A Study of Learning Environment in the Extended Practicum of a Pre-Service Teacher Education Course at a Catholic University

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Statement of Sources

This thesis contains no material published elsewhere or extracted in whole or part from a thesis by which I have qualified for or been awarded another degree or diploma.

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Abstract

This thesis reports research which employed quantitative data collection methods to investigate pre-service teacher perceptions of extended practicum learning environments of pre-service teachers at a Catholic university and their self-efficacy for future teaching. By drawing on learning environment research, practicum in teacher education literature, student teacher practicum evaluation data and stakeholder perceptions of dimensions of the ACU extended practicum learning environment, an instrument, a 72-item questionnaire, the Extended Practicum Learning Environment Inventory (EPLEI) was developed and validated. To establish relationships between student teacher perceptions of the extended practicum learning environment and their self-efficacy for future teaching, a Student Teacher Efficacy Instrument (STEI) was also developed. Data were collected from student teachers using the EPLEI and the STEI. In 2001, the total sample consisted of 64 students. Recognising that there are a number of dimensions to the learning environments of the extended practicum and to assess differences in student teacher and supervising teacher perceptions of the same extended practicum learning environment, supervising teachers responded to an analogous form of the EPLEI. In 2002, the sample consisted of 57 student teachers and their supervising teachers. Statistical analyses were performed on the quantitative data and revealed some statistically significant differences in the way student teachers and supervising teachers perceive the same environment. Statistical analyses also revealed significant differences in student teachers perceptions of extended practicum environments in relation to school type. Student teachers who participated in the extended practicum in Catholic schools perceived the learning environments more positively than student teachers in State and Other Christian schools. The analyses revealed significant associations between student teacher perceptions of the extended practicum learning environments and their self-efficacy for future teaching. This research clearly demonstrates that extended practicum experiences of student teachers at a Catholic university are affected by features at both classroom and school levels.

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CHAPTER 1

AN OVERVIEW OF THE STUDY

1.1 INTRODUCTION

This thesis reports research into school-level and classroom-level environments of an extended practicum undertaken by student teachers at the Australian Catholic University (ACU), Brisbane. Students in the Bachelor of Education (Primary) course at ACU participate in a six-week practicum which serves as a capstone experience of their 4-year teacher education course. The study focussed on the psychosocial environment that these student teachers encounter when participating in this practicum. Psychosocial environment deals with the atmosphere or tone of the environment rather than the physical environment and reflects the individual's psychological interpretation of the environment. As described by Boy and Pine (1988), the psychosocial environment refers to those aspects of the environment that have a social bearing either in origin or outcomes. Therefore, this study reports on the psychosocial aspects of the learning environment of the extended practicum as perceived by student teachers and their supervising teachers.

In the current climate of teacher education both nationally and internationally, the question as to what constitutes valid teacher education is of concern to administrators, teachers and teacher educators (Cochran-Smith, 2001; Darling-Hammond, 1999; Darling-Hammond, Chung & Frelow, 2002; Langdon, 1998; Martinez, 1998; McIntyre, 1997; Thompson, 1997; Zeichner, 2002). In particular, the balance between the university-based and school-based components of teacher education courses has made the nature and effectiveness of school-based experiences a critical focus of debate and discussion (Aspland & Macpherson, 2002; Broadbent, 1998; Cochran-Smith, 2001, 2005; Hopper& Sandford, 2004; Kosnik & Beck, 2003; Perry & Power, 2004; Sinclair & Thistleton-Martin, 1999; Zeichner, 2002). Zeichner (2002) has researched and reported on different paradigms of teacher education and orientations to the practicum. Recently, he expressed concern about the effectiveness of both traditional and current forms of teacher education in providing practicum experiences that prepare teachers for success in teaching in different socio-cultural settings. This study of both

supervising teacher and student teacher perspectives of the extended practicum learning environment provides an evaluation of the relevance and effectiveness of the practicum.

Learning environment research has established strong, potent relationships between an individual's perception of a learning environment and his/her performance within that environment (Fraser, 2002). In particular, research has established relationships between an individual's perception of an environment and his/her cognitive and affective outcomes. Therefore, examining the relationship between an individual student teacher's perceptions of a learning environment and the individual's self-efficacy for teaching should extend scholarship in both learning environment and the practicum in teacher education. Studying the differences between the supervising teacher's and the student teacher's perceptions of the same extended practicum learning environment can identify specific dimensions of the environments that have a relationship with the student teacher's self-efficacy for teaching. Seeking the perceptions of the supervising teacher reflects the view of Sudzina, Giebelhaus and Coolican (1997) who suggested that the supervising teacher or mentor is the most influential player in the supervising teacher, student teacher and university teacher education triangle. Therefore, it behoves teacher educators to take seriously the particular and unique role of supervising teachers as they contribute to the successes and failures of student teachers (Ganser, 1995, 1999; Sudzina et al., 1997). By considering perceptions of both teachers and student teachers, this study highlighted the critical role the supervising teacher plays in the practicum learning environment and therefore it extends scholarship relating to the practicum.

The research conducted in this study was embedded in the field of learning environment research. In particular, Rudolf Moos's (1986) work environment research provided the basis for an instrument to assess the learning environment of an extended practicum in a teacher education program at an Australian Catholic university. In addition to identifying relevant dimensions of the extended practicum learning environment, this study investigated relationships between student teachers' and supervising teachers' perceptions of this environment. These dimensions can be assigned to Moos's (1979) three general categories of human environments: *Relationship, Personal Growth* and *System Maintenance and System Change* (see Section 1.5.1). In particular, the Relationship dimensions of support, cohesiveness and involvement in the practicum learning environment were examined. Personal Growth and System Maintenance and System Change dimensions (eg clarity,

control, work pressure, task orientation and autonomy) and their relationship with student teacher self-efficacy for future teaching were also examined. What has been gleaned about perceptions of these dimensions of practicum learning environments should inform and extend current knowledge of teaching and teacher education (Bloomfield, 2000; Bullough, Clark, Wentworth & Hansen, 2001; Darling-Hammond, 1994; Lieberman, 2000; Stephens & Bolt, 2004; Zeichner, 1983). To date, few studies have investigated the learning environment experienced by student teachers during teaching practice. In Australia, no studies have applied the methodology of learning environment research to examine the psychosocial environment of the extended practicum. Accordingly, the study reported in this thesis adds to knowledge in both the learning environment and teacher education fields.

The following sections of this introductory chapter provide an overview of the thesis by considering eight important areas. In Section 1.2, the research problem and associated research questions are stated. Section 1.3 discusses the rationale for the study by discussing emerging trends in teacher education and their importance to the practicum. The significance of this study to pre-service teacher education is considered in Section 1.4. Section 1.5 overviews existing learning instruments and discusses recent research directions. Section 1.6 introduces the practicum in teacher education. Self-efficacy and the practicum environment are discussed in Section 1.7. Section 1.8 focuses on the context of this study by introducing the notion of Catholic ethos and the setting for this study. The study's research design is outlined in Section 1.9. Finally, Section 1.10 previews the remaining six chapters of this thesis.

1.2   THE RESEARCH PROBLEM

1.2.1 The Research Problem

This study focused on the conceptualisation and assessment of the extended practicum of a pre-service teacher education course at an Australian university. More specifically, the research problem addressed in this study had a number of aspects:

- the identification of dimensions of the extended practicum learning environments of student teachers at a Catholic university;
- the relationship between student teachers' perceptions of the extended practicum learning environment and their age, gender and school type;

- the differences in perceptions of the same practicum learning environments by student teachers and their supervising teachers; and
- the relationships amongst student teachers' perceptions of the extended practicum environment and their self-efficacy for future teaching.

