication "that my chequered University career signifies that I don't stick at anything" (1/9/93, B77). On the contrary, he argued, it indicated the extent of his commitment to his ideals of social justice and tolerance and his determination to find a way to put these ideals into practice.

Colin felt saddened and frustrated that his ideals seemed not to be understood or appreciated by teacher educators. In his words: "Sometimes I think that the academics should focus more on people who really have ideals and encourage them to share their ideals ... I guess I feel that my ideals aren't valued here" (1/11/93, B88). He wondered whether he should have heeded friends' advice when they:

warned me that I was going into the wrong area and that I'd be wasted and demoralised; that I would come up against brick walls; that they don't actually like people like me in education, because we might rock the boat.
(1/9/93, B45)

He became more and more troubled by the thought that perhaps his friends had been right.

Feelings of social and ideological isolation were exacerbated by feelings of intellectual isolation. Colin continually questioned aspects of the program because to him, questioning was the foundation for learning. Firmly believing that *"as students we should question what we are being taught"* (1/9/93, B266), he was concerned that most students seemed to *"fall into the trap of believing everything they are told by academics"* (1/9/93, 100). He considered unquestioning acceptance *"dangerous"* (1/9/93, 101) but sensed that his questioning was neither welcomed nor valued. He noted that theorists who did not conform to the program's philosophy *"were spoken of in fairly derogatory terms and quickly brushed aside"* (1/9/93, 113) and described much of the lecture content as *"institutionalised propaganda"* (26/5/93, 95). As well, he was disturbed by an incident in which *"my tutor had been absolutely damning about Montessori"* (1/9/93, 110). To Colin, it seemed that although *"Montessori doesn't fit into the ideology of the program, surely as someone who has made such a huge impact on early childhood education, she deserves some sort of reflection on what she imparted to the field"* (1/9/93, 113). He found it *"outrageous"* (1/9/93, 111) that his tutor was not prepared to discuss Montessori's philosophy further.

This apparent tendency to limit student teachers' exposure to dissenting theorists and unwillingness to have them question accepted orthodoxies disillusioned Colin. Moreover, it hindered his learning which he saw as a process of making connections. He had a clear visual image of these connections, commenting: *"I see them in my mind, almost like a concept map, with my beliefs in the middle"* (1/9/93, 39). He relied on questioning to establish these connections, explaining: *"If there is an aspect I have questions about, then I'll read different views about that issue ... That's the way I work"* (1/9/93, 52). Because, to him, the program appeared to discourage questioning, in effect, it disempowered him. Consequently, the confidence with which he entered the program ebbed rapidly and he became *"more and more scared that I may not be capable of becoming an early childhood teacher"* (1/11/93, 82). At the end of his first year in the program he concluded that *"the reasons for changing my degree from secondary to early childhood no longer seem logical ... I've made a terrible mistake in coming here!"* (1/11/93, 75) and decided not to re-enrol the following year.

Colin's self doubts seemed groundless, given his perceptiveness and sensitivity to children illustrated in the following sequence of reflective

writing. Here, he discusses his cooperating teacher's intense dislike of a child, who reminded him very much of himself at that age. He wrote:

She openly admitted that she did not like Karl, the child, whom I had chosen to observe. He struck me as an articulate, well spoken, and somewhat intense child ... On all my observation days, the majority of the attention Karl received was negative, and this was obviously affecting his self-esteem. He was never disciplined, he was punished, and the punishment always came without explanation, or a chance for him to explain ... Karl's plight was personally painful ... He may be damaged by his first year at school, and this first year may negate all of the good experiences in his earlier education ... This situation served only to reinforce my own passion for the nurturing and respect of children ... I am determined not to make the same errors as my cooperating teacher.
(October, 1993)

Much more so than Kathleen, Colin was able to use this sense of identification as a springboard for reflection of broader educational, ethical and moral considerations. He elaborated:

Her justification was that Karl suffers from ADD - it's sort of like hyperactivity. I think that it must be the 1990's version of hyperactiveness ... It's an adult's way of explaining away their responsibility to give children attention and treat them with respect by saying 'Oh, well, it's okay to treat them like this because they've got that wrong with them'.
(1/9/93, 213)

As well, he was able, to take a much longer term perspective than Kathleen. This was evident when he continued:

Her way of teaching might seem feasible at the moment because it keeps Karl and the class under control. But how feasible will it seem in five years time when Karl has become totally withdrawn and has lost, say, two years of learning because he's been totally isolated from the rest of the class?
(1/9/93, 244)

Given the depth of his reflection and the connections he draws, why is Colin included in this cluster of student teachers who showed little consistent evidence of development in their reflection?

Unlike the other student teachers profiled in this chapter, Colin entered the program having demonstrated considerable evidence of past reflection. Indeed, it could be argued that without reflection, he would not have been able to develop, justify, and sustain the ideals which he articulated so clearly. During his enrolment in the program, however, his reflection appeared to show little further development. The above excerpt about Karl was one of the few instances in the interviews conducted with Colin where he focused on issues related to teaching or his development as a teacher, rather than on his own frustration and unhappiness. Indeed, Colin's interviews were repetitious

and although he constantly revisited the reasons for his distress, he seemingly failed to develop further insights into his situation. Moreover, he did not appear to question the validity of his views and seemed unaware of some inconsistencies in them. He frequently referred to the "*transfer of knowledge*" (26/5/93, 80), for example, commenting that "*a good teacher is someone who cares about knowledge being transmitted*" (26/5/93) although this contradicted his espoused views about learning.

In summary, while Colin had an obvious ability to reflect, and demonstrated considerable evidence of past reflection, his reflection appeared not to develop further. That this study found little evidence of further development, however, does not necessarily mean that there was none. Possibly, he chose to use the interviews to unleash his frustration, and to reflect on his development as a teacher in other contexts. Nevertheless, there seems considerable evidence to suggest that Colin's perception that the learning environment was unsupportive had an adverse impact on his reflection.

CONCLUDING COMMENTS

This chapter has presented profiles of the eight student teachers whose reflection seemed to show little evidence of consistent development during their enrolment in Guided Practice. A number of factors appeared to hinder the development of their reflection. These included a lack of commitment to reflection and / or teaching; an epistemological perspective of received knowing and a technical view of teaching; and a perception of an unsupportive learning environment.

Kel and Erica, for example, had little commitment to teaching and, therefore, little incentive to reflect on their development as teachers. While Pamela and Marina also had little commitment to teaching, their epistemological perspective of received knowing seemed to hinder reflection even more because it made the search for meaning so discomforting. Moreover, because their perspective of received knowing led them to see teaching as an essentially technical process, they found it difficult to accept its inherent complexities and ambiguities. Heather and Kathleen, on the other hand, were committed to teaching, but not to reflection. While Josephine became increasingly committed to teaching and moved some way towards constructed knowing, her distrust of her learning environment led her to focus more on strategic responses than meaning. Finally, although Colin entered the

program as a reflective and empowered learner with a strong commitment to teaching, his reflection showed little sign of further development. He, too, perceived the learning environment of the early childhood program to be unsupportive of his search for meaning. The importance of these factors is illustrated further in the following two chapters which focus on those student teachers whose reflection showed consistent change during their enrolment in Guided Practice.

CHAPTER SIX

PROFILES OF PARTICIPANTS WHOSE REFLECTION SHOWED SOME CHANGE

*You can't just say that you want to be 'a good teacher' because that brings up a whole lot of questions. What is 'a good teacher'? What you consider is 'a good teacher' might not be what someone else considers 'a good teacher'.
(Felicity, 18/11/96, 85)*

The previous chapter presented profiles of the eight student teachers whose reflection showed little consistent change during their enrolment in Guided Practice. This chapter develops profiles of the four student teachers whose reflection showed some change. These student teachers, like those profiled previously, differed considerably. All four, however, were motivated to make sense of becoming a teacher. Because motivation seemed such an important factor in promoting their reflection, it is used as an organisational framework for this chapter.

MOTIVATED TO ACHIEVE HER AMBITION: FELICITY

Felicity, like most of the student teachers profiled so far, was a school leaver from an Anglo-Australian background. Unlike the student teachers profiled previously, though, she had wanted to be an early childhood teacher for as long as she could remember. In her words: "*Ever since I was a little girl it has been my sole career ambition*" (March, 1993). She recalled her parents commenting:

*I must have been made to be a teacher because even as a small child I would set up my blackboard on the front porch and pretend to teach the other children in our street, for as long as they could bear being 'taught'.
(March, 1993)*

She wanted to teach because she found children "*absolutely fascinating to watch, talk to and listen to*" (March, 1993) but did not appear to be driven by a visionary goal or passionate creed (LaBoskey, 1994).

A "*quietly confident person*" (10/594, 63), Felicity entered the program "*excited and ready to get started*" (March, 1993). She was surprised by the anxiety experienced by many of her peers. Unlike them, she found it hard to imagine feeling "*intimidated by small children*" (1/11/93, 170) and did not feel pressured by what many other participants perceived as the idealism of their lecturers. In her view: "*Teachers are people and they are going to make errors of judgement.*

You don't have to be perfect to be a good teacher" (29/3/95, 255). Rather, it was more important to "realise the areas that you need improvement in and keeping working towards that" (6/11/96, 69). In many ways, Felicity's sense of destiny seemed to contribute to her sanguine approach to learning to teach.

"There's Lots Of Talking Going On In My Head"

To Felicity, experience was *"the key to learning" (1/11/93, 26)* for, as she explained: *"You can't really know whether something works until you try it ... once you've experienced it, you won't make the same errors again"(1/11/93, 113).* To gain the most from experience, she considered that *"you've got to have your own ideas and values and you've got to put those into practice (10/5/94, 133).* She described how *"I'm always talking to myself. There's lots of talking going on in my head. Making sure that I feel right about it is important to me" (10/5/94, 355).* As well, she tried to be openminded and when introduced to new ideas would typically respond: *"That's interesting. I'll keep it in mind, and see what I think about it later" (1/11/93, 152).* She anticipated, though, that her views would change little and noted: *"I think that my ideas will grow as I develop as a teacher, but they won't actually change; they will just fill out more" (29/3/95, 124).* Her comments suggest that, like Erica (previous chapter), she valued the practical knowledge gained from experience. Unlike Erica, however, she also appeared to value and engage in reflection about that experience.

Of all the participants, Felicity's experience of learning to teach seemed the least problematic. She found none of her practicums particularly difficult. As she expressed it: *"My prac. experiences have all been positive. I've never really had any trouble, or any hard decisions to make (29/3/95, 205) ... [They] always flowed along without anything exceptional happening ... There has never been a real problem" (13/10/95, 151).* Why did her experience differ from the other student teachers', almost all of whom encountered at least one highly distressing practicum?

In part, her certainty that she was destined to teach may have cushioned her from the self doubt and confusion experienced by many other participants. Chance, too, was probably a factor as, fortuitously, all of her placements offered an appropriate environment for student teachers. In addition, she was highly capable, although several other participants were equally so. Felicity, herself, considered her self-containment instrumental. She explained:

I'm a very self-sufficient kind of person ... I know that lots of people need a lot more support and that they mightn't be able to cope if they were in this situation. But I can manage by myself pretty well. (9/9/96, 242)

She attributed much of her self-containment to her commitment to self evaluation, which she considered enabled her to take responsibility for her learning. Her sanguine approach to learning to teach is evident in the following extract in which she explains that she does not find self evaluation disturbing. She noted:

One of the interesting points that came from the conference with my adviser and the cooperating teacher was that I am too critical of myself ... but I view it as being more a case of self evaluation than self criticism. My view is that there is always room for improvement, so I am always reviewing the situation to see if and how things could be done better next time. (September, 1996)

The six student teachers introduced in the following chapter, however, were also committed to self evaluation and all but one experienced a distressing practicum. Felicity differed from most of these students, though, in that she did not appear to have a passionate creed and so did not feel driven to challenge the status quo. Indeed she accepted it, as is evident from the following comment about her first school practicum. She explained: "*Nothing has struck me as strange or different to what I expected. It's pretty much as I remember school. So I wasn't shocked by anything that I saw here. I expected it to be like this*" (14/9/95, 113). This did not mean that she was unaware of problems, but as she pointed out: "*There are good things happening as well.*" (14/9/95, 119) and she preferred to focus on those. Essentially, she was not a reformist and was happy to be achieving her long held ambition.

"That Fixed That Problem"

Although Felicity encountered some minor difficulties in learning to teach, she did not see teaching itself as particularly problematic. Consequently, at first, her reflection tended to be mainly technical as exemplified in her discussion of the difficulties she experienced when implementing her first cooking activity. She recalled: "*I went though the experience in my mind - thinking 'What happened? What was wrong with it? Where did it start to go wrong and why?' I went through it very methodically*" (10/5/94, 61). For each difficulty, she identified a solution:

I had children picking things up ... so, okay, don't have things on the table and I won't have that problem. And I had lots of children saying 'Can I have a go? Can I have a go?' So next time, I had a bowl for each child, so that fixed that problem. (10/5/94, 63)

She explained that she found reflection about broader educational issues difficult during practicum because:

In the rush of it all, you forget to stop and figure out what you're thinking and the reasons for doing what you are doing. I always feel that I get so involved with prac ... that I don't have time to stop and reflect. It's not until after prac. has finished that I can start to do that ... But it's not that I wasn't thinking - I was thinking about planning, and things like that - but that's different to thinking about my philosophy. (10/5/94, 145)

Her distinction between technical and practical reflection, although not expressed in those terms, indicates greater understanding of reflection than was evident in the student teachers (apart from Colin) profiled in the previous chapter.

Felicity's technical reflection focused on solving problems; her practical reflection involved redefining or reframing (Schon, 1983) them. Reframing enabled her to see problems from different perspectives. After observing a teacher experiencing difficulties managing children's behaviour, for example, she referred only briefly to the effectiveness or otherwise of the management strategies used by the teacher. She then reframed the situation to focus on the teacher's perception of the problem, which led her to query the legitimacy of the teacher's expectations. As Felicity explained:

I think that she invents problems for herself half the time. Some of the things which she reprimands the children for could almost be ignored. They are not serious enough to point out to the child all the time - 'You are doing this wrong again!' (23/8/93, 299)

Likewise, when she reflected on the effectiveness of an unstructured art activity which she implemented with children accustomed to a structured curriculum, immediately after the activity she focused on strategies for minimising the ensuing noise level. When writing about this incident that evening, though, she reframed her perception, commenting:

I realise now that the type of enthusiastic response that I got is what I would like to achieve in all aspects of my teaching. What makes a good classroom anyway? A quiet, subdued classroom with children restricted from sharing ideas? Or a lively classroom where ideas are being exchanged and where children are assisting each other and working cooperatively? (September, 1995)

The contrast between her initial and written responses is interesting. It supports her earlier comment that she found reflection of other than a technical nature difficult amidst the "busyness" and immediacy of practicum. At the same time, it suggests that the time lag between technical reflection and reframing was lessening. It also indicates that the writing process, itself, might have assisted in reframing.

Unlike several student teachers from the previous chapter, Felicity persisted with reflective writing. She found *"writing my ideas down difficult"* (18/11/96, 163) but considered it *"definitely beneficial"* (18/11/96, 164). In particular, it provided *"concrete evidence of what my thoughts really are"* (18/11/96, 162) as opposed to *"just having my thoughts floating around"* (18/11/96, 161). Perhaps the tangible nature of the written form provided Felicity with a more malleable substance than *"mental reflection"* (18/11/96, 158) and lent itself more easily to reframing.

By the final semester of Guided Practice, Felicity's reflection had changed from mainly technical to predominantly practical, with some initial signs of critical reflection possibly beginning to emerge. She no longer evaluated cooking and art activities, for example, in terms of managing children's behaviour. Rather, she focused on broader issues such as autonomy and control. She wrote, for example:

*What I have discovered about this age group [18 - 24 month olds]
... is that it is extremely difficult not to be restrictive and controlling,
especially when children tend to put everything in their mouths
including paint and paste brushes. (September, 1996)*

She illustrated her concern by describing a specific incident:

On Monday, I offered finger painting. I held the activity behind the fenced area so that I could limit the number of children, ensure that they were wearing a protective smock, and that their hands were washed after they had finished. But holding the activity behind the closed fence made me feel bad because it meant that I was in control of the activity. I was the one who was saying who could come in and when. Also, while the children on one side of the fence were enjoying the activity, the children on the other side ... were calling out for their turn. Making one and two year olds wait isn't really fair either, but what is the alternative? (September, 1996)

In describing the above incident in this manner, Felicity appeared to be beginning to show evidence of a developing concern with moral aspects of teaching which in turn, might have been a precursor to engaging in critical reflection. In some respects, the changes in her reflection parallel Van Manen's (1977) levels of reflection and as such might appear to support his hierarchical conceptualisation. This thesis argues, however, that the complexity of connections rather than the content of reflection provides a more useful indicator of development in reflection.

As Felicity elaborated on the incident described above, she appeared to revert to a narrower focus rather than continuing to explore broader issues.

She wrote:

I felt as though I was in a constantly revolving door - ensuring smocks were fastened, sleeves rolled up, sufficient paint was on the table and hair and hands were washed before the next child came in and the whole production started again ... Is there any possible way to offer art and craft activities with this age group, letting the children have the freedom to create and explore without the teacher having to be the control freak running from one child to the other redirecting brushes before they end up in the child's mouth or hair and retrieving chewed up paper from babies' mouths?
(September, 1996)

Because she seemed to be searching for a specific answer, her question might be considered a "How to ?" response rather than the "Why?" response which LaBoskey (1994) asserts is typical of more reflective student teachers.

This impression is reinforced as Felicity continued:

I spoke to my cooperating teacher about these issues of being controlling and restrictive ... One of the alternatives she recommended was to double up on the activity. When offering activities that are likely to capture the interest of many children, it is easier to have two staff members and two areas set up for the activity so that waiting time is greatly reduced.
(September 1996)

Alternatively, she might be better portrayed as a student teacher who was beginning to appreciate the problematic nature of teaching and its inherent complexities. Without encouragement from her cooperating teacher to continue to explore these complexities, however, she appeared to find reflection on broader issues difficult to sustain.

The above excerpts support Felicity's view that "I've become more inclined to be reflective of everything I do" (18/11/96, 153) during her enrolment in Guided Practice. Her long held ambition to teach, her commitment to self evaluation, and her emphasis on learning from experience appeared important contributing factors. When compared to Erica's and Kel's (previous chapter) lack of commitment, the positive influence which her commitment to teaching had on her reflection is marked. It could be argued, however, that her commitment to teaching simultaneously constrained her reflection. Perhaps because becoming a teacher had been a childhood dream, she tended to see teaching as relatively unproblematic. Her lack of a passionate creed and her acceptance of the status quo resulted in her reflection involving mainly problem solving. In contrast, Kristy (below) was motivated to change the

status quo. Her profile highlights the impact of her passionate creed on her reflection.

MOTIVATED TO SEARCH FOR WAYS TO MAKE TEACHING FUN: KRISTY

Kristy was from an Anglo/Greek-Australian background and English was her first language. She entered the program as a school leaver. Unlike Fiona (and in common with several student teachers from the previous chapter), she had reservations about whether she wanted to teach. As a high school student she had undertaken work experience in a preschool and "*came away thinking 'No, I don't want to be a teacher'*" (2/11/93, 149). Her mother had died during Kristy's final year at school and Kristy considered that her mother's wish that she become an early childhood teacher had probably influenced her decision to enrol in the program.

Like Erica (previous chapter), Kristy spoke frequently of her doubts about wanting to teach. While Erica was torn between her enjoyment of teaching swimming and her reluctance to enter a relatively low status profession, Kristy was concerned about reconciling her dislike "*of the idea of being a teacher*" (13/5/94, 28) with her growing realisation "*that there is so much that I could do as a teacher*" (2/11/93, 122). She recalled that most of her own teachers "*seemed to hate their jobs*" (20/11/95, 130) and was adamant that she "*didn't want to be like them*" (20/11/93, 131). If she were to teach, she was determined "*to find a way of making it fun for me as a teacher and for the children*" (13/10/94, 73). Throughout much of her enrolment in the program Kristy worked as a children's clown, a job she loved because "*I don't have to be serious - I can have fun!*" (7/9/95, 226).

When she entered the program Kristy had envisaged that teaching would hold few opportunities for fun. She imagined "*standing up in front of a blackboard*" (13/10/94, 305) and "*having to teach and they [would] have to learn what I teach*" (13/5/94, 28). This view was reinforced by field visits early in the program to a preschool where "*the teacher emphasised work ... before play*" (20/11/95, 188). Kristy "*wasn't happy*" (29/3/95, 300) with this situation but "*didn't think very much about it*" (29/3/95, 317) and "*put [it] completely out of my mind*" (20/11/95, 21). Her comments suggest that she engaged in relatively little reflection in the early stages of the program.

Her second practicum, in a very formal school setting, involved much *"sitting and watching"* (13/5/94, 119). This provided *"a lot of time to think"* (13/5/94, 120) and enabled her *"to imagine my own class and the ways that I would teach"* (May, 1994). She began to *"develop really firm ideas about what I believe about teaching"* (13/5/94, 98) and saw her *"philosophy beginning to emerge"* (May, 1994). For the first time, *"the thought of being a teacher was becoming exciting"* (May, 1994).

"I Like Your Ideas - They're Fun!"

Kristy was excited most by the possibility of *"doing away with the distinctions between work and play"* (13/5/94, 130). She described making biscuits with children *"because 'B' was the letter of the week"* (13/5/94, 134) and concluded:

*They learnt the letter 'B' much better that way rather than just tracing it in their book. They were learning but it was fun. I enjoyed it as well ...
The children gave me so many responses that I could extend upon, and that made it really fun.*
(13/5/94, 138)

She was thrilled by children's reactions and describing how *"one child came up to me and said 'I like your ideas - they're fun!' "* (13/5/94, 67). This encouraged her to think that *"what I was doing was really worthwhile"* (13/5/94, 68). Subsequently, she *"planned some of my lessons especially to see how the children would react and interacted with them in different ways to see how they responded"* (13/5/94, 291). Her ultimate aim was *"to see how I saw myself as a teacher, and to see what I responded to as a teacher"* (13/5/94, 293). In effect, this second practicum marked the emergence of Kristy's inquiry approach to teaching which was to characterise the remainder of her time in the program.

To Kristy, *"having fun"* (13/10/94, 65; 20/11/95, 110) and learning were integral, hence her concern during her two school practicums when she found *"lessons very boring and very monotonous"* (13/10/94, 65). She considered that *"the children were so bored with their boring writing and boring maths books ... [that] they weren't learning"* (13/5/94, 34). She worried about the impact of boredom on her own learning, as well as the children's learning, and commented: *"If I did lessons like that, I'd get bored as a teacher, and I wouldn't be developing myself and the children wouldn't be learning"* (13/10/94, 75). She was puzzled as to why her cooperating teachers should teach in such a way when they, too, *"seemed bored with the stencils and the workbooks"* (13/5/94, 139). One teacher explained that *"she would have loved to have drama with the children, but that there was never enough time"* (13/5/94, 152). Kristy assumed that this meant that *"she didn't consider drama to be an important part of the curriculum. It's only something they do if they have time - it's only a 'fun' activity, not a learning activity"* (13/5/94, 153)

although she acknowledged that *"maybe they're not her priorities, but the priorities of the school"* (13/5/94, 157). Nevertheless, she was determined not to emulate her cooperating teachers' approach and, in this sense, differed from Felicity who was more accepting of the status quo.

Kristy's commitment to her passionate creed was evident in her refusal to use stencils to teach phonics. She pointed out: *"I wasn't learning anything from that at all and neither were they. I wasn't getting any insight into the children, apart from how well they could colour in. I wasn't developing my ideas"* (13/10/94, 169). Instead, she focused on challenging open-ended activities which provided incidental opportunities for children to learn their sounds. She recalled:

We'd been doing the sound 'Y' so I put out some materials and they made yachts. Then they tried to work out how to make them float. They really enjoyed doing something different and I really enjoyed seeing what each individual child came up with. When Bill [cooperating teacher] asked me whether I was going to explain to them how to do it, I didn't like to say 'No, I don't like the way you do that'. So I said 'No, I want to see how the children experiment'. That happened with a lot of things. He wanted me to give them direct instructions and I'd have to keep saying 'I want them to experiment'. I sort of had to learn how to agree, but to disagree. I listened to his opinions, but I still had my own opinions.

(13/10/94, 127)

Her sense of empowerment, which seemed to come *"from developing my own ideas about how I'd like to be as a teacher"* (13/10/94, 307) contrasted sharply to Josephine's (previous chapter) perception of powerlessness. While Josephine seemed to see reflection as a protective shield, Kristy saw it as a tool for growth.

Kristy placed considerable emphasis on reflection as a means of *"trying to develop my ideas"* (13/10/94, 190). She explained, for example, that at the beginning of her third practicum she knew that *"I didn't like stencils very much, but by the end of the prac. I had reasons for why I didn't like them"* (13/10/94, 190). During the following semester break she *"spent a lot of time thinking about why I didn't like what was happening, and how I would do them differently, and why I would do them differently"* (13/10/94, 201). As a result, she commented, *"I think I'm answering my own questions"* (13/10/94, 193). Some of her initial ideas about teaching had changed substantially as a result of this process of inquiry. As she expressed it: *"When I look back over the time that I've been doing the course, I often think 'Did I really say that? Did I really think that?'"* (13/10/94, 340). Rereading interview transcripts and her reflective writing seemed to assist her to clarify and refine her ideas. In her final interview, for example, as she

looked over her previous representations of herself as teacher, she pointed out: "*But when I say 'fun', I don't mean 'fun' as in just having a nice time, but in enjoying the learning*" (20/11/95, 151). Her comment demonstrated the value of access to longitudinal records of professional development in encouraging reflection and the power of revisiting previous writing (Hatton & Smith, 1995).

Kristy also found the relaxation sessions helpful in promoting reflection. Indeed, she continued to use the strategies introduced, commenting:

After relaxing, I became very reflective. I found thinking easier. If I was stuck on an assignment, I'd do some relaxation and found that I was able to think of new ideas that I hadn't been able to think of before. My ideas flowed more. It was all coming to me after I was relaxed.
(29/3/95, 89)

After the second session, Kristy vividly recalled her own first class teacher, "*Mrs Wilson, an 'old-witch' teacher*" (15/3/95, 202), sending her back to Kindergarten for a day as a punishment for talking. She had "*a wonderful time because Mrs Paris, the Kindergarten teacher, was my favourite teacher. She let us play. She made learning fun*" (15/3/95, 197). Months later, Kristy returned to this memory, asking: "*Now, I wonder why I was talking too much in first class. Was I bored?*" (20/11/95, 172). Her focus on this memory is interesting. It suggests that her ideal of learning through fun originated, at least in part, from her own early childhood experiences and that relaxation sessions might have assisted in illuminating hitherto unrecognised connections.

As well, Kristy valued reflective writing. She found that "*writing makes your thoughts a lot clearer. You think about things and you read about what you thought. And you think 'Well, why did I think that way?'*" Writing is definitely beneficial (20/11/95, 282). Writing enabled Kristy to engage in a conversation with herself about her development as a teacher and about how she might make teaching and learning fun. Indeed, almost all of her reflective writing focused on the importance of fun and learning through play for both children and teacher. During her fourth practicum, for example, she wrote:

The children were asked to play a game called 'Sleepy Lions', where they have to lie on the mat quietly. This is used as a transition activity while other children are packing away. I lay down on the mat with the children. They laughed at me and asked me what I was doing. I said that I was playing 'Sleepy Lions'. They all laughed and said that teachers can't play 'Sleepy Lions' ...
(August, 1995)

Kristy returned to this incident in a later interview, commenting:

When the children said that teachers aren't allowed to play games, I stopped and thought about what being a teacher means. It can be really confusing. I'd prefer to be called something other than a teacher. I just want to be someone who extends and challenges and develops children. (7/9/95, 212)

A similar comment two months later - "*It's really challenging to think of new ways of making learning enjoyable and learning experiences more valuable*" (20/11/95, 236) - also highlights the appropriateness of conceptualising reflection as a search for meaning.

The above excerpts illustrate how Kristy's determination to make learning and teaching fun had become a passionate creed which permeated her thoughts about teaching and provided both the impetus for and content of her reflection (LaBoskey, 1994). Her passionate creed had a positive impact on her commitment to teaching as well as her reflection. Yet, like Felicity's commitment to teaching, it simultaneously seemed to limit her reflection. In particular, it appeared to distract her from consideration of other important issues. There was little sense of moving beyond issues directly connected with self to broader concerns. In addition, although her passionate creed undoubtedly contributed to her wholeheartedness about teaching and to her sense of responsibility as a teacher, it might have had an adverse effect on her openmindedness. There was little evidence, for example, that she questioned the appropriateness of her ideas or was "able to hear thinking that may be contrary to" her own (Loughran, 1996, p.5). As Dewey reminds us, all three qualities are important. For these reasons, Kristy was included in this cluster of student teachers whose reflection showed some consistent change in reflection rather than those in the following chapter who showed considerable consistent change.

So far, this chapter has focused on how a commitment to teaching can enhance (and simultaneously constrain) reflection. Genni's profile (below) illustrates the effect of commitment to reflection.

MOTIVATED TO JUSTIFY HER DECISION TO BECOME A TEACHER: GENNI

Genni's family migrated to Australia from The Philippines when she was in her early years of high school. She spoke English fluently, but with a strong accent. She lived with her family in a low socio-economic suburb and, as the

eldest daughter, took considerable responsibility for her younger siblings. The first in her family to attend University, Genni entered the program as a 22 year old. She had previously completed a TAFE Associate Diploma in an area unrelated to early childhood and although her qualification held "*the prospect of a job with good money*" (30/3/93, 87), it involved "*sitting behind a desk and not much opportunity for mixing with people*" (30/3/93, 91). Concerned about "*getting stuck in a rut and trapped*" (18/10/94, 72), she decided to become an early childhood teacher.

"Why Would You Want To Spend Four Years Learning About Children Playing?"

From the time she enrolled in the program, Genni found a strong need to "*be able to justify why I'm doing early childhood*" (27/7/95, 108). She resented uninformed comments from friends: "*Babysitting! I can't believe that you go to Uni. to learn babysitting!*" (18/10/94, 203); and from customers in the supermarket in which she worked who asked: "*Why would you want to spend four years learning about children playing?*" (26/5/93, 172). These comments caused her to become "*so worked up and defensive*" (18/10/94, 206) and although she was convinced "*that there is so much more to it than what most people think*" (18/10/94, 208), she found it "*really hard to find the ideas to justify what I'm doing*" (27/7/95, 110). She attributed her difficulty to two main factors. She referred to society's general lack of respect for young children, noting: "*This is a really hard course because you are learning to respect people who adults don't normally respect*" (26/5/93, 219); and to cultural differences between her own upbringing and ideas introduced in the program. As Genni explained:

The way my parents have raised me is that I have to respect them and listen to what they say. And I thought that because my siblings are younger than me, they should respect me and listen to what I say. (26/5/93, 141)

She found differing attitudes to issues such as authority and self-determination particularly puzzling but was determined to reconcile these differences, clarify her beliefs and learn to articulate them in a manner which would engender more respect for her decision.

It was clear from the way Genni spoke of her struggle to achieve these goals that she valued reflection. During her first year in the program, for example, she referred to: "*having these conflicting views in my mind and tossing them around*" (26/5/93, 227); "*putting myself in the children's position and seeing how I'd react*" (27/10/93, 370); and "*trying desperately to make sure that the way I treat children is consistent with what I believe*" (27/10/93, B61). She raised many

questions, including: "Where is the right place for discipline to be administered? Who has the power to exercise it? And who has the duty to reinforce it?" (October, 1993). Realising, however, that there were no simple answers to these questions, she commented: "This is an inquiry which I do not expect ... to answer overnight. I merely stand back and play with arguments in my head, trying desperately to understand, but cannot" (October, 1993). As she began to explore these questions she engaged in practical and, increasingly, critical reflection.

Throughout her enrolment in Guided Practice, she continued to strive to understand and appreciate diverse views. As she put it:

Everyone has differences and different approaches ... I couldn't honestly say that because Nancy [cooperating teacher] hasn't always done what the University says is appropriate then she is a bad teacher ... In reality, it's not that simple. (19/9/95, 440)

Here, her openmindedness is evident. Wholeheartedness and responsibility, other qualities emphasised by Dewey, were also apparent in her search to make sense of her decision to teach. Likewise, her attempts to "merge ideas together" (19/9/95, 285) so as "to develop my own ideas ...even though they come from other people I want to reshape and remould them to suit me"(27/7/95, 81), reminiscent of Schon's (1983;1987) notion of reframing, demonstrated her efforts to construct meaning about being a teacher. In these respects, and in her commitment to reflection, she differed considerably from most of the student teachers in the previous chapter.

Despite her determination to make sense of teaching and justify her decision to become a teacher, Genni experienced considerable confusion. Note, for example, her response to the following incident, from her first practicum, when she "planned an activity around making koala masks" (27/10/93, 180). When one child "pasted all over his mask and stuck eyes and noses everywhere" (27/10/93,184), her initial reaction was to intervene because "he was using too many eyes and noses" (27/10/93, 185). But she "stepped back and thought 'I'm supposed to be child-centred. He should be able to do what he wants. He is a free agent and that is his interpretation' " (27/10/93, 186). After reflecting further she reached a different conclusion, explaining:

I realised later that I had just accepted what had happened at face value. I realised that he wasn't a free agent - that he knew that he had to do the activity, and that he just wanted to get it over and done with and move on. (27/10/93, 217)

Genni then asked herself: "So to be child-centred [a tenet of the program], do I say 'He is being a free agent, and this is his way of being creative' or do I say 'He's

bored?' " (27/10/93, 220). To this point, Genni's reasoning was relatively easy to follow. Her concluding comment, though, was confusing. She explained: "I talked with the teacher about this later and she reinforced what I had been thinking. She said 'Whatever they do is right. You can't correct them', so I was glad that I reacted how I did" (27/10/93, 188). This conclusion seemed at odds with her apparent realisation that the compulsory nature of the activity might have an adverse impact on the child's motivation. Sustained reflection, in this instance, and indeed many others, did not appear to enhance understanding. Why?

The most likely explanation appears to be that she might have found reasoning and sustaining arguments a conceptually difficult task. She also seemed to have difficulty communicating her ideas. Indeed, many of her comments throughout the three years in which she was enrolled in the program indicated a combination of communication and conceptual difficulties. At various stages of the program, for example, she remarked:

*I think I'm getting more out of this course than I'm showing (26/5/93, 14);
The theory ... has just bombarded me. I felt that I had so much in my head
that I just didn't know what to pluck out where (18/10/94, 77); I sometimes
think that my interpretation is misinterpreted by other people (18/10/94,
86); Sometimes my tutors give me good marks ... because I think they
know what I want to say, but realise that I have trouble actually saying it.
(27/7/95, 309)*

Despite her undoubted willingness to engage in reflection, these difficulties appeared to limit her ability to demonstrate evidence of considerable development in her reflection.

Yet Genni was one of the few participants to engage frequently in critical reflection. In the following extract, she mentions three children from different backgrounds and with differing literacy skills with whom she worked on her third practicum. She refers to: "Jai Pai who comes from China and has only been in Australia since the beginning of last year. She is a very good reader" (17/10/94, 102); Sarah "who is older than Jai Pai but can't read nearly as well" (17/10/95, 104); and Tony, who was receiving "special support" (17/10/95, 213) for his reading difficulties but was "doing very well ... and developing at a much faster rate than Sarah" (17/10/95, 214). Genni noted that Tony's parents, like Jai Pai's, "because of their beliefs about education [were] providing ... a lot of stimulation at home" (17/10/95, 140) but that Sarah's parents "don't seem to assist her to extend her learning" (17/10/95, 142). She was concerned that "even though Sarah really needs special support, testing has shown that she does not qualify for it" (17/10/95,

214). Because eligibility criteria took into account only current proficiency and not children's backgrounds, Genni predicted that *"a lot of children who need more support end up falling further and further behind"* (17/10/95, 146). She was one of the few student teachers in the study who considered the implications of policy for perpetuating disadvantage and inequality. As such, she seemed more insightful about issues relating to social equity and justice than any of the student teachers (except Colin) profiled so far. Moreover, as is evident in the above example, she gradually became more proficient at explaining the reasoning behind her concerns and her conclusions. Her analytical and communication difficulties continued to be a major concern, however, and after failing several units, she eventually decided to discontinue her enrolment.

In summary, Genni entered the program strongly motivated to reflect. She was determined to find ways to justify her decision to teach. Her motivation contributed to her commitment to reflection, and seemingly because of this commitment, her reflection showed some development. Following considerable effort on her behalf, for example, she was able to present arguments a little more clearly. Although this might have been the result of improved communication skills, it also suggested some development in her analytical skills.

At the same time, her tendency to view reflection primarily as an analytical process seemed to constrain her reflection. It is possible that she might have found a less analytical, language-dependent medium for reflection more useful. Interestingly, she declined the invitation to attend relaxation and visualisation sessions, explaining that *"it's just not my thing"* (27/7/95, 29). Likewise when representing her ideas, she always used sentence form rather than the mindmaps or drawings used by several of the other participants. In terms of her own criteria of mastering reasoned explanation and argument to convince others of the validity of her decisions, she had not been particularly successful. Her profile highlights the limitations of conceptualising reflection solely as analytical thought.

The final profile presented in this chapter returns to the notion of the importance of a supportive learning environment in fostering reflection. It traces the development of a timid and insecure learner, who as she gained in

confidence, moved away from an epistemological perspective of received knowing to construct her own understanding of what it means to be a teacher.

MOTIVATED BY FINDING INNER STRENGTH: MARCELLE

Marcelle, who was Aboriginal but spoke English as her first language, described herself as "very shy ... and insecure in a lot of ways" (12/5/94, 526) when she entered the program as a 20 year old school leaver. Some years previously, at the age of 16, she had left school because, as she put:

I just wasn't motivated. I had a lot of problems at home and I felt that being at school was a burden to my parents, and that it would be better if I went out and worked so that I could help them out financially.
(28/3/94, 169)

While working in a fruit shop she met her future fiancée who had also left school early. She decided that "one of us had better get some qualifications" (28/3/94, 175) and, when circumstances at home improved, returned to school, planning to eventually become a nurse. She had enjoyed working as an assistant in a nursing home but became very upset when "one of the patients whom I was really close to died, and I realised that I couldn't handle that ... I get too attached to people" (28/3/94, 160). She then considered primary teaching, but her mother, a teacher's aide, dissuaded her, arguing that Marcelle would be more suited to teaching in an environment where there would be more opportunity to work with children individually. In Marcelle's words:

Mum knows that I am such a sensitive person and she was worried about how I would cope. She explained that even if a child in my class had a problem, I would still be committed to teaching the whole class and that I wouldn't have the time to spend with the one child who really needed help. So she guided me towards early childhood.
(28/3/94, 118)

In many respects, Marcelle resembled Kathleen, profiled in the previous chapter. Both regarded themselves as vulnerable; both envisaged that early childhood teaching would offer them the sheltered environment which they perceived they required; and both were to find an unexpected inner strength and sense of efficacy. In part, this came from their developing awareness of the contribution they could make as teachers, and their consequent growing commitment to teaching. For Marcelle, it also came from increasing recognition of the value of reflection. It could be argued that such a change is much more likely when the environment is perceived as supportive.

Marcelle was insecure and highly anxious when she entered the program. Initially, she worried about her practicums, explaining: "I thought that I was

going to make a lot of mistakes and get into trouble for them" (12/5/94, 99). She also worried about her academic ability, recalling: "I thought that I'd failed the assignment for Unit X, for sure. So when I got it back I didn't open it for ages. I didn't want to open it on the train and cry in front of everybody" (20/5/94, 114). She first began to realise that she was stronger and more able than she had thought, when to her surprise, she passed all her first year units. She commented:

I think it was because I was helping my friends so much. They were finding it really hard and I was trying to find ways to make it easier for them to understand. That made me understand things better, too.
(28/3/94, 213)

Her developing confidence appeared to both enable and motivate her to reflect. The following excerpts illustrate this reflexive relationship between her confidence and her reflection.

The extract below, from a group interview with Marcelle and Josephine (previous chapter) midway through their second year in the program, illustrates how Marcelle's growing confidence enabled her to draw on her own experiences and to question some of the ideas presented in the program.

Josephine: *I've agreed with everything that's been said in lectures ... When I see the opposite happening from what I've been told, I tend to think, 'Well, if they'd done it the way we've been told, it would have been better'.*

Marcelle: *Well, I didn't agree with a lot of things in Unit X ... Just because a child mightn't show any interest in art activities doesn't necessarily mean that they aren't creative. I don't think that you should have to try to force children to join in, because there are so many other areas in which they can be creative ... I don't think it should get to the stage where activities are no longer fun. That happened to me at school. I was really into dancing, but it got to the stage where I felt that everyone was pushing me so hard that it just wasn't fun any more.*
(12/5/94, 425)

This extract shows that Josephine had not moved far from the epistemological perspective with which she entered the program, that is "with the attitude that I don't know anything" (12/5/94, 386) and the expectation that she would learn by "listening to what the lecturer says" (12/5/94, 387). In contrast, Marcelle was beginning to find "a lot of room to develop my ideas" (12/5/94, 361). Her growing sense of inner strength and her perception that the learning environment supported her move to become a more independent learner seemed to both assist and motivate her shift from a perspective of received knowledge towards a more empowered position of constructed knowing (Belenky et al., 1986).

"Before, I Knew That A Lot Of Things Were Important, But I Didn't Really Know What Was Important To Me"

By Marcelle's third practicum, she felt ready *"to try out some of my own ideas, rather than settling into how things already are"* (15/9/94, B7), again in striking contrast to Josephine. By her fourth practicum, she was surprised by *"how much everything is starting to come together"* (28/8/95, 105). Her ideas had developed to the extent that she now had *"a philosophy"* (28/8/95, 109) to guide her practice. As she pointed out: *"Before, I knew that a lot of things were important, but I didn't really know what was important to me"* (28/8/95, 116). She was determined *"to identify any inconsistencies between my philosophy and my teaching practices"* (28/8/95, 195), explaining:

I don't think that it's appropriate to have a philosophy and then to do something quite different in your teaching. If I'm not doing what I'm saying that I'd like to be doing, then that's something that I really need to work on ... I think it's really important to know what sort of a teacher you'd like to be and then do something about it. (28/8/95, 215)

The sense of inner strength conveyed in this comment contrasts markedly with her perceived vulnerability when she entered the program. Her realisation of this inner strength seemed to motivate her to become more reflective. Why, then, is she portrayed as a student teacher who showed some, rather than considerable, development in her reflection?