To address this research problem, the following research questions were developed.

1.2.2 Research Questions

Instrument Development Questions

    1a. What are the dimensions of the extended practicum learning environments of a pre-service teacher education course at a Catholic university?

    1b. Can instruments be developed that assess the environment dimensions identified above?

Determinants Questions

    2a. To what extent are student teachers' perceptions of the extended practicum learning environment related to age?

    2b. To what extent are student teachers' perceptions of the extended practicum learning environment related to gender?

    2c. To what extent are student teachers' perceptions of the extended practicum learning environment related to school type?

Perception Question

    3. To what extent do student teachers' perceptions of the extended practicum learning environment and supervising teachers' perceptions of the extended practicum learning environment differ?

Environment – Outcomes Questions

    4a. What relationship exists between student teachers' perceptions of the extended practicum learning environment and their self-efficacy for teaching?

4b. Can a valid model be developed that relates student teachers' perceptions of the extended practicum learning environment to their self-efficacy for teaching?

The next section of this chapter provides a rationale for this study of the extended practicum learning environment.

1.3   RATIONALE FOR THE STUDY

The rationale for this study reflects emerging trends in teacher education and the implications of these trends for the practicum in teacher education courses in the Australian context.

1.3.1 Emerging Trends in Teacher Education

The professional community including both university and school-based teacher educators is interested in the practicum as a site for teacher education (Acheson & Gall, 1997; Aspland & Macpherson, 2002; Australian Council of Deans, 1998; Beattie, 1995). The successful formation of professional learning communities within which student teachers practise their teaching requires the creation of an environment that is conducive to learning. It is important to identify and understand the dimensions of the environments that impact on the experience of the key participants within an environment. There is a large body of research and scholarship relating to the practicum component of teacher education (Hawkey, 1997; Smagorinsky, 1999; Wideen, Mayer-Smith & Moon, 1998; Williamson, Cowley, Webb, Churchill & Andrew, 1996; Zeichner, 1986). However, the area continues to be problematic (Martinez, 1998). The practicum has been cited as costly to mount, viewed as unimportant work in teacher education faculties, fraught with dilemmas in terms of best practice, impossible to frame as it deals with the interaction of different personalities, system and learner needs), and irrelevant (as it acts as simply a site for socialisation in outdated approaches to teaching (Zeichner, 2002).

Currently, teacher education in Australia sits at a crossroad overshadowed by a cloud of competing theoretical, philosophical and practical perspectives. Teachers and teaching are topics of continual interest and concern to the whole Australian society, and more recently of particular concern to the Australian government (Ministerial Council on Education,

Employment Training and Youth Affairs [MCEETYA], 2003). From a philosophical approach, teacher education in Australia has undergone a number of changes that have mirrored current research both nationally and internationally. It has moved from the traditional craft, apprentice-style approach, through scientific and personalistic approaches to most recently a critical inquiry approach (Martinez, 1998).

However, at the same time as the most recent philosophical approaches have filtered into teacher education courses, educational managers have also entered the domain of teacher competencies and standards by exerting pressure on teacher education and teacher educators. Also, both state teacher education accrediting bodies and national teacher professional bodies have engaged in producing skills-based competency lists and guidelines for content to be taught in university-based teacher education courses (Cunningham & Hall, 2000; Mayer, Mitchell, Macdonald, & Bell, 2005). Coupled with these pressures on teacher education courses is a looming shortage of teachers plus federal government concerns about the adequacy of preparation and performance of Australian teachers (MCEETYA, 2003). As each of these forces impact on teacher education in Australia, there has been further movement towards extended practicum periods in teacher education courses similar to trends in Great Britain (Board of Teacher Registration [BTR], 2003; Cunningham & Hall, 2000; Halstead, 2003; Hoban, 2004; Jasman, 2003). While debating the validity of this practice is beyond the scope of this thesis, the implications of these trends to the practicum in teacher education are pertinent to this study.

1.3.2 Implications of Current Trends for the Practicum in Teacher Education

The practicum is a complex entity and there has been serious debate as to what constitutes an appropriate practicum for student teachers (Cochran-Smith, 2001; Darling-Hammond, 1999; Gore, 2001; Martinez, 1998; McIntyre, 1997; Zeichner, 2002). Some scholars fear that the recent moves towards extended periods of practice teaching may result in the return to a technical, apprenticeship approach to learning to teach. This type of experience can socialise the pre-service teacher into perpetuation of the status quo rather than develop a critical-inquiry approach in which teaching as a profession is underpinned by life-long learning (Darling-Hammond, 1999; Toomey et al., 2005). The concern regarding apprentice-orientated extended practice periods has resulted in scholars expressing reservations about the relevance and worth of the practicum in teacher education courses (Goodlad, 1993).

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Teacher educators such as Darling-Hammond (1999), Zeichner (2002) and Cochran-Smith (2001) provide an alternative view and promote the importance of relevant practical experiences as critical components of effective teacher education programs. They suggest that academic components of teacher education courses incorporating practice teaching periods within them are important for the development of student teachers who understand the social-cultural, political and economic factors underpinning education. The theoretical and academic basis of the course equips student teachers to challenge the status quo and continually reconceptualise the role of the teacher and approaches to teaching to reflect the ever-changing nature of society. Scholars who support this view promote the practicum as the site for theory and practice to enmesh through processes underpinned by professional, critical inquiry and reflection in the company of fellow professionals in learning communities (Hoban, 2004; Zeichner & Gore, 1990). This enables the learner to develop personal, practical theories (Darling-Hammond, 1999; Mayer & Austin, 1999; Zeichner & Gore, 1990). While the debate regarding the relevance of teacher education courses and the appropriate balance of school-based practica and university-based teacher education is also beyond the scope of this thesis, the continuing debate serves to emphasise the need for further study of the nature of the practicum.

Despite the myriad of perspectives and debates regarding the practicum in teacher education, a dominant theme of the literature indicates that the practicum does lie at the heart of teacher education courses (Cochran-Smith, 2001, Darling-Hammond, 1999, Zeichner, 2002). In Queensland, concerns about teacher retention, increasing pressure from system stakeholders, struggles of beginning teachers into full-time teaching and international and national trends have lead to pressure to include extended periods of internships as capstone experiences at the end of teacher education courses (Cunningham & Hall, 2000; BTR, 2003). This situation has the potential to increase dramatically the time student teachers spend in the field. Recognising both the traditional centrality of the practicum to teacher education and emerging trends, it is critical that further research is conducted to examine the practicum component of learning to teach. The significance of the present study to the professional community is discussed in the next section of this chapter.

1.4   SIGNIFICANCE OF STUDY

In the practicum context, student teachers become part of a school's community of professional practice. The notion of communities of professional practice is based on the

principle of professional people relating to and supporting each other to investigate ways to improve and perpetuate their profession. Throughout the practicum, the supervising teacher plays a significant role in inducting student teachers into the professional community. The type of supportive and challenging learning environment created for the student teacher by the supervising teacher and other members of the school community is a vital component of the induction process. This study is significant as it attempts to go inside the actual learning environment experienced by the participants of the environment at both classroom and school levels. Additionally, the study examines the relationships amongst perceptions of the key participants of the practicum environment at these levels and student teachers' self-efficacy for future teaching.