One reason is lack of data. Although Marcelle participated in the project for four semesters, she did not share her reflective writing or attend the relaxation sessions or the final scheduled interview. She seemed happy with the proposed arrangements which were made in close consultation with her but did not keep them, or the arrangements made subsequently, again in close collaboration with her. As cultural factors might have been a contributing factor, it seemed inappropriate to pursue further attempts to meet with her. The available data provide evidence of some development of reflection but are insufficient to support a claim of considerable development.

An additional reason for including Marcelle in the cluster of student teachers who showed some but not considerable change in reflection was that there seemed less evidence of reflection in her final practicum than in her two preceding practicums. The following extract from her final practicum, for example, hardly suggests a reflective approach.

Jennifer: *Has this prac. been a learning experience for you?*

Marcelle: *No, not really. The only thing that I'm trying to get out of this prac. is to realise that in a few weeks I could be teaching. So I'm trying to look at what Melanie [cooperating teacher] does, and I'm trying to take in as much from her as I can. (30/10/95, 305)*

Later, however, Marcelle elaborated:

Melanie and I talk a lot. She is really interested in what I'm doing ... She extends my thinking a bit more ... She's helped me to think about why I'm doing things ... It's really good to have someone to make you justify what you are doing. (30/10/95, 531)

It is difficult to tell from this excerpt whether Marcelle or Melanie initiated these conversations. Nor is it possible to predict whether Marcelle would have reflected without Melanie's support.

Indeed, the same uncertainty had arisen in relation to Marcelle's comments 18 months previously, during the group interview with Josephine. Marcelle began by alluding to the positive impact a supportive environment had on her reflection:

Marcelle: *I've found that just talking to someone about prac ... makes me think about the type of teacher that I'd really like to be, and being able to talk about it helps me to sort out my own mind.*

Josephine (to Jennifer): *Yes, your questions make me think about what I've probably already thought about, but it seems like I didn't know half of what I said until two seconds before I said it.*

Jennifer (to Josephine): *What do you mean?*

Josephine: *I don't know ... the ideas just seemed to run off the top of my head. I suppose (I hope!) they came from some knowledge that I had in my head - but verbalising them brought them out.*

Marcelle (to Josephine): *Yeah, I agree. There was a little boy at my prac. like that, but I hadn't really thought about the situation ... But talking about it makes me think about all the things that we are going to come across when we are teachers. (12/5/94, 282)*

This extract raises several issues, including the role of discussion in bringing to the surface understandings which otherwise might not have been recognised. In conjunction with Marcelle's comment in the previous paragraph, it also raises queries about the extent to which discussion with supportive others might be integral to her reflection. That is, would Marcelle have reflected if not encouraged to do so by critical friends (Hatton & Smith, 1995)?

While her newly found sense of inner strength appeared to motivate her to reflect perhaps, perhaps she lacked confidence in her ability to sustain reflection on her own. Alternatively, her cultural background might have

predisposed her to favour reflection through discussion with "elders" (Paterson & Hart-Wasekeesikaw, 1994), rather than as an individual undertaking. These issues would have been interesting to raise in a concluding interview, but unfortunately, as explained previously, there was no opportunity to do so.

In summary, the available data suggest that Marcelle's response to the program differed considerably from several of the student teachers introduced in the previous chapter. For them, enrolment in the program seemed an essentially disempowering experience which, in turn, hindered the development of their reflection. In contrast, Marcelle found the learning environment supportive and developed a sense of efficacy and inner strength which seemed to encourage and enable her to reflect. While her perception of a supportive environment seemed an important contributory factor, had she come to depend on that support, it might also be seen as a constraint to the further development of her reflection.

CONCLUDING COMMENTS

This chapter has presented profiles of the four student teachers whose reflection showed some consistent development during their enrolment in Guided Practice. Each of these students had a motivation to reflect. Felicity wanted to fulfil her childhood ambition to become a teacher; Kristy was determined to find ways to make teaching and learning fun; Genni needed to justify her decision to change careers; and Marcelle was motivated by her emerging sense of self-efficacy in a supportive environment which encouraged reflection. Their motivation to reflect overshadowed the potential hindrances to reflection investigated in the previous chapter. Yet, paradoxically, their motivation simultaneously seemed to constrain their reflection. For this reason, it was argued, these student teachers demonstrated some, but not considerable, consistent change in reflection.

The following chapter illustrates how, in the absence of constraints, the factors referred to in the current chapter can create a synergy which is likely to lead to considerable change in reflection.

CHAPTER SEVEN

PROFILES OF PARTICIPANTS WHOSE REFLECTION SHOWED CONSIDERABLE CHANGE

I am, I think, by nature a reflective person ... but ... I've learnt to reflect on my teaching and what teaching is all about and ... on theory and practice and how to integrate the two and ... to reflect on the things that don't feel quite comfortable in my teaching. And I've learnt different ways of reflecting and different ways of writing about it. So yes, I do think that I've learnt to reflect more. (Nina, 5/12/95, B53)

The previous two chapters highlighted the importance of several factors which appeared to influence whether the student teachers participating in the study became more reflective. Chapter Five concluded that student teachers are unlikely to become more reflective unless they are committed to teaching, value reflection as a means of professional and personal growth and / or move beyond an epistemological perspective of received knowing in a learning environment which they perceive as supportive. Chapter Six illustrated how these factors can act as motivating forces which contribute to but, in some circumstances, also limit the development of reflection. This chapter shows how, in the absence of restraints, synergy arising from these factors can contribute considerably to the development of reflection.

The profiles presented in this chapter follow a similar sequence to those of previous chapters. The focus first, is on the importance of commitment to teaching, including the effect of passionate creeds. The roles of an epistemological perspective of constructed knowing, commitment to reflection, and a supportive environment are then considered, although the synergy created by these factors makes these distinctions somewhat artificial.

COMMITMENT TO TEACHING: KASEY

Like many of the participants in the study, Kasey was from a socially and economically advantaged Anglo-Australian background. The year before entering the program, as a school leaver, she had enrolled in an arts degree intending to major in psychology. A traumatic experience as an adolescent, from which she had not fully recovered, had led to an interest in becoming a child psychologist. It had also resulted in a difficulty in trusting people. "It takes me a long time to establish trust and to be open and honest about myself" (March, 1993), she explained. She hoped that participating in the project

would provide an *"opportunity to face these issues and overcome them"* (March, 1993).

"I Can't See Myself As A Teacher At All!"

For Kasey, teaching had *"always been a fall-back position - never a first choice"* (29/3/93, 133) only to be considered *"if I didn't have a high enough TER for psychology"* (29/3/93, 132). After realising in her first year of her arts degree that she *"couldn't focus on children until postgraduate level"* (25/10/96, B139) she decided to enrol in the early childhood program so that she could later return to her psychology studies *"with more experience and more knowledge"* (25/10/96, B141). She did so with considerable trepidation, commenting:

I can't see myself as a teacher at all! (29/3/93, 39). Ms Mitchell ???!!! [pseudonym] Yuk!! It sounds awful. I just hate it. It's a real barrier (29/3/93, 295). I hate white chalk! I hate the idea of a blackboard with the teacher up the front standing above all the kids. (29/3/93, 37)

After the wide choice of options in her arts degree, she found the early childhood program *"so narrow and so structured - like a pyramid with a teacher, Ms Mitchell, at the top"* (29/3/93, 319). She disliked the thought that, as a teacher, she would perpetuate the *"production line"* (29/3/93, 380). On an institutional level, she resented the perceived narrowness and restrictions of teaching. On a personal level, she worried about what *"I guess is every student teacher's nightmare ... that I will not be able to control the kids"* (1/4/93). These themes of openness, freedom, restriction and control were to characterise her search for meaning as a teacher.

To her relief, during her early field visits she *"was not put in a corner and told to observe"* (1/6/93, 362) but was *"able to jump in and work with the kids ...[and] test my insecurities and try out my ideas"* (1/6/93,363). As a result, she *"found myself really questioning ..."* (1/6/93, 247); *"pondering what it would be like if ..."* (1/6/93, 323); and *"being torn between what I knew was right and ..."* (1/6/93, 195). These initial responses suggest that, in contrast to Erica (Chapter Five), Kasey's concerns about teaching were likely to prompt considerable reflection as she progressed through the program.

Kasey's concerns about lack of freedom as a teacher heightened during her first practicum. While she admired the way that her cooperating teacher *"gave the children so much scope to explore ... There was no mass production"* (25/10/93, 344), she was disappointed to find restrictions on her own freedom. Her cooperating teacher's ideas about effective teaching were non-negotiable.

She told Kasey: "These are the elements of a good teacher. You must do these things if you're going to be a good teacher" (27/3/95, 300). In addition, Kasey continued: "She more-or-less told me what my goals should be. I found that very stifling" (25/10/93, 27). To some extent, she was able to overcome these limitations by ensuring that "by the end of the first week [of the practicum] I had achieved most of her goals, so then I could set my own goals for the second week" (25/10/93, 28). Her determination to take responsibility for her development as a teacher contrasted with the lack of responsibility demonstrated by several of the student teachers profiled in Chapter Five.

Tragically, during her first practicum a staff member (and mother of an 18 month old child) died suddenly. Attempting to come to terms with the tragedy, Kasey focused on what she referred to as:

the amazing opportunity that this will present to James' future preschool teacher. No-one will ever replace Kerry, but I know she'll be watching over him, grateful for the love, support and encouragement he will receive from some-one like me.
(October, 1993)

Her realisation of the contribution she could make as a teacher and her success in achieving her goals for the practicum gave her "the confidence and motivation to begin my second year [of the program] with the knowledge that I have chosen the right career" (October, 1993). In this respect, the practicum represented a watershed in her commitment to teaching.

Unfortunately, illness ended her second practicum prematurely and abruptly. On her last afternoon at the school she had taken her "first ever whole group activity" (9/3/95, 136). It was not a success. Kasey described how:

We were sitting in front of the computer. Five minutes into the lesson, a man came in to fix the computer. The headmistress came in too, and the children were terrified of her. She decided to watch my lesson, but that wasn't the problem. Two boys had been playing up. I had it all worked out about how I would manage them. But then the headmistress jumped in and yelled at them. It 'threw' the whole thing. Then we all had to get up and move so that the man could get to the computer. And at that stage it all just fell apart. Then my cooperating teacher said 'Look, this isn't fair to you. Let's stop'.
(9/3/95, 164)

For months after this incident, Kasey "had nightmares about being out of control" (9/3/95, 242) prompting her to return to the experience time and again, "repeatedly going over the situation in my mind, going over and over and over it again. Thinking about what I could have done; what I should have done; what I'd do next time" (9/3/95, 267). She identified several reasons "which contributed to the

lesson falling apart" (9/3/95, 236) and although she had reason to do so, unlike Marina (Chapter Five), did not blame external factors. She described how:

As soon as I got flustered, I started to forget names. I was thinking and thinking and thinking - and then I slowed down. The lesson wasn't moving quickly enough which I think was partly because I had been thrown off balance. And nerves, too, because it was my first whole class lesson ... I was really beginning to lose it. I was stalling and skipping and, for the first time ever, I had to go back to my notes because I'd lost all track of where I was going. I'd been so focused and suddenly I had a big blank. When I looked back at my plan, the children noticed straight away. I could see that they were getting bored and frustrated.

(9/3/95, 239)

Kasey's graphic account of this incident (ten months after it had occurred) highlighted its emotional impact and the impetus it provided for reflection. Her response exemplifies Boud et al.'s (1985) notion of reflection as making sense of experience by returning to the experience, attending to emotions and re-evaluating the experience. It also highlights the power of emotions by illustrating how seemingly insignificant experiences can resonate beyond their original context to have far reaching effects (Conle, 1996).

Interestingly, after participating in relaxation and visualisation sessions, Kasey's perception of the above incident changed. Previously, she had represented diagrammatically her inability to balance her priorities of "*ideas, names, plan, interest, enjoyment, action, aesthetics, children's comfort*" (16/3/95, 194) with the "*elements in the environment that were happening around me*" (16/3/95, 199) including "*pressure, disruption, relocation*" (16/3/95, 195) which were essentially beyond her control (see Appendix 15a). She spoke of the panic she had experienced when she had tried to "*link the two [ideals and environmental factors] together but couldn't*" (16/3/95, 196) and how she had felt "*trapped, closed in ...*" (16/3/95, 200). The night following the first relaxation and visualisation session, Kasey had an "*even more frightening*" (16/3/95, 155) nightmare about the incident. It proved to be her last, though. As she described: "*It was as if I'd cleared it out of my system*" (16/3/95, 190).

Henceforth, Kasey was determined to maintain the sense of calm, space, flexibility and flow that she had experienced during the relaxation session. Her "*new look*" (16/3/95, 166) or revised perspective (see Appendix 15b) focused on her perception that the above factors would provide "*escape routes*" (16/3/95, 172) so that she would never again be "*boxed in*" (16/3/95, 287). Her account again highlights the importance of the motifs of openness,

freedom, restrictions and control to her search for meaning as a teacher. It also suggests that participation in the relaxation and visualisation sessions provided "an emotional calmness" (16/3/95, 230), a more balanced perspective, some sense of resolution and a direction for future action.

This change in perspective and seeming detachment from her earlier concerns enabled her to focus on the potential freedom instead of the perceived constraints of teaching. She commented:

I had thought that by the time they [children] got to second grade, they'd be so institutionalised ... that I really wouldn't have much scope. I thought that my program would be so dictated by the curriculum ... that I wouldn't have been able to have an impact ... Whereas I've found ... a lot of freedom to go beyond those bounds. (14/9/95, 211)

Her previous fears subsided. In her words:

I guess the 'Ms Mitchell thing' doesn't worry me ... now. 'Ms Mitchell' was part of that institutionalised notion of 'I am the teacher. You are the children. Sit on the floor and listen to me'. But, in reality, it hasn't turned out like that. I actually see myself as a member of the class, along with the children ... not the authority figure that I had expected. (14/9/95, 245)

In this atmosphere of openness and unexpected freedom, Kasey was able to develop a trusting and respectful relationship with children which far surpassed her earlier expectations and assisted in her healing process. She explained:

I felt that I could talk to the children as equals. When I say 'equals', I mean that we had very different roles ... That was understood. There were certain respectful interactions that went both ways in accordance with that. But at the same time ... I could be a person, not just a teacher. That's taken me a long time to realise, and a long time to relax into ... I would never have thought that I could know children so well and that they could know me so well ... So that seemed very profound. (13/10/95, 201-240)

Her realisation that she could be "in control" without being controlling helped to resolve one of her key concerns about teaching.

"I've Realised That It's A Case Of Taking The Aspects That I Believe In"

No longer feeling "that I had to transform into this 'teacher person' "(2/12/96, 541), Kasey instead "realised that it's a case of taking the aspects that I believe in ... and integrating these aspects into my life rather than transforming myself into a teacher (2/12/96, 543). She became increasingly aware that as a reflective teacher, she would have many opportunities for personal and professional growth. This awareness reaffirmed her commitment to teaching. She explained: "I've

come a long way in terms of respecting the role of teacher ... I've realised that I can have much more of an impact and achieve so much more ... than what I ever thought I could (2/12/96, 470). It also suggests a reflexive relationship between her commitment to teaching and her reflection.

In contrast to her previous *"focus on problems"* (16/3/95, 166), her growing commitment to teaching encouraged her to explore ways to *"integrate my beliefs and my practices"* (13/10/95, 271) and to *"seek changes"* (16/3/95, 165). Early in her third practicum, for example, she referred to her inner conflict about adopting her cooperating teacher's reward system. She explained: *"Debbie uses a very well established reward system (bribery??) of stickers and stamps ... I feel quite insincere [using it] ... but as the children expect these rewards and work towards them, I can't deny them"* (September, 1995). Yet her sense of responsibility appeared to prevent her from accepting the status quo and caused her to search for alternatives. By midway through the practicum she had *"found a happy medium - the children accept that I don't hand out as many stickers as Debbie but understand that the praise I give them is genuine and deserved"* (September, 1995). By the end of the practicum, Kasey had stopped using rewards, having concluded that they were demeaning to children because they encouraged them to *"perform to get the reward"* (13/10/95, 57) and distorted *"natural interactions"* (13/10/95, 68) between teacher and children. This sequence illustrates how Kasey's commitment to teaching prompted reflection about issues of power and control and resulted in changes to her practice. Unlike Felicity (previous chapter), she was not diverted from her consideration of broader issues, including those of a moral and ethical nature, by the more immediate attraction of practical solutions.

To sum up, Kasey's profile illustrates how her initial concerns about teaching generated considerable reflection even in the early stages of the program. As she began to realise that some of her concerns might be unfounded, she became increasingly committed to teaching. In Dewey's terms, her growing wholeheartedness and sense of responsibility then prompted further reflection about how she might change the status quo. Her turmoil seemed to provide a richer base for reflection than Felicity's more sanguine outlook. Despite their commitment to teaching, neither developed an identifiable passionate creed. In this respect, they differed from Jessica and Sarah, profiled below.

PASSIONATE CREED: JESSICA AND SARAH

In some respects, Jessica and Sarah had much in common. Both underwent considerable changes in the early stages of the program; both developed similar passionate creeds about teaching; and both demonstrated considerable development in their reflection. As their profiles show, however, their preferred approach to reflection differed considerably.

Jessica And Sarah: An Overview

Sarah and Jessica came from similar Anglo-Australian backgrounds to Kasey. Sarah entered the program as a school-leaver while Jessica had spent a year in Europe as an exchange student between completing high school and enrolling at University. Jessica had planned to become a primary teacher but *"at the last minute, added early childhood teaching as my last option on my University preference form"* (20/11/95, 349). In contrast, Sarah had wanted to become an early childhood teacher since she was a young child. She was distraught when her TER was too low to gain normal entry to the program but was accepted eventually under special entry provisions.

"It's Really Very Puzzling"

Sarah was tremendously excited about becoming a teacher. On her first day at University she wrote: *"I am about to begin a really exciting part of my life. I have wanted to teach young children for as long as I can remember, and finally, it is a dream come true!"* (March, 1993). She had a clear image of herself as teacher and described how she *"used to dream of being a teacher ... and giving out colouring stencils, going home and marking books, and putting stickers in them"* (27/10/93, B4). Basically, she looked forward to providing children with the same types of activities that she had enjoyed as a child. She was surprised, therefore, to encounter views different from her own and disconcerted to find many of her ideas about teaching challenged. As she explained: *"It had never occurred to me that some traditional rhymes could be seen as racist. I'd never thought about that sort of thing!"* (24/3/93, 170). As a result, she became anxious, noting: *"I'm scared of saying some things now, because people are going to say 'That's really bad!'"* (25/5/93, 355). Her uncertainty is evident in the following extract:

I think that there is a place for things like that [colouring stencils, teacher directed activities, traditional rhymes] ... but lecturers sometimes say that those are really bad things to do. I'm starting to think 'Am I wrong?' I don't know. It's really very puzzling.

(24/9/93, B115)

Conflict and confusion characterised Sarah's first year in the program as she sought to reconcile her image of herself as teacher, her beliefs and the values and practices advocated by her lecturers with her desire to *"live up to everything I want to do and be a really good teacher"* (24/9/93, B115).

She was particularly puzzled about the appropriateness of themes as a basis for curriculum planning. Initially enthusiastic, she commented: *"Themes make it more exciting. The children have something new to look forward to if you have themes and they learn something major each week"* (25/5/93, B15). Consequently, she was delighted to find themes used by the staff in her first practicum placement. This practicum presented *"a great opportunity to think about things ... It was such a time of thinking ... I was constantly trying to work out where I stood"*(27/10/93, B114). In particular, she focused on clarifying her views about themes, especially after she became aware that *"there was a problem at the preschool in that the boys wanted to play outside all the time. They weren't interested in doing anything inside. I wondered whether it was because they were bored with following a theme"* (27/10/93, 72). Increasingly, Sarah began to question the value of themes. She explained:

Now I don't know whether I really like the idea of themes. Some kids don't 'fit' into the theme. They may not be interested in it, and if they aren't they miss out. If you base all your activities on a theme, then the children really haven't got a choice. (27/10/93, 84)

Typically, Sarah's reflection during her first year in the program involved reconsidering her previous assumptions. She was discomforted by the loss of her initial certainty and would have liked *"the security of knowing that I am doing the right thing"* (24/9/93, B114). Yet she found it *"very satisfying"* (27/10/93, B113) to be *"building my own value system"* (24/9/93, B110) through exposure to new ideas and experiences.

"I Don't Rely On What I'm Told"

Her epistemological shift from received to constructed knowing continued in her second year of the program when she increasingly welcomed opportunities to take responsibility for her learning. This shift was evident in her comment:

What I love the most about University is that it's not structured. There seems to be a big focus on learning for yourself. You are encouraged to work for yourself, not for other people ... Prac. was really good because we weren't told 'You must do this' and 'You must do that'. You don't have to do anything in any particular way. You can choose for yourself what you want to try. You can try what you think is best for you, and the children you're working with. (28/7/94, 89)

She continued:

I'm not as worried about whether people will think I'm a bad teacher if I use stencils or stickers or themes. I've gone beyond that. I don't rely on what I'm told. I'm learning for myself. Last year, I was so concerned about doing the right thing. Now, I think that if you can justify what you are doing, and as long as it's based on what you are learning, then it's okay... I've changed ... I think I've grown up! (28/7/94. 122)

Moreover, she deliberately looked for strategies to help her "make up my own mind about what I believe in and why" (September, 1994). These extracts suggest that Sarah's commitment to teaching and her perception of a supportive learning environment contributed to her epistemological shift from received to constructed knowing. Conversely, Jessica's epistemological perspective of constructed knowing seemed to contribute to her growing commitment to teaching.

Jessica "enjoyed kids and wanted to work with them" (20/11/95, 355) in some capacity. She decided on teaching because of the opportunities it enabled for travel. After graduating she planned to take an extended overseas working holiday because she considered it "really important to get away from the usual things that you've grown up with and take for granted and to see different ways of doing things" (21/10/94, 474). Her eagerness to experience new perspectives, apparent from the initial stages of the program, contrasted with Erica's (Chapter Five) reluctance to venture beyond a familiar environment.

Nevertheless, Jessica was so disconcerted to find herself unexpectedly enrolled in the early childhood program that "it took me a while to get my feet on the ground" (20/11/95, 348). Her first semester was a blur. She recalled "just watching what was going on, without really taking anything in..." (20/11/95, 383). In retrospect, she considered that she had been "too laid back" (21/11/95, 348), unaware of the complexity of teaching or the responsibility involved.

Her first practicum, which she found "exciting and fun" (10/11/93, 154), seemed a turning point. She enjoyed especially the challenges she encountered for she equated challenge with growth. As she put it: "When you are met by challenges, your perceptions are challenged, too" (20/11/95, 139). "If you don't challenge yourself, then you are not learning" (20/11/95, 322). Challenges made her "more aware of things that I would have taken on face value before" (10/11/93, 66) encouraging her to consider critically the ideas to which she was being introduced. She explained:

It's like, well, 'This is what I've been told at University - now it's a matter of assessing how I think'. It's not like these are the ten commandments. You've got to assess the situation, and take account of people's values. (10/11/93, 235)

They also made her aware of "how much more there still is to learn" (16/9/94, 350) which, in her opinion, "keeps you excited about what you are doing (20/11/95, 322). Her growing awareness of the complexity of teaching sparked an enthusiasm for teaching which had not been particularly evident when she entered the program. At the end of her first year, Jessica commented: "I know now that I want to teach" (10/11/93, 7).

"If You Don't Know Where You're Going, You Just Follow Along"

Both student teachers, now predominantly constructed knowers and highly committed to teaching emphasised the importance of developing their philosophy of teaching. As Jessica pointed out: "If you don't have your own beliefs or philosophy to follow you tend to just follow the teacher ... If you don't know where you're going, you just follow along" (Jessica, 17/5/94, 421). Similarly, Sarah found her philosophy "particularly useful in helping me justify why I believe in certain things and why I teach the way I do" (July, 1994). She likened her philosophy "to having a second conscience - it helps you to act appropriately. Sometimes I hear or see myself doing something that I don't believe in and my philosophy helps me to stop and think" (July, 1994). Both found their philosophy a source of considerable empowerment. For example, when Jessica's cooperating teacher for her second practicum "made some suggestions about what lessons I might teach" (17/5/94, 423), Jessica explained:

At first I thought 'Oh, yes, I can do that'. But then, I realised that I didn't want to do it. I was able to say that I would really prefer not to do that. I would rather do it this way because ... (17/5/94, 423)

Likewise, when Sarah was asked to use extrinsic rewards in her second practicum she explained her reluctance to do so in terms of her philosophy. She said:

I was asked to hand out stickers and stamps. I told the teacher that I didn't feel comfortable about that. Later she asked me why and I was able to explain ... I based a lot of what I said on what I believe about individuals. I could back up how I felt with my philosophy. (28/7/94, 175)

The sense of empowerment and responsibility evident in these comments was missing in the student teachers whose reflection showed little change. While responsibility has been widely recognised as instrumental to reflection, the review of literature about reflection in Chapters One and Two suggests that relatively little attention seems to have been given to a sense of student teacher self-efficacy as a determinant of reflection.

As increasingly empowered learners, both Sarah and Jessica became determined to assist others to become similarly empowered. Their determination developed into a passionate creed which permeated their reflective writing and interview responses. Sarah, for example, wrote:

I believe that it is important for all learners to assume some degree of responsibility for their learning because the drive and motivation to learn comes from within ... I believe that if children make their own decisions and become responsible for their own actions, they develop feelings of achievement, competence and trust in themselves as independent problem-solvers. (April, 1994)

She puzzled over her unease after field visits to a school which prided itself on the opportunities it supposedly allowed children to take responsibility for their learning. Troubled by an apparent inconsistency between the espoused philosophy and practices of the school, she commented:

They said that they focus on the children as individuals, but what I noticed was that it was so structured. The teacher said that there is individual choice, but I don't think that there really was. I think that the children's choices were predetermined by how she set up the classroom. What she means by individual work is that the children have their own books, and they open up at a particular page and go on from there. (24/9/93, 90)

Months later, while engaged in reflective writing, she experienced a flash of further insight into reasons for her disquiet. She commented: "I have no idea what suddenly made me work this out, but I've finally realised what didn't seem to 'click' for me about that method of teaching" (March, 1994). She elaborated:

My understanding of an 'open' approach doesn't match what I saw. I associate an 'open' approach with activity centres and interactive group learning, rather than children working individually on completely unrelated things, mainly straight from textbooks and worksheets. These are designed for the average child, so that schools can purchase them in bulk. They are usually quite simplistic, and give the message that learning is about sitting at a desk, working quietly and finishing the book. Maybe this is a bit hard, but there doesn't seem to be any sense of meaning involved. (March, 1994)

Like Kel (Chapter Five), her apparently sudden understanding seemed to occur after a considerable period of incubation (Holman, 1994). These extracts exemplify the content of much of Sarah's, and also Jessica's, reflection. Although essentially practical, in their passionate creed there is, nevertheless, an implicit but not fully articulated challenging of the status quo, typically associated with critical reflection. Particularly in the later stages of the program, neither student teacher engaged in a great deal of technical

reflection, possibly because neither experienced great difficulty mastering the technicalities of teaching.

Unlike the potentially limiting impact of Kristy's passionate creed (Chapter Six), Sarah's and Jessica's determination to assist children to become more independent and empowered learners seemed to provide a springboard for reflection on broader issues. This was evident from the following extract in which Jessica refers to an untrained staff member recently appointed to her first position in the child care centre in which Jessica was undertaking one of her final two practicums. She explained:

She's just starting out, and she's developing her ideas. But she hasn't learnt to reflect on what might be appropriate and what might not be. So I've tried to talk with her, just in general conversations, about how not everything that everyone does is always the best way to approach a situation. Because I can see that she looks to those who are trained and those who have experience, and she seems to assume that they will know the right way to do things. (14/9/95, B82)

This extract illustrates how Jessica's interest in learner empowerment extended beyond children to adults. It later extended to an interest in constraints on adult learning, including her own. Although excited by the opportunity to undertake practicum in an alternative school, she noted: *"I hope that my ideas haven't been too inhibited by my past experiences of timetables and structure. I hope that my past experiences won't control my thinking"* (October, 1995). Sarah demonstrated a similar tentativeness when she remarked: *"The emphasis that I place on different points isn't necessarily stable. Sometimes I hear something and I realise that 'I'm not quite as definite as what I had thought in terms of supporting one view over another"* (31/3/95, 25). Their comments suggest that despite their passionate creed, they retained a sense of flexibility or openmindedness not readily apparent with Kristy.

"It's A Matter Of Balancing Your Ideas"

Interestingly, their accounts of their experience of reflection also suggested flexibility and a state of flux rather than a fixed position. Jessica referred frequently to balance. She spoke of balancing possibilities: *"It's a matter of balancing your ideas by looking at them from different perspectives"* (21/10/94, 216) and different perspectives: *"... getting a lot of different perspectives and trying to balance up those perspectives"* (14/9/95, B67). Balance seemed integral to her reflection, even when focusing on technical skills. She explained: *"You become much more able to handle the situation once you learn to balance everything that is going on around you"* (8/3/94, 216). She also referred a great deal to rhythm.

Finding a balance made it easier to *"get into a rhythm"* (8/3/94, 215) which involved *"getting my ideas together ... [and] finding the direction I'm moving in"*(17/5/94, 35). To Jessica, *"rhythm is something I can keep working from"*(17/5/94, 36). She could not always sustain rhythm, especially when thrown "off balance". In many respects, her emphasis on balance and rhythm seemed reminiscent of Csikszentmihalyi's (1990) flow of optimal experience or the harmony experienced when "thoughts, intentions, feelings, and all the senses are focused on the same goal" (p.41) For Jessica, rhythm, balance and flow seemed to emerge from both "a conscious attempt to master challenges" (Csikszentmihalyi, p.150) and receptivity to their complexity.

Jessica found herself "off balance" and in disharmony in her second practicum in which she worked with *"children from a variety of cultural backgrounds, each with a different level of English"* (April, 1994). She *"assumed that all children understood what I was saying"* (April, 1994), when, in fact, *"they were struggling to make sense"* (April, 1994). In her third practicum she reported *"losing concentration on my teaching because I'm struggling to keep the group settled"* (16/4/94, 69). In her final practicum, she again lost her sense of both balance and rhythm when her vision of herself as co-learner within a cooperative learning environment was threatened.

The nature of her attempts to regain her balance changed during her enrolment in Guided Practice. In her earlier practicums, she spoke of *"tactics"* (April, 1994). When working with children from culturally diverse backgrounds with differing levels of English she decided to *"slow down when speaking with children"* (April, 1994) and to *"use actions that are associated with what I am saying"* (April, 1994). Her responses were technical in that they focused on specific strategies with little apparent awareness of a broader context.

By her third practicum, her reflection was predominantly practical. When reflecting on her difficulty in managing group behaviour, she began with the premise that *"if they are restless while I am reading a story, then there must be some reasons for that"* (16/9/94, 146). She then considered a range of possible reasons, including the impact of the environment, developmental differences amongst children in the group, her choice of stories, her lack of skill in regaining the wandering attention of an individual child without disturbing the concentration of the group, and her ambivalence about whether children who

were not interested in listening to a story should be expected to remain with the group.

In her final practicum, when children expressed reluctance to participate in some of the activities she had planned, she debated with herself whether or not to insist as indicated in the following example of dialogical reflection (Hatton & Smith, 1995). She commented:

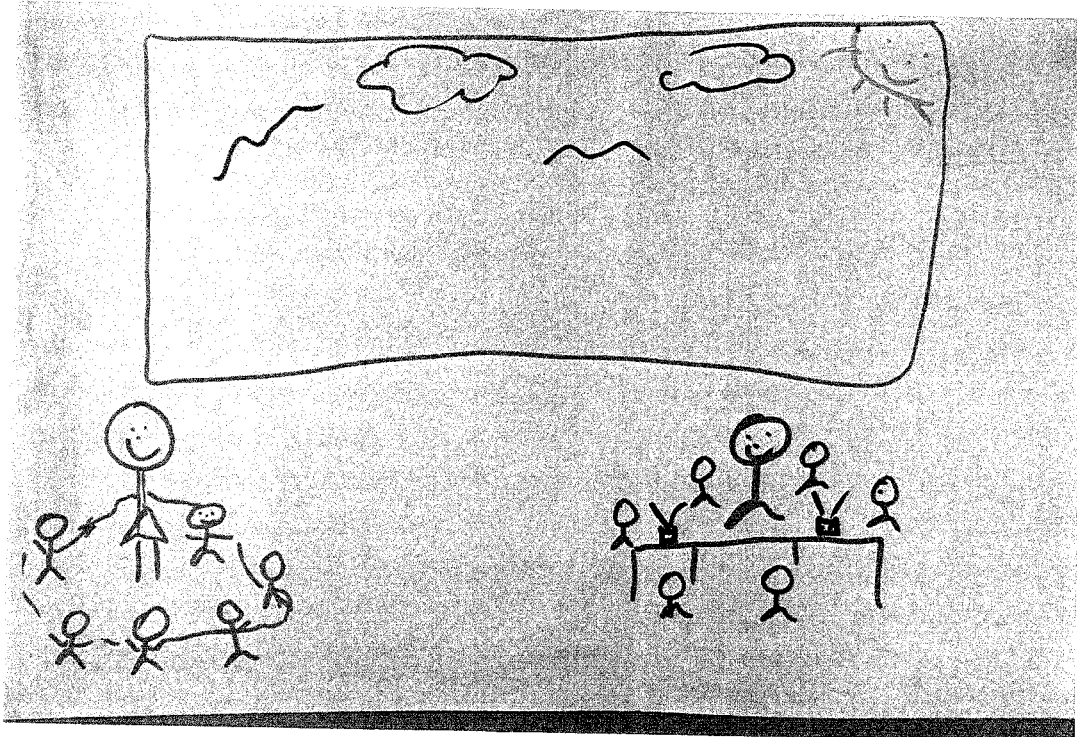
I wasn't very happy with the activity. Their response wasn't totally positive. Some of them enjoyed it, but I wondered whether I was pushing them too much. After all, if they don't enjoy it, what are they going to learn from it? But then again, sometimes I think that it is important to push them. But how far do you push? It's a fine line, especially when you see them repeating the same mistakes. (24/10/95, 294)

It was important to her to facilitate rather than control children's learning while remaining accountable for it. When she found it difficult to balance these roles, her perception of herself as teacher was challenged. In turn, she began to challenge conventions which she had always taken for granted, asking for example: "Why do teachers rely so heavily on timetables? Why do they break the day into different curriculum areas?" (October, 1995). This questioning of the educational status quo might have been a precursor to questioning the broader socio-political-cultural context in which these educational decisions were made. This tendency was also evident in the final interview with Jessica which took place only two weeks later. Given that this apparent trend towards critical reflection occurred at the end of the data collection period, however, it was difficult to predict whether it was likely to continue.

"I Find That Pictures Come To Me More Easily Than Words"

In contrast to Jessica's emphasis on balance and rhythm, Sarah's reflection was guided by images. She explained: "Most of the time, actually, I piece things together pictorially. I find that pictures come to me more easily than words" (31/3/95, 8). Indeed, it seemed that images assisted her to articulate tacit understanding (Weber & Mitchell, 1996). In her first interview, for example, when asked to represent herself as a teacher, she drew herself in a preschool classroom in which featured a large blank wall (see Photograph 3). She explained that the purpose of this wall was "for the children to have free expression - they can paint and draw whatever they like on that wall" (24/3/93, 78). She linked this image to her early memories of one of her own teachers who had expected children "to listen to what we were told and react in a particular way" (24/3/93, 64).

PHOTOGRAPH 3: Sarah's Initial Representation Of Herself As Teacher



At this stage, her ideas were relatively undeveloped, as the following excerpt indicates:

Jennifer: *Could this drawing also be of a kindergarten (first year of school) classroom?*

Sarah: *I suppose so, but it wouldn't have the wall, though.*

Jennifer: *Why not?*

Sarah: *I don't know really ... (long pause) ... I suppose ... well, you just don't have that facility at a school. You just can't paint the back wall.*

Jennifer: *But you can't in a preschool either.*

Sarah: *Mmmm ... I suppose I'm getting myself stuck on structured classroom activities and thinking 'Well, they just wouldn't be able to do that sort of thing in a school'.*
(24/3/93, 103)

Nevertheless, this extract indicates the power of image, in this case in conjunction with conversation with a critical friend (Hatton & Smith, 1995), in illuminating, clarifying and extending current understandings.

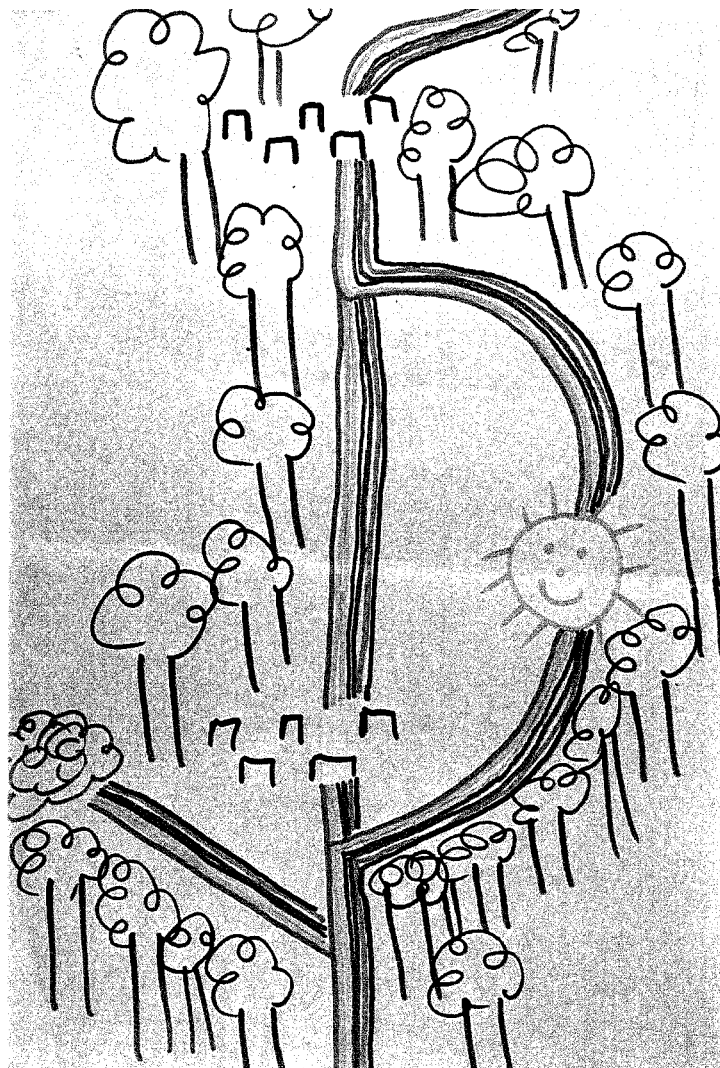
During Sarah's second year in the program, what was to prove an enduring image of a rainbow emerged. She explained that, sometimes, the rainbow appeared as a path: *The rainbow is my path as an early childhood teacher ... It's a very happy and positive path ... It doesn't come to an end ... it's never complete* (28/7/94, 48). *My path is always changing* (31/3/95, 71). *It's my path to professionalism* (31/3/95, 70). In another instance, the rainbow appeared above

the image of a forest through which there were many paths. Several tracks led off the main path which was barricaded in places. Some of these tracks rejoined the main path further into the forest while others came to an abrupt end. Sarah explained that the paths represented her practicum experiences:

Prac is like walking in a forest. You don't know what's ahead. There are paths but you don't know where they lead. It's up to you to decide which paths to take. The paths are decisions. There are many decisions on prac and you have to make up your own mind. (28/7/94, B16)

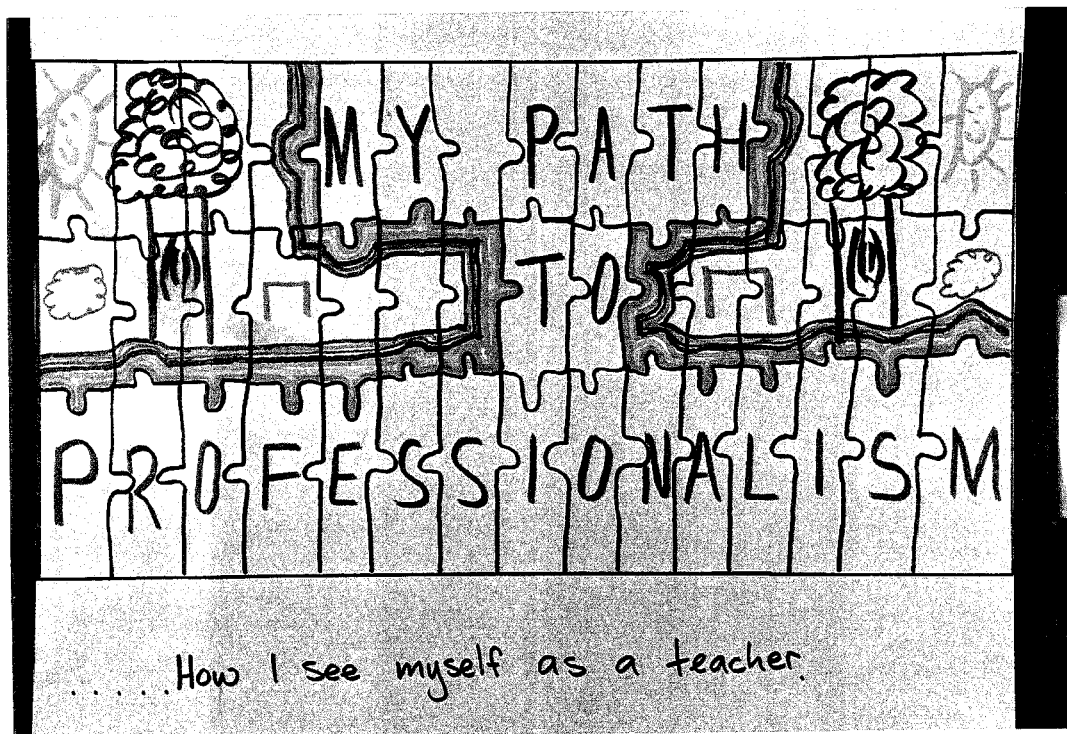
As well as decisions to make, there were difficulties or hurdles to be overcome. Sarah elaborated: *"I try to see hurdles before I come to them ... I know they are there, and I think about them ... Hurdles are something you are continually working out"* (28/7/94, 274). In contrast, the side tracks representing unforeseen possibilities were unexpected. Those which came to an abrupt end required backtracking. As Sarah explained: *"When something goes wrong you've got to go back. You've got to retrace your steps ... analyse it ... to see where you went wrong. That gets you back on track"* (28/7/94,12). This image, shown in Photograph 4, appeared to represent an analytical approach to reflection.