A number of other practicum studies have focussed on student teacher experiences of the practicum but have not used student teacher self-efficacy for future teaching as an outcomes measure (Zeichner, 1999). As an individual's perception (Fraser, 2002) and sense of self-efficacy (Newman, Moss, Lenarz, & Newman, 1998) have been shown to affect performance, this study is significant and should provide important information relevant to understanding what aspects of the extended practicum learning environment improve the experience of the student teacher. What actions may therefore be taken to improve the experience for all participants of the practicum, including the student teacher, should also become evident.

Specifically, this study makes an important contribution to Catholic education, teacher education and learning environment research for several reasons. First, it is unique in that it is the first systematic study of learning environments of students participating in an extended practicum as part of a teacher education program at a Catholic university. Second, the present study is also the first to identify specific dimensions of the learning environment of an extended practicum. Third, it is the first study to address both student teachers' and their supervising teachers' perceptions of the learning environment as members of an educational community of practice. Finally, this study is also the first attempt to link the perceptions of the learning environment of the practicum with student teacher's self-efficacy for future teaching. Given the importance of the practicum to teacher education, it is surprising that no similar studies have been conducted previously.

The next section of this chapter provides theoretical and methodological background to this study by briefly reviewing learning environment research.

1.5   LEARNING ENVIRONMENT RESEARCH

1.5.1 Historical Background of Learning Environment Research

Interest in studying learning environments and their relevance to education has its roots in the scholarship of social psychology. Social psychologists became interested in the impact of environment on human behaviour as early as the 1920s when researchers such as Thomas began observing and recording classroom events and phenomena (see Chavez, 1984). Rosenshine (1970) defined this type of assessment as a *low-inference* measure as it used a rating system that classified specific, relatively objective classroom behaviour.   This work did not focus on the psychological meaning of events. It was the work of Lewin (1936), a key scholar of social psychology who improved on this previous work. Lewin developed a *field theory* that recognised that both the environment and the interaction with the personal characteristics of the individual are potent determinants of human behaviour. The field theory formula relates Behaviour (B) to Person (P) and Environment (E). $B=f$ (P, E). For Lewin, "(T)he field with which the scientist must deal is the 'life space' of the individual. This life space consists of the person and the psychological environment as it exists for him" (Cartwright, 1975, p. xi).

Murray (1938) and Stern, Stein and Bloom (1956) extended Lewin's field theory. Murray developed a *needs-press* theory whereby people are conceptualised in terms of their psychological needs and the environment in terms of its press (Dorman, 1994). He also introduced the view that person-environment congruence is related to student outcomes (see Section 2.2.2). During the 1960s and 1970s significant conceptual work that built on the work of Murray (1938), Stern, Stein, and Bloom (1956) and Pace (1963) was conducted on the psychosocial dimensions of educational environments.

Of great importance to educational learning environment research was the seminal work of Walberg (1969, 1991) and Moos (1974b). Walberg's (1976) work in perceptual psychology laid the foundation for students' perceptions of learning environments to be used as valid indicators of classroom environment quality. Walberg pioneered the use of *high-inference* measures to study learning environments. These measures required respondents to make

inferences about specific constructs (e.g. Task Orientation) based on immersion in classroom events for significant periods of time (Dorman, 1994; Walberg, House, & Steele (1973). The advantages of using high-inference measures are discussed in Chapter 3 of this thesis (see Section 3.1). As part of the evaluation of Harvard Project Physics (HPP), Walberg (1969) developed the *Learning Environment Inventory*, one of the first instruments using high-inference measures to gather student perceptions of their learning environments. His work demonstrated that the use of students' perceptions was feasible and valid in making judgments about learning environments. Barry Fraser's (1979) work in science education resulted in learning environment research being introduced to Australia where it has remained an important field of educational research.

Working independently of Walberg, Rudolf Moos (1968) was also interested in studying the perceptions of participants. Moos (1974b) developed a number of social climate scales that were used to assess social climates in a range of settings including correctional centres, hospitals, schools, classes and general workplaces. He made a significant contribution to the field of learning environment research by conceptualising three general categories for the study of social environments. These categories are *Relationship* (the nature and intensity of personal relationships within the environment), *Personal Growth* (basic directions along which personal growth and self-enhancement tend to occur) and *System Maintenance and System Change* (the extent to which the environment is orderly, clear in expectations, maintains control and is responsive to change). Moos asserted that these three categories or domains must be assessed in order to provide a true picture of a social environment.

Moos's (1974b) conceptualisation of categories of human environments provided the methodological basis for examining a wide range of environments. His categories for studying learning environments and Walberg's (1969) use of high-inference measures resulted in the development of several instruments to elicit student perceptions of learning environments. This approach has been used in the present study of the extended practicum learning environment. Walberg and Moos's important work laid the foundation for environments to be viewed as social contexts "characterised by dimensions which participants within that environment may judge" (Crump, 2002, p. 37). Chapter 2 of this thesis elaborates on the historical work of Walberg (1969, 1976, 1991), Moos (1968, 1974) and Fraser (2002) (see Section 2.4.2). The following sub-section provides an overview of key learning environment instruments that emerged from the pioneering work of these researchers.

1.5.2 Overview of Instruments to Assess Learning Environments

Learning environments research has grown significantly over the last 40 years. Researchers including Walberg (1969, 1976, 1980), Moos (1974b, 1986) and Fraser (2002) have developed and validated several instruments that use high-inference measures to study a range of environments by focussing on perceptions of participants of environments as predictors of variance in outcomes. Table 1.1 overviews some of these instruments. Getzels' and Thelen's (1960) theory guided the development of the *Learning Environment Inventory* (LEI) (Fraser, Anderson, & Walberg, 1982; Walberg & Anderson, 1968). This theory of the class of a social system posits, "personality needs and role expectations interacted to form a climate in which group behaviour, including learning could be predicted" (Crump, 2002, p. 28). The LEI has "15 climate dimensions with scales reflecting concepts identified as good predictors of learning relevant to psychological and educational theory, or intuitively judged relevant to the social psychological and educational theory, or intuitively judged relevant to the social psychology of the classroom" (Walberg & Haertel, 1980, p. 228). A simplified version of the LEI, the *My Class Inventory* (MCI) was created for use at the elementary or primary school level (Fisher & Fraser, 1981; Fraser et al., 1982).

Another significant instrument that built on Moos's social climate work was the *Classroom Environment Scale* (CES) (Moos & Trickett, (1987). This instrument was developed to examine perceptions of classroom environments and assesses student perceptions of their actual or preferred learning environment. Of significance to this study was the *Work Environment Scale* (WES), an instrument Moos (1974b) developed to assess the social climate of work environments. The dimensions and sub-scales within the WES (see Table 1.1) were used as a basis for the development of an instrument for this study.

Other learning environment instruments have been developed to assess classroom interactions that reflect a constructivist approach to teaching. These instruments include: the *Individualised Classroom Environment Questionnaire* (ICEQ) (Fraser, 1980, 1993, 1990); the *Science Laboratory Environment Inventory* (SLEI) (Fraser, Giddings & McRobbie, 1995) and the *Constructivist Learning Environment Survey* (CLES) (Taylor, Fraser, & Fisher, 1997). Other questionnaires have focussed on specific types of interactions in learning environments: the *College and University Classroom Environment Inventory* (CUCEI) (Fraser & Treagust, 1986) to assess tertiary tutorial learning environments; the *Questionnaire on Teacher Interaction* (QTI) (Wubbels & Levy, 1993) and the *Questionnaire on Supervisor Interaction*

(QSI) (Kremer-Hayon & Wubbels, 1993) to assess styles of interpersonal communication. One contemporary instrument that has been used widely in classroom environment research in conventional classrooms is the *What is Happening in this Class Questionnaire* (WIHIC) (Aldridge, Fraser, & Huang, 1998; Dorman, 2001, 2003; Fraser, Fisher, McRobbie, 1996).