PHOTOGRAPH 4: Sarah's Rainbow Image - An Analytical Perspective

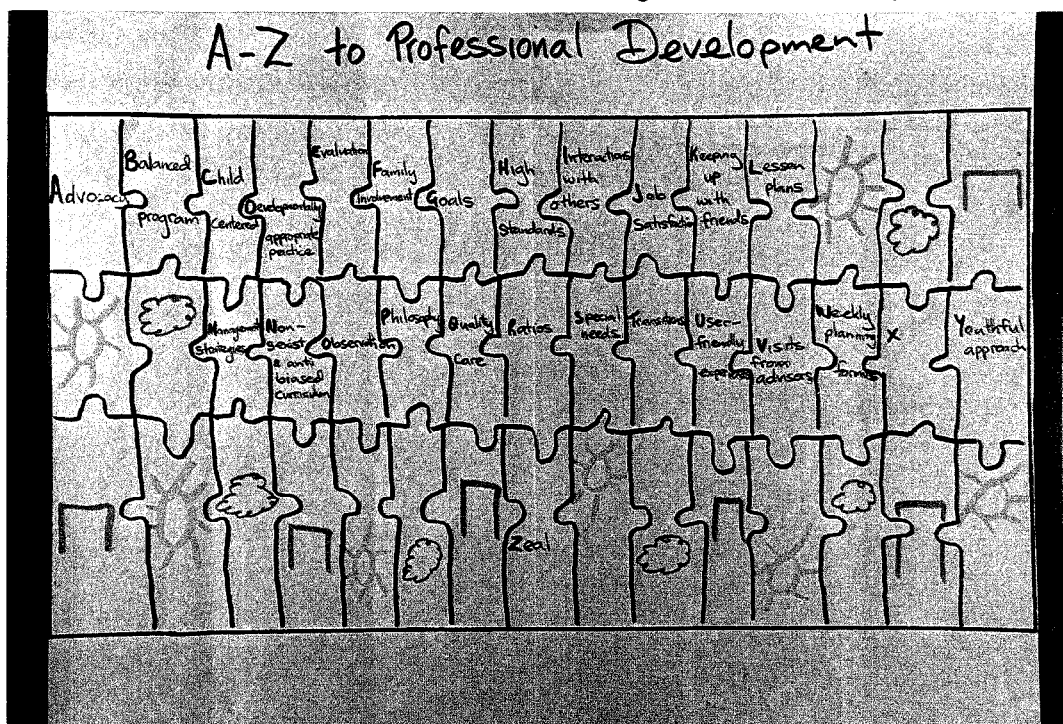


Interestingly, after the relaxation and visualisation sessions, a more holistic image came to Sarah "just like that" [clicking her fingers to give an effect of instantaneity] (31/3/95, 6). This time, the rainbow appeared as a puzzle with the pieces representing key aspects of teaching (see Photographs 5a and 5b).

PHOTOGRAPH 5a: Sarah's Rainbow Image - A Holistic Perspective



PHOTOGRAPH 5b: Sarah's Rainbow Image - A Holistic Perspective



In relation to Photographs 5a and 5b, Sarah explained: *"They are all separate issues, but when you put them together, like in a puzzle, they all relate ... I like to see things linking, so I'm trying to work on that"* (31/3/95, 96). At times, she commented, *"drawing things together is very difficult"* (31/3/95, 97). She attributed this to a perception of inherent fluidity: *"I think that I'll always see myself in a different light in a new situation"* (31/3/95, 34). As well, she referred to difficulties arising from an overemphasis on words: *"To me, if you separate the pieces of the puzzle, then they become just isolated words ... They are not meaningless, but they are not the whole picture ... It's only when they are together that it all works"* (31/3/95, 22). Given the timing of the appearance of this image, it seems possible that relaxation prompted a more holistic approach to reflection.

Although both student teachers emphasised that they had *"always been reflective"* (Jessica, 20/11/95, 435; Sarah, 15/11/95, 230), they considered that they had become considerably more reflective during their enrolment in Guided Practice. Jessica's reflection took *"on a new perspective and a new dimension"* (20/11/95, 435), outlined previously, while Sarah *"began to systematically document my reflection"* (15/11/95, 231). Initially, she engaged in reflective writing because *"if I don't, I'm not going to pass the course"* (15/11/95, 383) but later because it had become *"so important to me"* (15/11/95, 382).

Increasingly, Sarah found journal writing a valuable release from the pressures of practicum. She commented: *"You get to explain to a piece of paper how you feel"* (31/3/95, 394). She also appreciated being able to write *"whatever comes into my head ... without the pressure of thinking about the 'right words' "* (15/11/95, 345). As she explained: *"Since I've started writing, I've been able to grow from my reflections"* (15/11/95, 231) as writing *"keeps you in touch with what you believe"* (27/10/95, 323). Consequently, *"often you can answer your own questions"* (31/3/95, 216). Frequently, too, writing led to a kind of intuitive understanding. In her words: *"All of a sudden ... it makes it more concrete"* (31/3/95, 217). She tried to explain this sensation: *"Sometimes, I just suddenly get a wave. It's like a light coming on, and I realise 'Oh, that's why I've reacted like that!' "* (28/7/94, B60). In addition, through writing, she could *"learn more about the teacher that I am about to become"* (July, 1995). Her comments suggest that she saw writing more as a means of illuminating previously tacit understanding (Elbow, 1994) rather than a medium for analytical argument. They also

highlight the limitations of technical measures of reflective writing (e.g., Pultorack, 1996) in identifying non-analytical components.

Jessica, on the other hand, described herself as *"not a great writer - I can talk about my thoughts, but I'm not a great one for writing them down"* (24/10/95, 479). For her, reflection mainly involved talking. She explained: *"It's so much easier when you can talk about it"* (17/5/94, 306). Talking exposed her to new ideas as *"so many things come up in discussion that I'd never thought of before"* (20/11/95) and revealed different perspectives, enabling her to *"understand people more because you can see where they are coming from - people come from different backgrounds and have different beliefs"* (14/9/95, 380). In turn, this helped Jessica *"to understand where I'm coming from"* (21/10/94, 246) and *"to develop my own ideas"* (21/10/94, 247). As well, talking helped her to *"value other people's opinions"* (21/10/94, 248) which she considered fundamental to creating a community of empowered learners, a key element of her passionate creed. She elaborated:

I think that it's really important to be able to understand other people's points of view. You have to be able to take in other points of view to be able to work well as a team. Because not everyone thinks the same as you do. I feel very strongly about that. (20/11/95, 418)

Finally, talking with others enabled her to *"bounce ideas off each other"* (24/10/95, 586) thus creating new connections and possibilities. These excerpts indicate Jessica's preference for reflection as a communal rather than individual undertaking. They also highlight the need for a range of strategies for reflection in order to cater for individual preferences and styles.

Although Sarah and Jessica preferred different strategies and used different imagery, their reflection had much in common. Both developed passionate creeds, which provided a focus for their reflection, but did not constrain it, and both implied that reflection involved a process of dynamic interconnections. Their commitment to teaching and their epistemological perspective of constructed knowing seemed instrumental to their reflection. In the following profile, the role of epistemological perspective is explored in more depth.

EPISTEMOLOGICAL SHIFT TO CONSTRUCTED KNOWING: PIA

From an Italo-Australian background, Pia spoke fluent Italian but regarded English as her first language. She was the first of her family to attend University and throughout her enrolment played a major role in supporting a parent through a serious illness. She also worked part time in child care

centres to ease family financial pressures. As a school leaver she had failed to gain the required TER for entry into the program but was accepted into an early childhood program at another University. After obtaining satisfactory results in her first year she was able to transfer but was required to undertake the entire Guided Practice sequence.

For as long as Pia could remember, her *"heart had been set on becoming a teacher"* (22/9/94, 30) and her failure to gain entry initially made her *"realise even more how much I wanted to teach"* (22/9/94, 33). Like Felicity (previous chapter), she entered the program wholehearted (Dewey, 1933) about teaching. Unlike Felicity, though, she sensed that teaching would be problematic, in part because her own experiences of school had not been particularly positive.

As a child, Pia had not felt especially valued by her teachers. She noted: *"I felt that a lot of the time, the teacher wasn't really listening to what I was saying"* (22/9/94, 61). Her needs as a learner had not been recognised. In her opinion: *"What counted was how many facts you knew ... That system didn't work for me"* (22/11/95, 234). She had resented *"the labels attached to kids - like 'below average' or 'advanced' ... [because] everyone has their own way of learning and their own pace"* (22/9/94, 100). She had also disliked the superiority assumed by the teachers, recalling: *"I remember so clearly teachers saying 'Don't do that!' and kids asking 'Why?' ... [and teachers replying] 'Because I'm your teacher and I said so!'"* (22/9/94, 113). Adamant that *"the way I remember is not the way I want to teach"* (13/10/94, 144), she entered the program *"with a lot of questions"* (13/10/94, 68) about how she could be a more *"caring"* (13/10/94, 67) teacher.

Nevertheless, at first, Pia's epistemological perspective was one of received knowing. She anticipated that she would be *"given the theory"* (22/9/94, 352) and *"academic training"* (22/11/95, 228) by lecturers *"transferring knowledge"* (22/11/95, 230) to student teachers. Like Pamela (Chapter Five), she assumed that *"things would be either black or white, right or wrong"* (13/10/94, 202) and was surprised by the emphasis on reflection. Initially, she responded: *"We have to do such a lot of reflection! Is it really necessary?"* (22/11/95, 364). Reflective writing was simply *"a chore that had to be done at the end of each week"* (22/11/95, 422). Despite the emphasis on reflection, she recalled that *"when I first started Guided Practice, I don't think I did reflect much"* (22/11/95, 471). She found that

"there was so much information to take in" (13/19/95, 133) there was little time "to really think about it" (13/19/95, 134).

"There Isn't Really A 'Right' Or 'Wrong' Solution"

As Pia progressed through Guided Practice she underwent a noticeable epistemological shift. She explained:

My view of knowledge has changed. Now, to me, knowledge is about finding out what you need to know, rather than the actual facts that you might end up with in the end ... Knowledge is about initiative ... [and] the skills that you build up for yourself in order to find out what you need to know. (22/11/95, 235)

Accordingly, she moved away from an absolutist view. As she put it: "Before, I saw ... 'right' and 'wrong' solutions ... But there isn't really a 'right' or 'wrong' solution, but rather a 'better' or 'worse' one for that particular situation" (13/10/94, 460). She also "developed a lot more ideas and beliefs of my own" (24/3/95, 109). What contributed to this move towards a constructed, as opposed to received, understanding? And how did it impact on her reflection?

Pia identified several factors which were instrumental in this shift, including program expectations which emphasised that "there is a lot of flexibility about how you go about it [learning to teach]. You adopt your own style. Within limits, you adopt what suits you most" (22/9/94, 352); her growing confidence in herself as a learner for "I just have the general feeling that it's okay to try something else to see if it suits me better. I feel like I want to try different things" (13/10/95, 471); her recognition of the complexity of teaching because "it's not as if you can think 'I've got all the recipes so I'll be set for the rest of my career' " (22/11/95, 512); and support from her cooperating teacher during her second practicum who "helped me to become aware of the beliefs that I had, the beliefs that were behind what I was doing. She helped me to see where there were inconsistencies" (22/9/94, 150). Her comments highlight the importance of a supportive environment in assisting epistemological transitions but do not explain why she found this environment supportive, when most other student teachers who entered the program as received knowers did not. Possibly her commitment to teaching and her awareness of the problematic nature of teaching provided impetus for an epistemological shift which the program was then able to support.

As Pia moved to a constructed epistemological perspective, she began to value reflection more. She noticed three major benefits. First, it played an illuminating role. As she pointed out: "Reflection brings issues to the surface for

me" (22/11/95, 405) and was "a good way of highlighting issues which could get neglected. Those issues come out through reflection and it's a way of acknowledging them"(22/11/95, 374). Second, it was a means of ensuring congruence between her beliefs and actions, or in Pia's words:

a way of keeping in contact with what you do believe in, rather than losing yourself in a system which might not be what you believe in ... Reflection is a good way to step out of the situation that you're in and back to what you believe in. It's a way to evaluate what you're doing to see whether it's really what you want to be doing, or whether you're doing it because of other influences. (22/11/95, 368)

Third, it assisted her in making connections. In turn, these connections "added so much more depth"(22/11/95, 272) to her understanding. She continued:

I think that in the beginning, you tend to just look at you and the children. But as you progress, you realise that it's not just you and the children. The surroundings also matter because they influence you and you have to decide how much you will let them influence you. I think that you come to realise the significance of things more. (22/11/95, 554)

Interestingly, she made little mention of the problem solving aspects of reflection so heavily emphasised by Felicity (previous chapter), perhaps because she was aware of the problematic nature of teaching and more interested in exploring associated moral and ethical issues. A problem solving approach, with its emphasis on identifiable solutions, on the other hand, might be more likely to be adopted by those who do not see teaching as particularly problematic.

As Pia came to value reflection more, she willingly explored different reflective strategies. She found reflective writing increasingly helpful, preferring an unstructured approach which enabled her to make connections in a way that setting and evaluating her progress towards specific goals, a strategy which she had tried previously, did not. She explained: "Goals narrow things down too much. They make you focus on a specific thing when you might really want to focus on a combination of things that don't fit in to that particular goal" (22/11/95, 446). Her preference for lack of structure and the freedom to make her own connections contrasted sharply with Pamela's and Marina's intolerance for indeterminacy.

Typically, in her reflective writing Pia explored issues from various perspectives. In the following example of dialogic reflection (Hatton & Smith, 1995), she wrote:

Today was a turning point ... I had thought that but today I found otherwise ... It changed my whole perspective (September, 1994); My impressions formed at first glance were very negative and were based on the fact that my cooperating teacher's philosophy was completely different from my own. However, I can now say that ... What this experience has shown me is that ... (August, 1995); It would be so easy to accept this situation and apply this solution. However, another way to view this situation would be to ... (October, 1995)

A similar trend was evident in her interview responses, when she remarked:

I suppose that you can tend to take for granted that just because ... (13/9/95, 356); I automatically judged that it was a negative situation and that I wouldn't get anything out of it. But what I didn't know was that ... So I guess that has taught me ... (13/9/95, 327); It's a matter of perspective. A different set of eyes looks at the situation and sees things a little differently. (13/10/95, 153)

These excerpts from different data sources suggest that perhaps consistency between written and oral reflection is a better gauge of the authenticity of reflective writing than the ability to master a conventional reflective writing genre, especially given the discrepancies evident in several earlier profiles.

Pia also considered relaxation and visualisation techniques a useful tool for reflection-on-action. In particular, she found that they "remove you from the here and now" (24/3/95, 93) and create "the time to feel distant, which normally I never have" (15/3/95, 339). This distancing effect provided a release from compulsive and constricting thoughts. As she put it: "I'm very analytical about things ... I go over and over and over them. They confine me and almost consume me and make me feel really boxed in. Whereas after the relaxation I could let them go" (15/3/95, 274). Freed from these binds, Pia felt "like I've taken back control. I feel stronger and more positive" (15/3/95, 286). She also reported a sense "of being able to deal with the different paths and roads that I'm going to come across ... and growing as a result of them, rather than feeling boxed in" (15/3/95, 315). Her experience supports those who, like Yinger (1990), argue for more attention to meditation to counterbalance the current preoccupation in the literature with analytical aspects of reflection.

It is interesting to speculate whether meditative techniques such as relaxation and visualisation might enhance reflection-in-action. Pia seemed to make implicit links between meditation and reflection-in-action. She appeared to find the latter difficult during practicum because constant busyness hindered her from focusing on the moment at hand. As she pointed out:

What I've realised is that you are so busy thinking you've got to do this, this, this, this and that it sort of takes your mind off what you are doing at the time and that makes it hard to make use of spontaneous teaching moments. (22/9/94, 235)

Using terms strikingly similar to Schon's analogy of musicians' improvisation, Pia explained that *"being able to respond spontaneously is important to me ... That's what I'm striving to achieve ... to be able to pick up on moments like that"* (13/10/94, 52). Given that relaxation and visualisation assisted Pia's reflection-on-action by stilling her tendency to compulsively revisit past events, mindfulness (Tremmel, 1993) in the midst of practice might enhance reflection-in-action.

The above extracts suggest that Pia, in contrast to Genni (previous chapter), was seeking a holistic way of knowing which included but was not limited to analytical thinking. Consequently, she questioned attempts to fragment children's learning. She commented: *"I'd like to see a lot more meshing together of curriculum areas. In life, things aren't separate ... It makes me wonder about trying to put things in boxes. After all, that's not the way the world works, so why do it at school?"* (13/9/95, B90). As well as highlighting the importance of interconnections, she emphasised that furthering understanding was a process of ongoing change. As she noted: *"Your philosophy grows and changes all the time. It's not something that you develop one day and then it stays like that"* (13/9/95, B131). Her conviction that dynamic interconnections are fundamental for learning, reflection and growth resonates with theories of universal interconnectedness referred to in Chapter Three.

Pia's epistemological shift towards a constructed and interconnected way of knowing and her consequent interest in reflection contributed to her empowerment as a learner. Her determination that the children for whom she was responsible would not be disempowered as she had been as a child provided a focus for much of her reflection in the final Guided Practice units and indeed developed into a passionate creed. She was dismayed, for example, to find that the Year One children with whom she worked *"always wanted instructions about how to do things. When I said to them 'Well, how about you do it the way you want to?', they were dumbfounded. They didn't know what to do!"* (13/10/95, 68). She then noted that because *"there is so little autonomy for children"* (13/9/95, B180) they had *"lost their own sense of direction"* (13/10/95, 69). Her subsequent attempts to provide them with *"as much opportunity as possible*

to discover their own knowledge" (22/11/95, 214) are described elsewhere (Sumsion, 1997).

To sum up, Pia's epistemological shift was greater than any other participant's and the impact on her reflection more profound. In short, it not only enhanced her ability to reflect but also led to a commitment to reflection. While Marcelle (previous chapter) also made the transition from received to constructed knowing and, in doing so, became more able to reflect, her commitment to reflection was less certain. The importance of a commitment to reflection is highlighted further in Nina's profile (below).

COMMITMENT TO REFLECTION: NINA

Nina, also from an Italo-Australian background, entered the program as a twenty three year old arts graduate with double majors in psychology and philosophy. For as long as she could recall she had been interested in teaching, having *"always thought that childhood is a very important time, and that not enough is invested in children"* (1/8/94,15). As Nina explained, her father had discouraged her interest:

Dad is a businessman and he thought that there wasn't much future in it from a money-making point of view. He was also worried that if I was working with children, I mightn't want to have any of my own. (1/8/94, 21)

As a school leaver, her high TER had allowed her access to a wide range tertiary courses. She enrolled in Arts, *"not really knowing what I wanted to do ... but I thought that it was important to go to University and keep up the family's standards"* (1/8/94, 43). After graduating, she travelled overseas but her attraction to teaching remained strong. Twelve months later, she returned to Australia to work as a volunteer in a child care centre before enrolling in the preservice program.

After her parents' divorce, Nina was brought up by her father in Sydney's West, a multicultural region with pockets of considerable socio-economic disadvantage. Despite her family's comfortable economic circumstances, Nina had felt emotionally insecure. In her words: *"I didn't feel safe; I didn't feel good enough"* (1/8/94, 191). From childhood, she had been urged to strive for excellence in all she attempted. Her consequent insecurity affected *"all aspects of growing up"* (1/8/94, 190) and led to an inhibiting lack of confidence. She added: *"When I was a child, I was a runner, and I represented the State. But I gave it up because I didn't feel confident (1/8/94, 219). I had a real fear of failing"* (30/3/95, 131). Now, she regretted this decision and considered that *"if only I*

had been more confident in myself I think I could have really achieved something with my running" (1/8/94, 219). Nevertheless, she valued her high standards because "if you set yourself high expectations then I think that your results are going to be higher than what they would be otherwise" (5/12/95, 345). Yet she also described them as "my downfall" (5/12/95, 341) for they continued to fuel her insecurity. As she put it: "I always have an embedded fear of failing. I feel that I haven't got a real grip on things, and that I'm hanging on by the 'skin of my teeth' (30/3/95, 133). Given that "commitment to excellence" had become a "theme running throughout my whole life" (5/12/95,341) it was not surprising that it had a major impact on her development as a teacher.

"You Were Able To Bring In Your Own Colours"

Nina entered the program with few preconceived ideas about teaching. She recalled: *"I knew that the education of young children was important, but other than really general, broad beliefs, I didn't have any predetermined thoughts. I had a really open mind" (15/3/95, 327). She described her early field visits as:*

a real shock because they made me realise that at University we are a tight community and think in a particular way. Just because we think that way, doesn't mean that other people working with young children also think that way. (15/3/95, 336)

Yet she rarely questioned the ideas presented in the program. Initially, it was unclear whether this was because they resonated with her own emerging ideas or because they were presented by authority figures.

There seemed some evidence, however, of an epistemological shift during Nina's enrolment in Guided Practice. During her second practicum, for example, she wrote: *"Working within a team can offer a wealth of knowledge ... If we are prepared to listen to others, then there is much to learn" (April, 1994). By her third practicum, she seemed to place less emphasis on learning directly from others and more on developing her ideas through interactions with others. She reported "bouncing a lot of my ideas off my teacher" (17/10/94, 76) and discovering that she "had a lot of preconceived ideas, and that sometimes I was too critical, too quick to judge" (17/10/94, 80). These discussions led to "a really big breakthrough for me in terms of my professional development. I learnt to say, on a professional basis 'Well, no, I don't agree with you, and these are the reasons why ..." (17/10/94, 96). Her growing confidence in her own voice seemed linked to a sense of mastery. As she put it:*

I've worked hard to achieve what I have. And I feel that I know much more about what I'm talking about - even with little things like being able to use professional jargon. Now, I'm confident about contributing new ideas and expressing concerns. (5/12/95, 112)

Nina also considered that Guided Practice had played an important role in helping her find her voice. She explained:

You were given the freedom to put yourself into it. You didn't have to tell the tutor or lecturer what they wanted to hear. It was okay to have different ideas as long as you could reflect on your ideas and understand them within your self. Obviously, you had to be able to back up your ideas in relation to theory and to justify them, but ... it wasn't cut and dried, it wasn't black and white ... You were able to bring in your own colours. (5/12/95, 508)

These extracts suggest that although there may have been some doubt as to whether her epistemological perspective had been one of constructed knowing early in the Guided Practice sequence, it clearly was by the final stages.

Throughout her enrolment in the program, Nina's goal was to achieve professional excellence. *"My dream is to have my own preschool or long daycare centre, and for it to be a model centre" (1/11/95, 250)*, she confided. To Nina, excellence involved nurturing children's sense of security and confidence. In her view: *"A good teacher helps children develop a sense of confidence, because that's necessary for really meaningful learning - without confidence, it's very hard to break through barriers and to try new things (1/8/94, 212)*. Much of her reflective writing explored these themes of security and confidence. At first, she tended to focus on the immediate impact of her interactions with children in specific situations. During her second practicum, for example, she wrote:

More children seemed to approach me today to talk to me or to ask for assistance. It made me realise that my personal demeanour was having a positive impact on the children. Because I was more relaxed, I became more approachable and the children must have sensed this. (April, 1994)

Her later writing focused more on wider ethical issues and implications arising from her interactions with children. Note, for example, the following account of her interaction with an extremely withdrawn toddler with severely delayed language skills and behavioural difficulties who had fallen from his bed.

I picked him up and held him firmly and closely. He cried, but did not push me away. I spoke softly, acknowledging that I understood that his head hurt. As I held him, I began to rock Billy in my arms. He fell asleep!! I sat there for several minutes holding Billy in my arms as he slept. I realised that I had made a small impression in this child's life - for that moment he trusted me and allowed me to comfort him. We were no longer two blank faces looking at each other. We were two people who knew a little more about each other. When he woke, I made a point of approaching him and offering a cuddle, which he accepted. I realised that he was learning to trust me and that we had begun a journey together towards discovery. I wish I could have stayed at the centre longer to work with him. Do children we care for and educate feel a sense of loss or betrayal when we leave, I wonder? (October, 1995).

This extract also provides glimpses into the richness of Nina's inner world of teaching (Yonemura, 1991). In addition, it suggests that her empathy for this child was integral to her reflection. As such, it supports the argument proposed in Chapter Three that emotion can be a medium for understanding rather than simply an impetus or barrier to reflection as asserted by Boud et al. (1985).

"The West Has A Bad Name ... I'd Like To Try To Change That Perception"

Nina's commitment to building a trusting and supportive relationship with individual children developed into a broader concern for children's well being. Increasingly, she located this concern within a wider socio-political context. She was determined that her "model centre" (1/11/95, 237) would be in Sydney's culturally diverse western suburbs. Here, she could contribute not only to children's well being, but also to that of the community. As she explained:

I've been brought up in the West, and because of that I've seen the trials and tribulations that some families from low socio-economic backgrounds go through ... I kind of feel that because of those difficulties the West has a bad name, and I'd like to try to change that perception in some small way. (1/11/95, 254)

She criticised the inconsistency between political and educational rhetoric about multiculturalism and the many instances of cultural insensitivity and bias she observed during her practicums and on the University campus. While she saw teachers as generally well meaning, she was concerned about their lack of insight into issues associated with cultural diversity and economic disadvantage. In a preschool catering mainly for Buddhist children, for example, she was troubled by what she saw as inappropriate celebrations of Easter. As she observed:

What is actually celebrated in our early childhood settings is often paralleled with what the shops and media tell society to celebrate. This episode seemed to be mirroring the commercial events promoted by our society - but how meaningful was it for this particular group of children, given their backgrounds? (April, 1994)

Similarly, in another example of critical reflection, she noted in a University lecturer's exhortation that student teachers challenge their thinking about culturally diverse and economically disadvantaged families, an assumption that early childhood student teachers were from middle class Anglo-Australian backgrounds.

Her perception of insensitivity to cultural and socio-economic differences and political inaction to improve social and educational opportunities in the West reinforced Nina's determination to redress *"the stigma attached to the Western suburbs"* (15/3/95, 415) by establishing a centre of educational excellence. Having *"realised just what a profound effect you can have"* as a teacher (5/12/95, 375), she wanted to extend her influence beyond *"one group of children in one centre"* (5/12/95, B118) to involvement in policy making decisions. She explained: *"I would like to present seminar papers to council meetings and to politicians and to the general public ... to advocate on behalf of the early childhood profession"* (5/12/95, B121). As her concerns extended to broader issues including those of a socio-political, cultural and economic nature, her reflection became increasingly characterised by wide ranging and complex interconnections.

Much of Nina's profile thus far has focused on her apparent epistemological shift to constructed knowing, her perceptions of a supportive learning environment and her growing commitment to teaching as a vehicle for reform. All three factors were instrumental to the considerable change evident in her reflection. Her renewed commitment to reflection, however, seemed even more significant.

Nina described herself as *"by nature, a reflective person"* (5/12/95, B51) but found reflection *"hard to describe"* (1/8/94, 46). She explained that: *"Sometimes it is more a feeling or a thought than words"* (1/8/94, 47) but also involved being *"objective and critical"* (17/10/94, 53), *"asking questions of myself"* (6/9/95, 252) or *"my mind... fleeting" [from one thought to another]* (April, 1994). Her experience highlights the diversity of reflection for even one individual and the inappropriateness of a narrow definition.

She considered that she had become more reflective since enrolling in the program. In particular, she had "*learnt ... to reflect on my teaching and what teaching is all about*" (5/12/95, 189). Consequently, she had come to equate reflection with professional growth and was now convinced that "*reflection serves a really important purpose - it helps you to grow* (5/12/95, 566) ...*Without reflection, it's hard to move forward*" (17/10/94). As well, she considered reflection essential for professional fulfilment. In her view: "*It makes my teaching meaningful - it makes it more than 'just a job'*". (5/12/95, 198). She saw herself as responsible for her own development as a teacher and for achieving her goal of professional excellence, explaining: "*I feel that I'm responsible for my learning. It's up to me*" (1/8/94, 397). As part of this responsibility, she deliberately sought challenges which would contribute to her learning. During her final practicum, for instance, when she received only positive feedback from her cooperating teacher and University adviser, she commented:

It would have been easy to say to my adviser and co-operating teacher 'Gee, thanks!' and to think 'Yeah, I'm doing fine' and to just breeze through it. But I need to know where I can do better and what my challenges are. So, I've needed to stand back and say 'Well, okay, what can I do better? What can I do to challenge these children?' That's been tiring ... but I wasn't prepared to go through a five week prac. and not get anything out of it! (1/11/95, 167)

This extract highlights the sense of responsibility with which Nina approached learning to teach and highlights the relative lack of responsibility demonstrated by many of the less reflective student teachers profiled in Chapter Five.

The above extract also illustrates Nina's perception of a symbiotic relationship between reflection and professional excellence. Her commitment to excellence, her conviction that reflection was a prerequisite for excellence, and her consequent constant need to reflect most likely contributed to her impressive achievements as a student teacher. Yet they were also a source of considerable frustration and exhaustion. The following extract illustrates the consequent intensity of her inner world (Yonemura, 1991) for, as Nina explained:

It [reflection on teaching] is always in my mind - in the shower, driving to prac., eating - it's always in my head ... It's so constant! I'm not necessarily sitting and writing, but it's here (gestures to head) and here (gestures to chest) ... It exhausts me. (6/9/95, 472)

Her commitment to excellence, however, did not allow her to give in to her often felt temptation not to reflect. As she put it:

Reflection is so hard and tiring that sometimes you think 'God, the last thing I want to do is reflective writing'. But you need to reflect if you want to grow, in my opinion. And there are always going to things that you don't feel like doing on some days. But you do them, and you overcome those feelings. (5/12/95, 565)

These excerpts highlight yet again the importance of Dewey's notion of responsibility and wholeheartedness.

At times, Nina found reflection painful. In questioning whether *"the values and beliefs that I bring to teaching are necessarily the ones that I want to form the foundation of my teaching"* (30/3/95, 121), she felt the need to re-examine the influences of her own childhood and her still unresolved views about competition and achievement. She continued:

I've always been brought up to believe that competition is healthy; that it brings out the best in you; that a bit of competition in your education is a good thing. But now, I'm wondering about whether it really is a good thing, and whether I will bring competition into my classroom. At this stage, I'm still unsure. I think 'Well, it worked for me' - but there were negative aspects, especially the pressure. So that's why I'm still really struggling with that concept. (30/3/95, 105)

For Nina, *"struggling with my philosophy"* (30/3/95, 119) also seemed to involve struggling with the reverberating insecurities and anxieties she had experienced as a child (Conle, 1996). Given that *"constantly rethinking, constantly reflecting, constantly trying to do better"* (30/3/95, 194) came at considerable emotional discomfort, her commitment to reflection was noteworthy.

According to Nina, the only times that she felt free of this constant pressure to reflect were during relaxation and visualisation sessions. She commented:

Hearing your voice and listening to the music made me feel that someone was trying to put their arms around me and say 'You're okay. You're doing all right'. It was a peaceful feeling because I always feel as if I'm not allowed to let go. That what I've done isn't good enough. That I've got to do better. (15/3/95, 375)

Freedom from this pressure enabled clearer vision, she reported:

I was visualising things more clearly in my head and focusing on my positive aspects as a teacher ... I could see more clearly and think more clearly. It helped me to focus and relax and let go of the worries. I didn't have that cloud of worry hanging over me. (30/3/95, 62)

Clearer vision also seemed to include heightened intuitive awareness. After the third session, she commented: *"It was amazing, but during the relaxation, I was actually thinking about the questions you asked us afterwards!"* (30/3/95, 54).

Given the impact of these sessions, Nina intended to incorporate the techniques used into her daily routine.

While Nina's profile highlights the importance of commitment to reflection, it indicates that reflection might not be without cost. Given the possible emotional discomfort involved, a supportive environment would appear to be necessary for reflection to flourish. In the final profile, the role of a supportive environment in fostering reflection is explored more closely.

SUPPORTIVE ENVIRONMENT: GERRY

Gerry, the only son in a family of five children, was 33 years old when he enrolled in the program. As a child, he had been encouraged by his Eastern European parents to *"be Australian"* (11/3/94, 10) and although his family spoke German at home, regarded English as his first language. From age six he had thought *"that when I grew up I would like to become a teacher"* (11/3/94, 60) but later changed his mind because of the *"formalised, didactic style of teaching in upper primary and high school"* (11/3/94, 74). As a school leaver, he had enrolled in a Pharmacy degree which he did not complete, having realised that he would prefer to work with people. After periods of unemployment and a variety of unskilled jobs, he worked in personnel administration for five years before being retrenched. Using his retrenchment payout, he travelled extensively overseas, compiling a photographic portfolio in the hope of gaining entry to a photo-journalism course on his return. Although not successful in this goal he was happy to be accepted into the early childhood program, his second preference. He anticipated that teaching would provide *"a challenging career which was people-centred and intellectually stimulating ... meaningful and fulfilling"* (April, 1996). In addition, *"after the brutalising effects of working in all-male environments"* (April, 1996) he wanted *"to move into an area not dominated by males"* (April, 1996).

Apart from *"a few days helping friends in a non traditional school run along the lines of A.S. Neill's Summerhill"* (11/3/94, 85), Gerry had little prior experience with children. Although fascinated by *"how children see the world and how their way is so different to an adult's way"*, it took him some time to feel *"relaxed and confident"* (11/3/94, 363) with them. Indeed, on his early field visits he considered that he *"didn't even really know how to talk to them"* (17/11/95, 286). He enjoyed his first practicum as his cooperating teacher had been *"really positive and helpful"* (17/11/95, B192) and her feedback *"helped me focus on the*

areas that I needed to improve on and helped enhanced my self esteem" (17/11/95, B105).

"I've Got More Experience Of The World To Draw Strength From"

Despite his excellent grades and positive practicum report, Gerry was highly anxious for much of his first year. He described the program as *"interesting but very demanding and challenging ... There were times when I felt I was drowning"* (11/3/94, 131). Disconcertingly, he experienced a sense of loss of identity. In his words: *"I feel constrained by an avalanche of theory: a swarm of 'do's and don'ts' that tend to stifle one's personal style"* (April, 1994). Feelings of isolation exacerbated his perceived loss of identity. Like Colin (Chapter Five), he commented: *"There are few people I talk to. The fact that I'm a mature age student - as well as a male - makes it doubly isolating"* (11/3/94, 152). Nevertheless, he considered that *"as a mature age student, I have certain advantages. I've got more experience of the world to draw strength from"* (11/3/94, 386). Gerry needed to draw on this strength many times during his enrolment in the program.

Unfortunately his second practicum coincided with a period of great personal upheaval and was, in many ways, a major disappointment. Although he suspected that *"a lot of it was because I was so down [depressed] about everything and not as bubbly as I should have been"* (13/5/94, 181), he was convinced that this was not *"the total story"* (13/5/94, 182). In particular, he was concerned by the lack of feedback from his cooperating teacher. He explained:

She didn't really watch me do my presentations or small group activities. She'd just flit in and out and so she wasn't able to give me detailed feedback. She said that she didn't want to make me nervous but she had the opposite effect. At this stage, I really need some constructive feedback. (13/5/94, 112)

As well, he sensed:

Some parents don't particularly like having a male working in this area. It wasn't overt, but I think there was an uneasiness. That's a bit disheartening because it implies that ... I am automatically labelled a pervert ... which is pretty sick! (13/5/94, 299)

Wondering whether as a male he would always feel *"a bit isolated a real interloper"* (13/5/94, 401), he decided to delay his third practicum for 18 months and to undertake relief work in child care centres. He hoped that this would provide a clearer indication of whether he *"would make a good early childhood teacher"* (13/5/94, 299), from both his own and others' perspectives.

Relief work proved reaffirming with Gerry reporting *"excellent feedback from some staff which has been really great for my confidence and my self esteem and my perception of how I'm developing my own style"* (18/9/95, 201). He found it *"really easy to discuss ideas with other teachers"* (17/11/95, 212) and valued the opportunities for professional development this provided. The children responded very positively and, with obvious pride, he explained that *"some directors request me specifically when they ring the agency for replacement staff"* (September, 1995).

Much to Gerry's disappointment, his earlier concerns re-emerged during his next practicum where he again felt unwelcome. He commented: *"Generally, staff have been very icy towards me - not so much as a 'Hello' on most mornings"* (September, 1995). He found this *"quite demoralising"* (18/9/95, 376), especially as staff rarely gave him feedback. Gerry explained:

I periodically remind the director that I require feedback and that I would like her to read and comment on the work in my folder. She will do this sometimes, though it often happens that she is too busy or finds it too boring to do so - 'Prac. books are pretty dull reading' she said. You can imagine how this made me feel - spending hours each night writing after putting in an eight hour day at the centre and she can't be bothered to read my boring work! (September, 1995)

Lack of feedback had a deleterious effect on his self esteem. He found himself:

beginning to doubt my competence and abilities. I read their lack of feedback as embarrassment and reticence, on their behalf, to make negative comments about my work ... My self esteem and confidence are starting to evaporate. (September, 1995)

"In a situation where you get no feedback", he explained, "you automatically start wondering about your competence" (4/11/96, 401). The sudden wariness of several children who had welcomed him initially added to his demoralisation and sense of isolation. As he put it: *"The recent refusal of some of the children to let me change their nappies is yet another blow"* (September, 1995).

Pamela and Marina (Chapter Five) also complained about lack of feedback, a predictable response from their perspective of received knowledge (Belenky et al., 1986). In contrast, Gerry, a constructed knower, anticipated *"right from the start [of the program] ... being quite independent and not moulded into a particular framework"* (23/3/95, 258). Consequently, he reported, he was surprised to find:

the approach quite different from when I was studying previously many years ago. We were presented with a whole range of research on each topic. The nature of the presentation was 'Well, here are five different theories. They are all pretty much valid. You decide which one to go for, or you might decide to combine two or three of them, to take bits from all of them. Whereas here, it's 'There are many different approaches and we are taking bits and of all of them, but we are taking this combination for this situation because this is what we like and this is the combination that we want you to adopt. (29/3/95, 290)

Apart from Guided Practice units where "tutors would say 'We really want you to find your own style and your own way of doing things' " (29/3/95, 339), he sensed that student teachers were "expected to work out how to translate the theory into practice, but not to question the theory" (29/3/95, 344) and was disappointed that such "a framework was being imposed" (29/3/95, 259). As a constructed knower not dependent on the voice of authority (Belenky et al., 1986), why did he value feedback as much as received knowers? Furthermore, what impact did his perception of a less than supportive environment appear to have on his reflection, especially given that previous profiles have suggested that reflection might be more likely in a supportive environment?

His responses suggest that although feedback might be less important in an epistemological sense for those operating from a perspective of constructed rather than received knowing, it nevertheless plays a key role in enhancing self esteem. Unlike Pamela and Marina, Gerry appeared not to be looking for feedback as a source of specific answers, but for validation of his potential to develop into an effective early childhood teacher. Even for constructed knowers, feedback seems to provide much needed emotional support. The link between feedback, emotional support, self esteem and reflection became even more apparent during his final year practicums.

In the first of these practicums, Gerry was "very pleased to have a cooperating teacher who is willing to discuss issues and justify her decisions" (August, 1996). "Even if we do not always agree", he commented, "it is a most valuable vehicle for learning and sorting out one's own stance" (August, 1996). He was concerned, however, that "at present, I do not make full use of these interchanges. I tend to drink in the other person's ideas and justifications and deal with them internally instead of engaging in a friendly professional debate" (August, 1996). He attributed this to being "acutely aware of my neophyte status" (August, 1996). In the following example of dialogic reflection (Hatton & Smith, 1995), he wrote:

I'm reminded of Guffario's (1995) words: 'We all struggle to make sense of our actions to find ways that go deeper than what works at the moment. It is a struggle because what Dewey asks is our continued growth, reflection, intelligence, imagination and the risk taking and responsibility involved in creating ... our teaching self' (p.99-100). This is a big ask. I need strength and courage and lots of energy to do these things. I'm going to try to take those risks with imagination and reflection. (August, 1996)

Because of escalating difficulties with behaviour management in this placement, he was identified as "at risk" of failing the practicum. His teacher lost interest in his attempts to "work with children's interests and integrate specific targets into activities which children enjoy" (August, 1996) and, increasingly, he found his ideas "went down like the proverbial lead balloon" (August, 1996). On her advice, he focused on "pointers for behaviour management techniques" (August, 1996) rather than "the great variety of issues" (August, 1996) arising during the practicum.

Disturbed by Gerry's self critical evaluations of his "not very successful attempts" (August, 1996) to implement the techniques his teacher had suggested, his University adviser confirmed his "at risk" status. Gerry resented his adviser's comment that "I was probably my own worst enemy (4/11/96, 413), explaining: *I'm a very honest evaluator and possibly dwell too much on things that don't work (4/11/96, 414). He continued: "So I thought that my adviser's comment was very unfair. Because the implication [seemed to be] ... that if I wasn't so honest in my self assessment, she might not have put me 'at risk'.*(4/11/96, 415). While his perception might not have been accurate, it highlights the need for student teachers to perceive that the environment allows honest exploration and frank communication of thoughts and feelings without fear of repercussion. Feeling "very disheartened" (August, 1996) and aware of "the very negative effect on my self esteem as a teacher. My confidence in my ability to be a teacher was incredibly undermined" (9/12/96, 493), Gerry withdrew from the practicum.

To his relief, he found the children in his "make-up" placement "very responsive ... approachable and likeable" (4/11/96, 208) and he experienced no difficulties with behaviour management. Moreover, his cooperating teacher provided "lots of positive feedback" (4/11/96, 172) and he felt very welcome. In particular, he noticed "that air of suspicion ... just doesn't seem to be there. There's much more acceptance - not only by the children, but also by the parents and other teachers. Nobody asks 'Why do you want to teach this age group?' " (4/11/96, 322). In this supportive environment, Gerry focused how he might "fit an early childhood philosophy" (4/11/96, 31) into a school context. When his cooperating teacher

expressed doubts about the children's ability to cope with his proposed activities, he explained that *"I've got to take risks and so have the children. We've both got to extend ourselves a bit"* (4/11/96, 197). For the most part, this new note of confident risk taking continued in Gerry's final placement which he perceived as similarly supportive, even though several of the children with whom he was working had severe behaviour problems.

The supportive nature of this practicum environment, the positive feedback from staff and his growing sense of efficacy enhanced Gerry's self esteem. As he remarked: *"Feedback has been overwhelmingly positive. And that's done heaps for my self esteem ... and my confidence. (4/11/96, 400)*. Did his enhanced self esteem and growing confidence, however, appear to influence his reflection?

To Gerry, reflection was a process of *"sifting through"* (9/12/96, B29) theories, experiences and events to develop his own understanding. By virtually all of the criteria referred to in Chapters One and Two, his interview and written responses demonstrated considerable evidence of reflection when he joined the project at the beginning of his second year in the program. Although he experienced similar frustrations to Colin (Chapter Five) his reflection, unlike Colin's, continued to develop. Yet his comment - *"I'm not saying that they [frustrations] totally extinguish the urge or ability to find your own style but I find that they hamper that process"* (29/3/95, 330) - suggests that this development might have been in spite of the program not because of it.

Communication and relationships were the focus for much of Gerry's early reflection. When asked in the first interview, for example, to reflect on his first year of the program, he mentioned: *"A lot of change went on in terms of communication skills. The interpersonal communication stuff (Guided Practice 1) made me sit down, step back, and have a look at my self"* (11/3/94, 420). Much of his reflective writing focused on exploring the practical implications of theoretical knowledge about effective communication skills. He wrote, for example:

Today, I found myself trying to give effective encouragement in response to children's artistic endeavours. I fell into several traps: (i) reverting to bland meaningless responses like 'That's great!' or 'Fantastic!' which are almost worthless personal judgments and aren't helpful to children in allowing them to become self evaluators; (ii) saying nothing, paralysed by an abundance of 'correct responses' - meanwhile the opportunity to respond slips away; or (iii) giving appropriate encouragement but sometimes sounding phoney eg., ... Kostelnick (1993) discusses these issues and says that ... Her advice is ...
(April, 1994)

As in the above example of essentially technical reflection, he invariably referred to theoretical views and research findings in his reflective writing. Typically, there was also a strong emphasis on self evaluation. The less supportive the practicum environment the stronger his emphasis on self evaluation and the more self critical his reflective writing became.

In the supportive environment of his final practicum, in particular, Gerry seemed to gradually move away from such a tightly focused critique of his own perceived shortcomings to consider broader issues. He also seemed to rely less on theory, suggesting more confidence in his own voice. He wrote, for example:

My first 'proper' lesson went over time which did not represent a problem - all children were highly motivated and engaged. I can't help thinking that part of the reason for the success of this activity as that it: (1) allowed children to be creative; (2) gave children some ownership of their creations; (3) provided a welcome respite from stencils. I am much concerned that most of the curriculum in this classroom is narrowly based on intellectual development and the acquisition of discrete academic skills. (October, 1996)

Witnessing "early childhood theory ... crashing into the Real World of Teaching" (October, 1996) led him to explore "the constraints of teachers' decision-making space" (October, 1996). In the following example of critical reflection, he wrote:

Teachers feel pressured by Principals, the Department of School Education and parents to 'deliver the goods' by a set time and 'do the syllabus' in 'x' number of weeks ... I fear that in doing so, we sometimes sell our children short and fill them with facts instead of allowing them to come to a proper understanding through doing and experimenting. (October, 1996)

The broader focus evident in this sequence of reflections suggests that an accepting and "much more relaxed [environment] ... makes it easier" (4/11/96, 323) and "more conducive to making links" (9/12/96, 158) with issues other than those associated with immediate survival. In a supportive environment where self doubt is not all consuming, more energy might be available for, in Gerry's words, "sifting through it ... all" (9/12/96, B30) and making more sense of "your professional knowledge base" (9/12/96, 581).

Gerry agreed that his reflection had developed considerably during his enrolment in the program and acknowledged the contribution of cooperating teachers who had provided positive feedback. He also emphasised the importance of the "development of a knowledge base" (9/12/96, 581), explaining: "It's given me the framework and the vocabulary through which to look" (17/12/96,

B54). Interestingly, Erica and Josephine (Chapter Five), referred in a similar manner to their growing professional knowledge base, but their profiles illustrated that knowledge in itself does not necessarily enhance reflection. Gerry's profile, however, suggests that self esteem and a sense of self-efficacy should be added to Dewey's nominated qualities of wholeheartedness, responsibility and openmindedness as important determinants of reflection.

CONCLUDING COMMENTS

These profiles, like those presented in the previous two chapters have highlighted the importance of commitment to teaching and reflection, epistemological perspective and the perception of a supportive environment in promoting reflection. They also illustrate the synergy arising from the presence of several of these factors. Gerry's profile, like Colin's (Chapter Five), suggests, however, that unless the learning environment is perceived as supportive, considerable development in reflection is unlikely, even if the other factors are present. The following chapter focuses on the implications of these apparently key factors for teacher educators and for further research into reflection.

CHAPTER EIGHT

ISSUES AND IMPLICATIONS ARISING FROM THE STUDY

Every instance of making meaning implies the opportunity, power and liberty of a crossing, or some travelling from one place, condition or form of being to another. Transition and difference are part of the meaning of passage
Buchmann (1993c, p.108)

The profiles presented in the previous three chapters highlighted the individuality of the participants, the diversity of their responses to their preservice program, the differences in the nature of their reflection and the extent to which they became more or less reflective as they progressed through the Guided Practice sequence. This chapter discusses the key issues arising from these findings. Following a summary of each issue and discussion of its relationship to findings from previous research reviewed in Chapters One and Two, implications for teacher educators seeking to foster reflection in student teachers and for those intending to undertake further research into reflection are considered.

ISSUE ONE: STUDENT TEACHERS' INDIVIDUALITY

As indicated in Chapter Four, the participants were selected, in part, for their potential to represent the diversity of student teachers enrolled in the program. Nevertheless, their individuality was striking. The following discussion focuses on several factors which encapsulated their individuality and appeared to have a profound effect on the development of their reflection during their enrolment in Guided Practice. These factors included their commitment (or otherwise) to teaching and reflection, their epistemological perspective and their perception of their learning environment. While referred to separately for convenience, in reality there was a complex interplay between them. Several issues and implications arising from these factors are discussed below while others are addressed in later sections of this chapter. These factors are revisited in the final section to integrate and conclude this discussion.

Commitment To Teaching

The participants varied enormously in their commitment to teaching. Some, like Jessica, regarded their decision to enrol in the program as "*the best thing that could have happened*" (20/11/95, 350). Others deeply regretted their career

choice, with five of the eighteen participants eventually deciding to withdraw from the program. As their profiles revealed, the majority of the thirteen participants who completed the program were excited about becoming a teacher. Some looked forward most to achieving a childhood ambition; some to attempting to implement what they saw as much needed reforms; others to making the transition from student to professional; and yet others to travelling overseas with a highly regarded qualification. Only one participant to eventually graduate from the program, Erica, was determined not to teach.

Epistemological Perspective

As their profiles illustrated, these student teachers also differed considerably in their receptivity to new ideas and possibilities; their willingness to challenge their previously held ideas and those of others; their sense of confidence and efficacy as learners and developing professionals; and their perceptions of their responsibilities in these roles. As such, there were notable differences in what Dewey would refer to as their wholeheartedness, openmindedness and sense of responsibility. Their appreciation of complexity, their tolerance of indeterminacy, and their expectations of their preservice program also varied greatly, further indicating their diverse epistemological perspectives. In many respects, though, this diversity was most evident in their varying conceptualisations of teaching. As received knowers, Erica, Pamela and Marina, for example, continued to see teaching as an essentially technical process involving the transfer of knowledge. Constructed knowers such as Sarah, Jemima and Pia, on the other hand, recognised and appreciated the complex, ambiguous and problematic nature of teaching. To them, teaching involved supporting and empowering learners to construct their own understanding.

Commitment To Reflection

Only three participants (Erica, Pamela and Marina) acknowledged that reflection was not important to them. Notably, all three were received knowers. For several (including Kathleen, Heather and Josephine), however, there appeared a noticeable gap between their espoused and actual commitment to reflection. In contrast, some participants referred frequently and incidentally to engaging in reflection, suggesting that it had become inherent to their personal and professional lives, rather than undertaken specifically to fulfil Guided Practice requirements. Those student teachers profiled in Chapter Seven, especially, regarded reflection as the key to

personal and professional growth. They particularly valued its potential to add depth to their understanding and its contribution to their sense of personal and professional integrity.

Perception Of The Program

In general, those student teachers with an epistemological perspective of constructed knowing perceived the learning environment to be more supportive than those who were primarily received knowers. For the most part, the former found the expectations of the Guided Practice units complemented their epistemological outlook, while the latter found the lack of definitive answers and solutions frustrating and distressing. This is illustrated graphically by the metaphorical language in the following extracts. Nina, a constructed knower, welcomed what she saw as *"the freedom to put yourself into it ... It wasn't cut and dried ... You were able to bring in your own colours"* (5/12/95, 508). In contrast, Pamela, a received knower described herself as *"a black and white sort of person, really ... I need to know that I'm either right or wrong"* (21/7/94, B58). As her profile indicated, Pamela deeply resented the inability or unwillingness of the program to meet her need for certainty.

Yet disturbingly, Colin, arguably one of the most sophisticated of constructed knowers amongst the participants also found the program unsupportive. He referred to a hidden curriculum (Dobbins, 1994; Chickering & Reisser, 1993; Claxton, 1990) which contradicted the espoused goals of promoting empowered and independent learners. Likewise, Gerry, another constructed knower, was disturbed by what he perceived as some inconsistencies between teacher educators' rhetoric and practice. For this reason, he, too, found aspects of the program less than supportive at times.

Nature Of Reflection

Not surprisingly, most participants who engaged in reflection also engaged in processes commonly associated with reflection. These included revisiting experiences, reframing them in order to explore them from a range of perspectives, and considering alternative actions and options with the goal of improving their practice. Nevertheless, their reflection retained considerable individuality, differing not only in focus and content but also in medium. Typically, Sarah's reflection, was characterised by metaphor and images, frequently conveyed through drawing; Jessica's by balance and rhythm, extended through discussion; and Gerry's by analytical argument informed by

his professional knowledge base and supported by writing. In addition, as several participants' profiles illustrated, individuals experienced reflection differently at different times and in different contexts. Sarah's drawings of the path through the forest (Photograph 4) and the jigsaw puzzle (Photographs 5a and 5b), for example, indicate how reflection, to her, was at times primarily analytical and, at other times, a more holistic process.

IMPLICATIONS ARISING FROM ISSUE 1

As there appears no reason to think that this group of student teachers was atypical, the enormous variation in their commitment to teaching and to reflection, their epistemological perspectives and their perceptions of the program illustrates the inappropriateness of viewing student teachers as an homogenous group (Calderhead, 1992). Similarly, the diverse nature of their reflection highlights the limitations of conceptualising reflection as a singular process. Implications of this individuality and diversity are introduced briefly below and developed more fully throughout the chapter.

Recognising Individual Differences

Recognising, appreciating and catering for differences in individual children's development, strengths, needs and interests is a fundamental tenet of early childhood education (David, 1996; Siraj-Blatchford, 1993). Ironically, however, the profiles of some participants suggest that their early childhood preservice program was not particularly responsive to their individual differences. In a climate of growing institutional demands for increasing research productivity and worsening staff-student ratios (Candy, 1995; McNaught & Beattie, 1995), it could be argued that it is increasingly difficult for teacher educators to know student teachers as individuals. Yet, as this chapter will contend, knowledge of individuals seems essential if teacher educators are to promote student teacher reflection more successfully.

The current study suggests that a knowledge of student teachers' prior experiences, interests and preferred learning styles might help teacher educators plan more effectively to promote reflection. Had Erica's teacher educators been more aware of how much she valued physical activity, for instance, they might have referred her to accounts of connections between teaching, learning and physical expertise, such as La Porte's (1996) comparison of good teaching and a perfect return in tennis, Sumsion's (1994) musings on similarities between postgraduate study and sailing, and

musings on similarities between postgraduate study and sailing, and Knowles' (1992) reflection on pedagogical insights arising from a canoeing trip. These accounts might have introduced Erica to more meaningful ways of reflecting on her teaching, and ultimately encouraged a greater interest in and commitment to reflection. More generally, awareness of individual student teachers' epistemological perspectives could provide a useful indication of their readiness to take responsibility for their own learning, to cope emotionally with the uncertainty of teaching, and to engage in reflection of more than a technical nature.

Favouring Broad Conceptualisations Of Reflection

The diversity of participants' approaches to reflection and the tendency for individuals to experience reflection variously at different times caution against oversimplifying or generalising the process of becoming more reflective (Johnston, 1994). The broad conceptualisation of reflection as a search for meaning, adopted in the present study, encompassed the wide variations in experiences of and approaches to reflection evident in participants' profiles. In turn, this supported a much richer investigation of reflection than the narrower views of reflection adopted in many previous studies. Future studies, therefore, might also consider avoiding narrow definitions so as not to disqualify or discount alternative or less well recognised forms or processes of reflection, especially those not traditionally associated with Western analytical thought (Houston & Clift, 1990).

ISSUE 2: THE EMOTIONAL INTENSITY OF LEARNING TO TEACH

Despite the student teachers' individuality and their diverse responses to the program, all found learning to teach an emotionally intense, often distressing experience. For Colin, Kathleen and Nina, for example, it brought back painful memories of their own childhood experiences; for Erica, Pamela and Marina, it undermined self confidence or exacerbated self doubt; for Sarah, Gerry and Jessica and others, it led to moments of despair as they struggled to reconcile their ideals and aspirations with their practices. That 13 of the 18 participants lost their composure on at least one occasion during the data collection process testified to the emotional impact of their experiences in the program. On the other hand, most participants also reported moments of intense satisfaction and exhilaration as they glimpsed their potential as teachers and the possibilities and joys of teaching.

IMPLICATIONS ARISING FROM ISSUE 2

The emotional intensity of the participants' experiences of the program and the power of emotions as a medium for making meaning (discussed in Chapter Three) strongly suggest that more attention needs to be given to the role of emotions in learning to teach and their contribution to reflection on learning to teach. These implications are discussed in more depth below.

Developing Sensitivity To The Emotional Impact Of Learning To Teach

From this perspective, it is encouraging to note that much of the teacher education literature increasingly appears to recognise that learning to teach is not simply a technical process in which emotions play little part (Hopkins, 1994; Moffet, 1994; Brookfield, 1990). Acknowledgment of this affective dimension is evident in, for example, the growing interest in narrative methodology (Beattie, 1995a; Olson, 1995; Clandinin, 1992) and the recognition by some writers (e.g., Dobbins, 1995; Hollingsworth, 1994; Britzman, 1991) that emotional discomfort is inherent in learning to teach. If teacher educators are to develop greater sensitivity to the emotional dimension of learning to teach, it seems that they must be prepared to listen to student teachers' voices and establish a climate of trust and acceptance in which student teachers feel able to share their concerns (Fletcher, 1997).

Unfortunately, a range of personal, professional and institutional factors could inhibit these prerequisites. Some teacher educators may find it difficult to accept that, as profiles of some participants suggest, their own practices contribute to student teachers' emotional turmoil (Thomas, 1993). Others who, in times of reduced face-to-face contact, poorer staff-student ratios and increased emphasis on the achievement of measurable competencies, prefer to focus on imparting knowledge and skills, might also find it difficult to listen to student teachers' voices (Barnett, 1994; Britzman, 1991). Yet others might be unable to resist implicit institutional messages that pastoral care of students is unlikely to be rewarded in decisions concerning tenure and promotion (Acker & Feuerverger, 1996).

Despite these potential difficulties, the present study indicates that teacher educators must recognise and respond to the emotional dimension of learning to teach if they are to be more effective in promoting reflection. As part of this process, they may need to revisit expectations and reconsider current practices. In particular, if teacher educators are to establish a climate

of trust, they may need to be more alert to possible inconsistencies between their rhetoric and practice. Journal writing, for example, can be a valuable tool for promoting reflection (Francis, 1995; Hoover, 1994). Yet the not uncommon expectation that journals be submitted for assessment may inhibit student teachers using them to share significant emotional experiences (Macrorie, 1985). Thus, this practice could give student teachers very mixed messages about the wisdom of candidly sharing emotional responses.

Recognising The Role Of Emotion In Reflection

As the participants' profiles emphasise, the emotional dimension of learning to teach cannot be divorced from reflection on learning to teach. Indeed, their profiles highlight how emotions can be a medium for reflection, rather than simply an accompaniment, or even a barrier to reflection as implied by Richert (1992), Boud et al. (1985) and others. Participants' passionate creeds (LaBoskey, 1994) and inner worlds (Yonemura, 1991), characterised by strong affective elements, for instance, appeared to assist in illuminating their search for meaning by providing "a growing sense of order, direction, and deepening meaning" (Buchmann, 1993b, p.166).

The participants' profiles also illustrate how emotions, as explained in Chapter Three, can link environments, experiences and identities. For example, empathy, by loosening the boundaries surrounding self and enabling attunement with others, can provide a medium for recognising and appreciating interconnections not necessarily accessible by analytical thought (Jordan, 1991). This capacity was evident in the profiles of several participants, particularly those showing more evidence of reflection, who developed strong empathetic bonds with children and cooperating teachers.

Indeed, for all student teachers who developed such bonds, including those whose reflection showed little consistent development overall, empathy constituted a medium for reflection. Kathleen's early experiences of having been labelled as a child with learning difficulties and her empathy with children similarly identified, for instance, prompted much more insightful reflection than any other aspect of her experience of her preservice program. Likewise, Josephine was at her most reflective when empathising with the children and teacher for whom the school curriculum seemed irrelevant. Conversely, those student teachers who displayed least evidence of empathy (Kel, Erica, Pamela and Marina) demonstrated little evidence of reflection at

any stage of the program. Their seeming disinterest or difficulty in establishing bonds with the children with whom they worked during practicum appeared typical of their disinterest or difficulties in establishing connections in general.

The current study also illustrated how a range of emotions, including those often thought of as negative (Fuller, 1990), have the potential to make meaningful connections. Kristy's initial fear and dislike of the thought of becoming a teacher, for instance, which emanated in part from her fear and dislike as a six year old of her own first class teacher, seemed to reverberate through the ensuing years (Conle, 1996) and intensified when she made the decision to enrol in the preservice program. This emotional intensity appeared to explain the emergence of her determination to make teaching fun. In turn, this passionate creed became the main interpretive frame through which she reflected on her experiences in the program. That reflection on her experiences appeared to assist her to recognise the emotions emanating from them also suggests a reflexive relationship between reflection and emotion.

The above examples of emotion playing a vital role in reflection are not intended to imply, though, that emotion necessarily leads to reflection, any more than analytical thought necessarily involves reflection. Although, as argued in Chapter Three, emotions can be seen as a powerful interpretive medium or frames through which to interpret experiences and construct meaning, other factors, including epistemological perspectives, also appear to play a major role. Pamela's and Marina's profiles illustrate an apparently reflexive relationship between the emotional frames of frustration and inadequacy through which they interpreted their experiences in the program and their epistemological perspective of received knowing. Their craving for clarity and predictability and the failure of the program to satisfy this craving intensified their sense of inadequacy and frustration and reinforced these emotional frames. Their interpretations, in turn, appeared to further shape and exacerbate their responses to the program, entrenching even more firmly their epistemological perspective of received knowing and inhibiting the development of their reflection.

This apparent interplay between emotion and epistemological perspective warrants further investigation. It might help to explain the different outcomes

in terms of the reflection evident in student teachers who experienced similar emotions. Nina (a constructed knower) and Josephine (a received knower) experienced considerable empathy for some children with whom they worked during practicums. Nina's ensuing reflection, however, was more sustained than Josephine's, possibly because she might have utilised more effectively the emotional energy emanating from these empathetic encounters to construct meaning (Hopkins, 1994). Josephine's preference for received knowledge and her dependence on the voice of authority, in contrast, might have dissipated this energy. This possibility must remain a matter of conjecture, however, until further investigation into the contribution of emotion to reflection.

ISSUE 3: THE COMPLEXITY OF REFLECTION

Although the current study has illuminated some of the links between emotion and reflection, many missing dimensions (Valli, 1992) remain. It could be argued that the fact that so much about reflection is still not fully understood testifies to its complexity. Moreover, as this thesis has asserted throughout, this complexity must be embraced, rather than ignored, if current understanding of reflection is to be enhanced.

The existing literature, nonetheless, makes a valuable contribution to informing understanding of reflection and provided many constructs which greatly assisted the interpretation of the data collected for the present study. Dewey's contention that "the solution of a perplexity" (p.14) is a typical goal of reflection, for example, explained Genni's determination to clarify her understanding of child-centredness. It also explicated Sarah's refusal to accept on face value a school's claim that it followed a policy of child-centredness and her subsequent investigation of what she understood by this term. Similarly, Dewey's assertion that reflection involves "active, persistent and careful consideration of any belief or supposed form of knowledge" (p.12) and "searching, hunting, inquiring, to find material that will resolve the doubt, settle and dispose of the perplexity" (p.13) drew attention to Jessica's commitment to discovering and understanding the diverse views of colleagues and Gerry's emphasis on exploring competing theories.

Likewise, Schon's notion of framing and reframing problems explicated Felicity's problem solving orientation, just as Boud et al.'s (1985) emphasis on returning to experiences explained Kasey's insistence on revisiting

personally significant events. Furthermore, Van Manen's levels of reflection, especially as adapted by Zeichner & Tabachnick (1991), and Hatton & Smith's (1995) types of reflection, assisted in differentiating between participants' responses. They were especially helpful in comparing different student teachers' responses to a similar situation and one student teacher's responses to a particular situation over time. Finally, LaBoskey's (1994) and Korthagen & Wubbels' (1995) characteristics of more and less reflective student teachers highlighted, in particular, the importance of passionate creeds and external / internal orientations.

Nevertheless, the findings of the present study reinforced the argument developed throughout this thesis that the existing literature about reflection is not fully attuned to its complexity. As foreshadowed in Chapters One and Two, reliance on the existing literature, alone, would have inhibited many of the understandings which eventually emerged from the study. It provided little guidance, for example, concerning how to interpret the flashes of intuitive understanding reported by several participants and, in general, contributed few insights into the holistic nature of many participants' reflection. Conversely, it could be argued that strengths of the current study include its recognition of the complexity of reflection, its awareness of the limitations of the current literature in fully illuminating this complexity and its willingness to explore alternative literature to further inform understanding.

IMPLICATIONS ARISING FROM ISSUE 3

The inherent complexity of reflection, illuminated by this study, has several implications for teacher educators and researchers. These are summarised below.

Appreciating The Complexity Of Reflection

As previously argued, a broad conceptualisation of reflection more readily recognises the complexity of reflection and reduces the risk of excluding aspects or approaches which might not conform to narrow definitions. It accommodates Jessica's search for rhythm and balance, Gerry's preference for interpreting theory through theoretical frameworks, Felicity's emphasis on practical problem solving, and Kel's seemingly sudden insights. On the other hand, broad interpretations of what constitutes reflection can make it more difficult for teacher educators to be explicit about what they mean by reflection and thus cause confusion and uncertainty for student teachers

(Ecclestone, 1996; LaBoskey, 1994). Furthermore, as illustrated in Chapter Two, broad conceptualisations can further complicate and frustrate efforts to identify or measure reflection.

Yet, despite these difficulties, the current study strongly suggests that the inherent complexity of reflection must be acknowledged if understanding is to be enhanced. Should, for some reason, the nature of the teacher education program or the purpose of the study demand a narrow focus on a specific aspect of reflection then such constraints and consequent limitations must be made clear. Otherwise, the limitations of the parameters of the program or study might mistakenly be perceived as limitations of the participants or phenomenon under investigation.

Acknowledging The Limitations Of Prior Research

The volume of recent research into reflection could suggest that new developments abound or that saturation has been achieved and that little additional understanding is likely to arise from further investigation. This thesis contends that both impressions would be misleading. As argued in Chapter Two, many prior studies were marred by a poor or selectively narrow conceptual grasp of the seminal work from which they were supposedly derived; an excessively reductionistic approach; a willingness to leave partially developed ideas untouched; or an overly strong regard for pragmatic considerations and a consequent reluctance to take the necessary conceptual or methodological risks to investigate ways of making meaning not usually associated with mainstream Western traditions. Should these trends continue, it could be difficult to justify maintaining the current volume of research into reflection. By highlighting the holistic nature of reflection, however, the present study suggests that a sustained commitment to moving beyond current limitations might reveal exciting possibilities.

Recognising Opportunities For Further Research

In particular, this study contends that focusing on uncertainties and gaps in the existing literature could be of value. Exploring the "blind and opaque spots" (Dewey, p.139) of seminal literature and missing dimensions (Valli, 1992), hitherto mostly overlooked, might identify possibilities for developing a more holistic understanding of reflection. The apparent mismatch between Dewey's tacit recognition of the interplay between primarily intuitive and analytical processes in reflection and his arguably less than successful

attempts to represent these as a linear sequence, for instance, seem worthy of further investigation. Likewise, his tentative references to the possibility that reflection might be more usefully conceptualised as a process of transformation, another issue with which he appeared to grapple without coming to any conclusion, could well be addressed by future studies.

In the current study, the initial forays into other areas of literature with potential to inform such gaps appeared worthwhile. Exploration of theories of intuitive understanding, prompted by Dewey's uncertainty concerning the interplay between analytical and intuitive processes, drew attention to the deliberative aspects of intuition as a medium for making meaning. Likewise, the investigation of Eastern philosophical notions of transformation, instigated by Dewey's seemingly undeveloped references to transformation, suggested that future Western research might consider the role of meditation in reflection. Eastern notions of consciousness and enlightenment, in turn, generated interest in quantum notions of consciousness and connections.

In short, exploring possible connections with other literature created "endlessly interesting landscape of ideas and nuances of ideas" (Scharfstein, 1978b, p.127). Furthermore, the consequent conceptual enrichment such experiences enable potentially contribute to an appreciation and understanding of the complexity of reflection. For this reason, recent tentative moves by writers such as MacKinnon (1996) and Korthagen (1993) to explore possible connections with other literature warrant encouragement and emulation. The present study, for example, has indicated that relaxation and visualisation strategies might have the potential to promote a more contemplative mode of reflection than is typically associated with teacher education contexts. There appears considerable scope to explore this potential further through a more indepth exploration of relevant literature, including that associated with Eastern philosophical traditions.

ISSUE 4: THE CENTRALITY OF CONNECTIONS

Indeed, the current study suggests that it is difficult to overemphasise the importance of connections when conceptualising and investigating reflection. In this study, connections were significant in several ways. Links drawn between the diverse orientations to reflection identified in Chapter One illuminated the notion of reflection as a search for meaning as the main connecting thread. In addition, as outlined above, connections between the

literature about reflection and other potentially related literature helped to extend existing understandings. Finally, the connections made by participants themselves in their search for meaning became the focus for the interpretation of the data.

It is noteworthy that reflecting on the meaning of reflection, a process integral to this study, should involve seeking the connections referred to above. This could suggest that searching for connections is an integral aspect of reflection, regardless of the focus of that reflection. The data collected from participants supported this assertion. As their profiles indicate, the more reflective participants were clearly more interested and/or adept at making connections than their less reflective peers. Furthermore, changing trends in participants' reflection seemed determined by changes in their interest in making connections or their ability to do so.

Erica, for example, was quite explicit about her lack of interest in transcending her existing personal and professional boundaries. She frequently emphasised that she did not want to undertake a practicum in a socio-economic-cultural environment different to that to which she was accustomed. Moreover, when placed in a low socio-economic, culturally diverse setting she showed no interest in challenging or revising her beliefs, values, ideas or expectations. Her certainty precluded connections because it countenanced no inconsistencies, puzzles or surprises, in short, no loose threads or openings which might have allowed her to hook into new understandings. Her lack of tentativeness, the antithesis of Dewey's notion of openmindedness, resulted in premature closure to alternative possibilities and hence little reflection.

In contrast, the more reflective student teachers frequently referred explicitly to making connections. Colin's comment: *"I see them [connections] in my mind, almost like a concept map"* (1/9/93,39), Jessica's reference to wanting *"to touch out on what other people thought"* (10/11/93, 222) and Sarah's jigsaw puzzle representations (Photographs 5a and 5b) were typical examples. Some, like Colin, reported that they had always consciously strived to make connections, *"to question things ... to work out [things] out for myself"* (29/3/93, 266-268), although sadly his ability to make connections appeared to decline in what he came to see as the unsupportive environment of his preservice program. Other student teachers came to increasingly value connections during their

enrolment in the program. Pia, for example, learnt to appreciate "*keeping in contact with what you believe*" (22/11/95, 367) while Kasey, and others, became determined "*to integrate my beliefs and my practices*" (13/10/95, 271). These comments illustrate how the more reflective participants actively sought to establish connections as a means "constantly extending ... [them]selves" (Willis & Schubert, 1991, p.6). To them, leaning to teach was "a process of incessant becoming" (Skolimowski, 1992, p.18), a process which appeared to have little appeal for the less reflective participants.

In this sense, a tendency to reflect or not to reflect seemed self-perpetuating. Metaphorically, this might be explained by regarding connections as multi-dimensional rather than linear and developing simultaneously in several dimensions and on several fronts (Moffett, 1992). As such, the more they develop, the more interfaces they present to new experiences, possibilities and ideas. In many ways, the present study suggests that recognition and receptivity to this fluidity and willingness to explore potential connections constitute the essence of reflection. In contrast, in the absence of reflection and in a context of certainty and closure, opportunities to make connections appear considerably fewer. This might help to explain why over time, the differences in the tendency of the participants in the current study became more marked.

IMPLICATIONS ARISING FROM ISSUE 4

If connections are as integral to reflection as the current study suggests, then several implications arise for teacher educators and researchers. These include the desirability of recognising and understanding the diversity of modes of making connections and their potential for enhancing holistic understanding; making structural changes to preservice programs to provide a learning environment more conducive to making connections; and assisting student teachers to develop a range of strategies for making connections, including detachment from conscious striving.

Recognising And Understanding Diverse Modes Of Making Connections

The various orientations to reflection and studies based on these (reviewed in Chapters One and Two) differ in their acknowledgment and appreciation of other than analytical ways of knowing. Proponents of a narrative orientation, for example, as well as writers such as Bullough & Stokes (1994), Griffiths & Tann (1992) and Russell (1989) emphasise metaphorical understanding as

an aspect of reflection. Their understanding of image as a medium for establishing connections far exceeds the level of understanding of those orientations (e.g., Boud et al., 1985) that see images only in terms of recalling past experiences as memories.

The apparent effectiveness of visualisation as a strategy for reflection for five of the 11 student teachers in the present study who participated in relaxation and visualisation sessions further demonstrates the potential of image as a medium for making connections. Moreover, it suggests that understandings emerging in some areas of the literature concerning the contribution of connections which are not necessarily analytical in nature warrant careful consideration, rather than the strident and sometimes seemingly gratuitous criticism that Schon's interest in the intuitive connections underpinning reflection-in-action has frequently attracted. In brief, a greater interest in and willingness to explore holistic understanding appears a desirable direction for future research into reflection.

Implementing Structural Changes To Promote Connections

Many argue that traditional teacher education programs have tended not to emphasise connections, apart from narrow, technical, "cause-effect" connections (Carr, 1997; Brooker & O'Donoghue, 1992; Bowers & Flinders, 1990). Critics also point to the problems associated with interpretations of hierarchical models of student teacher development (e.g., Fuller & Bown, 1975). In particular, they claim that emphasis on predetermined milestones has resulted in overly structured and prescriptive preservice programs which require modules or units to be completed in a set sequence (Barnett, 1994; Moffett, 1994; Buchmann & Floden, 1993). As Moffett (1992) notes, such rigid boundaries seem unlikely to suit all learners. For many student teachers, such programs can appear fragmented, making connections difficult to grasp (Barnett, 1994; Elbow, 1986). If professional growth is a process of establishing connections and expanding boundaries (Buchmann, 1993b) in "an ever-growing process of complexity, in ... which new layers of understanding emerge" (Skolimowski, 1992, p.18), then the linear structure of many preservice programs seems likely to impede student teachers' professional growth and inhibit the development of their reflection.

Although the widespread interest in reflective practice suggests that this technical paradigm of teacher education might be losing favour, teacher

education programs may not necessarily have kept pace with changes in rhetoric (Perry, 1997; Munby & Russell, 1993). It could be argued that unless the structural features of programs which were previously technical in orientation show commensurate change, student teachers are likely to continue to find connections difficult to establish. Teacher educators hoping to promote student teachers' reflection, therefore, might consider changes to program structures, delivery and assessment to enable an emphasis on interconnections rather than fragmentation.

Such changes might centre on softening artificial boundaries and rigidities to allow "more leeway for student timing and discovery" (Moffett, 1992, p.80) and space for negotiation between the requirements of the curriculum and learners' interests and needs. Instead of the "preplanned feeding of information" (Moffett, 1992, p.80) largely underpinning modular units, learning could be structured around generic themes associated with teaching and learning to teach. Possible themes suggested from the current study include interpersonal relationships, roles and responsibilities, beliefs and practices, dilemmas, difficulties, empowerment, and conflict and cooperation. Within this broad framework, student teachers could, for example, inquire into emerging interests, work on overcoming specific weaknesses, investigate problems or concerns, undertake and implement projects (Moffett, 1992), or extend and explore the implications of their passionate creeds. To ensure an appropriate balance of learning experiences, in consultation with teacher educators, student teachers could develop learning contracts (Anderson & Boud, 1996), document their learning through professional portfolios (Guillaume & Yop, 1995) and negotiate appropriate assessment tasks (Candy, Crebert & O'Leary, 1994).

In far more depth than the current program would allow, for instance, Sarah could build on her passionate creed by exploring approaches to implementing child-centred practices within the constraints of school environments. Similarly, Nina might choose to consider implications of her passionate creed by investigating what would be involved in establishing an exemplary child care centre for children from economically disadvantaged or culturally diverse backgrounds. In-depth investigations of student teachers' own choosing, would require them to draw on knowledge, understandings and skills from across curriculum and disciplinary areas, and to make connections not necessarily demanded by a series of modular units (Moffett, 1992).

The current study suggests that student teachers who enter preservice programs as received rather than constructed knowers, might require considerable support in adopting an approach to learning which focuses on meaningful connections rather than a surface or strategic approach (Gibbs, 1992; Ramsden, 1992). As noted previously, for example, Erica, might have been encouraged to draw on her enthusiasm, expertise and experiences in teaching swimming to make connections with her teaching in other contexts. Enabling her to negotiate assignments which allowed her to investigate and demonstrate these connections might have made the assessment process more meaningful for her. This, in turn, might have encouraged her to take greater responsibility for her learning and helped to transcend her epistemological perspective of received knowledge. Moreover, as Garrigan (1997) argues, teacher educators' acknowledgment of individual differences in epistemological perspectives, preferred learning styles (Kolb, 1984) and strengths as learners (Gardner, 1983) could provide student teachers with terminology which might better assist them to understand themselves as learners and take greater responsibility for their learning.

Given her strong preference for learning through practice, Erica might also have benefited from continuing with Guided Practice in an uninterrupted sequence, despite not having passed all prerequisite units. Had there been fewer structural rigidities in her preservice program, this option would have been possible. Furthermore, allowing her to undertake her practicum experiences earlier in her program, might have enhanced her sense of self-efficacy which, in turn, might have enabled her to move closer to constructed knowing. These possibilities are a matter for conjecture. For the most part, however, Erica's profile suggests that she became increasingly entrenched in received knowing as she progressed through the program. As her profile indicates, her epistemological perspective considerably hindered the development of her reflection.

Changes to program structure, delivery and assessment such as those proposed above might encourage more student teachers to value connections rather than the accumulation of discrete knowledge.

So far, the suggested changes have centred on providing an environment which supports conscious striving for connections. The focus will now shift from striving to receptivity, from active engagement to detachment.

Fostering Detachment From Conscious Striving

Detachment is the ability to relinquish active involvement and to cultivate instead a more distanced perspective (Gallehr, 1994) and a state of "quietly receptive attention" (Buchmann, 1993b, p.159). Detachment provides a release from preoccupation with specific tasks, responsibilities, goals and concerns (Buchmann & Floden, 1993). Thus, it can assist in perceiving connections which prove elusive amid the pressures and demands of professional lives (Buchmann, 1993b; Fiumara, 1990).

Brand & Graves (1994) note that "the world is full of noise, full of loud and strident voices, each trying to drown out the other" (p.7) Although not directed specifically at teacher education programs, their statement aptly describes many participants' experiences of the program. As Colin noted: "*There are a lot of mixed messages from academics about what is worthwhile. For example, one tutor will say that rotational activities are good and another will say they are really negative*" (1/11/93, B162). Because of these conflicting viewpoints Kathleen found that "*every time I walk into a lecture or a tutorial my ideas change* (5/4/95, 14). Dispirited by this, she decided that "*it would be pointless to write down what I thought because my ideas would be different the next day*" (5/4/95, 17). Even the most reflective participants found making sense of conflicting views difficult. As Sarah commented "*I find it really confusing ... It's so hard to bring it all together* (31/3/95, 42). "*I picture myself running in circles, confronting the same hurdles over and over again*" (April, 1995). Hence, for student teachers trying to make sense of this complexity, periods of retreat might be essential.

Pauses for silence can offer much needed respite from the "dense cloud of theory, interpretation and explanation" (Fiumara, 1990, p.99). They can also provide a space for "centering, of witnessing ... feelings and thoughts" (Suhor, 1994, p.31). In addition, silence can loosen attachments to language and provide alternatives to linguistic connections (Elbow, 1994). As Van Manen (1991, p.113) explains:

beyond the range of our ordinary speaking and writing there is the rich domain of the unspeakable that constantly beckons us ... We may have this knowledge on one level and yet this knowledge is not available to our linguistic competency.

Silence allows opportunities for consulting this tacit knowing (Elbow, 1994) and enables us to "perceive messages from within" which can "inspire, advise and direct us" (Fiumara, 1990, p.127). Without silence, such messages may be inaudible.

Moreover, temporarily bypassing words allows us to "return to them with a fullness and immediacy" (Worley, 1994, p.133) of understanding not experienced otherwise. As Moffett (1992) less elegantly asserts, those who "suspend discourse think and speak better when they turn it back on" (p.15). This suggests that, just as silence between the notes is frequently the most powerful part of music (Elbow, 1994), intervening pauses for silence might be the most powerful components of environments which seek to foster the development of reflection.

As their profiles illustrated, several participants' experience of the relaxation and visualisation sessions highlighted the potential power of silence to enhance understanding. Their sense of self acceptance and feelings of distance from pressures and concerns promoted feelings that enabled a clearer, focused and more balanced vision. Pia likened this to the ability to see through the *"extra baggage that I carried in the back of my head"* (13/3/95, 119). For silence to be optimally effective, though, it can be argued that student teachers would need to cultivate heightened concentration, contemplation or mindfulness as described by Tremmel (1993). The current study suggests that these attributes and skills would not be acquired easily and that considerable commitment and effort would be required. Indeed, one wonders whether student teachers like Erica who placed so much emphasis on physical activity, or those like Genni, who had no interest in attending the relaxation and visualisation sessions could be expected to benefit from, or pursue, contemplative techniques. These examples emphasise the need to recognise the diversity of student teachers and the importance of introducing them to a range of reflective strategies.

For student teachers uncomfortable with silence or uninterested in exploring its potential, or for those wanting to explore alternative techniques for holistic understanding, free writing or stream of consciousness writing, might be of value. As explained in Chapter Two, free writing can act as conduit between the conscious and unconscious - reaching "for the unspoken" (Elbow, 1994, p.19), fashioning "an emergent form from what was originally formless"

(Graves & Becker, 1994, p.53) and representing intuitively perceived patterns and connections (Brandt, 1934). Like silence, free writing can provide "relief from logic and linearity" (Elbow, 1994, p.16) and a space for "waiting for ... [understanding] to arrive" (Elbow, 1994, p.16). Furthermore, because free writing uses the ubiquitous medium of written text, with which student teachers are familiar and comfortable, it might encourage those reluctant to move beyond writing to other forms of representation to explore more holistic approaches. Ironically, however, of the participants in the current study, Sarah showed by far the most interest in free writing, perhaps because she was already comfortable with a range of representational forms.

Free writing and silence represent a movement away from the type of connections typically associated with constructed knowing to the connections between tacit and conscious understanding, and between knower and known, typically associated with participatory consciousness (Heshusius, 1994; Heron, 1992). Although these connections have the potential to extend current Western understandings of reflection, the present study confirmed that, currently, there is little guidance concerning how they might be identified.

ISSUE 5: THE ONGOING DIFFICULTIES OF IDENTIFYING REFLECTION

Conceptualising reflection in broad terms as a search for meaning precluded proceduralising reflection as a linear or cyclical analytical process, an option taken in many prior studies (see Chapter Two). Subsequent efforts to identify and represent holistic processes of making meaning presented ongoing challenges and confirmed the methodological lag associated with the emerging holistic paradigm referred to in Chapter Four. No way was found, for example, to identify instances during teaching of what Schon referred to as reflection-in-action. Indeed, as might be expected of an exploratory investigation, in many respects this study raises more questions than it answers.