As shown in Table 1.1, instruments ideally consist of several mutually exclusive scales that assess particular constructs of the environment. Each scale is assessed by a set of internally consistent items. For example, the Work Environment Scale (WES) has 10 scales (viz. Involvement, Peer Cohesion, Staff Support, Autonomy, Task Orientation, Work Pressure, Clarity, Control, Innovation, and Physical Comfort). Each WES scale has nine items. Classroom learning environment researchers have continued to modify these key instruments to assess dimensions of learning environments or have used items and scales from the different instruments as inspiration for the development of new instruments.

1.5.3 Domains of Learning Environment Research

The field of learning environment research has expanded rapidly. Instruments have been developed and validated across at least ten domains of educational interest. These areas include: school psychology, educational productivity research, evaluation of educational innovations, effect on classroom environment of antecedent variables (e.g. gender, age and school type), associations between classroom environment and outcomes, differences between students' and teachers' perceptions of classrooms, comparisons of actual and preferred environments, transition between levels of schooling, teacher education and using environment instruments to facilitate changes in classroom life (see Dorman, 2002; Fraser, 1992, 2002). A review of studies from these domains is provided in Section 2 of Chapter 2 of this thesis. As the context of this learning environment study is the practicum in a teacher education course, the next section of this chapter provides an overview of the practicum in teacher education.

TABLE 1.1

OVERVIEW OF 11 LEARNING ENVIRONMENT INSTRUMENTS

Instrument	Level	Items per Scale	Scales Assessed by Instrument	Reference
Learning Environment Instrument (LEI)	Secondary	7	Cohesiveness, Friction, Favouritism, Cliqueness, Satisfaction, Apathy, Speed, Difficulty, Competitiveness, Diversity, Formality, Material Environment, Goal Direction, Disorganisation, Democracy	Fraser, Anderson & Walberg (1982)
Classroom Environment Scale (CES)	Secondary	10	Involvement, Affiliation, Teacher Support, Task Orientation, Competition, Order & Organisation, Rule Clarity, Teacher Control	Moos & Trickett (1987)
Individualised Classroom Environment Questionnaire (ICEQ)	Secondary	10	Personalisation, Participation, Independence, Investigation, Differentiation	Fraser (1990)
My Class Inventory (MCI)	Primary	6-9	Student Cohesiveness, Friction, Satisfaction, Task Orientation, Difficulty, Competitiveness	Fraser, Anderson & Walberg (1982)
College and University Classroom Environment Inventory (CUCEI)	Tertiary	7	Personalisation, Involvement, Student Cohesiveness, Satisfaction, Task Orientation, Innovation, Individualisation	Fraser & Treagust, (1986)
Science Laboratory Environment Instrument (SLEI)	Secondary, Tertiary	7	Student Cohesiveness, Open-Endedness, Rule Clarity, Material Environment	Fraser, Giddings & McRobbie (1995)
Constructivist Learning Environment Survey (CLES)	Secondary	7	Personal Relevance, Uncertainty, Critical Voice, Shared Control, Student Negotiation	Taylor, Fraser & Fisher (1997)
Questionnaire on Teacher Interaction (QTI)	Primary, Secondary	7-9	Leadership, Helpful/Friendly, Understanding, Student responsibility/Freedom, Uncertain, Dissatisfied, Admonishing, Strict	Wubbels & Levy, (1993)
Questionnaire on Supervisor Interaction (QSI)	Primary, Secondary	7	Leadership, Helpful/Friendly, Understanding, Student responsibility/Freedom, Uncertain, Dissatisfied, Admonishing, Strict	Kremer-Hayon & Wubbels, (1993)
What is Happening in This Class (WIHIC)	Secondary	8	Student Cohesiveness, Teacher Support, Involvement, Investigation, task Orientation, Cooperation, Equity	Aldridge, Fraser, Huang, (1998)
Work Environment Scale (WES)	Primary, Secondary	9	Involvement, Peer Cohesion, Staff Support, Autonomy, Task Orientation, Work Pressure, Clarity, Control, Innovation, Physical Comfort	Moos (1986)

1.6   THE PRACTICUM IN TEACHER EDUCATION AND PERCEPTIONS OF THE PRACTICUM LEARNING ENVIRONMENT

1.6.1 Defining the Practicum

Traditionally, the practicum has been the site where student teachers practise the art of teaching in a real school context with student teachers assigned to one teacher and class for a specific block of time (Zeichner, 1986, 1996; Zeichner & Liston, 1996). Historically, the nature of the relationship between the class teacher and the student teacher has been that of expert and novice. It is the role of the class teacher to model good practice for the student teacher and allow student teachers to practise teaching and develop personal, practical theories (Mayer & Austin, 1999). The supervising teacher is also expected to give support, provide advice and critical feedback to the student teacher (Zeichner, 2002). An additional component of the supervisor's role is to assess the student teacher and make judgements as to that person's suitability to become a member of the profession (BTR, 2002, 2004). As discussed earlier in Section 1.4, debate continues to surround the appropriate balance between the amount of site-based practica and on-campus university study student teachers require, effective course design for learning to teach, and what constitutes an effective site-based practice model (Beck & Kosnik, 2000; Darling-Hammond, 1999; Zeichner & Gore, 1990).

Therefore, as these different theories, philosophies and trends are postulated, recorded and instituted in teacher education courses, the nature of the practicum as an environment for learning to teach becomes even more significant (Darling-Hammond, 1999; Hoban, 2004; BTR, 2002, 2004). A learning or educational environment refers to a context for learning. In the school and classroom context, the climate for learning is affected by both teacher and family cultural beliefs and practices plus existing social interactions within the learning environment (Bergen, 1995). For student teachers, the practicum learning environment consists of a school and classroom which reflect the existing psychosocial climate at both school and classroom levels.

The environment includes both physical and psychosocial aspects of the context. The physical environment relates to material features inherent in a learning context and may include both school and classroom layout, furniture, lighting, ventilation and teaching and learning resources. The psychosocial aspect of a learning context has been referred to as the climate of a school or classroom (Boy & Pine, 1988).   In this case, climate relates to the feeling tone, ethos or ambience of an environment (Fraser, 1991). Climate or psychosocial

features of a learning environment can be defined by a human participant in terms of the perception of that individual.

The experience of the student teacher at the practicum site is affected by the nature of the relationship between the student teacher and class teacher and the nature of the practicum experience (Martinez, 1998; Shantz & Brown, 1999). The value placed on different aspects of the role of the class teacher in the supervisory relationship can affect the outcome of the experience for the student teacher. Nomenclature for the role of the class teacher in the practicum situation varies in accordance with the type of experience it provides and the types of relationships established among the participants. In this way, the class teacher role may be labelled as supervising teacher, cooperating teacher, assistant teacher, mentor or school-based teacher educator. These labels reflect different orientations to the role the class teacher adopts when working with the student teacher, the structure of the experience for the student teacher, and the types of relationships formed (Martinez, 1998). In the present study, the terms *supervising teacher* and *student teacher* have been used, as they are the terms used at ACU at the time the study was conducted.