Furthermore, while the profiles portray ways in which participants created and reflected on their professional knowing, they are not intended to make definitive statements about student teachers' reflection in general. Rather, they illustrate how key factors, discussed in more depth later in this chapter, contributed to or hindered these student teachers' reflection. Whether these factors might be generalisable to student teachers in different contexts, as

noted in Chapter Four, is a matter for readers with knowledge of those contexts.

Finally, similarities between the beliefs in universal interconnectedness underpinning the study and the findings of the study concerning the centrality of connections in reflection illustrate the reflexive relationship between conceptualisations underpinning research studies and the findings of those studies (Smith, 1997). Yet, as argued in Chapter Four, research cannot be undertaken from within an epistemological and ontological vacuum. For this reason, like all researchers, I had a responsibility to explain my beliefs to assist the reader to evaluate the credibility of the study. I submit that these beliefs enriched, rather than detracted from, the study and contend that participants' emphatic verification of the interpretations presented in the profiles attest to the study's credibility.

IMPLICATIONS ARISING FROM ISSUE 5

The inherent complexities, uncertainties and constraints associated with identifying reflection, exacerbated in the current study by a determination to acknowledge the holistic aspects of reflection, raise several implications for teacher educators and researchers seeking evidence of reflection. These implications are outlined below.

Recognising The Limitations Of Many Widely Used Strategies For Investigating Reflection

The complexity of reflection, evident in the profiles presented in the previous chapters, highlights the inappropriateness of attempting to use simplistic, uni-dimensional measures to identify reflection (Goodman, 1992). Had the current study depended on conceptual frameworks such as those developed by MacKinnon (1987), Ross (1989) or Sparks-Langer et al. (1990), the emotional dimension evident in many student teachers' reflection would have been overlooked. Similarly, the other than analytical processes, such as rhythm, balance, image, and intuitive insights referred to by some participants, would have gone unrecognised. Likewise, uncritical adoption of Van Manen's levels of reflection in their original form would have further distorted interpretations of the data. Gerry's reflection on his difficulties with behaviour management, for example, is likely to have been one of many instances where technical reflection would have been categorised as low level reflection rather than recognised as entirely appropriate to the context.

In Gerry's case, especially, evidence of technical reflection was not in any sense indicative of a less well developed reflective ability.

These examples suggest that, to be effective, conceptual frameworks for identifying reflection require sensitivity to the complexity of reflection and to contextual influences. As well, they need the ability to represent the many ways in which connections might be made and the fluidity of these connections. It could be argued that their inherent rigidity makes this difficult. Mind mapping techniques (Oldfather et al., 1994) might prove a useful alternative. While they have been used to represent student teachers' responses and thinking (see, for example, Kwan, 1996; Oldfather et al., 1994; Morine-Dersheimer, 1993), they do not appear to have been used by researchers to represent their interpretations of student teachers' reflection. Given that the above studies found mind maps useful in representing complexity, contextual factors, connections and change, they may have considerable potential for identifying and portraying reflection. They might be particularly useful when time and resource constraints preclude the development of profiles of the type presented in the previous chapters.

As well as emphasising the limitations of many conceptual frameworks, the current study highlights the danger of uncritical acceptance of supposed artefacts of reflection. As described in Chapter Two, many previous studies have relied heavily on reflective writing as a data source. Surprisingly few have questioned the authenticity of this source. Yet, as the data from many participants in the present study demonstrate, samples of even seemingly advanced reflective writing need not indicate necessarily that reflection has taken place. Erica's admission that, having mastered a genre of reflective writing (Hatton & Smith, 1995) to her University practicum advisers' satisfaction, she simply transferred the same pieces of reflective writing from one practicum folder to another as the situation demanded, graphically illustrates that it is possible to submit a convincing sample of reflective writing without any reflection whatsoever having taken place. The study revealed many other, albeit less blatant instances, where student teachers regarded their reflective writing as a mechanistic and tokenistic response to the expectation that they engage in reflection. Conversely, Genni's profile indicates that difficulty in using an accepted reflective writing genre (Hatton & Smith, 1995) need not imply a lack of reflection.

The above discrepancies caution against assuming a necessarily close relationship between reflective writing and reflection and add weight to warnings (Francis, 1995; Hatton & Smith, 1995) that product may not be indicative of process. The difficulties of authenticating reflective writing as an artefact of reflection supports Sumsion & Fleet's (1996) conclusion that it is unwise for teacher educators to attempt to assess student teachers' reflective writing. These discrepancies also suggest that future research may need to distinguish willingness to reflect from ability to reflect.

Because reflective writing can be such a misleading source of data, future studies might also consider not relying only on reflective writing, or indeed, any sole source of data. Multiple sources of data provide opportunities for triangulation (Mathison, 1988) and crystallisation (Richardson, 1994) of meaning and thus can assist in gauging the authenticity of data sources. In the current study, the consistency between Pia's spoken and written reflection, for example, suggested that her reflective writing was a more accurate representation of her reflection than was the case with many of the other participants.

The present study also demonstrates the advantages of a longitudinal as opposed to a cross sectional research design. In contrast to many previous studies, its four year duration enabled data to be gathered at many stages of the participants' preservice program and in many contexts. Although the benefits of such prolonged data collection far outweighed the difficulties reported in Chapter Four, clearly longitudinal studies of this duration are not always feasible. Had a cross sectional study been undertaken at any one stage of the participants' enrolment in Guided Practice, though, the snapshot images could have provided a misleading impression of many participants' reflection. At several points in the current study, data collected from any of the student teachers who showed little development in reflection, could have suggested, in isolation, that these student teachers were reflective. Conversely, had data been collected at only one stage of the program, several of the most reflective participants could have been categorised as not particularly reflective. Gerry's craving for support, taken out of the context of the longitudinal study, for instance, might have been interpreted as unwillingness to take responsibility for his own learning, which data collected over the longer term patently illustrated was not so.

The above examples highlight the potential for distortions in the data collected for cross sectional studies and the need for caution in interpretation of the data. Patterns emerging from the participants' profiles suggest a trend for some relatively unreflective student teachers to be somewhat more reflective in the middle stages of their program, perhaps because the gap between their perceptions of the complexity of teaching and their skills as teachers was at its greatest. As they began to develop greater confidence, their incentive to reflect, never particularly strong, seemed to dissipate. Cross sectional studies need to be alert to the possibility of such trends and cautious about projecting from data collected at a particular point in time.

The absence of strong developmental trends identified in the present study in terms of content, processes or structures of reflection, suggests that cross sectional studies might need to be especially cautious in assuming a specific developmental sequence through which student teachers might be expected to progress as they became more reflective. Generally, the focus of the participants' reflection was similar to that identified by Tsang & Wong (1995) and Guillaume & Rudney (1993). As a group, participants referred frequently to their relationships with children and adults; children's learning; their beliefs and practices as well as those of their cooperating teachers and children's parents; specific teaching skills including behaviour management strategies; relationships between theory and practice; their own professional development; the roles and responsibilities of early childhood educators; and cultural and organisational differences. Not all participants, however, reflected on each of these content areas, nor was there a discernible pattern distinguishing the general content area of the more reflective participants' reflection from that of their less reflective peers. Furthermore, there was no apparent trend for the more reflective participants to focus predominantly on a particular type (Hatton & Smith, 1995) or level of reflection (Van Manen, 1977). Rather, their reflection varied according to their purpose and the context in which they were reflecting.

As student teachers became more reflective, however, their connections became noticeably more wide ranging. As Pia explained:

In the beginning, I think that you just look at you and the children. But as you progress, you realise that it's not just you and the children. The surroundings also matter because they influence you and you have to decide how much you will let them influence you. You realise the significance of things more.
(22/11/95, 555)

Her comments support Yinger & Hendricks-Lee's (1993) notion of learning to teach as an ecological process involving a developing awareness, appreciation and understanding of "complex systems interacting and affecting each other" (p.120) of which the individual is part, reminiscent in some ways of the Eastern traditions and quantum theory referred to in Chapter Three. Student teacher development, including the development of reflection, might be better identified, therefore, by "emergent and contingent, defining and defined by interactions with the surrounding medium" (Smith, 1996, p.7 citing Macy 1991), than the supposedly isolating fragments of reflection indicated by the graphs, charts and figures proposed by Loughran (1996) and Pultorak (1996).

Investigating Alternative Data Collection And Interpretation Strategies

As explained previously, because of the paucity of widely recognised strategies for investigating holistic understanding, the current study relied heavily on several strategies commonly associated with the constructivist paradigm (Guba & Lincoln, 1994), including indepth interviews and thematic interpretation of interview transcripts. Although highly dependent on language, and therefore limited in their ability to explore tacit understanding, these strategies were nevertheless invaluable in contributing to an understanding of the participants' search for meaning. At the same time, strategies selected specifically for their potential to explore tacit understanding, albeit eventually communicated through language, showed considerable promise and warrant further exploration. The following discussion focuses on four of those strategies - visual representations, relaxation and visualisation, kinaesthetic involvement with data, and contemplation of data.

While encouraged to use a range of visual representations in response to the questions underpinning the 1:1 interviews, many participants were reluctant to venture beyond words. Indeed, Sarah was the only participant to use drawings consistently. Approximately half the participants occasionally used drawings or mind maps, while a similar number relied totally on words. When asked why, the latter group referred to a lack of confidence in their drawing ability and their customary reliance on writing, which might be attributed, in part, to socialisation into an academic culture which does not traditionally value drawing (Weber & Mitchell, 1996). Their responses showed little understanding of the potential of visual representations to reveal hitherto tacit

knowledge. Those who did experiment with visual representations, however, found them helpful in bringing "*a lot more to mind*" (Pia, 24/3/95, 73) than purely written responses. From my perspective, the clarity and succinctness of their representations greatly assisted the process of interpretation.

An unexpected benefit of visual representations was their tendency to assist participants to recall more immediate and vivid memories of the thoughts, feelings and ideas they represented, than lists of words or prose. This was particularly noticeable when, in the final interview, student teachers were asked to reflect on their entire series of representations made throughout their participation in the study. These representations were displayed on my office wall which made it possible for student teachers, in a relatively short time, to review their representations and to note any patterns or changes in their responses during their participation in the project. In contrast, it was not practical to ask them to read through the complete sequence of their interview transcripts during the final interview because of the time consuming nature of this task. Where necessary, though, transcripts were available to remind student teachers of aspects of their representations which they may have forgotten or overlooked.

The ease with which visual representations could be used to encourage student teachers to reflect on previous reflection, a practice advocated by Smith (1997) and Clarke (1994), suggested that they could be useful tools for tutorials and studies involving larger numbers of participants than the present study. Student teachers could explain their representations to a partner who could make brief notes to assist recall when student teachers later reviewed their representations, as they did in the final interview for this study. For optimal effectiveness, however, student teachers would need to feel more comfortable with this medium than the participants in the present study. This might be achieved through discussion of holistic knowing and how it might be promoted. As well, it might help to share, with their permission, examples of other student teachers' visual representations. In addition, ample opportunity might need to be provided for student teachers to experiment with visual representations in tutorial sessions.

Interestingly, participants in the current study were much less resistant to using relaxation and visualisation strategies to explore holistic knowing than they were to use visual representations. Only 11 of the eighteen participants

attended the sessions, but in just one case was this because of an explicit lack of interest or unwillingness to be involved. Perhaps these student teachers were more prepared to explore relaxation and visualisation strategies because, unlike drawing, these had not been part of their previous formal curriculum experiences. Although a potentially sad indictment of the educational system, it might explain why student teachers had not developed negative connotations of these techniques. Unfortunately, because of the logistical difficulties and constraints referred to in Chapter Four, it was not possible to continue the relaxation and visualisation sessions for a sufficient period of time to allow student teachers to become particularly proficient with the techniques involved. Nevertheless, their responses, discussed in more detail later, suggest that these strategies have considerable potential for promoting detachment and reflection of a contemplative nature.

As explained in Chapter Four, strategies for promoting holistic understanding were also incorporated into the data interpretation process. Transcribing audio tapes, cutting and pasting the transcripts on to cards, and arranging the cards in many different formations enabled a great deal of kinaesthetic involvement with the data. This resulted in an intense familiarity with and closeness to the data which would have been difficult to achieve otherwise. Kinaesthetic involvement, in effect, seemed to promote a synergy of bodily and cognitive knowing.

Similarly, the interplay of analytical and contemplative processes, also outlined in Chapter Four, enhanced understanding of the data in a way which is difficult to describe but, nevertheless, was extremely valuable. In particular, by cultivating the detachment described earlier in the present chapter I was able to transcend my initial anxieties about the interpretive task. By entering a state of relaxed alertness (Smith, 1996; Heshusius, 1994,) I seemed to become far more receptive to connections of which I had been previously unaware. Accompanying this sensation of illumination was a sense of inner peace and certainty that I had understood what the data were trying to tell me at that particular time. The participants' positive responses to my early interpretations confirmed the value of these processes and encouraged me to explore them further with greater confidence.

Although the authenticity of my interpretations, as confirmed by participants, justified the interpretive processes adopted, a greater understanding of how

holistic processes assist data interpretation is needed. Indeed, exploring their potential would be a useful focus for future research. It might help to overcome the methodological lag hindering understanding of the emergent holistic paradigm described in Chapter Three and assist in overcoming the current apparent impasse into contemporary Western research into reflection referred to in Chapter Two.

ISSUE 6: FACTORS INFLUENCING THE DEVELOPMENT OF REFLECTION

The present study reaffirmed the findings of many previous studies (e.g., Smith, 1997; Korthagen & Wubbels, 1995; LaBoskey, 1994; Gore & Zeichner, 1991; Calderhead, 1987) that reflection, especially of a critical nature, is difficult to promote. Of the 18 participants, eight showed little consistent development in their reflection, four demonstrated some development and only six became considerably more reflective about their professional practice during their enrolment in Guided Practice. Of these six, all but one regarded themselves as already reflective when they first enrolled in the program.

Given that almost half the participants in the present study did not become more reflective and another third had been reflective on entry to the program, should attempting to promote reflection continue to be a priority for teacher educators? Instead might additional time and attention be devoted more effectively to other aspects of preservice programs? In addressing these questions, the following discussion assumes that preparing graduates who are willing and able to reflect on their professional practice is a worthwhile goal but acknowledges that there is little evidence, as yet, to indicate the validity or otherwise of this assumption (Hatton & Smith, 1995; Korthagen & Wubbels, 1995; Calderhead & Gates, 1993). The discussion focuses more on the achievability than the appropriateness of this goal, arguing that a reasonable chance of success is needed to even begin to warrant the current emphasis on reflection. It commences, however, by drawing on findings of the present study to refute several concerns about the appropriateness of attempting to promote reflection in student teachers.

First, the finding that slightly more than half of the participants became more, or considerably more, reflective during their enrolment in Guided Practice counters concerns that "by emphasizing reflection with student teachers [we

are] aiming too high" (Calderhead & Gates, 1993 p.3). Moreover, those student teachers who became more reflective, in general, reported considerably more professional satisfaction than those who did not. Although it could be argued that their satisfaction was related to a number of factors, their reflective stance seemed a significant contributor. Delaying an emphasis on reflection until the inservice years, as suggested by Calderhead & Gates, might deny these student teachers considerable professional satisfaction during their preservice years.

Second, concerns about possible social equity implications of an emphasis on reflection (Smith, 1997) are not supported by this study. Of the three participants who could be described as coming from other than middle class backgrounds, two appeared to become more reflective and one considerably more reflective during their enrolment in Guided Practice. Interestingly, all participants whose reflection showed little development were from middle class backgrounds (as indicated by family educational, employment and income levels). Only tentative conclusions can be drawn from these findings, however, given the small number of participants from diverse socio-economic backgrounds. The considerably greater cultural diversity amongst participants, though, similarly showed little relationship between reflectivity and cultural background. Nevertheless, it appears that further research is required before fears that an emphasis on reflection might disadvantage some social or cultural groups could be considered unfounded.

Third, there seemed little relationship between TER (Tertiary Entrance Ranking) and reflectivity. Of the three participants with TERs in the top percentile, one became considerably more reflective but two showed little development in their reflection during their enrolment in Guided Practice. Similarly, of the four participants whose TERs were too low to gain entry to the program through normal channels, two became more reflective and two considerably more reflective. Moreover, there was only a slight relationship between participants' grade point average (GPA) during their enrolment in the program and the extent to which they became more reflective. The average GPA for those participants whose reflection showed little development was 2.5, compared to 1.8 for those who showed some development and 2.9 for those who showed considerable development. This indicates that there would be no justification for any return to technically orientated teacher education programs on the grounds that only the most

academically benefit from a reflective orientation to professional development. Indeed, apart from indicating that TERs are a poor predictor of success in this particular preservice program, the dramatically higher GPAs (than their TERs would have predicted) of two participants whose reflection showed considerable development suggests that for some student teachers, a reflective approach might enhance academic achievement.

In the current study, success in promoting reflection depended largely on four key factors. These factors, identified in the profiles presented in the preceding chapters and reintroduced at the beginning of this chapter were: a commitment to teaching, a commitment to reflection, an epistemological perspective of constructed knowing, and a perception of a supportive learning environment. Although all four factors were instrumental, the last was arguably most important, as Colin's profile, in particular, illustrates. The following discussion elaborates as to how these factors appear to enhance the development of reflection and considers how they might be promoted within a preservice program.

Commitment To Teaching

As their profiles showed, the participants who were committed to teaching were more likely than their less committed peers to be reflective. Their strong desire to teach provided an incentive to persevere when faced with the inherent challenges associated with learning to teach. Frequently, these challenges proved overwhelming for those less committed to teaching, including Marina and Pamela, and resulted in their withdrawal from the program. While Erica, on the other hand, completed the program her lack of interest in teaching provided little incentive to reflect.

Many participants who were committed to teaching were attracted to and excited by its complexity. They were keen to explore and make sense of this complexity and, for this reason, distrusted simplistic solutions and "overly certain conclusions" (LaBoskey, 1994, p.29). Rather, they envisaged that learning to teach would be an ongoing process, involving many challenges but also considerable personal and professional growth. These student teachers wanted to share their enjoyment of learning with children and to assist them to become similarly active, independent and empowered learners. For student teachers such as Colin, Jessica, Sarah and Pia, this determination developed into a passionate creed which underpinned and

further motivated their search for meaning as a teacher. Other student teachers, including Nina and Kristy were motivated by different passionate creeds which also provided an incentive and focus for their reflection.

Yet not all student teachers who were enthusiastic about teaching appreciated its complexity. Marcelle and Kathleen, for example, were attracted more by the unexpectedly positive impact of teaching on their sense of self-efficacy. Interestingly, these student teachers appeared less inclined to reflect than those attracted by complexity, perhaps because their focus was directed more to self, than to making connections which would help them make sense of complexity (LaBoskey 1994). Not surprisingly, they appeared more interested in "How to?" than "Why?" questions (LaBoskey, 1994). It could be argued that answers to the former would appear to contribute to a sense of mastery and thus further enhance their emerging sense of self-efficacy in a way which answers to the latter may not. In summary, therefore, although for most student teachers a commitment to teaching was a prerequisite for reflection, it did not guarantee reflection.

Epistemological Perspective

All student teachers who were excited by the complexity of teaching were, or became, constructed knowers. They valued exposure to different ideas and experiences as a means of assisting them to draw their own conclusions and deliberately sought challenges which would contribute to their learning. In short, they were determined to take responsibility for their development as teachers. Moreover, as constructed knowers, they recognised the problematic and ambiguous nature of teaching and did not expect clear cut solutions to the difficulties and dilemmas they encountered.

In contrast, those participants who were primarily received knowers, relied heavily on the voices of experts and had little confidence, or interest, in taking responsibility for their learning. They took few risks, asked few questions rarely reconsidered their own ideas, and looked for certainties rather than challenges. Because they viewed teaching as a technical process of transfer of information and knowledge, they resented efforts to encourage an awareness and appreciation of the complexity of teaching and the consequent emphasis on reflection. As their profiles indicated, for Erica, Marina and Pamela, in particular, reflection was discomforting and irrelevant.

Commitment To Reflection

Not surprisingly, those student teachers who saw reflection as irrelevant demonstrated little commitment to and little convincing evidence of reflection. Yet even those committed to reflection found it a difficult and painful process at times. Sarah, for example, noted that it could have a negative impact on self esteem "*because there are so many changing aspects to think about, you realise that nothing is stable, and so that makes you feel insecure*" (31/3/95,99). Their commitment, despite its drawbacks, meant that they were willing to experiment with a range of reflective strategies which enabled them to develop "*a new perspective and a new dimension*" (Jessica, 20/11/95, 435) to their reflection. Those participants less committed to reflection, on the other hand, were generally more reluctant to broaden their range of reflective strategies. Indeed, like Erica, several focused more on developing strategies for avoiding, rather than engaging in, reflection.

An Environment Perceived As Supportive

Not all student teachers who were committed to teaching and to reflection and who had an epistemological perspective of constructed knowing became more reflective. Colin's profile illustrated that, although clearly reflective when he entered the program, his perception that the learning environment of the program was unsupportive seemed to hinder further development of his reflection. Not surprisingly, his perception that his ideas were not valued by his teacher educators had an adverse effect on his self esteem. His consequent sense of loss of efficacy seemed to result in his attention turning inwards, in a similar way to several of the less reflective participants. With his focus so firmly fixed on self and survival (Fuller & Bown, 1975), Colin seemed less able to continue making the wide-ranging connections which he had made prior to entering the program. Gerry's reflection, too, showed a similar, if less pronounced, trend towards an unduly narrow focus when he encountered a series of practicum environments which he perceived as unsupportive and which consequently had a negative impact on his self esteem. Their experience suggests, as Korthagen & Wubbels (1995) and LaBoskey (1994) also imply, that self-efficacy should be added to the qualities of wholeheartedness, openmindedness and responsibility which, according to Dewey, are essential to reflection.

IMPLICATIONS ARISING FROM ISSUE 6

Further research is required to determine whether the above factors might be similarly instrumental in other contexts. The following discussion of how teacher educators might provide an environment conducive to the development of student teacher reflection, however, is likely to be of general relevance.

Encouraging A Commitment To Teaching

The current study suggests that a climate in which a commitment to teaching is highly valued might be conducive to promoting student teacher reflection. Short of basing entry to teacher education programs on interviews, often a problematic practice in itself (Malvern, 1991), teacher educators have limited options in attempting to ensure that only those committed to teaching enrol in preservice programs. Given that all four participants in the current study who showed little commitment to teaching were school leavers who entered the program for dubious reasons, greater efforts might be made to inform school leavers and their parents, career counsellors and influential others of the demanding nature of preservice teacher education programs and, indeed, teaching as a profession. Investigating reasons for attrition from teacher education programs and sharing these findings with the broader community might dissuade those with little interest in teaching from entering preservice programs.

For student teachers, like Kel, who unexpectedly find themselves ambivalent about teaching, scheduling practicums in the early stages of the program appears to assist in making decisions about whether to continue in the program. For those, like Erica, who decide to persevere with the program despite their lack of interest in teaching, an alternative path leading to a degree but not a teaching qualification would appear appropriate. Hopefully, this would enable a more rewarding university experience for such student teachers and preserve the practicum for those genuinely interested in teaching. Indeed, at the time of writing, such an alternative was about to be introduced to the program in which the participants were enrolled.

Options such as these might result in a higher proportion of student teachers strongly committed to teaching enrolled in the program. In turn, this could create a climate of enthusiasm for reflection as a means of personal and professional growth. In such a climate, Erica's strategy for transferring

reflective writing from one practicum folder to another which, according to her, was supposedly commonplace amongst the cohort, might then be perceived as unethical professional practice, rather than a strategic response to demands for reflection. Moreover, with presumably fewer reluctant prospective teachers enrolled in the program, teacher educators might be able to focus more effectively on assisting those who are committed to teaching to become reflective practitioners. The profiles of many of the participants (including Josephine, Kathleen and Genni) indicated that they struggled with the affective and cognitive demands of reflection and highlighted the need for such support.

Such support might include familiarising student teachers with metacognitive skills typically associated with reflection and facilitating their development (Smith, 1997). This would assist student teachers like Genni who were hampered by poorly developed analytical skills. As discussed previously, it might also include acknowledging student teachers' passionate creeds and encouraging student teachers to fully articulate these and to undertake indepth exploration of their potential application, implementation, implications and limitations. This would require more flexible course offerings and evaluation options such as individual portfolios also described earlier in this chapter. Encouraging student teachers to develop and reflect on their passionate creeds might enable Kristy and others to move beyond an unnecessarily narrow focus and overcome other potential disadvantages of passionate creeds identified by LaBoskey (1994). An awareness of their peers' aspirations, ideals, and struggles might encourage student teachers like Felicity to recognise the more problematic aspects of teaching. Moreover, a general focus on passionate creeds and the possibilities of teaching might create an atmosphere of excitement and commitment about teaching. In brief, it might generate the wholeheartedness that, according to Dewey, is so necessary for reflection and which was so noticeably missing in several of the participants in the current study.

Supporting Epistemological Perspectives

The current study also suggests that encouraging and assisting student teachers to become constructed knowers should be a high priority for teacher educators seeking to foster reflection (Smith & Cusworth, 1996). The profiles presented in the preceding chapters highlight the importance of a sense of self-efficacy in making the transition from received to constructed knowing.

Received knowers like Marina and Pamela, therefore, might require in the initial stages of their preservice program reassuring "quick fixes and tricks of the trade" (Kagan, 1992, p.162). As they developed greater confidence, they would eventually be expected to embrace the complexities of teaching. Allowing received knowers to do so at a slower rate, however, might alleviate some of the distress evident in several profiles. An environment which encourages risk taking but does not demand it prematurely (Leat, 1995; Chickering & Reisser, 1993) might be more conducive to assisting received knowers make the epistemological transition to constructed knowing, seemingly so important to the promotion of reflection in the present study.

Conversely, Colin's and Gerry's profiles suggest that, despite their rhetoric, some teacher educators might be discomforted by the challenges of working with constructed knowers who might not concur with, or be prepared to accept, their teacher educators' views. That Colin and Gerry found few opportunities to debate different conceptualisations and ideologies of teaching suggests that there might be some substance to claims that teacher educators tend to limit the plurality of views to which they expose student teachers (Moffett, 1992) and also to accusations that early childhood teacher educators tend to encourage a non critical socio-political outlook (Lubeck, 1996; Battersby, 1989). If so, this might explain, in part, why the current study, like many others, found little evidence of critical reflection. Teacher educators wanting to promote critical reflection, therefore, may need to be more encouraging of vigorous critical debate. They might also need to be more accepting of the epistemological independence of constructed knowers such as Colin and Gerry (Hollingsworth, 1994), and guard against espousing the need for reflection while simultaneously attempting to retain control over that reflection.

Encouraging A Commitment To Reflection

The profiles of the participants in the present study indicate that constructed knowers who are committed to teaching require little encouragement to reflect on their teaching. Rather, they require an environment which supports rather than hinders their reflection and assists them to broaden their range of reflective strategies. Student teachers who are less committed to reflection, on the other hand, in addition to the above, may also need to be assisted to see the relevance of reflection and to develop strategies for reflection. For student teachers like Erica, who have little interest in teaching, reflection

could still be promoted as a generic attribute of professional practice, as proposed by Schon (1983; 1987).

As previously argued, the variation in the participants' approaches to reflection evident in their profiles highlights the importance of appreciating individual differences. It also reinforces the need to guard against what Moffett (1994) refers to as the unfortunate tendency for innovations in education to be "proceduralized almost beyond recognition" (p.85). This stance is validated by the findings of the current study that, for the group as a whole, there appeared little relationship between the reflective strategy used and the reflection generated. In other words, there was little indication that any particular strategy was especially effective (or ineffective) in promoting reflection for all student teachers.

On the other hand, where individuals expressed preferences for a particular strategy, their reflection using that strategy was generally more in depth. Most student teachers who preferred discussion to written reflection, for example, typically demonstrated more evidence of reflection in 1:1 interviews or small group discussions than in their reflective writing. The exceptions were those student teachers who had mastered a reflective writing genre but placed little value on reflection.

Generally, the more reflective student teachers found both discussion and reflective writing beneficial, suggesting that, in response to Calderhead & Gates (1993), reflection can be both a collaborative and individual pursuit. With the exception of Jessica, who had a strong preference for discussion, and whose subsequent reflection was noticeably more developed than her written reflection, there was no discernible difference in the depth of their reflection when using either of these strategies. Interestingly, as student teachers other than Jessica became more reflective, they tended to find written reflection increasingly more valuable. Felicity, for example, commented: *"I find writing ideas down hard, but definitely beneficial ... Putting ideas down in words, rather than just having them as thoughts floating around - well, it's just one step further on. You see concrete evidence of what your thoughts are"* (18/11/96, 162). Most emphasised, however, that they would not have engaged in reflective writing had it not been required and thus would not have discovered its potential.

These findings suggest that teacher educators might be advised to introduce student teachers to a range of reflective strategies, encourage them to use those which they find most useful, but also expect them to explore alternatives. An appropriate balance might be to require participation in group or critical pair discussion (Hatton & Smith, 1995), some form of reflective writing, and some attempt to explore tacit understanding, for example by visual representations or involvement in some form of contemplation. More specific requirements than these, though, might be self defeating if they engender the strategic responses demonstrated by several participants in the present study. Rather, it might be more appropriate for teacher educators to focus on ways to help these student teachers appreciate the relevance of reflection. Assisting all student teachers to find a personally meaningful mode of reflective writing, therefore, might be a more appropriate goal than expecting all student teachers to demonstrate skills and commitment to a particular mode.

Moreover, as previously mentioned, encouraging student teachers to share strategies which they have found helpful might also interest them in experimenting with a wider range of strategies. The power of Sarah's visual images, and Nina's positive experience of relaxation and visualisation sessions, for example, might persuade more student teachers to explore these strategies. Sharing strategies in this manner might also enable student teachers like Kathleen, who struggle to see the relevance of reflection, to develop more understanding of how it might contribute to their teaching, and in turn lead to a greater commitment to reflection.

If teacher educators were to explicitly model the metacognitive strategies which they use to reflect on their professional practice, they might assist student teachers like Kathleen to see how reflection might enhance professional practice (Loughran, 1996; Martinez, 1990). They would need to monitor, though, that their use of modelling, in itself a metacognitive strategy (Loughran, 1996; Smith, 1997) did not inadvertently give student teachers the impression that there is any one particular way to reflect (Fletcher, 1997). Modelling might also help student teachers who feel overwhelmed by the complexities of teaching to realise that teacher educators, too, can be beset at times by uncertainty and feelings of inadequacy associated with teaching (Loughran, 1996). By presenting a less polished veneer of professional competence to student teachers, teacher educators might set the scene for

open and frank discussions of the dilemmas of teaching (Mullin, 1994) and, in turn, promote reflection amongst student teachers.

Establishing A Supportive Environment

As the above discussion indicates, a complex array of factors appeared to affect whether or not the student teachers participating in the current study were likely to become more reflective. Some of these factors, such as commitment (or otherwise) to teaching, are likely to be related, at least in part, to personality, background and past experiences far beyond the scope of preservice programs to influence (Johnston, 1994). Nevertheless, the powerful impact of the learning environment, evident in many participants' profiles but particularly Colin's, suggests that teacher educators might have some sway over the likelihood of student teachers becoming more reflective. In any case, it could be argued that teacher educators, have a responsibility to provide an environment supportive of all student teachers who have the potential to become effective teachers, whether or not they are oriented towards reflection.

Although a majority of participants in the present study perceived their preservice program overall as supportive of their personal and professional development, all considered that there was room for it to become more responsive to their needs as developing teachers. Gerry and Colin, especially, considered that in many respects they had been constrained, rather than empowered, by aspects of the program. The following discussion draws on the participants' perceptions of the program and on the data as a whole, to suggest changes that might lead to preservice programs, generally, being seen by student teachers as more supportive than current environments and thus more conducive to the development of their reflection.

Many of the proposed changes have been discussed elsewhere in this chapter. They include loosening current structural and organisational binds to enable the adoption of a more flexible and holistic, as opposed to a rigid and fragmented curriculum; recognising and catering more effectively for student teachers' individual differences; and promoting deep, rather than surface or strategic learning to facilitate student teachers making connections. Issues not dealt with thus far, but which appear important to address if preservice programs are to foster more effectively the development of reflection in their student teachers form the basis of the following discussion.

The current study suggests that, essentially, a supportive environment is one which fosters student teachers' personal and professional empowerment. In the following discussion, *empowerment* is assumed to involve student teachers developing a stronger greater sense of identity, purpose and self-efficacy; taking greater responsibility for their actions, their learning, and ongoing development; and finding a coherent, considered and compassionate voice. In short, empowerment is seen as the ability to "rupture the boundaries" (Fielding, 1996, p.412) of former constraints.

Some contend, like Hogan & Flather (1993), that power cannot be "given" or "taken" but develops within the context of a relationship and that, consequently, the quality of the relationship determines the potential for empowerment. Others, like Griffin (1992), argue that empowerment inevitably involves a realignment of power. Given the power differential between teacher educators and student teachers, it could be argued that the former might need to concede some power to provide sufficient initial impetus for a process which might then have the potential to become mutually beneficial.

Conceding power might involve relinquishing any assumptions that learning essentially "means learning to adhere to given practices and standards" (Buchmann & Schwille, 1993, p.25) and acknowledging that requiring student teachers to accept predetermined patterns and imposed connections is likely to interfere with the establishment of their own patterns and connections (Moffett, 1994). Conceding power may also require some teacher educators reconceptualising their role from experts committed to passing on what they see as essential knowledge and skills for effective teaching (Hollingsworth, 1994; Heron, 1992; Britzman, 1991) to facilitators of environments which encourage student teachers to make their own connections. As well as accepting that preparing reflective teachers might be more a matter of internal shaping than external moulding, some teacher educators may need to realise that "the suggestion that reflection can be limited once it is encouraged is mistaken" (McLaughlin, 1994, p.156).

If empowerment is about expanding boundaries, as Fielding (1996) suggests, it might be more useful to conceptualise student teachers' professional development as systemic, or possibly concentric, rather than hierarchical in nature. As noted earlier in this chapter, in the current study, the reflection of

those student teachers who became more reflective was characterised by connections which flowed outwards, moving beyond a focus on self, widening in scope and becoming considerably more complex and interrelated. To assist student teachers to make these connections and expand their boundaries, therefore, it seems that teacher educators should provide space not imposed structures (Hopkins, 1994; Buchmann & Floden, 1993). In Barnett's (1994) words, an environment supportive of reflection "requires that students be given ... space in which to form their own insights ... ideas and judgments and take up their own stances" (p.118). As Moffett (1994) more poetically writes "each life weaves its own web" (p.338). It could be argued, therefore, that teacher educators who leave insufficient scope for student teachers to weave their webs should hold some responsibility for any ensuing distortion.

The present study also suggests that, as well as space, student teachers require time to establish connections. Many participants were perturbed by lack of time for reflection, with Gerry, for example, commenting:

As I said before, there are lots of things that I'm constantly reflecting on. There are so many decisions to make and so much to sift through. But I honestly feel that my reflections could be much more insightful and broad ranging, but I just don't have the time to do that. (17/12/96, B117)

His comments suggest that teacher educators might need to rethink use of time and to assume more responsibility for ensuring that the environment enables student teachers to focus on more than simply strategic responses to survival concerns (Martinez, 1990). While more time, in itself, would not have made student teachers like Erica more reflective, it might have contributed to an environment in which they were more likely to become more reflective.

To make use of space (and presumably time) requires confidence (Barnett, 1994). The sense of self-efficacy of the more reflective participants in the present study, far less apparent in those who were less reflective, supports this assertion. As noted previously, confidence appeared to provide the former with courage to explore new ideas and possibilities and the inner strength to live with the inevitable uncertainties and incoherencies arising from these explorations. In contrast, like Josephine, many of the less reflective participants lacked the confidence to explore possible connections. Constrained by what they perceived as "the intimidating weight of authority" (Barnett, p.118), their focus was survival rather than growth. Inevitably, as Mayer & Goldsberry (1993) also noted, survival was at the expense of

reflection, or as Gerry put it: "*Self esteem lets you move out of survival mode and into the more creative parts of teaching*" (17/12/96, B72).

The perceptions of vulnerability held by many student teachers highlighted the need for an environment perceived by student teachers as nurturing. On the other hand, for growth to occur, tension is also essential (Leat, 1995; Buchmann & Floden, 1993; Day, 1993; Mayer & Goldsberry, 1993). Finding an appropriate balance can be difficult (Chickering & Reisser, 1993), especially given individual differences in tolerance of tension and need for nurture. Kasey, for instance, resented a cooperating teacher setting tight parameters for her practicum whereas Marina, in a similar situation, was equally resentful about what she perceived as lack of parameters. Like most other less reflective participants, Marina seemed to find it difficult to accept that some confusion, discomfort and risk-taking is inherent to professional development (Hollingsworth, 1994). As argued previously, preservice programs must find ways to support received knowers such as these while encouraging them to embrace uncertainty and challenge. That is, they must strike a balance "between chaos in which all is lost in confusion, and order in which all is lost through calcification" (Reason, 1993, p.281).

The current study identified many instances of seemingly well meaning but misguided support. Several of the most reflective participants, for example, reported that some teacher educators insisted that they adopt specific formats for reflective writing that these student teachers had used previously and found unhelpful. Their teacher educators' lack of flexibility suggests that they saw reflection more as a procedure than a process. Moreover, Gerry's perception that his willingness to reflect on his difficulties was interpreted as an admission of his inadequacies, if accurate, suggests considerable misunderstanding about the purpose of reflection. These participants' experiences highlight the need for teacher educators to be well informed about reflection and sensitive to individual differences in approaches to reflection (O'Donoghue & Brooker, 1996; Calderhead, 1992). They also highlight the difficulties teacher educators encounter in reconciling their responsibilities as gate keepers to the profession while attempting to promote student teacher reflection (Calderhead & Gates, 1993).

The experiences of several participants suggest that cooperating teachers, too, may need a greater understanding of the purposes and processes of

reflection if they are to support student teachers' reflection in practicum contexts. Given that traditionally schools and, by implication early childhood settings, are often considered places of action rather than reflection (Smith, 1997; Calderhead & Gates, 1993) and teaching is frequently seen as "a profession that prizes answers rather than questions" Richert (1995, p.5), this expectation might be unrealistic. If practicum contexts are unlikely to support reflection, it could be argued that teacher educators must be particularly careful to provide an oncampus environment which supports student teachers' reflection.

CONCLUDING COMMENTS

This chapter has identified and discussed six key issues arising from the present study: namely the individuality of student teachers; the emotional intensity of learning to teach; the complexity of reflection; the centrality of establishing connections; and the ongoing difficulties of identifying reflection. Factors identified in the previous three chapters as instrumental in influencing the development of reflection were also discussed in depth. Two broad categories of implications for teacher educators and researchers into reflection emerge from this discussion.

First, teacher educators may need to provide an environment which is more conducive than current preservice programs to reflection if they are to be more effective in promoting reflection in student teachers. The findings indicate that such an environment would acknowledge, value and attempt to cater for student teachers' individuality; recognise the complexities and uncertainties of learning to teach; establish an appropriate balance of security and risk, nurture and challenge; provide time and space to learn from and reflect on experience; and seek to enhance student teachers' holistic "meaning-making capabilities" (Kalamaras, 1994, p.29).

Second, the complexity of reflection highlights the need for a conceptualisation of reflection which encompasses a diversity approaches; recognises reflection as a holistic process; and does not disallow aspects which cannot be discretely identified and measured. Future studies might also be advised to focus more on the connections inherent to reflection, rather than on the fragments which have preoccupied many previous studies.

CONCLUSION

The longitudinal study reported in this thesis provides an indepth account of how a group of early childhood student teachers constructed and reflected on their professional understanding as they progressed through their preservice program. As such, it contributes to our understanding of early childhood student teachers' experiences of learning to teach and their reflection on these experiences as part of their professional development. The study has a number of strengths.

First, it responds to McWilliam's (1993b) call for research that represents "the voices of students as rich and complex" (p.127). As McWilliam argues, and the current study illustrates, only research undertaken with and for student teachers can overcome the "taken-for-granted wisdom" and perceptions of student teachers' needs commonly "embedded in teacher education folklore" (p.130). The profiles of the participants in the present study highlight the diversity of those needs and the inappropriateness of viewing student teachers as an homogenous group.

Second, the study illustrates the complexity of student teachers' professional development and the dangers of oversimplifying or overgeneralising the process of learning to teach. In particular, it draws attention to the emotional intensity of student teachers' experiences and the need for teacher educators to acknowledge this intensity. The study suggests how teacher educators might establish an environment that encourages exploration and risk taking, rather than the adoption of survival strategies which inhibit the development of reflection. It also suggests how teacher educators might assist student teachers make the epistemological transition from received to constructed knowing and encourage those who see teaching as a technical process of transferring knowledge to become more aware of its inherent complexities and ambiguities. In these ways, student teachers' capacity to take greater responsibility for their on going professional development might be enhanced.

Third, the study highlights the complex and multidimensional nature of reflection. By moving beyond the confines characterising much of current literature into reflection, it illustrates how expanding conceptual and methodological horizons and exploring the potential contribution of a holistic paradigm can enhance traditional Western understandings of reflection. In

particular, it demonstrates how conceptualising reflection as a search for meaning can encompass holistic processes overlooked by much of the current literature. By drawing on a diverse range of literature, including ideas associated with Eastern ways of knowing, this study shows how processes such as emotion, imagination and intuition were integral to the reflection of many of the participants in the present study.

Fourth, the study illuminates the centrality to reflection of processes associated with establishing connections. As such, it highlights the desirability of locating further research into reflection within the emerging holistic paradigm because of its emphasis on connections. This study illustrates the potential of holistic data collection and interpretation strategies while reinforcing the need for further investigation of how the methodological lag between the emergence of the paradigm and the development of appropriate strategies for investigation within this paradigm might be overcome.

Fifth, in heeding the calls of LaBoskey (1994) and many other researchers for a study of greater duration than previous investigations into reflection, the current study provides insight into student teacher reflection throughout their preservice program. Moreover, it illustrates the need for care in projections based on limited data collected at a particular point in time and cautions against overly optimistic assumptions about the development of student teacher reflection. It demonstrates, however, that at least some student teachers can become more reflective in an environment conducive to reflection.