1.6.2 Current Views and Research on Student Teachers and Supervising Teachers in the Practicum Environment

Studies of the practicum as a site for facilitating the development of 'good teachers' have revealed different ways that participants of learning environments view the experience. Delving into relationships within multi-faceted practicum environments, Martinez (1998) conducted a workshop where student teachers and supervisory teachers identified and discussed their perceptions of the qualities of their 'ideal other' (see Appendix A). These perceptions revealed three key dilemmas facing the two parties within the practicum environment. The first dilemma surrounded the identification of what sort of 'good teaching' is practised and what orientation to teaching is involved? The orientations to teaching identified as 'good teaching' included "invitational/personal, social/critical, reflective, technical, constructivism or transformative (Martinez, 1998, p. 5). What the supervising teacher judged as 'good teaching' by their student teacher reflected the supervising teacher's orientation to teaching. What student teachers described as 'good teaching' reflected their personal style and current theory.

The first dilemma identified by the student teachers was knowing how to perform to satisfy

the supervising teacher when the supervising teacher's approach may reflect any one of the different orientations to teaching. The second dilemma for the student teacher was whether to comply or initiate a different style of teaching to that of the supervising teacher (Martinez, 1998, p. 286). A further dilemma for both the student teacher and the supervising teacher related to time constraints. Supervising teachers were torn between how much time to commit to supervision of the student teacher rather than the children in the class. Student teachers were concerned about how much time they could commit to a level of preparation that satisfied their teachers and still have time to earn money to survive (Martinez, 1998, p. 288).

These dilemmas emphasise the challenges and complexities underlying the supervisory environment. During the practicum, student teachers are confronted by supervising teachers' beliefs, personalities, actions and teaching approaches. How the teacher views 'good teaching' determines their expectations of the student teacher, the levels and type of support they offer to the student teacher and the types of relationships formed during the practicum and therefore the feeling or tone of the learning environment. In order to survive the practicum and satisfy their supervisor, student teachers have to navigate their way through these many varying factors. Managing this process of navigating the school and classroom culture is an important part of the practicum. As Zeichner (1986) suggests, the student teacher needs to be aware of the practicum as a site for socialisation into the teaching profession. For this reason, he suggested that it is important for the student to be prepared to adopt a critically reflective approach to each practicum experience.

Le Cornu (1999) goes further to explore the culture of the environment of the practicum. She suggests that the practicum should evolve from within the experience because the practicum has both intended and unintended outcomes for student teachers. In recognising the many dimensions of the school environment that impact on the student teacher, Le Cornu (1999) recommends that students should be prepared for the many discourses operating within the setting. She asserts that the culture of the whole school is pivotal to the student's experience and therefore students should be exposed to a range of contexts for the practicum.

Also delving into the practicum supervisory environment, Mayer and Austin (1999) gathered the perceptions of student teachers. They conducted a small study to examine the personal, practical theories of supervising teachers identified by student teachers as effective supervisors and identified images of effective supervisors based on teachers' shared

perceptions. These images included supervisor as a professional colleague, supervisor as a critic, supervisor as a professional colleague, supervisor as upholder of the profession and supervisor as evaluator (Mayer & Austin, 1999). An outcome of their study was the call for the provision of a learning environment for the practicum where relationships, communication, professionalism, commitment and a critical approach were seen as important (Mayer & Austin, 1999).

These studies reveal the importance of perceptions of individuals to the psychosocial aspects of the supervisory environment. They reveal that the description of 'who is a good supervising teacher' or 'who is a good student teacher' is dependent on the perceptions of the inhabitants of the learning milieu. The perceptions of what is good support, what is good, critical feedback and what is fair and just, mirrors the existing orientation to teaching whether it is invitational, critical or transformational. The perceptions of the overarching features of the environment are critical to the experiences of the participants of the experience.

As discussed earlier in Section 1.5, learning environment research uses the perceptions of inhabitants as valid indicators of environment quality. The strongest line of learning environment research has shown that the quality of the learning environment is a powerful determinant of the individual's cognitive and affective learning (see Dorman, 2002; Fraser, 1997). It may also influence future self-efficacy for learning (Tonkin & Watt, 2003). A key outcome of the practicum for student teachers is their teaching efficacy. As the outcomes measure of the present study is the student teacher's teaching efficacy, the next section of this chapter discusses self-efficacy and the practicum.

1.7   SELF-EFFICACY AND THE PRACTICUM

As indicated in Section 1.2, the present study investigated the relationship between the extended practicum and self-efficacy (see Research Questions 4a and 4b). To provide an understanding of the concept of self-efficacy, this section outlines the main issues surrounding self-efficacy research in educational contexts.

1.7.1 Defining Self-Efficacy

The study of self-efficacy originated in psychology (Rotter, 1966) and has been researched extensively by Bandura (1986). Grounded in social cognitive theory, Bandura (1994, p. 71)

described perceived self-efficacy as "peoples' beliefs about capabilities to produce designated levels of performance that exercise influence over events that affect their lives". More recently, Pajares (2002) discussed self-efficacy beliefs in an academic context and suggested that recent research has supported Bandura's claim that self-efficacy beliefs play an influential role in human agency and that researchers and school practitioners should look to students' self-beliefs about their academic capabilities as they are important for motivation, self-regulation, and academic achievement. Research conducted in Australia, Canada and England has shown that classroom environment is a strong determinant of academic efficacy (see Dorman, 2001; Dorman; Adams & Ferguson, 2002). Tonkin and Watt (2003) linked self-efficacy to social environments by stating that individuals are not likely to do well or be motivated if they are located in social environments that are not meeting their needs. Person-environment fit theory predicts both a decline in an individual's self-concept and a lowering of motivation and progress in poor quality environments. As this study focuses on student teachers in the social environment of the extended practicum, consideration of the relationship between student teachers' perceptions of the practicum learning environment and their self-efficacy for future teaching is important.

1.7.2 Self-Efficacy and the Practicum

Analogous assumptions on the relationship between efficacy and outcomes can be made about student teachers with regard to their self-efficacy for teaching. Fives (2003) claimed that the construct of teacher efficacy had been derived from two separate lines of research: Rotter's (1966) locus of control theory and Bandura's (1977) social cognitive theory. Tschannen-Moran and Woolfolk Hoy (2001) describe teacher efficacy as a teacher's belief or judgment about their ability to achieve outcomes in relation to student involvement and progress despite the student's levels of interest and motivation. Teacher self-efficacy was more specifically described as the realization of one's self-judgments and capabilities to create and organize instruction that motivate learners (Onafowora, 2004). Teacher efficacy has been conceptualised as having two levels. One level relates to general teaching efficacy which involves the impact that teachers have on student learning irrespective of existing environmental factors. The other level relates to personal teaching efficacy which Fives (2003) describes as relating to each teacher's belief in their own ability to have an impact on student learning. This conceptualisation supports Bandura's (1977) view of self-efficacy.

Mindful of Ashton's (1984) position suggesting that teachers who had high levels of self-efficacy had mentored student teachers who also had high self-efficacy, Austin (2004) called for structured supervision programs that develop student teachers' intrapersonal readiness for teaching as this may facilitate improved self-efficacy for teaching. In this way, he suggested that there is a connection between the supervisory environment and student teacher self-efficacy. Austin's (2004) ideas for supervision practices that develop student teacher self-efficacy require modelling to help student teachers explore their own values, assistance for student teachers to explore their own self-concept, provision of ideas for developing coping strategies, and provision of a trustful environment for learning to teach. He suggested that this can be achieved by helping student teachers set goals with both the teacher and student teacher pledging to work together to facilitate intrapersonal change. These ideas can be useful in promoting higher levels of teacher self-efficacy through the practicum.

Teacher educators should be cognizant of the influence of student teacher self-beliefs on their perceived self-efficacy for future teaching. Collecting data that examines relationships amongst student teachers' sense of self-efficacy for teaching and their perceptions of practicum environments in which they learn to teach can suggest ways to improve student teacher capability for teaching and inform supervision practices. Self-efficacy and teacher efficacy research coupled with an examination of existing teaching efficacy instruments provided the basis of a teaching efficacy scale as an outcomes measure of this learning environment study.

As this study concerns student teachers from a Catholic university, it was pertinent to examine literature on the influence of the Catholic ethos on the extended practicum for ACU students. Section 1.8 of this chapter provides a discussion of this Catholic ethos and its relationship to the supervisory environment of the extended practicum.

1.8 THE CONTEXT OF THIS STUDY: THE EXTENDED PRACTICUM LEARNING ENVIRONMENT AND CATHOLIC ETHOS

The Australian Catholic University (ACU) operates under the auspices of the Catholic Church in Australia and is a public university open to people of all faiths and beliefs. As the university is part of the mission of the Catholic Church, it operates within the doctrine

outlined in the Vatican II documents (see Abbott, 1966; Congregation for Catholic Education, 1988; Sacred Congregation for Catholic Education, 1977, 1982). These documents call for universities that are characterised by critical, intellectual inquiry underpinned by Gospel values. Steeped within the Vatican II tradition, the university has a Mission Statement that underpins the conduct of the university. All units taught in courses at the university are designed to integrate Gospel values, ethics and social justice concepts and a spiritual dimension within academic and professional units (McMullen, 2004; Sheehan, 1998).

This philosophy should translate into the learning environments for ACU pre-service students participating in practicum experiences. Therefore, the context of the practicum component of ACU teacher education courses should provide the opportunity for student teachers to experience a learning environment reflecting these dimensions. To reflect Gospel values, the learning environments of the extended practicum should embrace the values of faith, love, hope, compassion, integrity, priority for those in need, orientation towards God, gratitude of God, and be egalitarian with all equal under God. As the contexts of ACU practica are schools, the ethos of these schools and their links to the ACU mission are relevant to this study.

ACU students participate in practica in a variety of school contexts with the majority in Catholic schools. Although most students participate in the extended practicum in Catholic schools, some teach in other Christian and *Education Queensland* schools. Education Queensland schools are administered by the state Department of Education. In Queensland, the Catholic schools that ACU students attend for the extended practicum operate under the auspices of Queensland Catholic Education Commission (QCEC) and most participate in schools within the jurisdiction of the Brisbane Catholic Education Office (BCE). Therefore it was important to examine documents that indicate how the Catholic ethos should be evident in these school environments.

The Queensland Catholic Education Commission considers Catholic schools to be based on Gospel values and Catholic tradition (see Queensland Catholic Education Commission, 2005). As the body that accredits teachers to work in Catholic schools in Queensland, it has provided an overview of the requirements of a Catholic school teacher. As these teachers are the supervising teachers for ACU students, these characteristics and qualities are relevant to this study. The Commission states that teachers in Catholic schools require knowledge of the Gospel and the Catholic tradition to enable them to implement a philosophy of education,

faith, and culture as integral parts of life (see Queensland Catholic Education Commission, 2005). Therefore, the practicum environment that the supervising teachers and schools provide for ACU students should reflect Gospel values.

Brisbane Catholic Education (BCE) (see Catholic Education: Archdiocese of Brisbane, 2004, 2006) extends the QCEC position. It describes teaching as a ministry in which teachers commit to a lifestyle that respects the beliefs and practices of the Catholic community by embedding Christian values into all aspects of school life and creating positive relationships within the environment (see Catholic Education: Archdiocese of Brisbane, 2006; Teaching at Catholic education, 2004). BCE also expects school administrators and school mentors to foster learning environments that reflect Gospel values and are characterised by warmth, welcome and a sense of belonging to a Christian community (see Catholic Education: Archdiocese of Brisbane, 2006; Teaching at Catholic education, 2004). According to these documents, when student teachers enter Catholic schools, they encounter an environment that should reflect these Christian values and assist in furthering ACU's mission for its students. Therefore, it is important that the assessment of the extended practicum learning environment focus on the dimension of learning environment and Catholic ethos.

The context for this study is the extended practicum component of the Bachelor of Education (Primary) course conducted at the McAuley at Banyo campus in Queensland. The Bachelor of Education course at the Australian Catholic University is a four-year course accredited with the Board of Teacher Registration, Queensland. The Board examines and accredits each university's teacher education course in terms of suitability to prepare teachers who meet the Board's registration requirements. Students at the ACU McAuley campus are required to complete 80 days of formal practice teaching and 20 days of informal/observational experiences.

During the fourth year of the course, students participate in a six-week extended practicum in the final semester. For the extended practicum, students prepare and implement units of work relating to a variety of curriculum areas. At the time this study was conducted, these units had to be approved by the supervising teacher in terms of their suitability for the class. Therefore, the type of interactions with the supervising teacher and the psychosocial environment the students encounter at both class and school level are important to the student's practicum both prior to and during the extended practicum. They have the potential to affect student

outcomes of the practicum experience. To investigate perceptions of the practicum learning environment and student teacher self-efficacy for teaching, the following research methodology was used for this study.

1.9   RESEARCH DESIGN

The methodology utilised in this study was a quantitative approach within the strong tradition of learning environment research. As stated in Section 1.1 of this chapter, examining dimensions of learning environments has shown that an individual's perception of a learning environment can have a bearing on their performance in the learning environment (Fraser, 1991) Many international studies and reviews of research on learning environments have also demonstrated links between an individual's perception of the learning environment and cognitive and affective outcomes (Dorman, 2002; Fisher & Fraser, 1991; Fraser, 1991, 1998a; Moos, 1986; Wubbels, Levy, & Brekelmans, 1997). Consistent with the traditions of learning environment of the past 35 years, the research reported in this thesis defined the learning environment in terms of the perceptions of the inhabitants of that environment. Within such a framework, the environment is to be understood solely from the inhabitants' perspectives. This fundamental methodological principle can be traced to Lewin's (1936) field theory introduced earlier in Section 1.5.

A classical psychometric approach to measurement was employed in the study. Salient dimensions of the extended practicum learning environment were identified and scales were developed and validated to assess these dimensions. As noted in Section 1.5.2, the work of Moos (1974b) provided a good starting point for the development of this instrument with Moos's (1986) *Work Environment Scale* (WES) of particular significance. For this study, it was important to examine the features of the environment in terms of student perceptions of relationships, personal growth, and the organisation and expectations of the practicum. Also, collecting data at both school and classroom levels was relevant to this study as other scholars have found that the experience for the student teacher is affected by variables at both levels (Kremer-Hayon & Wubbels, 1993). Therefore an instrument based on Moos's *Work Environment Scale* was developed, validated and used to answer the research questions. This instrument is called the *Extended Practicum Learning Environment Inventory* (EPLEI). Full details on its development and validation are provided in Chapter 3.

1.10   STRUCTURE OF THIS THESIS

This thesis has seven chapters including this introductory chapter. Chapter 2 addresses the conceptual basis for the study by reviewing salient literature. It brings together scholarship relating to learning environment research and the practicum in teacher education. Literature relating to the field of learning environment research is reviewed in terms of the origins of learning environment research, methodological issues, lines of past research and studies relevant to the practicum in teacher education. The practicum in teacher education is discussed in terms of attributes of practicum learning environments, mentoring in the practicum and student teacher perceptions of practicum environments.