Sixth, the study identifies some of the key factors that were instrumental in promoting or impeding the reflection of student teachers enrolled in this particular preservice program. Consistent development in reflection required at least several of the following conditions, namely: a commitment to teaching and to reflection, an epistemological perspective of constructed knowing and a perception of a supportive learning environment. The study provides sufficient information about the participants and the program to assist readers to decide whether these factors might also be instrumental in other contexts.

Finally, the depth of insights concerning the complexity of teaching exhibited by the student teachers who showed consistent development in their

reflection compared to the relatively limited understanding demonstrated by those participants who showed little development in their reflection suggests that reflection is indeed important to professional development. The study indicates, therefore, that further research into the nature of the contribution of reflection to professional development is warranted. Investigations focusing on the continuity of reflective capacity from preservice programs to the early years of teaching and the impact of reflection on teaching would appear especially valuable.

BIBLIOGRAPHY

- Acker, S., & Feuerwerker, G. (1996). Doing good and feeling bad: The work of women university teachers. *Cambridge Journal of Education*, 26(3), 401-422.
- Adler, S. (1991). The reflective practitioner and the curriculum of teacher education. *Journal of Education for Teaching*, 17(2), 139-150.
- Agar, M. (1991). The right brain strikes back. In N. G. Fielding & R. M. Lee (Eds.), *Using computers in qualitative research*(pp. 181-194). Newbury Park, CA: Sage Publications.
- Ainsworth-Land, V. (1982). Imaging and creativity: An integrating perspective. *Journal of Creative Behaviour*, 16(1), 5-28.
- Allender, J.S. (1991). *Imagery in teaching and learning: An autobiography of research in four world views*. New York: Praeger.
- Allinson, R. E. (1989). An overview of the Chinese mind. In R. E. Allinson (Ed.), *Understanding the Chinese mind: The philosophical roots*(pp. 167-208). New York: Oxford University Press.
- Allport, G. W. (1981). The general and the unique in psychological science. In P. Reason & J. Rowan (Eds.), *Human inquiry: A source book of new paradigm research*. Chichester: John Wiley and Sons.
- Altheide, D. L., & Johnson, J. M. (1994). Criteria for assessing interpretive validity in qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research*(pp. 485-499). Thousand Oaks, CA: Sage Publications.
- Alvermann, D. E., O'Brien, D. G., & Dillon, D. R. (1996). On writing qualitative research. *Reading Research Quarterly*, 31(1), 114-120.
- Anderson, G., & Boud, D. (1996). Introducing learning contracts: A flexible way to learn. *Innovations in Education and Training International*, 33(4), 221-227.
- Arcodia, C. (1994, November). *Confucian perspectives on educational policy and practice*. Paper presented at the Annual Conference of the Australian Association for Research in Education, Newcastle.
- Armaline, W. D., & Hoover, R. L. (1989). Field experience as a vehicle for transformation: Ideology, education, and reflective practice. *Journal of Teacher Education*, 40(2), 42-48.

- Armon-Jones, C. (1986). The social functions of emotions. In R. Harre (Ed.), *The social construction of emotions*(pp. 57-82). Oxford: Basil Blackwell.
- Ash, E. (1992). The personal-professional interface in learning: Towards reflective education. *Journal of Interprofessional Care*, 6(3), 261-271.
- Ashby, G. (1996). Some challenges and issues in contemporary Australian early childhood education. *Educating Young Children*, 1(3/4), 12-15.
- Australian Association for Research in Education (1994). *Code of Ethics*. Melbourne: AARE
- Averill, J. R. (1980). A constructivist view of emotion. In R. Plutchik & H. Kellerman (Eds.), *Emotion: Theory and research experience*(Vol. 1, pp. 305-339). New York: Academic Press.
- Baird, J. R. (1991). Individual and group reflection as a basis for teacher development. In P. Hughes (Ed.), *Teachers' professional development*(pp.95-113). Melbourne: Australian Council for Educational Research.
- Barnes, D. (1992). The significance of teachers' frames for teaching. In T. Russell & H. Munby (Eds.), *Teachers and teaching: From classroom to reflection*(pp. 9-32). London: The Falmer Press.
- Barnett, R. (1994). *The limits of competence: Knowledge, higher education and society*. Ballmoor, Buckingham: The Society for Research into Higher Education and Open University Press.
- Bastick, T. (1982). *Intuition: How we think and act*. Bath: Wiley.
- Bateson, G. (1979). *Mind and nature*. London: Wildwood House.
- Bateson, M. C. (1989). *Composing a life*. New York: The Atlantic Monthly Press.
- Battersby, D. (1989). The need for reform in early childhood teacher education. *Unicorn*, 15(2), 78-83.
- Beattie, M. (1995a). *Constructing professional knowledge in teaching: A narrative of change and development*. New York: Teachers College Press.
- Beattie, M. (1995b). New prospects for teacher education: Narrative ways of knowing teaching and teacher learning. *Educational Research*, 37(1), 53-70.

- Belenky, M., Clinchy, B., Goldberger, N., & Tarule, J. (1986). *Women's ways of knowing*. New York: Basic Books.
- Bengsston, J. (1995). What is reflection: On reflection in the teaching profession and teacher education. *Teachers and Teaching: Theory and Practice*, 1(1), 23-32.
- Berman, M. (1989). *Coming to our senses: Body and spirit in the hidden history of the West*. New York: Simon and Schuster.
- Berry, T. (1988). *The dream of the earth*. San Francisco: Sierra Club Books.
- Beyer, L. E. (1991). Teacher education, reflective inquiry and moral action. In B. R. Tabachnick & K. M. Zeichner (Eds.), *Issues and practices in inquiry-oriented teacher education*(pp. 113-129). London: The Falmer Press.
- Blofeld, J. (1981). Introduction. In N. Katz (Ed.), *Buddhist and Western philosophy*(pp. xix-xxviii). New Dehli: Sterling.
- Bogdan, R. C., & Biklin, S. K. (1992). *Qualitative research for education: An introduction to theory and methods*. (2nd ed.). Boston: Allyn and Bacon.
- Bohm, D. (1984). Insight, knowledge, science and human values. In D. Sloane (Ed.), *Towards the recovery of wholeness: Knowledge, education and human values*(pp. 9-30). Boston: Allyn and Bacon.
- Bolin, F. S. (1988). Helping student teachers think about teaching. *Journal of Teacher Education*, 39(2), 48-54.
- Bolin, F. S. (1990). Helping student teachers think about teaching: Another look at Lou. *Journal of Teacher Education*, 41(1), 10-19.
- Boud, D., Cohen, R., & Walker, D. (Eds.). (1993). *Using experience for learning*. Ballmoor, Buckingham: The Society for Research into Higher Education & Open University Press.
- Boud, D., Keogh, R., & Walker, D. (1985). Promoting reflection in learning: A model. In D. Boud, R. Keogh, & D. Walker (Eds.), *Reflection: Turning experience into learning*(pp. 18-40). London: Kogan Page.
- Boud, D., & Walker, D. (1992). In the midst of experience: Developing a model to aid learners and facilitators. In J. Mulligan & C. Griffin (Eds.), *Empowerment through experiential learning: Explorations of good practice*(pp. 163-169). London: Kogan Page.

- Bowers, C. A., & Flinders, D. J. (1990). *Responsive teaching: An ecological approach to classroom patterns of language, culture, and thought*. New York: Teachers College Press.
- Bowman, B. (1989). Self reflection as an element of professionalism. *Teachers College Record*, 90(3), 444-451.
- Brand, A. G., & Graves, R. L. (Eds.). (1994). *Presence of mind: Writing and the domain beyond the cognitive*. Portsmouth, NH: Boynton/Cook.
- Brande, D. (1934). *Becoming a writer*. London: McMillan.
- Britzman, D. (1991). *Practice makes practice*. Albany: State University of New York Press.
- Brodkey, L. (1987). *Academic writing as social practice*. Philadelphia: Temple University Press.
- Bronowski, J. (1973). *The ascent of man*. London: British Broadcasting Corporation.
- Brooker, R., & O'Donoghue, T. (1992). Reflective teaching practice: An integrated perspective. *The Journal of Teaching Practice*, 12(2), 1-13.
- Brookfield, S. D. (1990). *The skillful teacher*. San Francisco: Jossey-Bass.
- Brookfield, S. D. (1995). *Becoming a critically reflective teacher*. San Francisco: Jossey Bass.
- Bruner, J. B. (1986). *Actual minds, possible worlds*. Cambridge: Harvard University Press.
- Buchmann, M. (1993a). Figuring in the past: Thinking about teacher memories. In M. Buchmann & R. E. Floden (Eds.), *Detachment and concern: Conversations in the philosophy of teaching and teacher education*(pp. 174-192). New York: Teachers College Press.
- Buchmann, M. (1993b). The practicality of contemplative attention: Devoted thought that is not deluded. In M. Buchmann & R. E. Floden (Eds.), *Detachment and concern: Conversations in the philosophy of teaching and teacher education*(pp. 158-173). New York: Teachers College Press.
- Buchmann, M. (1993c). Reason and romance in argument and conversation. In M. Buchmann & R. E. Floden (Eds.), *Detachment and concern: Conversations in the philosophy of teaching and teacher education*(pp. 96-111). New York: Teachers College Press.

- Buchmann, M., & Floden, R. E. (Eds.). (1993). *Detachment and concern: Conversations in the philosophy of teaching and teacher education*. New York: Teachers College Press.
- Buchmann, M., & Schwille, J. R. (1993). Education, experience and the paradox of finitude. In M. Buchmann & R. E. Floden (Eds.), *Detachment and concern: Conversations in the philosophy of teaching and teacher education*(pp. 19-33). New York: Teachers College Press.
- Bullough, R. V., Jr. (1989). Teacher education and teacher reflectivity. *Journal of Teacher Education*, 40(2), 15-21.
- Bullough, R. V., Jr. (1991). Exploring personal teaching metaphors in preservice teacher education. *Journal of Teacher Education*, 42(1), 43-51.
- Bullough, R. V., Jr., & Gitlin, A. D. (1989). Towards educative communities: Teacher education and the quest for the reflective practitioner. *Qualitative Studies in Education*, 2(4), 285-298.
- Bullough, R. V., Jr., & Stokes, D. K. (1994). Analyzing personal teaching metaphors in preservice teacher education as a means of encouraging professional development. *American Educational Research Journal*, 31(1), 197-224.
- Cacioppo, J. T., Klein, D. J., Berntson, G. G., & Hatfield, E. (1993). The psychophysiology of emotion. In M. Lewis & J. M. Haviland (Eds.), *Handbook of emotions*(pp. 119-141). New York: The Guilford Press.
- Calderhead, J. (1987). The quality of reflection in student teachers' professional learning. *European Journal of Teacher Education*, 10(3), 269-278.
- Calderhead, J. (1988). Learning from introductory school experience. *Journal of Education for Teaching*, 14(1), 75-83.
- Calderhead, J. (1989). Reflective teaching and teacher education. *Teaching and Teacher Education*, 5(1), 43-51.
- Calderhead, J. (1992). The role of reflection in learning to teach. In L. Valli (Ed.), *Reflective teacher education: Cases and critiques*(pp. 139-146). New York: State University of New York Press.
- Calderhead, J., & Gates, P. (Eds.). (1993). *Conceptualizing reflection in teacher development*. London: The Falmer Press.
- Candy, P. C. (1995). Priorities for academic staff development in the nineties: A personal view. *Australian Universities' Review*, 38(1), 16-20.

- Candy, P. C., Crebert, G., & O'Leary, J. (1994). *Developing lifelong learners through undergraduate education* (Commissioned Report No. 28). Canberra: National Board of Employment, Education and Training.
- Capra, F. (1975). *The Tao of physics*. Boston: Shambhala Publications.
- Carr, D. (1997). The uses of literacy in teacher education. *British Journal of Educational Studies*, 45(1), 53-68.
- Carter, K. (1993). The place of story in the study of teaching and teacher education. *Educational Researcher*, 22(1), 5-12.
- Chen, A. (1993). Experienced and student teachers' reflection on classroom practice. *Education Research and Perspectives*, 20(1), 46-63.
- Chickering, A. W., & Reisser, L. (1993). *Education and identity*. (2nd ed.). San Francisco: Jossey-Bass.
- Chung-Ying Cheng. (1991). *New dimensions of Confucian and Neo-Confucian philosophy*. Albany: State University of New York Press.
- Cinnamond, J. H., & Zimpher, N. L. (1990). Reflectivity as a function of community. In R. T. Clift, W. R. Houston, & M. C. Pugach (Eds.), *Encouraging reflective practice in education: An analysis of issues and programs*(pp. 73-94). New York: Teachers College Press.
- Clandinin, D. J. (1992). Narrative and story in teacher education. In R. Russell & H. Munby (Eds.), *Teachers and teaching: From classroom to reflection*(pp. 124-137). London: The Falmer Press.
- Clandinin, D. J., Davies, A., Hogan, P., & Kennard, B. (Eds.). (1993). *Learning to teach, teaching to learn: Stories of collaboration in teacher education*. New York: Teachers College Press.
- Clarke, A. (1994). Student-teacher reflection: Developing and defining a practice that is uniquely one's own. *International Journal of Science Education*, 16(5), 497-509.
- Clarke, A. (1995). Professional development in practicum settings: Reflective practice under scrutiny. *Teaching and Teacher Education*, 11(3), 243-261.
- Claxton, G. (1990). *Teaching to learn: A direction for education*. London: Cassell Educational.
- Cole, A. L. (1997). Impediments to reflective practice: Toward a new agenda for research on teaching. *Teachers and Teaching: Theory and Practice*, 3(1), 7-27.

- Cole, A. L., & Knowles, J. G. (1993). Shattered images: Understanding expectations and realities of field experiences. *Teaching and Teacher Education, 9*(5/6), 457-471.
- Conle, C. (1996). Resonance in preservice teacher inquiry. *American Educational Research Journal, 33*(2), 297-325.
- Connelly, F. M., & Clandinin, D. J. (1988). *Teachers as curriculum planners: Narratives of experience*. Toronto: Teachers College Press.
- Connelly, F. M., & Clandinin, D. J. (1990). Stories of experience and narrative inquiry. *Educational Researcher, 19*(5), 2-14.
- Constas, M. A. (1992). Qualitative analysis as a public event: The documentation of category development procedures. *American Educational Research Journal, 29*(2), 253-266.
- Cooper, H., & Hedges, L. V. (1994). *The handbook of research synthesis*. New York: Russell Sage Foundation.
- Copeland, W. D., Birmingham, C., de la Cruz, E., & Lewin, B. (1993). The reflective practitioner in teaching: Toward a research agenda. *Teaching and Teacher Education, 9*(4), 347-359.
- Court, D. (1988). Reflection-in-action: Some definitional problems. In P. P. Grimmett & G. L. Erickson (Eds.), *Reflection in teacher education*(pp. 143-146). New York: Teachers College Press.
- Crawford, J., Kippax, S., Onyx, J., Gault, U., & Benton, P. (1992). *Emotion and gender: Constructing meaning from memory*. London: Sage Publications.
- Cruikshank, D. (1987). *Reflective teaching: The preparation of students of teaching*. Reston, VA: Association of Teacher Educators.
- Csikszentmihalyi, M. (1990). *Flow: The psychology of optimal experience*. New York: Harper & Row.
- Cullen, J. (1991, September). *Developing reflecting teaching skills*. Paper presented at the Triennial Conference of the Australian Early Childhood Association, Adelaide.
- Curtis, A. (1996). Early years teachers' personal and professional needs. In C. J. Smith & V. P. Varma (Eds.), *A handbook for teacher development*(pp. 25-40). Aldershot: Ashgate Publishing Limited.
- David, T. (1996). Curriculum in the early years. In G. Pugh (Ed.), *Contemporary issues in the early years: Working collaboratively for children*(pp. 83-101). London: National Children's Bureau.

- Davidson, R. J. (1993). The neuropsychology of emotion and affective style. In M. Lewis & J. M. Haviland (Eds.), *Handbook of emotions*(pp. 143-154). New York: The Guilford Press.
- Day, C. (1993). Reflection: A necessary but not sufficient condition for professional development. *British Educational Research Journal*, 19(1), 83-93.
- Day, D. E., & Goffin, S. G. (1994). Early childhood teacher education in context. In D. E. Day & S. G. Goffin (Eds.), *New perspectives in early childhood teacher education: Bringing practitioners into the debate*(pp. 1-14). New York: Teachers College Press.
- de Sousa, R. (1987). *The rationality of emotions*. Cambridge,MA: MIT Press.
- Delamont, S. (1992). *Fieldwork in educational settings: Methods, pitfalls, and perspectives*. London: The Falmer Press.
- Denzin, N. K. (1989). *The research act: A theoretical introduction to sociological methods*. (3rd ed.). Englewood Cliffs, NJ: Prentice-Hall.
- Denzin, N. K. (1994). The art and politics of interpretation. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research*(pp. 500-515). Thousand Oaks, CA: Sage Publications.
- Denzin, N. K., & Lincoln, Y. S. (Eds.). (1994). *Handbook of qualitative research*. Thousand Oaks, CA: Sage Publications.
- Dewey, J. (1933). *How we think: A restatement of the relation of reflective thinking to the educative process*. New York: D.C. Heath and Company.
- Dobbins, R. (1994). *The practicum: A learning journey?* Unpublished PhD thesis, Deakin University.
- Dobbins, R. (1995, November). *Student teacher self esteem in the practicum*. Paper presented at the Annual Conference of the Australian Association for Research in Education, Hobart.
- Doeringer, F. M. (1994). Imaging the imageless: Symbol and perception in early Chinese thought. *Journal of Chinese Philosophy*, 20(1), 5-28.
- Du Bois, B. (1983). Passionate scholarship: Notes on values, knowing and method in feminist social science. In G. Bowles & R. D. Klein (Eds.), *Theories of women's studies*(pp. 105-116). London: Routledge and Kegan Paul.

- Dufty, D., & Dufty, H. (1994). Thinking whole. In D. Dufty & H. Dufty (Eds.), *Holistic education: Some Australian explorations*(pp. 3-12). Canberra: Australian Curriculum Studies Association.
- Dunlop, F. (1984). *The education of feeling and emotion*. London: George Allen and Unwin.
- Ecclestone, K. (1996). The reflective practitioner: Mantra or a model for emancipation? *Studies in the Education of Adults*, 28(2), 146-161.
- Edwards, M. (1993). What is wrong with practicum? Some reflections. *South Pacific Journal of Teacher Education*, 21(1), 33-43.
- Eisenhart, M. A., & Howe, K. R. (1992). Validity in educational research. In M. LeCompte, W. Millroy, & J. Preissle (Eds.), *The handbook of qualitative research in education*(pp. 643-680). San Diego: Academic Press.
- Eisner, E. W. (1991). *The enlightened eye: Qualitative inquiry and the enhancement of educational practice*. New York: McMillan.
- Eisner, E. W. (1993, April). *Presidential Address*. Paper presented at the Annual Meeting of the American Educational Research Association, Atlanta.
- Eisner, E. W., & Peshkin, A. (Eds.). (1990). *Qualitative inquiry in education: The continuing debate*. New York: Teachers College Press.
- Elbaz-Luwisch, F. (1997). Narrative research: Political issues and implications. *Teaching and Teacher Education*, 13(1), 75-83.
- Elbow, P. (1986). *Embracing contraries: Explorations in learning and teaching*. New York: Oxford University Press.
- Elbow, P. (1994). Silence: A collage. In A. G. Brand & R. L. Graves (Eds.), *Presence of mind: Writing and the domain beyond the cognitive*(pp. 9-20). Portsmouth, NH: Boynton/Cook.
- Elkind, D. (1991). Developmentally appropriate practice: A case study of educational inertia. In S. L. Kagan (Ed.), *The care and education of America's young children: Obstacles and opportunities*(pp. 1-15). Chicago: The University of Chicago Press.
- Ellwein, M. C., Grave, M. E., & Comfort, R. E. (1990). Talking about instruction: Student teachers' reflections on success and failure in the classroom. *Journal of Teacher Education*, 41(4), 3-14.
- Ely, M. (1991). *Doing qualitative research: Circles within circles*. London: The Falmer Press.

- Enz, C. A. (1992). The culture of social science research. In P. J. Frost & R. E. Stablein (Eds.), *Doing exemplary research*(pp. 36-42). Newbury Park: Sage Publications.
- Epstein, M. (1990). Psychodynamics of meditation: Pitfalls on the spiritual path. *The Journal of Transpersonal Psychology, 22*(1), 17-34.
- Epstein, S. (1993). Emotion and self theory. In M. Lewis & J. M. Haviland (Eds.), *Handbook of emotions*(pp. 313-326). New York: The Guilford Press.
- Eraut, M. (1995). Schon shock: A case for reframing reflection-in-action? *Teachers and Teaching: Theory and Practice, 1*(1), 9-22.
- Erickson, G. (1988). Explorations in the field of reflection: Directions for future research agendas. In P. P. Grimmett & G. L. Erickson (Eds.), *Reflection in teacher education*(pp. 195-205). New York: Teachers College Press.
- Fairbanks, C. M. (1996). Telling stories: Reading and writing research narratives. *Journal of Curriculum and Supervision, 11*(4), 320-340.
- Farra, H. (1988). The thought process: John Dewey revisited. *Journal of Creative Behaviour, 22*(1), 1-8.
- Feeney, S. (1988). Ethics case studies: The aggressive child. *Young Children, 43*(2), 48-51.
- Fielding, M. (1996). Empowerment: Emancipation or enervation? *Journal of Education Policy, 11*(3), 399-417.
- Fine, G. A., & Deegan, J. G. (1996). Three principles of serendip: Insight, chance and discovery in qualitative research. *Qualitative Studies In Education, 9*(4), 434-447.
- Fiumara, G. C. (1990). *The other side of language: A philosophy of listening*. London: Routledge.
- Fleer, M., & Waniganayake, M. (1994). The education and development of early childhood professionals in Australia. *The Australian Journal of Early Childhood, 19*(3), 3-13.
- Fletcher, S. (1997). Modelling reflective practice for preservice teachers: The role of teacher educators. *Teaching and Teacher Education, 13*(2), 237-243.
- Flynn, M. (1995). Conflicting views on the importance of emotion to human development and growth: Piaget and Whitehead. *Interchange, 26*(4), 365-381.

- Fontana, A., & Frey, J. H. (1994). Interviewing: The art of science. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research*(pp. 361-376). Thousand Oaks, CA: Sage Publications.
- Forman, F. K. C. (1990). *The problem of pure consciousness: Mysticism and philosophy*. New York: Oxford University Press.
- Francis, D. (1995). The reflective journal: A window to preservice teachers' practical knowledge. *Teaching and Teacher Education*, 11(3), 229-241.
- Frijda, N. H. (1986). *The emotions*. Cambridge: Cambridge University Press.
- Fuller, A. R. (1990). *Insight into value: An exploration of the premises of a phenomenological psychology*. Albany: State University of New York Press.
- Fuller, F. F., & Bown, O. H. (1975). Becoming a teacher. In K. Ryan (Ed.), *Teacher education. The 74th yearbook of the National Society for the Study of Education*, (Part 2, pp. 25-52). Chicago: University of Chicago Press.
- Gagne, R. M. (1968). Learning hierarchies. In M. D. Merrill (Eds.), *Instructional design: Readings*(pp. 118-131). Englewood Cliffs, NJ: Prentice Hall.
- Gallehr, D. R. (1994). Wait, and the writing will come: Meditation and the composing process. In A. G. Brand & R. L. Graves (Eds.), *Presence of mind: Writing and the domain behind the cognitive*(pp. 21-30). Portsmouth, NH: Boynton/Cook.
- Gambell, T. J. (1995). Ethnography as veneration. *The Alberta Journal of Educational Research*, 151(2), 162-174.
- Gardner, H. (1983). *Frames of mind: The theory of multiple intelligences*. New York: Basic Books.
- Garrigan, P. (1997). Facilitating effective student-centred learning: Enablement and enablement. *Journal of Further and Higher Education*, 21(7), 97-105.
- Gibbs, G. (1992). Improving the quality of student learning through course design. In R. Barnett (Ed.), *Learning to effect*(pp. 149-165). Ballmoor, Buckingham: The Society for Research into Higher Education and Open University Press.

- Gillette, J. H. (1988). History in the here and now: The development of a historical perspective. In D. N. Berg & K. K. Smith (Eds.), *The self in social inquiry: Researching Methods*(pp. 305-318). Newbury Park, CA: Sage Publications.
- Gilliss, G. (1988). Schon's reflective practitioner: A model for teachers? In P. P. Grimmett & G. L. Erickson (Eds.), *Reflection in teacher education*(pp. 47-53). New York: Teachers College Press.
- Gilroy, P. (1993). Reflections on Schon: An epistemological critique and a practical alternative. In P. Gilroy & M. Smith (Eds.), *International analyses of teacher education*(pp. 125-142). Abingdon: Carfax.
- Glaser, B. G., & Strauss, A. L. (1967). *The discovery of grounded theory: Strategies for qualitative research*. New York: Aldine Publishing Company.
- Goffin, S. G. (1989). Developing a research agenda for early childhood education: What can be learned from the research on teaching? *Early Childhood Research Quarterly*, 4(2), 187-204.
- Goffin, S. G. (1996). Child development knowledge and early childhood teacher preparation: Assessing the relationship - a special collection. *Early Childhood Research Quarterly*, 11(2), 117-133.
- Golby, M., & Appleby, R. (1995). Reflective practice through critical friendship: Some possibilities. *Cambridge Journal of Education*, 25(2), 149-160.
- Goldberg, P. (1989). *The intuitive edge: Understanding and developing intuition*. Worcester: Turnstone Press.
- Goldman, R. P. (1986). The serpent and the rope on stage: Popular, literary, and philosophical representations of reality in traditional India. *Journal of Indian Philosophy*, 14(4), 349-369.
- Goldsmith, H. H. (1993). Temperament: Variability in developing emotion systems. In M. Lewis & J. M. Haviland (Eds.), *Handbook of emotions*(pp. 353-364). New York: The Guilford Press.
- Goodfellow, J. (1995). *Cooperating teachers' images: A study in early childhood settings*. Unpublished PhD thesis, University of Sydney.
- Goodman, J. (1991). Using a methods course to promote reflection and inquiry among preservice teachers. In B. R. Tabachnick & K. M. Zeichner (Eds.), *Issues and practices in inquiry oriented teacher education*(pp. 56-76). London: The Falmer Press.

- Goodman, J. (1992). Feminist pedagogy as a foundation for reflective teacher education programs. In L. Valli (Ed.), *Reflective teacher education: Cases and critiques*(pp. 174-197). New York: State University Press.
- Goodson, I., & Fleisser, C. (1995). Negotiating fair trade: Towards collaborative relationships between researchers and teachers in college settings. *Peabody Journal of Education*, 70(3), 5-16.
- Goodson, I. F. (1997). Representing teachers. *Teaching and Teacher Education*, 13(1), 111-117.
- Gore, J., & Zeichner, K. M. (1991). Action research and reflective teaching in preservice teacher education: A case study from the United States. *Teaching and Teacher Education*, 7(2), 119-136.
- Gore, J. M. (1987). Reflecting on reflective teaching. *Journal of Teacher Education*, 38(2), 33-39.
- Graves, R. L., & Becker, S. M. (1994). Let the river run: Exploring personal archetypes through writing. In A. G. Brand & R. L. Graves (Eds.), *Presence of mind: Writing and the domain beyond the cognitive*(pp. 53-64). Portsmouth, NH: Boynton/Cook.
- Greenberg, L. S. (1993). Emotion and change processes in psychotherapy. In M. Lewis & J. M. Haviland (Eds.), *Handbook of emotions*(pp. 499-508). New York: Guilford Press.
- Greene, M. (1988). What happened to imagination? In K. Egan & D. Nadener (Eds.), *Imagination and education*(pp. 45-56). New York: Teachers College Press.
- Greene, M. (1993). Introduction. In M. Buchmann & R. E. Floden (Eds.), *Detachment and concern: Conversations in the philosophy of teaching and teacher education*(pp. 1-15). New York: Teachers College Press.
- Griffin, C. (1992). Absorbing experiential learning. In J. Mulligan & C. Griffin (Eds.), *Empowerment through experiential learning*(pp. 66-75). London: Kogan Page.
- Griffiths, M., & Tann, S. (1992). Using reflective practice to link personal and public theories. *Journal of Education for Teaching*, 18(1), 69-84.
- Grimmett, P. P. (1988). The nature of reflection and Schon's conception in perspective. In P. P. Grimmett & G. L. Erickson (Eds.), *Reflection in teacher education*(pp. 5-15). New York: Teachers College Press.

- Grimmett, P. P., Erickson, G. L., Mackinnon, A. M., & Riecken, T. J. (1990). Reflective practice in teacher education. In R. T. Clift, W. R. Houston, & M. C. Pugach (Eds.), *Encouraging reflective practice in education: An analysis of issues and programs*(pp. 21-38). New York: Teachers College Press.
- Guba, E. G., & Lincoln, Y. S. (1989). *Fourth generation evaluation*. Newbury Park: Sage Publications.
- Guba, E. S., & Lincoln, Y. S. (1994). Competing paradigms in qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research*(pp. 105-117). Thousand Oaks, CA: Sage Publications.
- Gudmundsdottir, S. (1996). The teller, the tale and the one being told: The narrative nature of the research interview. *Curriculum Inquiry*, 26(3), 293-306.
- Guillaume, A. M., & Rudney, G. L. (1993). Student teachers' growth toward independence: An analysis of their changing concerns. *Teaching and Teacher Education*, 9(1), 65-80.
- Guillaume, A. M., & Yopp, H. K. (1995). Professional portfolios for student teachers. *Teacher Education Quarterly*, 22(1), 93-101.
- Habermas, J. (1973). *Knowledge and human interests*. London: Heinemann.
- Hadfield, M., & Hayes, M. (1993). A metaphysical approach to qualitative methodologies. *Educational Action Research*, 1(1), 153-174.
- Hansen, C. (1989). Language in the heart-mind. In R. E. Allinson (Ed.), *Understanding the Chinese mind: The philosophical roots*(pp. 75-123). New York: Oxford University Press.
- Hansen, K. (1988). Education and the perceptive imagination. In K. Egan & D. Nadener (Eds.), *Imagination and education*(pp. 128-149). New York: Teachers College Press.
- Harrington, H. L., & Hathaway, R. S. (1994). Computer conferencing, critical reflection, and teacher development. *Teaching and Teacher Education*, 10(5), 543-554.
- Harrington, H. L., Quinleering, K., & Hodson, L. (1996). Written case analyses and critical reflection. *Teaching and Teacher Education*, 12(1), 25-37.
- Hatton, N., & Smith, D. (1995). Reflection in teacher education: Towards definition and implementation. *Teaching and Teacher Education*, 11(1), 33-49.

- Haviland, J. M., & Kahlbaugh, P. (1993). Emotion and identity. In M. Lewis & J. M. Haviland (Eds.), *Handbook of emotions*(pp. 327-339). New York: The Guilford Press.
- Heap, J. L. (1995). The status of claims in "qualitative" educational research. *Curriculum Inquiry, 25*(3), 271-292.
- Heron, J. (1992). *Feeling and personhood: Psychology in another key*.
- Heshusius, L. (1994). Freeing ourselves from objectivity: Managing subjectivity or turning toward a participatory mode of consciousness? *Education Researcher, 23*(3), 15-22.
- Hillkirk, K., & Dupois, V. L. (1989). Outcomes of a teacher education curriculum module that emphasizes inquiry and reflection. *The Teacher Educator, 24*(3), 20-27.
- Hine, A., & Newman, L. (1996). Empowering young children's thinking: The role of the early childhood educator. *Australian Journal of Early Childhood, 21*(4), 39-45.
- Hogan, P., Clandinin, D. J., Davies, A., & Kennard, B. (1993). Teacher education as an improvisory art. In D. J. Clandinin, A. Davies, P. Hogan, & B. Kennard (Eds.), *Learning to teach, teaching to learn: Stories of collaboration in teacher education*(pp. 203-209). New York: Teachers College Press.
- Hogan, P., & Flather, C. A. (1993). Finding voice, finding place. In D. J. Clandinin, A. Davies, P. Hogan, & B. Kennard (Eds.), *Learning to teach, teaching to learn: Stories of collaboration in teacher education*(pp. 100-108). New York: Teachers College Press.
- Hollingsworth, S. (1994). *Teacher research and urban literacy: Lessons and conversations in a feminist key*. New York: Teachers College Press.
- Holly, M. L. (1989). Reflective writing and the spirit of inquiry. *Cambridge Journal of Education, 19*(1), 71-80.
- Holman, E. (1994). Behind the screens of consciousness: Intuition, insight and inspiration in the writing process. In A. G. Brand & R. L. Graves (Eds.), *Presence of mind: Writing and the domain behind the cognitive*. Portsmouth, NH: Boynton/Cook.
- Hoover, L. A. (1994). Reflective writing as a window on preservice teachers' thought processes. *Teaching and Teacher Education, 10*(1), 83-93.

- Hopkins, R. L. (1994). *Narrative schooling: Experiential learning and the transformation of American education*. New York: Teachers College Press.
- Houston, W. R. (1988). Reflecting on reflection in teacher education. In H. C. Waxman, H. J. Freiberg, & J. C. Vaughan (Eds.), *Images of reflection in teacher education*(pp. 7-8). Reston, VA: Association of Teacher Educators.
- Houston, W. R., & Clift, R. T. (1990). The potential for research contributions to reflective practice. In R. T. Clift, W. R. Houston, & M. C. Pugach (Eds.), *Encouraging reflective practice in education: An analysis of issues and programs*(pp. 208-221). New York: Teachers College Press.
- Huberman, A. M., & Miles, M. B. (1994). Data management and analysis methods. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research*(pp. 428-444). Thousand Oaks, CA: Sage Publications.
- Hultgren, F. H. (1987). The student teacher as person: Reflections on pedagogy and being. *Phenomenology and Pedagogy*, 5(1), 35-50.
- Inada, K. K. (1994). The challenge of Buddho-Taoist metaphysics of experience. *Journal of Chinese Philosophy*, 21(1), 27-47.
- Jaggar, A. M. (1989). Love and knowledge: Emotion in feminist epistemology. In A. M. Jaggar & S. R. Bordo (Eds.), *Gender body knowledge: Feminist reconstructions of being and knowing*(pp. 130-155). New Brunswick, NJ: Rutgers University Press.
- Jagla, V. M. (1992). Teachers' everyday imagination and intuition. In W. H. Schubert & W. C. Ayres (Eds.), *Teacher lore: Learning from our own experience*(pp. 61-79). New York: Longman.
- Jagla, V. M. (1994). *Teachers' everyday use of imagination and intuition: In pursuit of the elusive image*. New York: State University of New York Press.
- Janesick, V. J. (1994). The dance of qualitative research design: Metaphor, methodolatry, and meaning. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research*(pp. 209-219). Thousand Oaks, CA: Sage Publications.
- Johnston, M. (1994). Contrasts and similarities in case studies of teacher reflection and change. *Curriculum Inquiry*, 24(1), 9-26.

- Jordan, J. V. (1991). Empathy and self boundaries. In J. V. Jordan, A. G. Kaplan, J. B. Miller, I. P. Stiver, & J. L. Surrey (Eds.), *Women's growth in connections*(pp. 67-80). New York: The Guilford Press.
- Kagan, D. M. (1992). Professional growth among preservice and beginning teachers. *Review of Educational Research*, 62(2), 129-169.
- Kagan, S. L. (Ed.). (1991). *The care and education of America's young children: Obstacles and opportunities*. Chicago: The University of Chicago Press.
- Kalamaras, G. (1994). *Reclaiming the tacit dimension: Symbolic form in the rhetoric of silence*. Albany: State University of New York Press.
- Katz, L. G. (1972). Developmental stages of preschool teachers. *The Elementary School Journal*, 73(1), 50-54.
- Katz, L. G., & Goffin, S. G. (1990). Issues in the preparation of teachers of young children. In B. Spodek & O. Saracho (Eds.), *Early childhood teacher preparation*(Vol. 1, pp. 192-208). New York: Teachers College Press.
- Katz, S. T. (1978). *Mysticism and philosophical analysis*. Oxford: Oxford University Press.
- Kelchtermans, G., & Vandenberghe, R. (1994). Teachers' professional development: A biographical perspective. *Journal of Curriculum Studies*, 26(1), 45-62.
- Kemper, T. D. (1993). Sociological models in the explanation of emotions. In M. Lewis & J. M. Haviland (Eds.), *Handbook of emotions*(Vol. 41-51,). New York: The Guilford Press.
- Kerby, A. P. (1991). *Narrative and the self*. Bloomington,IA: Indiana University.
- Kesson, K. (1996). Eco-logos: Postmodern revelations and the recovery of archaic wisdom. *Journal of Curriculum Thought*, 11(4), 11-30.
- Killen, L. R. (1989). Reflecting on reflective teaching: A response. *Journal of Teacher Education*, 40(2), 49-52.
- Kitchener, K., & King, P. M. (1981). Reflective judgement: Concepts of justification and their relationship to age and education. *Journal of Applied Developmental Psychology*, 2, 89-116.
- Knowles, J. G. (1992). Geopieté, the concept of scared place: Reflections on an outdoor education experience. *The Journal of Experimental Education*, 15(1), 6-12.

- Kohlberg, L. (1981). *The philosophy of moral development: Moral stages and the idea of justice*. San Francisco: Harper & Row.
- Kohut, H. (1978). The psychoanalyst in the community of scholars. In P. Orstein (Ed.), *The search for self: Selected writings of Heinz Kohut* (Vol. 2, pp.685-724). New York: International Universities Press.
- Kolb, D. (1984). *Experiential learning as the source of learning and development*. Englewood Cliffs, NJ: Prentice-Hall.
- Korthagen, F. A. J. (1993). Two modes of reflection. *Teaching and Teacher Education*, 9(3), 317-326.
- Korthagen, F. A. J., & Wubbels, T. (1995). Characteristics of reflective practitioners: Towards an operationalization of the concept of reflection. *Teachers and Teaching: Theory and Practice*, 1(1), 51-72.
- Krishna, D. (1988). Comparative philosophy: What it is. In G. J. Larson & E. Deutsch (Eds.), *Interpreting across boundaries: New essays in comparative philosophy* (pp. 71-83). Princeton: Princeton University Press.
- Kuhn, T. S. (1962). *The structure of scientific revolutions*. Chicago: University of Chicago Press.
- Kwan, A. (1996). The role of the practicum in learning to teach: The development of reflective practitioners. In A. Yarrow, J. Millwater, S. DeVries, & D. Creedy (Eds.), *Practical experiences in professional education. Research monograph: No 1* (pp. 82-104). Brisbane: QUT.
- La Porte, E. (1996). Teaching: Getting it right. *Cambridge Journal of Education*, 26(3), 361-366.
- LaBoskey, V. L. (1993). A conceptual framework for reflection in preservice teacher education. In J. Calderhead & P. Gates (Eds.), *Conceptualizing reflection in teacher development* (pp. 23-37). London: The Falmer Press.
- LaBoskey, V. L. (1994). *Development of reflective practice: A study of preservice teachers*. New York: Teachers College Press.
- Lakoff, G., & Johnson, M. (1980). *Metaphors we live by*. Chicago: University of Chicago Press.
- Larson, G. L. (1988). Introduction: The "age-old distinction between the same and the other". In G. J. Larson & E. Deutsch (Eds.), *Interpreting across boundaries: New essays in comparative philosophy* (pp. 3-18). Princeton: Princeton University Press.

- Laycock, S. W. (1989). Harmony as transcendence: A phenomenological view. *Journal of Chinese Philosophy*, 16(2), 177-201.
- Leat, D. (1995). The costs of reflection in initial teacher education. *Cambridge Journal of Education*, 25(2), 161-174.
- LeCompte, M. D. (1994). Defining reality: Applying double description and chaos theory to the practice of practice. *Educational Theory*, 44(3), 277-298.
- LeCompte, M. D., & Preissle, J. (1993). *Ethnography and qualitative design in educational research*. (2 ed.). San Diego: Academic Press.
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Beverly Hills: Sage Publications.
- Louden, W. (1992). Understanding reflection through collaborative research. In A. Hargreaves & M. G. Fullan (Eds.), *Understanding teacher development*(pp. 179-215). New York: Teachers College Press.
- Loughran, J. J. (1996). *Developing reflective practice: Learning about teaching and learning through modelling*. London: The Falmer Press.
- Loy, D. (1986). Nondual thinking. *Journal of Chinese Philosophy*, 13(3), 293-309.
- Lubeck, S. (1996). Deconstructing "child development knowledge" and "teacher preparation". *Early Childhood Research Quarterly*, 11(2), 147-167.
- MacKinnon, A. (1987). Detecting reflection-in-action among preservice elementary science teachers. *Teaching and Teacher Education*, 3(2), 135-145.
- MacKinnon, A. (1996). Learning to teach at the elbows: The Tao of teaching. *Teaching and Teacher Education*, 12(6), 653-664.
- MacKinnon, A., & Erickson, G. (1992). The roles of reflective practice and foundational disciplines in teacher education. In R. Russell & H. Munby (Eds.), *Teachers and teaching: From classroom to reflection*(pp. 192-210). London: The Falmer Press.
- Macquarie University. (1994). *ECGP202 Guided practice in early childhood settings 4: Guided experience guidelines*. Institute of Early Childhood.
- Macquarie University. (1996). *Guided experience handbook: Reflective practice in early childhood teaching and learning*. Institute of Early Childhood.