Chapter 3 details the methodology utilised in this study. This chapter is presented in three main sections. The first section explores the philosophy and methodology of this learning environment study. The second section of the chapter describes the processes and procedures for data collection, variables, samples and units of analysis. The final main section addresses validity issues relating to the design and conduct of this research.

Chapter 4 describes the development of tentative scales and the validation and field-testing of trial and final forms of the Extended Practicum Learning Environment Inventory (EPLEI). The EPLEI is a 12-scale instrument with 72 items designed to assess the learning environment of the extended practicum. Chapter 4 also reports the development of the outcome measure for this study, the *Student Teacher Efficacy Instrument* (STEI).

Chapter 5 reports the results of the study. Analyses performed on the data collected through the initial and final administration of the Extended Practicum Learning Environment Inventory are presented. Multivariate analysis of variance was used to examine differences in the means of groups classified according to a range of independent variables including gender, age and school type with the set of 12 extended practicum learning environment scales constituting the dependent variables. Correlational analyses were used to investigate relationships between student teachers' perceptions of the extended practicum learning environment and their teaching efficacy. Structural equation modelling was employed to develop a model that relates student teachers' perceptions of the extended practicum learning environment to their teaching efficacy.

Chapter 6 discusses the findings of the study through a consideration of each research question and the overall research problem.   Results of the study are also compared with findings from previous learning environment research, the practicum in teacher education and literature relating to Catholic ethos and the university's mission.

Chapter 7 concludes the thesis by summarising the study and discussing implications of the research for learning environments of the practicum component of teacher education courses for both national and international contexts. In particular, implications for the learning environments of practicum experiences of courses in Catholic institutions are outlined and directions for future learning environment research are postulated. Finally, the limitations of the study are considered.

This thesis reports research that brought the fields of learning environment research and the practicum in teacher education together in the one study. To provide a conceptual basis for this study, the next chapter of this thesis provides a comprehensive review of literature in these two fields.

CHAPTER 2

LITERATURE REVIEW:
LEARNING ENVIRONMENT RESEARCH AND THE
PRACTICUM IN TEACHER EDUCATION

2.1   INTRODUCTION

The research reported in this thesis focused on learning environments of the extended practicum of a teacher education course at a Catholic university. The literature underpinning this thesis brings together scholarship on learning environment research and the practicum in teacher education. In teacher education, the context of the practicum learning environment is characterised by features at both school and classroom level including human interactions amongst student teachers and supervising teachers, student teachers and pupils, student teachers and other members of the school environment. These features intersect and impact on the practicum experience for the student teachers. This learning environment study seeks to examine how student teacher perceptions of aspects of extended practicum learning environments may affect their self-efficacy for future teaching. Therefore, a review of the literature relating to learning environment research and the practicum in teacher education was undertaken to inform this study.

Section 2.2 discusses the origins of learning environment research, learning environment research studies and instruments relevant to tertiary practicum environments. Section 2.3 reviews the nature of the practicum in teacher education in terms of theoretical paradigms, orientations to supervision and mentoring and perceptions of members of practicum learning environments. Section 2.4 overviews the use of learning environment research principles in the study of the practicum in teacher education. Section 2.5 concludes the chapter.

2.2   LEARNING ENVIRONMENT RESEARCH

This section discusses the field of learning environment research. It is divided into four sections. First, Section 2.2.1 provides important information on conceptualising the study of learning environments. This section addresses historical and methodological issues relating to the field of learning environment research. Because the research reported in this thesis studied the practicum in a teacher education course, a review of research relating to these particular fields is provided in Sections 2.2.2 to 2.2.4. Section 2.2.2 reviews classroom environment

research and in particular the main instruments that have been developed to assess classroom environments in schools and universities during the past four decades. Section 2.2.3 introduces school-level environment research. Finally, because teachers and administrators in partnership have a supervisory role with regard to student teachers when undertaking their practicum, Section 2.2.4 briefly addresses the supervisory learning environment.

2.2.1 Conceptualising the Study of Learning Environments

As noted in the introductory chapter to this thesis, the study of learning environments can be traced to the observational work of Thomas in the 1920s (see Chavez, 1984) and Lewin's (1936) *field theory* regarding the 'life space' of the individual. Lewin's formula, B=f (P, E), relates Behaviour (B) to Person (P) and Environment (E). This formula captures the essence of psychosocial environments: How a person perceives the environment governs subsequent behaviour. This suggests that the perceptions of the inhabitants are essential to the valid assessment of that environment.

Murray (1938) and Stern, Stein and Bloom (1956) extended Lewin's field theory. Murray developed a *needs–press* theory whereby people are conceptualised in terms of their psychological needs and the environment in terms of its press (Dorman, 1994). As described by Genn (1984), needs are the important determinants of individual behaviour. *Needs-press* theory posits that an individual's behaviour is the result of pressing external factors of an environment and the individual's internal needs. When applied to education, this means that a learner has needs and that features of the learning context's press either satisfy or frustrate these needs. Extending the *needs–press* theory, Stern (1970) developed a theory in which the degree of person–environment congruence is related to student outcomes (Dorman, 1994). This theory underpinned studies of person-environment fit in which congruence between actual and preferred environments is assessed and related to student outcomes.

The concepts of *alpha press* and *beta press* are important methodological terms in learning environment research. Murray (1938) explored the distinction between alpha press (the environment as described by an external observer) and beta press (the environment as perceived by the milieu inhabitants) (cited in Fraser, 1991, p. 5). In operational terms, alpha press is assessed by a detached observer (e.g. researcher in the classroom) and beta press is assessed by the milieu inhabitants (e.g. students).

Alpha press in the classroom usually requires the observer to code specific events according to some scheme. Because it involves direct observation, alpha press is considered highly objective. Beta press represents the environment as perceived and experienced by the inhabitants and, in a classroom setting, is dependent on the subjective assessment of students and teachers. According to Murray, beta press exerts the greater influence on behaviour because that is what is felt, interpreted and responded to by the person (Hjelle & Ziegler, 1981).

The distinction between *low-inference* and *high-inference* measures for assessing learning environments has been recognised in learning environment literature (see Fraser, 1994). Rosenshine (1970) defined a low-inference measure as a rating system that classifies specific, denotable, relatively objective classroom behaviour and is recorded as frequency counts. Perhaps the best known low-inference classroom research tool of the 1960s and early 1970s was the Flanders Interaction Analysis System which recorded the sequencing of behaviour (viz. teacher and student talk) during a class (see Dunkin & Biddle, 1974; Flanders, 1970). High inference measures require the respondent to make an inference based on a series of classroom events using specific constructs (e.g. classroom competition). Much early learning environment research employed low inference measures and it was only in the 1950s that high inference measures were conceptualised. Studies which focus on the meaning of school and classroom events have tended to utilise high-inference measures.

Consideration of press type and whether low or high inference measures are employed in a particular study suggests four possible approaches to the measurement of environment perceptions (viz. low inference alpha, high inference alpha, low inference beta, and high inference beta). While some historical research involved low inference measures using a detached observer, the overwhelming methodological tradition in learning environment research has been high inference beta press. In fact, few genuine learning environment studies of the past 20 years have departed from the use of inhabitants' summary judgments of the environment. Indeed, the use of student perceptual data is considered essential to contemporary classroom environment research.