- Macrorie, K. (1985). *Telling writing*. (4th ed.). Upper Montclair, NJ: Boynton/Cook.
- Malvern, D. D. (1991). Assessing the personal qualities of applicants to teacher training. *Studies in Educational Evaluation*, 17(2/3), 239-253.
- Margolis, H. (1990). Relaxation training: A promising approach for helping exceptional learners. *International Journal of Disability, Development and Education*, 37(3), 215-234.
- Marshall, C. (1990). Goodness criteria: Are they objective or judgment calls? In E. G. Guba (Ed.), *The paradigm dialogue* (pp. 188-197). Newbury Park, CA: Sage Publications.
- Martinez, K. (1990). Critical reflections on critical reflection in teacher education. *The Journal of Teaching Practice*, 10(2), 20-28.
- Mathison, S. (1988). Why triangulate? *Educational Researcher*, 17(2), 13-17.
- May, K. A. (1994). Abstract knowing: The case for magic in method. In J. M. Morse (Ed.), *Critical issues in qualitative research methods* (pp. 10-21). Thousand Oaks, CA: Sage Publications.
- Mayer, R., & Goldsberry, L. (1993). Searching for reflection in the student teaching experience: Two case studies. *Teacher Education Quarterly*, 20(1), 13-27.
- McEwan, H. (1997). The functions of narrative and research on teaching. *Teaching and Teacher Education*, 13(1), 85-92.
- McLaughlin, D., & Hanifin, P. (1995, February). *The affective influence in the promotion of reflective teachers*. Paper presented at the Conference for Practical Experiences in Professional Education, Gold Coast.
- McLaughlin, T. H. (1994). Mentoring and the demands of reflection. In M. Wilkin & D. Sankey (Eds.), *Collaboration and transition in initial teacher training* (pp. 151-160). London: Kogan Page.
- McLean, B. (1994, July). *Reflection in Australian teacher education institutions*. Paper presented at the Annual Conference of the Australian Teacher Education Association, Brisbane.
- McLean, V. (1991). *The human encounter: Teachers and children living together in preschools*. London: The Falmer Press.
- McMahon, S. I. (1997). Using documented written and oral dialogue to understand and challenge preservice teachers' reflections. *Teaching and Teacher Education*, 13(2), 199-213.

- McNaught, C., & Beattie, K. (Eds.). (1995). *Research into higher education: Dilemmas, directions and diversions*. Melbourne: Higher Education Research and Development Society of Australia.
- McWilliam, E. (1993a). Pre-service teacher education and the politics of educational research. *Discourse*, 14(1), 75-88.
- McWilliam, E. (1993b). Student talk / expert talk: Reconceptualising contemporary teacher education needs. In J. Knight, L. Bartlett, & E. McWilliam (Eds.), *Unfinished business: Reshaping the teacher education industry for the 1990s*(pp. 122-138). Rockhampton: University Press.
- Michelson, E. (1996). Usual suspects: Experience, reflection and the (en)gendering of knowledge. *International Journal of Lifelong Education*, 15(6), 438-454.
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook*. (2nd ed.). Thousand Oaks, CA: Sage Publications.
- Miller, J. P. (1994). Contemplative practice in higher education. *Journal of Humanistic Psychology*, 34(4), 53-69.
- Miller, R. (1990). *What are schools for? Holistic education in American culture*. Brandon, VT: Holistic Education Press.
- Moffett, J. (1992). *Harmonic learning: Keynoting school reform*. Portsmouth, NH: Boynton/Cook.
- Moffett, J. (1994). *The universal schoolhouse*. San Francisco: Jossey-Bass.
- Mok, M., & Krause, K. (1994, November). *A comparison of 3 data collection methods: Focus group interview, drawing, and open ended questions*. Paper presented at the Annual Conference of the Australian Association for Research in Education, Newcastle.
- Morgan, D. (Ed.). (1993). *Successful focus groups: Advancing the state of the art*. San Francisco: Sage Publications.
- Morine-Dershimer, G. (1989). Preservice teachers' conceptions of content and pedagogy: Measuring growth in reflective pedagogical decision-making. *Journal of Teacher Education*, 40(5), 46-52.
- Morine-Dershimer, G. (1993). Tracing change in preservice teachers. *Teaching and Teacher Education*, 9(1), 15-26.

- Morse, J. M. (1994). Designing funded qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research*(pp. 220-235). Thousand Oaks, CA: Sage Publications.
- Munby, H., & Russell, T. (1989). Educating the reflective teacher: An essay review of two books by Donald Schon. *Journal of Curriculum Studies*, 21(1), 71-80.
- Munby, H., & Russell, T. (1992). Frames of reflection: An introduction. In T. Russell & H. Munby (Eds.), *Teachers and teaching: From classroom to reflection*. London: The Falmer Press.
- Munby, H., & Russell, T. (1993). Reflective teacher education: Technique or epistemology? An essay-review of reflective teacher education: Cases and critiques. *Teaching and Teacher Education*, 9(4), 431-438.
- Mullin, A. E. (1994). Traces in texts: Reading the waters. In A. G. Brand & R. L. Graves (Eds.), *Presence of mind: Writing and the domain beyond the cognitive*(pp. 41-51). Portsmouth, NH: Boynton/Cook.
- Myers, I. B., & Myers, P. B. (1990). *Gifts differing*. Paolo Alto, CA: Consulting Psychologists Press.
- Nakamura, H. (1964). *Ways of thinking of Eastern people: India-China-Tibet-Japan*. Honolulu: East-West Centre Press.
- Neville, R. C. (1989). The Chinese case in a philosophy of world religions. In R. E. Allinson (Ed.), *Understanding the Chinese mind: The philosophical roots*(pp. 48-74). New York: Oxford University Press.
- Noddings, N. (1986). Fidelity in teaching, teacher education, and research for teaching. *Harvard Educational Review*, 56(4), 496-510.
- Noddings, N., & Shore, P. J. (1984). *Awakening the inner eye: Intuition in education*. New York: Teachers College Press.
- O'Donoghue, T. A., & Brooker, R. (1996). The rhetoric and the reality of the promotion of reflection during practice teaching: An Australian case study. *Journal of Teacher Education*, 47(2), 99-109.
- Oldfather, P., Manning, B. H., White, C. S., & Hart, L. E. (1994). Drawing the circle: Collaborative mind mapping as a process for developing a constructivist teacher preparation program. *Teacher Education Quarterly*, 21(3), 15-25.
- Oldfather, P., & West, J. (1994). Qualitative research as jazz. *Educational Researcher*, 23(8), 22-26.

- Olesen, V. (1994). Feminism and models of qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of Qualitative Research*(pp. 158-174). Thousand Oaks, CA: Sage Publications.
- Olson, M. R. (1995). Conceptualizing narrative authority: Implications for teacher education. *Teaching and Teacher Education, 11*(2), 119-135.
- Organ, T. W. (1975). *Western approaches to Eastern philosophies*. Athens, Ohio: Ohio University Press.
- Organ, T. W. (1987). *Philosophy and the self: East and West*. Cranbury, NJ: Associated University Presses.
- Ott, D. J., Zeichner, K. M., & Price, G. G. (1990). Research horizons and the quest for a knowledge base in early childhood teacher education. In B. Spodek & O. N. Saracho (Eds.), *Early childhood teacher preparation*(Vol.1, pp. 118-137). New York: Teachers College Press.
- Paterson, B., & Hart-Wasekeesikaw (1994). Mentoring women in higher education: Lessons from the elders. *College Teaching, 42*(2), 72-77.
- Patton, M. Q. (1990). *Qualitative evaluation and research methods*. (2nd ed.). Newbury Park, CA: Sage.
- Pelletier, K. (1985). *Towards a science of consciousness*. Berkeley, CA: Celestial Publishing.
- Perry, R. (1995). The role of description in reflective teaching. *Australian Research in Early Childhood Education, 1*, 111-120.
- Perry, R. (1997, January). *Is the practicum for 'practising teaching' or 'teaching for practice?'*. Paper presented at the Annual Conference of Australian Research in Early Childhood Education, Canberra.
- Perry, S. E. (1988). Looking at research ideas as behavioural data. In D. N. Berg & K. K. Smith (Eds.), *The self in social inquiry*(pp. 143-152). Newbury Park, CA: Sage Publications.
- Phillips, D. C. (1995). The good, the bad, and the ugly: The many faces of constructivism. *Educational Researcher, 24*(7), 5-12.
- Piaget, J. (1978). *The development of thought: Equilibration of cognitive structures* (Rosin, A., Trans.). Oxford: Basil Blackwell.
- Pickard, E. (1990). Towards a theory of creative behaviour. *Journal of Creative Behaviour, 24*(1), 1-9.

- Pitman, M., & Maxwell, J. A. (1992). Qualitative approaches to evaluation. In M. LeCompte, W. Millroy, & J. Preissle (Eds.), *The handbook of qualitative research in education*(pp. 729-770). San Diego: Academic Press.
- Plutchik, R. (1993). Emotions and their vicissitudes: Emotions and psychopathology. In M. Lewis & J. M. Haviland (Eds.), *Handbook of emotions*(pp. 53-66). New York: The Guilford Press.
- Podgorski, F. (1985). Two models of spiritual journey: Yoga and Confucius. *Journal of Chinese Philosophy*, 12(1), 23-47.
- Polkinghorne, D. E. (1995). Narrative configuration in qualitative analysis. *Qualitative Studies in Education*, 8(1), 5-23.
- Polyani, M. (1967). *The tacit dimension*. New York: Doubleday.
- Puk, T. (1996). The integration of the extrarational and rational learning processes: Moving towards the whole learner. *Journal of Educational Thought*, 30(2), 119-137.
- Pultorak, E. G. (1993). Facilitating reflective thought in novice teachers. *Journal of Teacher Education*, 44(4), 288-295.
- Pultorak, E. G. (1996). Following the developmental processes of reflection in novice teachers: Three years of investigation. *Journal of Teacher Education*, 47(4), 283-291.
- Punch, M. (1994). Politics and ethics in qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research*(pp. 83-98). Thousand Oaks, CA: Sage Publications.
- Ramsden, P. (1992). *Learning to teach in higher education*. London: Routledge.
- Reason, P. (1993). Reflections on sacred experience and sacred science. *Journal of Management Inquiry*, 2(3), 273-283.
- Reinharz, S. (1983). Experimental analysis: A contribution to feminist research. In G. Bowles & R. D. Klein (Eds.), *Theories of women's studies*(pp. 162-191). London: Routledge and Kegan Paul.
- Richards, T. J., & Richards, L. (1994). Using computers in qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research*(pp. 445-462). Thousand Oaks, CA: Sage Publications.

- Richardson, L. (1994). Writing: A method of inquiry. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research*(pp. 516-529). Thousand Oaks, CA: Sage Publications.
- Richardson, V. (1988). The evolution of reflective teaching and teacher education. In R. T. Clift & M. C. Houston (Eds.), *Encouraging reflective practice in education: An analysis of issues and programs*(pp. 3-19). New York: Teachers College Press.
- Richert, A. E. (1992). Voice and power in teaching and learning to teach. In L. Valli (Ed.), *Reflective teacher education: Cases and critiques*(pp. 187-197). New York: State University of New York Press.
- Rodd, J. (1996). Towards a typology of leadership for the early childhood professional of the 21st century. *Early Child Development and Care*, 120, 119-126.
- Rodd, J., & Savage, J. (1997). A different pathway for the professional preparation of early childhood teachers in Britain. *Early Child Development and Care*, 129, 1-10.
- Rosemont, H. (1988). Against relativism. In G. J. Larson & E. Deutsch (Eds.), *Interpreting across boundaries: New essays in comparative philosophy*(pp. 19-35). Princeton: Princeton University Press.
- Ross, D. D. (1989). First steps in developing a reflective approach. *Journal of Teacher Education*, 40(2), 22-30.
- Ross, J. (1993). *The search for the pearl: A personal exploration of science and mysticism*. Sydney: ABC Books.
- Rothberg, D. (1990). Contemporary epistemology and the study of mysticism. In R. K. C. Forman (Ed.), *The problem of pure consciousness: Mysticism and philosophy*(pp. 163-210). New York: Oxford University Press.
- Rovegno, I. (1992). Learning to reflect on teaching: A case study of one preservice physical education teacher. *The Elementary School Journal*, 92(4), 491-510.
- Rudney, G. L., & Guillaume, A. M. (1990). Reflective teaching for student teachers. *The Teacher Educator*, 25(3), 13-20.
- Russell, T. (1989). Documenting reflection-in-action in the classroom: Searching for appropriate methods. *Qualitative Studies in Education*, 2(4), 275-284.

- Russell, T., & Munby, H. (1991). Reframing: The role of experience in developing teachers' professional knowledge. In D. A. Schon (Ed.), *The reflective turn: Case studies in and on educational practice*(pp. 164-187). New York: Teachers College Press.
- Russell, T., & Munby, H. (Eds.). (1992). *Teachers and teaching: From classroom to reflection*. London: The Falmer Press.
- Saracho, O. N. (1992). The future of teacher education in the changing world. *Early Child Development and Care*, 78, 225-229.
- Scharfstein, B. (1978a). Cultures, contexts and comparisons. In B. Scharfstein, I. Alon, S. Biderman, D. Daor, & Y. Hoffman (Eds.), *Philosophy east / philosophy west: A critical comparison of the Indian, Chinese, Islamic and European philosophy*(pp. 9-47). Oxford: Basil Blackwell.
- Scharfstein, B. (1978b). Three philosophical civilisations: A preliminary comparison. In B. Scharfstein, I. Alon, S. Biderman, D. Daor, & Y. Hoffman (Eds.), *Philosophy east / philosophy west: A critical comparison of the Indian, Chinese, Islamic and European philosophy*(pp. 48-127). Oxford: Basil Blackwell.
- Scharfstein, B. (1988). The contextual fallacy. In G. J. Larson & E. Deutsch (Eds.), *Interpreting across boundaries: New essays in comparative philosophy*(pp. 84-97). Princeton: Princeton University press.
- Scheffler, I. (1991). *In praise of the cognitive emotions and other essays in the philosophy of education*. London: Routledge.
- Scheurich, J. J. (1995). A post modern critique of research interviewing. *Qualitative Studies in Education*, 8(3), 239-252.
- Scheurich, J. J. (1996). The masks of validity: A deconstructive investigation. *Qualitative Studies in Education*, 9(1), 49-60.
- Schon, D. A. (1983). *The reflective practitioner: How professionals think in action*. New York: Basic Books.
- Schon, D. A. (1987). *Educating the reflective practitioner: Towards a new design for teaching and learning in the profession*. San Francisco: Jossey Bass.
- Schon, D. A. (1992). The theory of inquiry: Dewey's legacy to education. *Curriculum Inquiry*, 22(2), 119-139.
- Schwandt, T. A. (1994). Constructivist, interpretivist approaches to human inquiry. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research*(pp. 118-137). Thousand Oaks, CA: Sage Publications.

- Seidel, J. (1991). Method and madness in the application of computer technology to qualitative data analysis. In N. G. Fielding & R. M. Lee (Eds.), *Using computers in qualitative research*(pp. 107-116). Newbury Park, CA: Sage Publications.
- Seidman, I. E. (1991). *Interviewing as qualitative research: A guide for researchers in education and the social sciences*. New York: Teachers College Press.
- Shaffi, M. S. (1988). *Freedom from the self: Sufism, meditation and psychotherapy*. New York: Human Science Press.
- Sheldrake, R. (1988). *The presence of the past: Morphic resonance and the habits of nature*. New York: Times Books.
- Shepherd, L. J. (1993). *Lifting the veil: The feminine face of science*. Boston: Shambhala.
- Shulman, L. S. (1988). The dangers of dichotomous thinking in education. In P. P. Grimmett & G. L. Erickson (Eds.), *Reflection in teacher education*(pp. 31-38). New York: Teachers College Press.
- Silverman, R., Welty, W. M., & Lyon, S. (1992). *Case studies for teacher problem solving*. New York: McGraw Hill.
- Siraj-Blatchford, I. (1993). Educational research and reform: Some implications for the professional identity of early years teachers. *British Journal of Educational Studies*, 44(4), 393-408.
- Skolimowski, H. (1992). *Living philosophy: Eco philosophy as a tree of life*. London: Arkana.
- Sloan, D. (1983). *Insight-imagination: The emancipation of thought and the modern world*. Westport: Greenwood Press.
- Smart, N. (1988). The analogy of meaning and the tasks of comparative philosophy. In G. J. Larson & E. Deutsch (Eds.), *Interpreting across boundaries: New essays in comparative philosophy*(pp. 174-183). Princeton: Princeton University Press.
- Smith, D. (1997, February). *Facilitating reflective practice in professional preservice education: Challenging some sacred cows*. Paper presented at the Conference for Practical Experiences in Professional Education, Adelaide.
- Smith, D., & Hatton, N. (1992, June). *Towards critical reflection in teacher education*. Paper presented at the Annual Conference of the Australian Teacher Education Association, Ballina.

- Smith, D., & Cusworth, R. (1996, September). *An inquiry based approach to teacher education*. Paper presented at the Annual Conference of the European Council for Educational Research, Seville.
- Smith, D. G. (1996). Identity, self, and other in the conduct of pedagogical action: An East/West inquiry. *Journal of Curriculum Theorizing*, 12(3), 6-12.
- Smith, F. (1990). *To think*. New York: Teachers College Press.
- Smith, J. E. (1989). Interpreting across boundaries. In R. E. Allinson (Ed.), *Understanding the Chinese mind: The philosophical roots*(pp. 26-47). Hong Kong: Oxford University Press.
- Smyth, J. (1986). *Reflection-in-action*. Melbourne: Deakin University Press.
- Smyth, J. (1989). Developing and sustaining critical reflection in teacher education. *Journal of Teacher Education*, 40(2), 1-9.
- Smyth, J. (1992). Teachers' work and the politics of reflection. *American Educational Research Journal*, 29(2), 267-300.
- Solomon, R. C. (1989). Emotions, philosophy, and the self. In L. Cirillo, B. Kaplan, & S. Wapner (Eds.), *Emotions in ideal human development*(pp.135-149). Hillsdale, NJ: Lawrence Erlbaum.
- Sparks-Langer, G. M. (1992). In the eye of the beholder: Cognitive, critical, and narrative approaches to teacher reflection. In L. Valli (Ed.), *Reflective teacher education: Cases and critiques*(pp. 147-160). New York: State University of New York Press.
- Sparks-Langer, G. M., Simmons, J. M., Pasch, M., Colton, A., & Starko, A. (1990). Reflective pedagogical thinking: How can we promote and measure it? *Journal of Teacher Education*, 41(4), 23-32.
- Spodek, B. (1995). Professionalism and the early childhood practitioner. *Early Child Development and Care*, 114, 65-79.
- Spradley, J. P. (1979). *The ethnographic interview*. New York: Holt, Rinehart and Winston.
- Spretnack, C. (1991). *States of grace: The recovery of meaning in the postmodern age*. San Francisco: Harper.
- Staal, F. (1988). Is there philosophy in Asia? In G. J. Larson & E. Deutsch (Eds.), *Interpreting across boundaries: New essays in comparative philosophy*(pp. 203-229). Princeton: Princeton University Press.

- Stambaugh, J. (1986). *The real is not the rational*. Albany: State University of New York Press.
- Stein, N. L., Trabasso, T., & Liwag, M. (1993). The representation and organization of emotional experience: Unfolding the emotion episode. In M. Lewis & J. M. Haviland (Eds.), *Handbook of emotions*(pp. 279-300). New York: The Guilford Press.
- Stonehouse, A., & Woodrow, C. (1992). Professional issues: A perspective on their place in preservice education for early childhood. *Early Child Development and Care*, 78, 207-223.
- Stott, F., & Bowman, B. (1996). Child development knowledge: A slippery base for practice. *Early Childhood Research Quarterly*, 11(2), 169-183.
- Strauss, A., & Corbin, J. (1990). *Basics of qualitative research: Grounded theory procedures and techniques*. Newbury Park, CA: Sage.
- Strauss, A., & Corbin, J. (1994). Grounded theory methodology: An overview. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research*(pp. 273-285). Thousand Oaks, CA: Sage Publications.
- Streng, F. J. (1988). Mechanisms of self-deception and true awareness according to C.G. Jung and the eight-thousand-line perfection of wisdom sutra. In G. J. Larson & E. Deutsch (Eds.), *Interpreting across boundaries: New essays in comparative philosophy*(pp. 152-164). Princeton: Princeton University Press.
- Suhor, C. (1994). The pedagogy of silence in public education: Expanding the tradition. In A. G. Brand & R. L. Graves (Eds.), *Presence of mind: Writing and the domain beyond the cognitive*(pp. 31-37). Portsmouth, NH:Boynton/Cook.
- Sumsion, J. (1994, October). *Reflections of a reluctant researcher*. Paper presented at the University of Sydney Postgraduate Research in Education Forum IX, Sydney.
- Sumsion, J. (1995). Reflection in early childhood student teachers. *Australian Research in Early Childhood Education*, 1, 131-140.
- Sumsion, J. (1996). Empowering beginning student teachers: Challenges for teacher educators. *Asia Pacific Journal of Teacher Education*, 24(1), 33-46.
- Sumsion, J. (1997). Early childhood teacher education programs: Is a 0-8 focus feasible? *Early Child Development and Care*, 129, 129-141.
- Sumsion, J. (In press). Stories from discontinuing student teachers. *Teachers and Teaching: Theory and Practice*.

- Sumsion, J., & Fleet, A. (1996). Reflection: Can we assess it? Should we assess it? *Assessment & Evaluation in Higher Education*, 21(2), 121-130.
- Sumsion, J., & Thomas, D. (1995, November). *Stress management for student teachers in the practicum*. Paper presented at the Annual Conference of the Australian Association for Research in Education, Hobart.
- Surbeck, E., Han, E. P., & Moyer, J. E. (1991). Assessing reflective responses in journals. *Educational Leadership*, 48(6), 25-27.
- Tabachnick, B. R., & Zeichner, K. M. (Eds.). (1991). *Issues and practices in inquiry-oriented teacher education*. London: The Falmer Press.
- Tama, M. C., & Peterson, K. (1991). Achieving reflectivity through literature. *Educational Leadership*, 48(6), 22-24.
- Tang Yi. (1985). Taoism as a living philosophy. *Journal of Chinese Philosophy*, 12(4), 397-417.
- Tann, S. (1993). Eliciting student teachers' personal theories. In J. Calderhead & P. Gates (Eds.), *Conceptualizing reflection in teacher development*(pp.53-69). London: The Falmer Press.
- Tarnas, R. (1991). *The passion of the Western mind*. New York: Harmony.
- Taylor, C. (1992). Issues in preservice early childhood teacher education in Australia. *Australian Journal of Early Childhood*, 17(2), 35-41.
- Teich, N. (1994). Teaching empathy through cooperative learning. In A. G. Brand & R. L. Graves (Eds.), *Presence of mind: Writing and the domain beyond the cognitive*(pp. 143-153). Portsmouth, NH: Boynton/Cook.
- Tesch, R. (1990). *Qualitative research: Analysis types and software tools*. London: The Falmer Press.
- Thomas, D. (1993). Treasonable or trustworthy text: Reflections on teacher narrative studies. In P. Gilroy & M. Smith (Eds.), *International analyses of teacher education*(pp. 231-249). Abingdon: Carfax.
- Thomas, T. H. (1994). A deeper way of knowing. In A. Brand & R. L. Graves (Eds.), *Presence of mind: Writing and the domain beyond the cognitive*(pp. 99-112). Portsmouth, NH: Boynton/Cook.
- Tom, A. R. (1985). Inquiring into inquiry-oriented teacher education. *Journal of Teacher Education*, 36(5), 35-44.

- Tom, A. R. (1992). Foreword. In L. Valli (Ed.), *Reflective teacher education: Cases and critiques*(pp. vii-x). New York: State University of New York Press.
- Tremmel, R. (1993). Zen and the art of reflective practice in teacher education. *Harvard Educational Review*, 63(4), 434-458.
- Tripp, D. (1994). Teacher's lives, critical incidents and professional practice. *Qualitative Studies in Education*, 7(1), 65-76.
- Trumbull, D. J., & Slack, M. J. (1991). Learning to ask, listen, and analyse: Using structured interviewing assignments to develop reflection in preservice science teachers. *International Journal of Science Education*, 13(2), 129-142.
- Tsang, W., & Wong, M. (1995). Journaling as a reflective tool for preservice teacher trainees. *The Journal of Teaching Practice*, 15(1), 24-39.
- Tsangaridou, N., & O'Sullivan, M. (1994). Using pedagogical reflective strategies to enhance reflection among preservice physical teacher education teachers. *Journal of Teaching in Physical Education*, 14(1), 13-33.
- Ullrich, W. J. (1992). Preservice teachers reflect on the authority issues: A case study of a student teaching seminar. *Teaching and Teacher Education*, 8(4), 361-380.
- Valli, L. (1990, April). *The question of quality and content in reflective teacher education*. Paper presented at the annual meeting of the American Educational Research Association, Boston.
- Valli, L. (Ed.). (1992). *Reflective teacher education: Cases and critiques*. New York: State University of New York Press.
- Van Manen, M. (1977). Linking ways of knowing with ways of being practical. *Curriculum Inquiry*, 6(3), 205-228.
- Van Manen, M. (1991). *The tact of teaching: The meaning of pedagogical thoughtfulness*. Albany: State University of New York Press.
- Van Manen, M. (1995). On the epistemology of reflective practice. *Teachers and Teaching: Theory and Practice*, 1(1), 33-50.
- Wade, R. C., & Yarbrough, D. B. (1996). Portfolios: A tool for reflective thinking in teacher education? *Teaching and Teacher Education*, 12(1), 63-79.

- Walters, K. S. (1992). Critical thinking, logicism, and the elipse of imaging. *Journal of Creative Behaviour*, 26(2), 130-144.
- Wangmann, J. (1995). *Towards integration and quality assurance in children's services*. Melbourne: Australian Institute for Family Studies.
- Wawrytko, S. A. (1989). The harmony/disharmony of harmonies. *Journal of Chinese Philosophy*, 16(2), 203-208.
- Weber, S., & Mitchell, C. (1996). Drawing ourselves into teaching: Studying images that shape and distort teacher education. *Teaching and Teacher Education*, 12(3), 303-313.
- Wellington, B., & Austin, P. (1996). Orientations to reflective practice. *Educational Research*, 38(3), 307-316.
- Wenzlaff, T. (1994). Training the student to be a reflective practitioner. *Education*, 115(2), 278-287.
- Wheeler-Brownlee, G. (1985). Imagination: The connection enigma. *Journal of Creative Behaviour*, 19(4), 255-269.
- White, G. M. (1993). Emotions inside out: The anthropology of affect. In M. Lewis & J. M. Haviland (Eds.), *Handbook of Emotions*(pp. 29-39). New York: The Guilford Press.
- Wilber, K. (1983). *Eye to eye: The quest for a new paradigm*. New York: Anchor.
- Willis, G., & Schubert, W. H. (Eds.). (1991). *Reflections from the heart of educational inquiry: Understanding curriculum and teaching through the arts*. Albany: State University of New York Press.
- Wolcott, H. F. (1992). Posturing in qualitative inquiry. In M. LeCompte, W. Millroy, & J. Preissle (Eds.), *The handbook of qualitative research in education*(pp. 3-52). San Diego: Academic Press.
- Wolcott, H. F. (1994). *Transforming qualitative data: Description, analysis, and interpretation*. Thousand Oaks, CA: Sage Publications.
- Wonder, J., & Blake, J. (1992). Creativity east and west: Intuition versus logic. *Journal of Creative Behaviour*, 26(3), 172-185.
- Worley, D. A. (1994). Visual imagery training and college writing students. In A. G. Brand & R. L. Graves (Eds.), *Presence of mind: Writing and the domain beyond the cognitive*(pp. 133-139). Portsmouth, NH: Boynton/Cook.

- Wubbels, T., & Korthagen, F. A. J. (1990). The effects of a pre-service education program for the preparation of reflective teachers. *Journal of Education for Teaching*, 16(1), 29-43.
- Yinger, R. J. (1990). The conversation of practice. In R. T. Clift, W. R. Houston, & M. C. Pugach (Eds.), *Encouraging reflective practice in education: An analysis of issues and programs*(pp. 73-94). New York: Teachers College Press.
- Yinger, R., & Hendricks-Lee, M. (1993). Working knowledge in teaching. In C. Day, J. Calderhead, & P. Denicolo (Eds.), *Research on Teacher Thinking: Understanding Professional Development*(pp. 101-123). London: The Falmer Press.
- Yonemura, M. (1991). Glimpses of becoming an early childhood teacher: A teacher educator's perspective. *Curriculum Inquiry*, 21(4), 397-418.
- Yonemura, M. V. (1994). Accomplishing my work as a teacher educator: Hopes, practices, supports and constraints. In D. E. Day & S. G. Goffin (Eds.), *New perspectives in early childhood teacher education: Bringing practitioners into the debate*(pp. 167-181). New York: Teachers College Press.
- You-Yuh Kuo. (1996). Taoist psychology of creativity. *Journal of Creative Behaviour*, 30(3), 197-212.
- Zeichner, K. M. (1992). Conceptions of reflective teaching in contemporary U.S. teacher education program reforms. In L. Valli (Ed.), *Reflective teacher education: Cases and critiques*(pp. 161-173). New York: State University of New York Press.
- Zeichner, K. M. (1993). Traditions of practice in U.S. preservice teacher education programs. *Teaching and Teacher Education*, 9(1), 1-13.
- Zeichner, K. M. (1995). Reflections of a teacher educator working for social change. In T. Russell & F. Korthagen (Eds.), *Teachers who teach teachers: Reflections on teacher education*(pp. 11-24). London: The Falmer Press.
- Zeichner, K. M., & Liston, D. (1987). Teaching student teachers to reflect. *Harvard Educational Review*, 57(1), 23-48.
- Zeichner, K. M., & Tabachnick, B. R. (1991). Reflections on reflective teaching. In B. R. Tabachnick & K. M. Zeichner (Eds.), *Issues and practices in inquiry-oriented teacher education*(pp. 1-19). London: The Falmer Press.
- Zohar, D. (1990). *The quantum self*. London: Bloomsbury.

Zulich, J., Bean, T. W., & Herrick, J. (1992). Charting stages of preservice teacher development and reflection in a multicultural community through dialogue journal analysis. *Teaching and Teacher Education*, 8(4), 345-360.

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APPENDIX 1

Overview Of The Bachelor Of Teaching / Bachelor Of Education (Early Childhood) Program

The following diagram indicates the four professional and one liberal study stands of the three and four year preservice program. The first three years are common to both programs. In Semesters 1 to 4 student teachers enrol in a Guided Practice unit. There is no Guided Practice unit in Semester 5. Instead, two Guided Practice units (Guided Practice 5 and Integrated Studies) are undertaken in Semester 6. The shaded areas refer to units from which student teachers with a prior TAFE or teaching qualification are exempt. No participant in the current study belonged in either of these categories.

Source: Macquarie University, excerpt from internal memo

Category 5 Students

B.Teach/B.Ed. (Early Childhood) Program Structure

Liberal Studies	Child, Family & Society	Education and Curriculum	Management	Guided Practice
24 credit points or units selected from IBC Schedule of Courses at 300 or 400 Levels.				
400Lvl	Early Childhood Integrated Studies ECE 322		Guided Practice in Early Childhood Settings 5 ECCGP 301	
	Sep C,F & S	F & C	S,M & P Swk Block	Guided Practice Sep
Semester 7 & 8				
300 Lvl	Development of children with Special Need ECE 301 3 credit points	Education & Curriculum Elective 3 credit points	Management 2: Good Quality Children's Services ECE 324 3 credit points	
Semester 6				
200 Lvl	Australian Families & Early Childhood Education ECE 202 2 credit points	Early Childhood Mathematics Science & Technology ECE 205 3 credit points	Management 1: Young Children's Programs ECE 206 3 credit points	Guided Practice in Early Childhood Setting 4 ECCGP 202 3 credit points
Semester 5				
100 Lvl	Development of Children in Preschool and Early School Years ECE 201 3 credit points	Early Childhood Language, Literature & Literacy ECE 204 3 credit points		Guided Practice in Early Childhood Settings 3 ECCGP 201 3 credit points
Semester 4				
100 Lvl	Infant & Early Childhood Development ECE 102 3 credit points	Young Children in Arts ECE 104 3 credit points		Guided Practice in Early Childhood Settings 2 ECCGP 102 3 credit points
Semester 3				
100 Lvl	Early Childhood in Australia: The Social Context ECE 101 2 credit points	Curriculum Play in Early Childhood: Theory and Practice ECE 103 3 credit points	Introduction to Early Childhood ECE 105 3 credit points	Guided Practice in Early Childhood Settings 1 ECCGP 101 2 credit points
Semester 2				
Semester 1				

Shaded units are those from which you are exempt

APPENDIX 2

Overview Of Guided Practice Units

Please note that for administrative reasons, the final Guided Practice unit is known as Integrated Studies rather than Guided Practice 6.

Source: Macquarie University (1996) pp. 1-7

Introducing Guided Practice in Early Childhood Settings

The Guided Practice units combine theory and practice in an innovative approach to early childhood learning and teaching. The practical work is referred to as the Guided Experience component and takes place in family day care homes, child care centres, preschools and K-2 settings. Guided Experience is an integrated aspect of each Guided Practice unit and is complemented by seminars, tutorials and related instruction in university classes. These classes are designed to guide the students' learning through their practical experiences in early childhood settings.

The philosophy of the Guided Practice units is based on the belief that individuals construct their understanding of the world by making sense of their own actions, rather than by imitating the actions of others. This constructivist approach emphasises the need for learners to transform and organise their new learning by reflecting on their experiences.

Learning to teach is a complex and challenging process for student teachers and they learn best in situations where they have the opportunity for guided reflection on their experiences. Guided Practice units foster the development of reflective practitioners by providing a sequence of practical and theoretical experiences to enable student teachers to become thoughtful professionals. Student teachers are encouraged to learn from their experiences through careful consideration and analysis as they work with children and adults in early childhood settings. As there are many ways to be an effective teacher, students should be encouraged to develop their personal styles in a supportive environment provided by the cooperating teacher.

ECHP 111/ECGP 101 Early Childhood Guided Practice 1

What are the most important features of Guided Practice 1?

Guided Practice 1 provides the introduction to the philosophy of reflective teaching and learning. The unit is an important foundation for the sequence of Guided Practice units and it has been designed around the concept of communication and human relationships as basic to the professional and personal lives of early childhood educators.

There are four main areas of study:

1. understanding myself as a learner
2. the development of listening skills
3. personal communication styles
4. developing and maintaining relationships

Students begin by looking at themselves as learners and deciding how they can improve their learning processes. Linked to this topic, the unit also introduces stress management and time management strategies. Within this focus on self-as-learner, students develop their reflective skills.

The second area of study is linked to the development of listening skills and students are encouraged to become involved in open and effective communication by analysing good and poor listening habits. They observe and practice active listening with children and adults.

The third area deals with personal communication styles through the exploration of issues associated with self-esteem, verbal and non-verbal communication and the development of assertive skills. Students observe and practice these skills to understand how communication styles influence their interaction with children and adults in their personal and professional lives.

The final area of study focuses on the positive development and maintenance of worthwhile relationships. Students learn to handle their emotions and use conflict resolution techniques to improve their interpersonal communication skills.

How is the Guided Experience component linked to Guided Practice 1?

Internal students are placed in an early childhood setting for a series of five observation days to complete specific tasks related to communication skills. External students may use their own early childhood settings for these observations including long day care centres, preschools, K-2 settings or occasional care centres.

Students are not expected to plan specific teaching experiences, although they will need to practise communication skills linked to their study at university. For example, students will practise using "I" messages or active listening with children. They will also analyse the childrens' learning styles and observe the kinds of interactions that are taking place.

What role does the cooperating teacher have in Guided Experience 1?

In these placements, the cooperating teacher acts as an adviser and communicator talking with the students about the tasks they have to complete, and answering questions about themselves, the children and the centre or the school. The cooperating teacher is not expected to evaluate the students' teaching skills or their written work. Although there are no visits from the university advising staff for Guided Experience 1, concerns about individual student teachers should be raised with the Guided Experience 1 Coordinator.

ECHP 112/ECGP 102 Early Childhood Guided Practice 2

What are the most important features of Guided Practice 2?

Guided Practice 2 encourages students to begin to develop the skills of early childhood educators. The unit introduces students to the observation techniques and planning strategies necessary for working with young children. Each student works with children under five years of age.

There are four main areas of study:

1. an understanding of the role of the teacher, the children and their families in early childhood education,
2. the development of observation skills associated with the learning and teaching of young children,
3. an understanding of physical, cognitive, creative, social, emotional and language learning in early childhood,
4. an understanding of appropriate teaching strategies for early childhood education, and the development of skills to plan and evaluate single learning experiences.

How is the Guided Experience component linked to Guided Practice 2?

Students complete two observation days and two weeks of teaching practice. The teaching block is used to focus on the planning and evaluation of appropriate learning experiences based on the observation of individual children.

External students complete observation sessions equivalent to two whole days that may be completed at a time mutually convenient to them and the child care centre or family day care home. Students who work in an early childhood setting with children under five years of age in metropolitan Sydney may apply to use their workplace as a Guided Experience placement.

What role does the family day carer have in Guided Experience 2?

In these placements, the family day carer acts as an adviser and communicator talking with the students and answering questions about the children. The family day carer is not expected to evaluate the students' teaching skills or their written work. Although there are no visits from the university advising staff for Guided Experience 2, concerns about individual student teachers should be raised with the Guided Experience 2 Coordinator.

What role does the early childhood teacher have in Guided Experience 2?

This depends on the unit in which the student is enrolled. If it is ECHP 112, the early childhood teacher acts as an adviser and communicator talking with the student and answering questions about the children, but is not expected to evaluate the student's teaching skills or written work. Although there are no visits from the university advising staff for ECHP 112, concerns about individual student teachers should be raised with the Guided Experience 2 Coordinator. If the student is enrolled in ECGP 102, however, the early childhood teacher has a significant role through the evaluation of the student's written records and interactions with children and adults. University advisers will make at least one evaluation visit to each student enrolled in ECGP 102.

ECHP 211/ECGP 201 Guided Practice in Early Childhood Settings 3

What are the most important features of Guided Practice 3?

Guided Practice 3 gives the students the opportunity to identify their beliefs, values and attitudes, and to think about themselves as teachers. Students ask what will be important to themselves as teachers, what kind of environment they would like to establish and how they could encourage a positive learning atmosphere through their interactions with children and adults.

Students begin the unit by looking at themselves as teachers and then they move onto studying the factors related to planning effective learning environments. They examine issues associated with physical environments and social environments and they identify how to help children make the transition between environments - perhaps from home to day care, or from preschool to primary school. Students also consider children who might be coming from different kinds of home environments who have to fit into a different cultural environment.

How is the Guided Experience component linked to Guided Practice 3?

Students are placed in a single setting for the semester on the basis of their choice of the age range of children. Students may select to work with children under three in day care centres, or three to five year olds in either preschool or day care centres, or with five to eight year olds in a K-2 setting. Internal students attend observation days once a week for three weeks, then complete a two-week teaching block.

External students must complete the equivalent of three observation days before the start of the block, at a time mutually convenient to themselves and the centre/school.

During the observation days associated with Guided Practice 3, internal and external students have a number of tasks to complete and use for reflection. Internal students are expected to make a significant contribution to tutorial sessions at university as there is a strong link between the observation days and course work. In any single tutorial group there are students working with children of different ages. The mixed age groups and different settings mean that students can compare their experiences, and develop their understanding about the similarities and differences across early childhood settings.

What role does the cooperating teacher have in Guided Experience 3?

During the observation visits, the cooperating teacher acts as adviser and communicator by talking with the students about the tasks they have to complete, and answering questions about themselves, the centre and the children.

During the two week teaching block, student teachers refine and consolidate their teaching skills. The cooperating teacher has a significant role as adviser, observer and evaluator through the evaluation of the student teacher's record keeping systems, teaching abilities and interactions with children and adults. University advisers will make at least one visit to students enrolled in Guided Practice 3.

ECHP 212/ECGP 202 Guided Practice in Early Childhood Settings 4

What are the most important features of Guided Practice 4?

Guided Practice 4 extends the students' thinking to the reality of managing a large group or more than one group of children in an early childhood environment. The unit develops and builds on the students' planning skills and there is an emphasis on whole group recording and planning strategies and whole group behaviour management. During the semester, students develop their understanding of appropriate early childhood environments by examining a range of organisational strategies for individualised learning. In the final week of the teaching block students are expected to take responsibility for planning consecutive half day periods.

There are three broad areas of content covered in the unit:

1. observation and planning for learning,
2. managing children's behaviour,
3. organising the learning environment.

Students consider different approaches for observing and planning for a whole group of children. They experiment with focus child systems and whole group planning formats as they learn the organisational skills needed to manage an early childhood learning environment. They learn strategies for managing the behaviour of children and gather resources for transition activities.

After their block teaching period, the students study organisational approaches by looking at a range of options to enable children's learning to be individualised. The students are introduced to different forms of grouping and they analyse the advantages and disadvantages of various grouping strategies.

How is the Guided Experience component linked to Guided Practice 4?

Students will be placed in a single setting for the semester based on their choice of the age range of children. Students may select to work with children under three years of age in day care centres, or with three to five year olds in either preschool or day care centres, or with five to eight year olds in a K-2 setting. Students have the opportunity to stay at the setting they experienced in Guided Practice 3, although external students may not nominate placement in their own workplace.

Internal students attend their placement for observation days once a week for four weeks, then complete a three-week teaching block. External students must complete the equivalent of two observation days before the start of the block teaching practice, at a time mutually convenient to themselves and the school/centre.

What role does the cooperating teacher have in Guided Experience 4?

During the observation visits, the cooperating teacher acts as an adviser and communicator by talking with the students about the tasks they have to complete, and answering questions about themselves, the centre and the children.

During the three week teaching block, the cooperating teacher has a significant role as adviser, observer and evaluator through the evaluation of the student teacher's record keeping systems, teaching abilities and interactions with children and adults. A university adviser will make at least one visit to students enrolled in Guided Practice 4.

ECGP 301 Guided Practice in Early Childhood Settings 5

What are the most important features of Guided Practice 5?

Guided Practice 5 incorporates both theory and practice by combining university based study with practical experience. The practical experience component is based on the expectation that the student teacher will operate at a level reasonably expected of someone who is soon to graduate, while the course work concentrates on examining the teacher's role in curriculum decision making.

Guided Practice 5 has been designed with the understanding that teaching is characterised by uncertainty, inconsistency and ambiguity. It is based on the belief that student teachers should be able to face these characteristics in classrooms and playrooms, and develop their own strategies for dealing with them. Student teachers should have the opportunity to develop their own style of teaching by acting as decision makers who thoughtfully analyse and justify their decisions.

Students begin the unit by examining issues related to curriculum planning in early childhood settings. Their work focuses on essential skills for curriculum decision making and includes experimentation with appropriate record keeping systems including focus child systems and programming formats.

After the block period of teaching, the students extend their knowledge of the factors influencing curriculum change. The anti-bias curriculum is used as a case study of change in early childhood education.

How is the Guided Experience component linked to Guided Practice 5?

Internal students attend classes in an intensive mode during the first three weeks of semester in preparation for Guided Experience. During Guided Experience, internal students attend their placement four days a week for five weeks. On the Friday of each week students attend lectures and tutorials on campus. The first three days of the block period are observation days and then students complete seventeen days of increasing levels of student teaching. The week following the Guided Experience placement is another intensive week of study at university.

External students attend compulsory on-campus sessions, complete reading and set tasks, and reflect on their development as a teacher during the time they are not involved in the practicum. During Guided Experience, external students attend their placement five days a week for four weeks. Students who are working in an early childhood setting in metropolitan Sydney may apply to use their workplace as a Guided Experience placement.

What role does the cooperating teacher have in Guided Experience 5?

The cooperating teacher has crucial roles as adviser, observer, counsellor, instructor and evaluator. The student teacher will be attending the centre or school for twenty days and during this time the cooperating teacher will have the opportunity to evaluate the student teacher's record keeping systems, teaching competence and interactions with children and adults. A university adviser will make at least two visits to the student during the block teaching placement.

ECE 322 Early Childhood Integrated Studies

What are the most important features of Integrated Studies?

Integrated Studies is designed to assist student teachers develop into reflective practitioners able to be thoughtful and constructive about the complex challenges of working in early childhood settings. Students are encouraged to draw together their knowledge from their previous study and apply their understanding to issues surrounding early childhood education. The highest professional standards are expected of students enrolled in this unit, as Integrated Studies is the final teaching experience for students either completing the Bachelor of Teaching or continuing into the Bachelor of Education program.

What are the main areas of study?

Students begin by extending their exploration of issues related to teaching and learning in early childhood settings. Current research is used to focus attention on a range of beliefs and practices associated with working with children and adults.

During the block period of teaching, the students extend their knowledge of curriculum decision making and strengthen their professional teaching practices.

How is the Guided Experience component linked to Integrated Studies?

Internal students attend classes in an intensive mode during the first three weeks of semester. The final four weeks of semester are used for the Guided Experience component of Integrated Studies. During this time, student teachers will attend their placement five days a week. The first three days of the block period are observation days and then students complete seventeen days of increasing levels of student teaching.

External students attend compulsory on-campus sessions, complete reading and set tasks, and reflect on their development as a teacher during the time they are not involved in the practicum. During Guided Experience, external students attend their placement five days a week for four weeks. External students living in a country area may apply for a placement close to home.

What role does the cooperating teaching have in Integrated Studies?

The cooperating teacher has a crucial role in Integrated Studies as an adviser, observer, counsellor, instructor and evaluator. The student teacher will be attending the centre or school for twenty days and during this time the cooperating teacher will have the opportunity to evaluate the student teacher's record keeping systems, teaching ability and interactions with children and adults. University advisers will make at least one visit to the student during the block teaching placement.

APPENDIX 3

Studies Of Student Teacher Reflection Identified By Literature Search

Baird, 1991
Bolin, 1988; 1990
Brooker & O'Donoghue, 1992
Calderhead, 1987
Chen, 1993
Clandinin, Davies, Hogan & Kennard, 1993
Clarke, 1994; 1995
Cullen, 1991
Ellwein, Grave & Comfort, 1990
Francis, 1995
Gore & Zeichner, 1991
Griffiths & Tann, 1992
Guillaume & Rudney, 1993; Rudney & Guillaume, 1990
Harrington & Hathaway, 1994
Harrington, Quinnleering & Hodson, 1996
Hatton & Smith, 1995; Smith, 1997
Hillkirk & Dupois, 1989
Hoover, 1994
Korthagen & Wubbels, 1995; Wubbels & Korthagen, 1990
Kwan, 1996
LaBoskey, 1994
Loughran, 1996
MacKinnon, 1987
Mayer & Goldsberry, 1993
McLaughlin & Hanifin, 1995
McMahon, 1997
Morine-Dershimer, 1989
Perry, 1995
Pultorak, 1993; 1996
Richert, 1992
Ross, 1989
Rovegno, 1992
Sparks-Langer, Simmons, Pasch, Colton & Starko, 1990
Surbeck, Han & Moyer, 1991

Sumsion, 1995
Tama & Peterson, 1991
Tann, 1993
Trumbull & Slack, 1991
Tsang & Wong, 1995
Tsangaridou & O'Sullivan, 1994
Ullrich, 1992
Wade, 1996
Wenzlaff, 1994
Yonemura, 1991
Zulich, Bean & Herrick, 1992

APPENDIX 4

Invitation, Profile And Information And Consent Forms

Invitation To Participate In A Research Project

Would you like to join me in a fascinating and rewarding research project? The project will focus on aspects of your professional development as early childhood educators and will continue for the next three years.

I am looking for twelve student teachers currently in their first year at The Institute of Early Childhood to take part in the project. These student teachers will meet with me twice each semester to share issues of interest and concern. In addition, we would correspond regularly via a journal which each student involved in the project would maintain. I would also like to visit you in your final three practicum placements.

If you would like to participate in the project and if you would be willing to work in partnership with me while you are enrolled in Guided Practice units at the Institute, I would love to hear from you.

I see myself offering a "sounding board" for ideas as well as a "sympathetic ear" when needed. Sometimes simply having someone to talk to can be invaluable!

I would like to work with students from a range of backgrounds. For this reason, I would appreciate it if you would return the "profile" attached to this invitation to the Student Services Office by Monday March 22 if you are interested in taking part in this research.

If you would like more information about the project please call in and see me in Cottage 28.

Jennifer Sumsion

17/3/93

Profile

Name: _____ Telephone: _____
(first name & first initial of family name)

Age: _____ Suburb/Town: _____

Are you a 1992 school-leaver? yes no

When did you leave school? ←

↓
Briefly describe work/study undertaken since leaving school.

Why are you interested in being involved in this research project?



MACQUARIE UNIVERSITY

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REF:

Information and Consent Form

Name of Project: *Reflection In Early Childhood Student Teachers*

You are invited to participate in a study which aims to investigate aspects of the professional development of early childhood student teachers during their enrolment in the Institute of Early Childhood's Guided Practice Units. The purpose of the study is to understand how early childhood student perceive and reflect on the process of becoming a teacher. The study will assist in the ongoing evaluation and modification of the Guided Practice units so that they better meet students' needs. It is being conducted by Jennifer Sumsion from the Institute of Early Childhood, (X5B, Room 268, tel: 9850-9864).

If you decide to participate, you will be asked to meet with Jennifer approximately twice each semester to discuss issues of interest and concern to you about your professional development. Some of these discussions will take in small groups and others on a 1:1 basis. They will be approximately 30 minutes in duration, and will be audio-taped and transcribed. You will also be ask to agree to Jennifer visiting you during your teaching blocks for your final three practicums, and to provide her with a copy of the reflective writing which you undertake during your practicums. There will be no payment of money for your involvement.

Any information or personal details gathered as part of the project are confidential. No individual will be identified in any publication of the results. Jennifer and her supervisor, Associate Professor David Smith from the University of Sydney, will be the only people to have access to the data.

If you decide to participate, you are free to withdraw your consent and to discontinue participation at any time without having to give a reason and without penalty.

I, have read and understand the information above and any questions I have asked have been answered to my satisfaction. I agree to participate in this research, knowing that I can withdraw at any time. I have been given a copy of this form to keep.

Participant's Name: _____
(block letters)

Participant's Signature: _____ Date: _____

Investigator's Name: _____
(block letters)

Investigator's Signature: _____ Date: _____

APPENDIX 5: PATTERN OF PARTICIPATION

	1993		1994		1995		1996	
	Sem.1	Sem. 2	Sem.1	Sem. 2	Sem. 1	Sem. 2	Sem. 1	Sem. 2
Colin	GP1	GP2						
Erica	GP1	GP2			GP3 R&V*	GP4		GP5
Felicity	GP1	GP2	GP3		R&V*	GP4		GP5
Genni	GP1	GP2			GP3	GP4		
Gerry			GP3		R&V*	GP4		GP5
Heather		GP2	GP3		R&V*	GP4		GP5
Jessica		GP2	GP3	GP4		GP5		
Josephine			GP3	GP4	R&V*	GP5		
Kasey	GP1	GP2	GP3		GP3 R&V*	GP4		GP5
Kathleen	GP1	GP2	GP3	GP4	R&V*	GP5		GP5
Kel	GP1	GP2	GP3					
Kristy		GP2	GP3	GP4	R&V*	GP5		
Marcelle			GP3	GP4		GP5		
Marina		GP2	GP3			GP4		
Nina				GP4	R&V*	GP5		
Pamela		GP2	GP3					
Pia				GP4	R&V*	GP5		
Sarah	GP1	GP2	GP3	GP4	R&V*	GP5		

* R&V = Relaxation and Visualisation Sessions.

GP5 = Guided Practice 5 and Integrated Studies

APPENDIX 6

Guiding Questions For I:I Interviews

Stage of Program	Question	Purpose
<p>Guided Practice 1 beginning of semester</p>	<p>What comes to mind when you: (a) hear the words "teacher" and "teaching"? (b) think of yourself as a teacher?</p>	<p>To explore participants' images of teachers, teaching and themselves as teachers at the beginning of the program</p>
<p>after field visits</p>	<p>How would you describe a "good" teacher? Have any of your ideas about yourself as a teacher changed since our first meeting? If so, how and why?</p>	<p>To gauge any changes in perspectives after initial field visits</p>
<p>Guided Practice 2 after practicum</p>	<p>What would it be like to be a teacher? Have your ideas changed since the beginning of the year? If so, how and why?</p>	<p>To gain insights into participants' impressions of the "reality" of teaching after a two teaching block in a preschool</p>
<p>Guided Practice 3 after practicum</p>	<p>What have you learnt about being a teacher in day care / preschool / school?</p>	<p>To provide an opportunity to respond to similarities / differences in settings / teaching styles after wider practicum experience</p>
<p>Guided Practice 4 during practicum</p>	<p>What did you think of the morning / afternoon / lesson / activity? What was on your mind? What has stood out to you most about this practicum?</p>	<p>To observe reflection-on-action immediately following teaching; To identify and explore possible instances of reflection-in-action during teaching; To explore links made between theory and practice; To note any inconsistencies between espoused views and practice</p>

Stage Of Program	Question	Purpose
Guided Practice 4 after practicum	When you look at yourself as a teacher, what do you see?	To gain an understanding of participants' image of self as teacher after taking substantial responsibility in their placement; To enable comparison with earlier and later responses to same / similar question
Following Relaxation and Visualisation Sessions	How did you find the session? Could you tell me more about your visual representation?	To explore participants' responses in more detail than was possible in the session itself
Guided Practice 5 & Integrated Studies During 1st placement	What did you think of the morning / afternoon / lesson / activity? What was on your mind? What has stood out to you most about this practicum?	To observe reflection-on-action immediately following teaching; To identify and explore possible instances of reflection-in-action during teaching; To explore links made between theory and practice; To note any inconsistencies between espoused views and practice
During 2nd placement	As per 1st placement	As per 1st placement
End of semester	When you look at yourself as a teacher, what do you see? What do notice when you compare this response with your previous responses? Would you say that you've become more reflective during your enrolment in Guided Practice? Why / why not?	To enable comparison with previous responses; To encourage participants to reflect on their development during their enrolment in Guided Practice; To compare participants' views with my own and to explore possible discrepancies

APPENDIX 7

Sample Non-Participant Observation Notes

ERICA (THIRD PRACTICUM) 19/9/95 9.30-10.45AM

I wondered what to expect when I visited Erica at _____ Public School. This was her first prac in K-2 and her first time working with children from a lower socio-economic background and a wide cultural mix. Erica had always seemed apprehensive about working with children from different backgrounds and had always found her pracs "boring". Would this prac. prove to be a breakthrough? Would she talk about teaching instead of how much she disliked the idea of being a teacher? I was very curious to hear what she would say.

Erica's teacher, Margaret, (a tall, angular, grey haired, conservatively dressed woman in her late 50's) greeted me warmly. Erica, on the other hand, seemed taken aback. She explained that she hadn't been told that I was coming, but assured me that it was perfectly okay for me to stay. Margaret settled the class (27 five and six year old children of very mixed cultural backgrounds) when they came into the room and held a brief and very formal news session before handing over to Erica. Margaret had what seemed to me to be an old-fashioned, firm but caring manner with the children. I imagine that she would be an excellent teacher in the old "infants school mistress" style. I was struck by the contrast between her old fashioned manner and conservative dress and the image Erica presented as she sat on a child's desk, legs wide apart, stifling a yawn (she had celebrated her 21st birthday the night before!), dressed in skin-tight jeans and body singlet, and riding boots. I wondered how Erica and Margaret were getting along.

After 10 minutes or so, Margaret handed over to Erica for a handwriting lesson. Erica adopted the traditional "Today we are going to do the letter 'R' approach". I always found that type of approach incredibly boring and wondered whether Erica was bored by it too. She spoke very confidently and loudly to the children as she demonstrated on the blackboard how to write the letter "R" while they sat on the mat and watched. Although she gave them no opportunity to be actively involved, to my surprise, they remained quite settled.

After approximately five minutes, Erica sent the children back to their desks, which were arranged in clusters of six and eight. She demonstrated on the board again and

then asked children to copy lines of "Rs" onto their page. As the children wrote, Erica "patrolled" the room. She bent over children to talk to them, rather than kneeling down to their level. I wondered whether this was characteristic, or whether she it was simply because she was wearing tight jeans which probably made kneeling difficult.

Erica reminded children several times "No calling out! Put your hand up!" but also gave lots of positive reinforcement to individual children. The children remained quite settled and seemed to be responding well to her. Occasionally, her very "teacher-like" manner would slip, and I'd get a glimpse of her sardonic sense of humour. It seemed to me almost as if Erica was "acting" the role of teacher and finding it quite amusing to see herself in this role.

After 15-20 minutes, Erica had the children return to the mat. She sang several songs with the children as a transition activity, and they participated enthusiastically. She then told them that she was going to take them outside to play games and began to explain what the games would involve. By now, some of the boys were becoming a little restless. I was quite shocked, however, when Erica said to a child (later identified as Ezekihal) "Wipe that smile off your face! I'm not impressed!" She then told him to move to the "time out" area next to the teacher's desk. In quick succession, she then made similar comments to several other children. I was quite horrified by the roughness of her tone. I glanced at Margaret, who was sitting at her desk. Her expression was impassive. Does she talk to the children in that tone, I wondered? Why else would Erica be speaking in that manner?

Erica then took the class outside, sat them on the grass and explained how to play a game called "fruit salad" which involved the children sitting in two lines opposite each other with their legs outstretched and their feet touching the feet of the child sitting opposite them to form hurdles over which selected pairs of children would then jump as they ran down the line. She intended it to be a competitive game, with each child in the pair racing his / her partner. It soon became apparent that the children had no idea of what they were meant to be doing. Children were running everywhere and falling over each other. Again, Erica spoke very roughly to several children, including Ezekihal. I was terrified that there would be an accident and asked Margaret if she would prefer Erica to stop the game. She seemed resigned to the seeming chaos, though, rather than actively concerned about the children's safety. Again, I wondered whether she found working with Erica required considerable patience.

After approximately 15 minutes, Erica brought the game to an end and had the children play another game which involved running in different directions, according to different signals. She quickly turned this into a competitive game, with the children slowest to respond to each signal being "eliminated". They then sat on the ground to watch the remaining children play. A few of the boys still left in the game became very excited and started to deliberately fall over, pulling other children over with them. Again, I started to worry about children's safety but was taken aback when Erica said to them very loudly "If you don't behave properly, we'll have to go inside and do something boring!" I thought she sounded very much like a "no-nonsense" upper primary teacher - or a sports coach. Soon afterwards, she took the class back and handed over to Margaret.

If I had been her practicum adviser, I would have placed Erica "at risk", so inappropriate were her statements and tone with the children (apart from the dangerous nature of the first game, in particular). I wonder how her adviser had responded. More than ever, I wonder what Erica would say when we sat down to talk.

APPENDIX 8

Suggestions For Reflective Writing

There are many ways in which you can document that you are taking a thoughtful and reflective approach to your professional development. You might:

- Maintain a reflective journal in which you explore aspects of Guided Experience* which are of personal interest or significance to you. At the conclusion of Guided Experience you might review your entries and identify and analyse any themes emerging from your writing.

OR

- Include in your folder a copy of the philosophy of teaching essay you wrote for Guided Practice 3 and discuss how Guided Experience has reaffirmed or prompted you to reconsider the views you held at the time you wrote the essay.

OR

- Describe several "critical incidents" or significant experiences which you have encountered during Guided Experience that have led you to develop new insights into your beliefs, values and decision making. You could:
 - briefly outline the incident;
 - describe your reaction;
 - account for your reaction in terms of your beliefs and values;
 - explain the insights you gained as a result of the incident; and
 - indicate the implications for future decision making.

* Guided Experience is the term used to refer to the practicum teaching block embedded within each Guided Practice unit.

Source:

Macquarie University (1994)

APPENDIX 9

Sample Scenario For Small Group Discussions

(used while most participants were enrolled in Guided Practice 3)

The Aggressive Child

Eric is a large and extremely active 4 year old who often hurts and frightens other children. You have discussed his behaviour repeatedly with the director, who is sympathetic but unable to help. Eric's parents listen but feel that the behaviour is typical for boys of his age. They won't get counselling. A child psychologist from the Department of Community Services has observed the child but her recommendations have not helped either. Meanwhile, Eric is terrorising other children and parents are starting to complain. You are becoming stressed and tired and your patience is wearing thin. You and your assistant are spending so much time with Eric that you are worried other children are not getting the attention they need. What will you do?

Adapted from Feeney (1988)

APPENDIX 10

Focus Of Relaxation And Visualisation Sessions

Session	Focus For Representation And Group Discussion	Purpose
1	<i>After relaxation and visualisation:</i> How did you find the session?	To gain an understanding of the participants' experience of and response to the session
2	<i>Before relaxation and visualisation:</i> When you look at yourself as a teacher, what do you see?	To enable comparison with response to same question two weeks later following a period of relaxation
3	<i>Before relaxation and visualisation:</i> Recall an educational experience / event that has been significant for you. What are your thoughts and feelings about this experience? Repeat following relaxation and visualisation	To enable comparison between responses prior to and following relaxation and visualisation; To investigate whether relaxation and visualisation brings to the fore memory of a significant experience / event not discussed thus far which might have some bearing on participants' responses / reflection;
4	<i>After relaxation and visualisation:</i> When you look at yourself as a teacher, what do you see?	To enable comparison with response to same question two weeks previously prior to a period of relaxation
5*	<i>After relaxation and visualisation:</i> What impact, if any, do you think these sessions have had on you as a developing teacher? Why?	To gain some understanding of the impact, if any, of these sessions on the participants

* Session cancelled due to illness

APPENDIX 11

Sample Reflective Memo

Topic: Reflection, Action and Boundaries

Date: 25/7/94

Many writers make links between action and reflection. Organ (1975) for example claims that "Western man's activity is an opiate which deadens his awareness" (p.35). Similarly, Skolimowski (1992) writes that "unreflected action is mindless doing" (p.10). He points out that "many actions have been conceived in a limited frame of reference. Within this limited frame, they appear to be meaningful and purposeful" (p.10).

Immediately, I think of Erica. She constantly emphasises how action is so important to her and seems to struggle with reflection. I think, too, of Nina's cooperating teacher who said that there was "no time" for children to do more meaningful activities. Nina was horrified! I wonder how Erica would have responded?

Is Erica's emphasis on physical action linked with the value she places on commonsense and practicalities? Is this why she seems to have little interest in / patience for complex situations that have no immediately right or wrong answer? Is this emphasis an example what Skolimowski refers to as a "limited frame"?

The term "limited frame" makes me think of boundaries. Do action and practical value constitute the boundaries beyond which Erica is unhappy to venture? Are her boundaries more inflexible than students who seem much more open to new possibilities. There's not much sense, so far at least, of Erica transcending the boundaries which were already in place when she arrived. With Sarah, in contrast, there seems to be a real sense of unfolding / openness to new possibilities which at present seems so lacking with Erica. She hasn't been at all keen, for example, to do a prac in a lower socio-economic, culturally mixed area.

APPENDIX 12

Sample of Transcript Data Analysis

This appendix demonstrates how data was transferred from transcripts to cards.

1. Each bracket indicates how data from this transcript was cut and pasted.
2. The notes in the margins indicate the key idea(s) or issue(s) expressed in the paragraph.
3. The symbol "x 2" indicates two identical cards because of different ideas / issues embedded in the paragraph.

Interview with Sarah

31/3/95

The interview took place two days after the third and final relaxation session. After a period of relaxation and visualisation, student teachers were asked to respond to the question "When I look at myself as a teacher, what do I see?"

Sarah: [It came straight away. I just thought of it "like that" (clicking fingers type gesture). (6)

instantaneous

[I probably think like that most of the time actually. I piece things together pictorially. I write as well, but I find that pictures come to me more easily than words, quite often. (8)

visual orientation

Jennifer: [Tell me about what you've drawn.

rainbow image

Sarah: [Well this is my path. In my drawings from the other pracs, that was my rainbow path. That's why I put the symbols in it - because they are the same things that I pass through. [At the moment I don't see myself as an actual teacher. I don't feel as if I can do that at the moment, because I change - all the time! (11)

fluidity

Jennifer: [What changes?

Sarah: [Just going from one situation to another. Even when I turn up to a tutorial, when the tutor says something I change my view about how I see myself as a teacher. I do that all the time. I can't label myself as one specific term. (14)

[So that's why I use the puzzle, because I'm at a stage where I'm drawing a lot of knowledge together and the puzzle is about bringing things together. (17)

synthesising

[Things we are taught at the moment - we hear a lot of jargon - it seems unbelievable and quite comical that we have jargon for everything! So in a way, the A - Z in the puzzle is also a bit of a joke (laughs) (19)

professional jargon

[But to me, if you separate pieces of the puzzle, then they are just words - isolated words. They don't tie in to teaching. They could almost be applied to any situation. They're not meaningless, but they are not the whole picture. I can't use them to pinpoint how I'd be as a teacher. It's only when they are together, that it all works. (22)

preference for holistic v. fragmented; images v. words

Jennifer: [Can you tell me more about how lecturers' and tutor's comments tend to impact on your puzzle?

Sarah: Well, this is an example. We've just been given a task in Management and we are asked to circle 5 things we believe are important. I find that really difficult because I like to look at the whole picture. I like to look at children as a "whole". I agree with every statement on those task sheets but the emphasis I place on each of those points isn't necessarily stable. It changes. I go into a lecture and hear something and I think "Oh, perhaps I'm not quite as strong in my thoughts as I had thought, in terms of supporting one view over another."
holistic orientation
fluidity
X 2 (27)

Jennifer: What I believe doesn't change, but the focus of meaning behind each word changes. But it is still there.
underpinning beliefs (28)

Jennifer: That sounds a really interesting process. How do you feel about having that process happening continuously?
fluidity

Sarah: Well... it's a challenge! I find it hard trying to bring everything together. It's hard to say this is how I view myself because I don't think I'll ever view myself in one way. I think I'll always see myself in a different light in a new situation.
challenge
(34)

When I'm on prac, I think "Well yes, I'm in the role of a teacher", but when I'm at Uni I think, "I'm still on my way. I'm not really a teacher, yet."
perception of self as teacher (36)

On prac, you implement the role of a teacher and you draw everything together. I suppose the puzzle is still there, and you are using it.
prac provides opportunities for synthesis (44)

But at Uni, you're still creating the puzzle with bits of information from everywhere. This semester, I'm really missing prac. And I miss the Guided Prac unit, because that was one of my strengths. It was a real focus. I was able to relate to it because it's something that I look at all the time. And not having it makes Uni hard to deal with. It's a really different feeling this semester because of not having Guided Prac.
prac provides opportunities for synthesis (53)
I'm still getting a lot of theory, but I miss the focus of not tying it all together in the prac situation. (61)

Because Guided Prac was one of my strengths I felt happy about it because I knew I could do it. So I felt confident, and they were things that I liked researching. We got to look at things that were important to us. Whereas it's not like that at the moment (voice quivers).
Guided prac → self confidence, self efficacy (68)

Jennifer: Let's talk some more about your jigsaw puzzle.

Sarah: Well these pieces are all things that I think about in becoming a teacher. It's a two sided puzzle - my path is on the back. It's my path to professionalism. My path is always changing, and it doesn't finish.
fluidity! (71)

Jennifer: Are the names of the pieces fairly self-explanatory?
Continual growth

Sarah: Yes, I think so, if you're coming from an early childhood perspective. (79)

In relation to "youthful" I'm thinking of "not being dull". No matter how old you are, you can still have a youthful approach. I think that's important.

"youthful" (82)

In relation to "families", I really support the idea of families being involved, but it's still something that you've got to learn how to do sensitively. (83)

family involvement

Jennifer: Let's turn to the drawing you did after the last prac.

Sarah: This was where I was looking into the window of teaching, wasn't it? (87)

I had three groups - *things I liked; things I was coming to grips with; and things I didn't like.*

classification (analytical approach) (89)

Jennifer: When you look at the two responses together, do you see any similarities or differences?

Sarah: I suppose that now, I don't view teaching as just in the classroom. In my last response I'm looking more-or-less at working in the room, whereas in the latest response I can take a step back and look at all the things that come together in getting there.

developing a broader perspective; awareness of interconnection (93)

Jennifer: What's brought about that change, do you think?

Sarah: Umm,...I don't really know.

difficulty in articulating (94)

Jennifer: Are there any other differences or similarities?

Sarah: I suppose that the things that I've included in each group in the previous response are the things that I would look at under the categories in the puzzle. They are all separate issues, but when you put them together, like in a puzzle, they all relate. I like to see things linking, so I'm trying to work on that. (96)

synthesis

Drawing everything together is difficult. It's difficult linking all the things you believe in into one big picture - into something that you can actually operate. I can take all these things and make lists, but when you try to bring them altogether, there are so many things to think about in terms of developing a whole approach to teaching.

synthesis (difficulties) (98)

I really do miss Guided Prac because without it it's much harder to bring things together. (Voice quivers) (99)

G.P. - synthe.

I like the units that I'm doing but they are very theoretical. At least with ECE 313, I can relate it to the child I'm working with, but there are heaps of things in that unit, too, that I don't understand, either but they are starting to come together. (102)

*theoretical approach
→ harder to synthesise*

transfer of theory
→ difficult to synthesise

I find the approach in the other units so different to the approach in ECE 313. We're lectured at! We are given a whole heap of information and it's so hard to being it all together and understand it when you are not relating it to anything. I find it really confusing at times. It's so hard to understand what they are going on about, especially in Management, because I haven't been in a management position. (106)

Jennifer: Next semester will be very different.

Sarah: Yes, it will be exciting, but a bit scary. I don't want you to think that I always think that prac is fantastic, because I don't. I also get scared. I go home and panic just like other people. I like to look at the positive side, but it doesn't stop me worrying! Ten weeks of prac is going to seem like forever, but it's also exciting, because I think I'll learn a lot from it. (114)

prefers learning through practice

You know, something that I found really interesting in a lecture recently was that we were told that generally, teachers have a low self esteem and tend to underestimate themselves. I was wondering whether that's because we are encouraged to reflect on what we do all the time as learners, and with so many changing aspects, because nothing is stable, and because there are so many things to think about and to pin point, I wonder whether that has an impact on self esteem. (119)

reflect
↓
lowers self esteem?

Jennifer: That's an interesting point. I guess I think that the process of reflecting would eventually lead to a higher self esteem.

Sarah: I agree. Because we can reflect, and because we do it so often, hopefully we will be able to justify our beliefs, even though we are still thinking about them and working out where we stand. But I also think that there's nothing really stable and so that makes you feel insecure. (123)

fluidity / insecurity

I often sit back and wonder whether you underestimate what you can do. You look at yourself in terms of other people and you can't help doing that, even though it's not meant to be competitive, and that also influences me. I passed my ECE 313 assignment, but... I still compare myself to other students. (128)

self esteem

x 3

At school, in Society and Culture, we could choose what we wanted to learn. It was based on autonomous learning. I don't often think how many things have influenced my views, but all of a sudden, I sometimes realise "There's something else" that has an influence on me." And the autonomous learning in Society and Culture really had an impact on me. (141)

past experience
instantaneous

autonomous learning

To a certain degree you need people who have the experience and knowledge to share it with you, but being lectured at isn't a good way to do it. And in huge tutorial groups, I don't always feel comfortable contributing. (145)

dislike transfer mode of teaching

Jennifer: If you don't feel comfortable there must be many people who feel very uncomfortable about it!

Sarah:

The reason that I don't like Management very much this semester is that I'm in a tutorial group where it is expected that everyone will contribute. But I'm sitting there thinking "But I feel so naive; I don't want to say something that makes me sound really stupid." But that sometimes happens anyway, and I sit there thinking "But that's not how I wanted it to come out!" And it only came out like that because I felt so rushed and I had to say something! (voice quivers)

self esteem

(155)

I'm doing a decoupage class at the moment and our instructor is so traditional that it's turned out to be almost like a concentration camp! (laughs) She said to me "Why haven't you done it this way?" Normally, I do things the way I'm supposed to do them, but in this class I wanted to do my box the way I wanted to! I'd paid so much money for the course, and I had my own approach! I wrote about that in my journal.

preference⁽¹⁶⁰⁾ for autonomous learning

Jennifer:

Do you think the relaxation made any difference to how you responded to that question?

Sarah:

It's really difficult to say because I didn't do a response before the relaxation. I don't think I would have been so relaxed before. I'm more creative when I'm relaxed and happy with myself. Actually, I suppose you can tie it back to that day where I wasn't having a very good day at all and I couldn't draw anything. I couldn't concentrate on anything much. With this experience, it shows that I've got to be relaxed to be creative. I often go off on a tangent when I start to relax because I think of different things. I think all the time. I've got to train myself to switch off. It's not just Uni, but I do so much. I have swimming training and lots of other things, so I'm constantly thinking "I've got to get home to do this or that." Sometimes I think that I shouldn't try to fit in quite so much.

creativity, connections, relaxation

activity / reflection (175)

But, so many things in ordinary life relate. Teaching should just fit into that and be part of it. But when you are at Uni, you see it as separate from a normal life. But yes, things do relate.

connections (184)

I've noticed how I've changed - In my first two pracs. I recorded everything so extensively! I don't write so much now. But I've noticed how you become more yourself. The prac folder in 1st year was just so "Uni-ish"! I did what I had to do and I didn't have much personality in my 1st year folder. It wasn't me! I think I was still coming to terms with doing a prac and putting all the things into it that had to be in it. Whereas now, I feel more comfortable about including the bits that we have too but looking at it from my perspective.

epistemological shift⁽¹⁹⁰⁾

x2

And I write less for my plans. Last semester, although I was worried about it, it was really exciting getting a weekly plan together. Sometimes I feel that I over-do what I'm doing, but I feel that I need to do that so I don't leave things out. But I can see how easily you could fall into the habit of doing something just for the sake of doing it. So now, I want to make sure that there is a purpose behind whatever I do. I find that a challenge, though. (194)

meaningful v. routine action

X2

I look back on my 1st year prac folder and realise that I was just looking for something to do. But now, it's more specific. I look at getting something out of it, rather than just doing it. That's not always easy, though. So next prac, I'd like to record less detail and structure my planning differently. That's different from my early pracs where I felt had to a piece of A4 paper. Whereas now I've got the confidence to set it all out on a much larger sheet so I can see it all in front of me. (199)

*meaningful v. routine action
confidence → experimentation*

The more responsibility you have, the less time you have to fiddle around writing a lot of details. (207)

moving from specific focus to broader picture?

I really admire the way you and Dawn ask questions in such a non threatening way. I'd like to be able to do that. I feel more relaxed when you approach a question in that way and I realise how much of an influence that had on me yesterday. See, that's an example of how a situation changes! So that's an example of something I'd like to work on, because I feel that children feel exactly the same as we do, in some situations, especially in situations where you are expected to say something. It's nicer to approach it in a non-threatening way. (211)

teaching goal

Jennifer: Has the way you approach the reflective practitioner section in your prac folder changed?

Sarah: I love doing that section. When I'm doing it it can be a hassle. Sometimes, when I get home and know that I have to do it, I think "I don't think I can stand doing this!". But to be quite honest, it's actually the most enjoyable part - going home and reflecting on what you've done is a release. You get to explain to a piece of paper how you feel (laughs). By writing it down, so often you can answer your own questions. Things go through your head and all of a sudden you think "Oh, maybe if I'd done it this way..." It's makes it more concrete. (217)

values reflective writing

X2

I leave it 'til last. I've got to do my planning first, because I can't relax until I know what I'm going to do the next day. The reflective section is what I end with. It's nice, because I finish by just writing. Sometimes I even wrote on the bus going home. But I didn't get to do it on my last prac because I felt as if I didn't have time. And it was a shame because I learnt so much about myself by writing in my journal. Now, I read through it and think "Did I really feel like that" and now I realise that I've got over whatever was worrying me - at least, whatever you can get over. So it's wonderful to have. If only we all had an extra three hours in the day to fit in things like this! (220)

*values reflective
lack of time for reflection*

*reflection: meaningful v.
routine*

X2

Last time I wrote goals. But to be quite honest, they are much easier because you can just jot a few things down. Whereas in a journal, you explore your own feelings. You can very easily write down whatever you think somebody will be happy with when you write goals. But writing a journal takes a lot of courage, in a way, because so many people could read it.

reflection / self esteem⁽²²⁹⁾

But some times it's useful for other people to know where you are coming from. But, it can be difficult as well because I like to be honest with what I'm saying.
(235)

I'd like to write a journal again for my next prac, because as I said before, it's good to see how you change and how you stay the same. I still get worried about the same sort of things, but at the same time, you can see how you get over things and how you learn from them.

*values⁽²³⁷⁾ reflective
writing.*

APPENDIX 13

Points Arising From Sample Card Arrangements: Sample Reflective Memos

TOPIC: Preliminary Content Analysis Of Sarah's 1993 Data

DATE: 5/2/94

I'm toying with conceptualising reflection as a "search for meaning". I used this conceptualisation as the basis of a card sort and came up with the following categories for the content of her reflection. The number of cards dealing with each topic is referred to in brackets. The list is in order of most to least commonly referred to.

Curriculum	(26)
Interactions with Children	(25)
Explicit references to professional development	(9)
Making decisions / dealing with dilemmas & difficult situations	(9)
Classroom organisation	(6)
Beliefs	(6)
Use of rewards as a behaviour management strategy	(4)
Interactions with parents	(4)
Interactions with staff	(3)
Background influences	(2)
Equity issues	(1)

Comments:

Two categories really stand out - curriculum and interactions with children. Are these going to develop into what LaBoskey calls passionate creeds (ie. on-going vitally important concerns)? Are they developmental concerns (ie. do they pertain more to her stage of development)?

I suspect that interactions with children might be a developmental concern - because so many students seem to have focused on this. It seems part and parcel of being a 1st year student teacher. Her interest in curriculum issues on the other hand seems a lot stronger than most of the other student teachers'. Even though her references to professional development and beliefs aren't as frequent as her references to other issues, compared to most of the others (apart from Kasey and Jessica) she seems to refer to them a lot. I suspect that this will be something to watch.

TOPIC: In what sense did students who very clearly appeared unreflective initially, tend not to become more reflective (in any consistent sense)?

DATE: 7/5/96

In terms of the three criteria most frequently used in the literature to describe reflection:

Student	Ability to Reflect	Willingness to Reflect	Content of Reflection
Erica	little evidence of ability to reflect in more than a technical sense; limited by her epistemological perspective of received knowing; no sense of pushing boundaries; has learnt to play the reflective writing "game"	finds reflection uncomfortable; doesn't want to teach; appears to see little point to reflection;	mostly describes frustration; little attempt to make sense of her frustration
Kathleen	seems to rely mainly on received / subjective knowing; little evidence of constructed knowing - is this why her reflection doesn't seem to be developing?	claims to value reflection but doesn't seem to engage in it often; inconsistency between espoused view and practice; minimal reflective writing	empathises with special needs chn; own background seems to play an important role in determining the focus of her reflection; empathy seems an important (and almost the only) medium for her reflection ⇒almost critical reflection at times
Marina	seems to rely heavily on received / subjective knowing; shows little mastery of reflective writing strategies in the little reflective writing she attempts	never refers incidentally to reflection; tendency to blame other (external locus) rather than to look inward; minimal reflective writing	no evidence of a passionate creed; shows most insight when explaining why she is having second thoughts about teaching; little evidence of insight at other times

APPENDIX 14

Excerpt From Non-Participant Observation Notes: Visit To Kathleen (Third Practicum)

13/9/94

It is an unseasonably hot and steamy day. Fiona (cooperating teacher) moves the children on to the verandah and says to them "I'd like you to listen to Kathleen while she reads the story". As the children sit down, it starts to thunder. Kathleen introduces the story by asking "Has anyone ever been to the snow?" I'm not close enough to hear, but there does not seem to be much response from the children. It starts to rain, and the assistants begin to move the play equipment from the outdoor play area to the verandah. They ask some of the children to help. The other children are becoming quite restless. Fiona whispers to Kathleen "Sing 'Open Shut Them' ". The finger play settles the children momentarily. Kathleen begins to read the story. As she reads the first page, it begins to rain heavily. Most of the children jump up and run excitedly out into the rain to help bring the rest of the play equipment onto the verandah. Of the twenty children originally in the group, four remain with Kathleen as she reads the story. Of these, two children appear to be listening. A plane flies low overhead, drowning out Kathleen's voice. She continues to read. After the other children finish helping with the packing up, they return to the verandah. By this time, Kathleen has almost finished the story. When she finishes, she looks at Fiona for guidance.

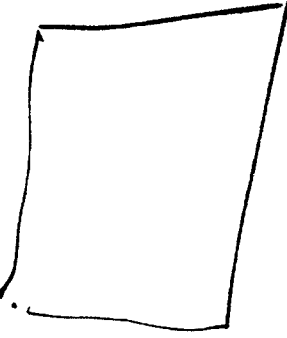
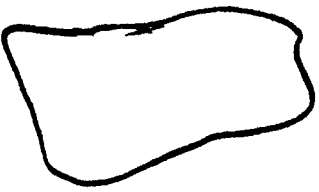
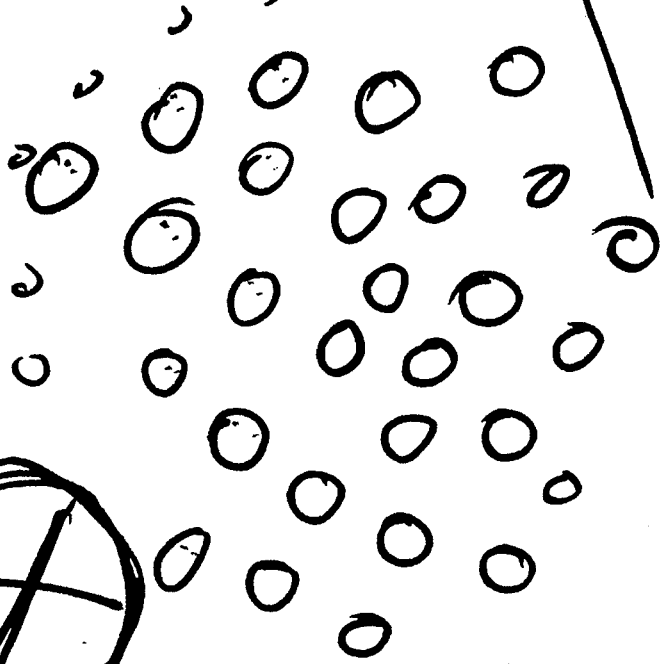
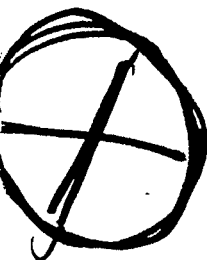
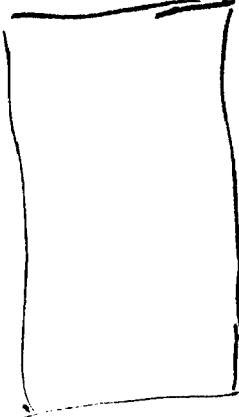
APPENDIX 15

Kasey's Representations Of A Significant Educational Experience

a) Prior To Relaxation

ideas, concepts,
plan, interest,
enjoyment, action,
aesthetics, skin contact.
.....
pressure, disruption, no time,
skin restlessness, relaxation,
winger

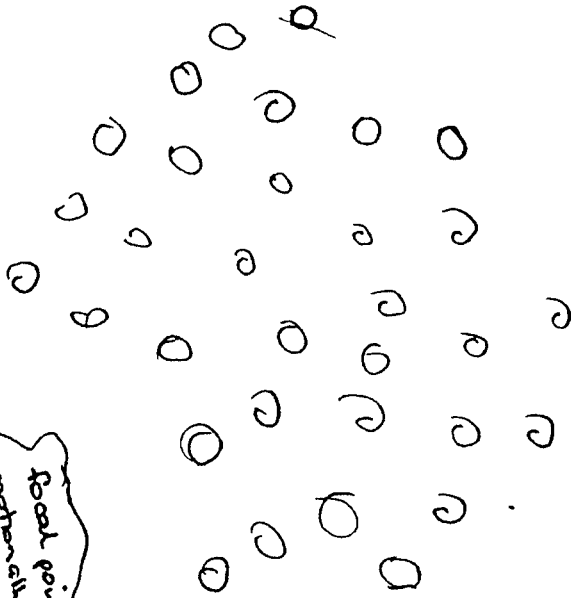
trapped, used in,
checked, unsupported,
out of time



(b) After Relaxation

SPACE

escape
↑



Focus points
emotionally
not necessarily
physically

escape.
↑

SPACE



- Be calm
- Go with it
- Flexible
- ignore & saying
- more options needed