Pace and Stern (1958) further developed the notion of beta press to define *private beta press* as the individual's perception of an environment. This contrasts with *consensual beta press* which is the shared view of the environment by the members of a group). In classroom environment studies, consensual beta press often has been measured by using the class as the

unit of analysis with the class mean as the measuring statistic. Usually, matters of convenience dictate that whole classes (as intact groups) respond to environment questionnaires. Therefore, it has been common to average student scores to form a class mean for each classroom environment scale.

The modern era of learning environment research began in the late 1960s with the work of Herbert Walberg (1969) and Rudolf Moos (1974b). Much present day learning environment research is based on their seminal work in conceptualising learning environments. In terms of learning, Walberg (1976) focused on the notion that psychology is a science of mental life and that a key aspect of mental life is perception. Where traditional psychology objectively counted or measured learning, Walberg suggested that "what is objectively counted and measured should be weighed and justified by what is subjectively perceived insofar as individual learning is concerned" (p. 156) and that perception optimises learning. This heralded the beginning of students being consulted in terms of their perception of learning environments.

Based on this belief, Walberg (1976) examined the psychology of existing models of learning. He evaluated the learning models of behaviourist and structuralist psychologists relating to stimulus and response, reward and punishment and programmed learning. From this work, he developed a *Perceptual Model* as shown in Figure 1.1 which "allows for behavioural and structural mechanisms but recognises that student perceptions are mediating determinants of learning" (Walberg, 1976, p. 142). The Learning Environment Inventory (LEI) examined students' perceptions of physics classroom environments taught with the Harvard Project Physics curriculum (Walberg, 1976). This research provided evidence that it is valid to use student perceptual data to assess learning environments and that there is a relationship between perceptions of learning environments and student outcomes. Walberg strongly advocated the use of high inference beta press measures of classroom environments. That is, students should be asked to make summary judgments about their classrooms:

> Students seem quite able to perceive and weigh stimuli and to render predictively valid judgments of the cohesiveness, democracy, goal direction, friction, and other psychological characteristics of the social environment of their classes. These molar judgments may mediate the multiplicity of molecular events of instruction and other classroom activities and properties.
>
> (Walberg, 1976, p. 160)

As introduced earlier in this thesis, Rudolf Moos (1968), became interested in dimensions of social climates. In particular, he developed instruments for examining the social climates of psychiatric hospitals, military establishments and correctional centres (Moos & Houts, 1968).
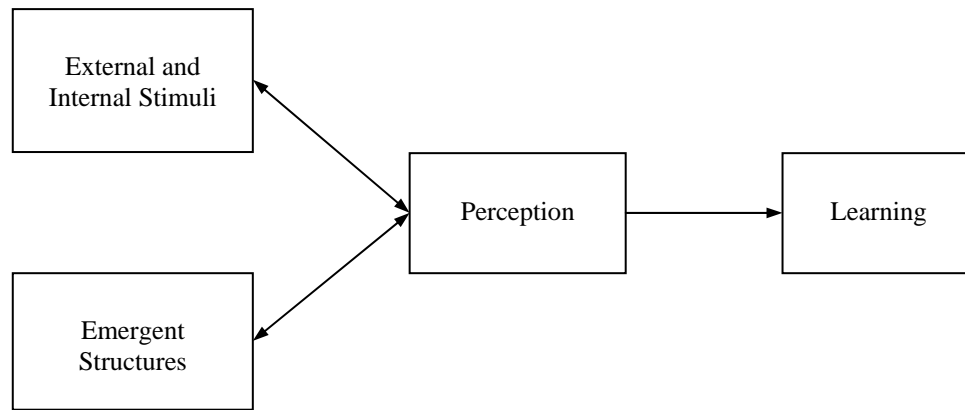
Figure 2.1 Walberg's perceptual model of student learning

Source: Walberg (1976, p. 143)

Moos was interested in member perceptions of their environments and the wellbeing of the participants in those environments. In discussing ways to conceptualise dimensions of environments and comprehend processes that link environmental factors to outcomes, Moos (1996) postulated that it is important "to understand the power and evanescence of environments" and important to recognise the reality that "the extent to which individuals' experiences in one environment influence their mood and behavior in other current environments and in future environments" (p. 195). As Moos (1979) suggested, environments have individual personalities and social environments can be characterised in terms of their warmth, supportedness or rigidity and restriction (cited in Baek & Choi, 2002, p. 12). Based on this premise, Moos (1968) identified three categories of human environments that are useful in conceptualising individual dimensions of different psychosocial environments. The three categories provided a frame for using individual perceptual data to examine learning environments. As introduced in Chapter 1 of this thesis, these categories are *Relationship, Personal Development, and System Maintenance and System Change*. The combination of Moos's categories of human environments and Walberg's work on perceptions provided the impetus and methodology for examining a wide range of environments, including this study of the extended practicum learning environment.

Important methodological issues surround learning environment research. First, Moos's three main categories of human environments have provided a means for conceptualising, identifying and assessing dimensions of environments. Second, Walberg's perception theory formalised the notion that perceptions are valid indicators of environment quality (Walberg,

1976). Third, environments have been assessed through the use of private, high-inference beta press measures where individual respondents make an inference based on environment constructs (e.g. Task Orientation). In some studies where the shared view of a group is sought, consensual, beta press is assessed by the class mean computed from the scores of all the students in the class (Dorman, 1997). This unit of analysis issue refers to the type of unit a researcher is measuring and it is important that the chosen unit of analysis reflects the hypothesis being tested. Sirotnik (1980) discussed three types of analysis that have been used in the development and use of perceptual measures of environment. They are *total analysis*, *within analysis* and *between analysis*. In *total analysis*, the individual is used as the unit of analysis and grouping factors are ignored. *Within analysis* uses the individual scores but removes the group effect before analysis. The group as the unit of analysis is used in between analysis. *Between analysis* requires the class mean to be the unit of analysis for studies of classroom learning environment. Similarly, school means would be used as the unit of analysis for studies of school environments (Dorman, 1994). Further features of learning environment methodology relevant to the present study are discussed in Chapter 3 of this thesis.

Finally, while learning environment research had its origins in quantitative methods, another direction research in the field has taken involves combined qualitative and quantitative methods. Such combined studies provide further insights into research problems and expose new perspectives to solving problems (Dorman, 1994; Khoo & Fraser, 1998; Lee & Fraser, 2000, 2001). For example, Tobin and Fraser's (1998) multilevel study of a science teacher's classroom learning environment was enhanced through the collection of qualitative data from a wide range of participants and sources in conjunction with the use of CLES. The additional qualitative data provided a means to view and assess the environment through different lenses thus providing new perspectives and findings. Dorman (1994) used extreme-case sampling based on quantitative data to select cases for intensive qualitative data collection. While these qualitative data humanised the quantitative findings, they also allowed different types of research questions to be answered.

2.2.2 Classroom Environment Research

Learning environment researchers have addressed the methodological issues discussed above to create a series of economical, valid and very useful instruments to assess classroom environments (Fraser, 2002). Some of this earlier work resulted in the development, validation and use of the historically significant instruments as introduced in Chapter 1 of this thesis. These include the *Learning Environment Instrument* (LEI) (Fraser, Anderson &

Welch, 1982; Walberg & Anderson, 1968); the *Classroom Environment Scale* (CES) (Moos & Trickett, 1987); the *Individualised Classroom Environment Questionnaire* (ICEQ) (Rentoul & Fraser, 1979) the *My Class Inventory* (MCI) (Fisher & Fraser, 1981); the *Science Laboratory Environment Inventory* (SLEI) (Fraser & McRobbie, 1995); *the Constructivist Learning Environment Survey* (CLES) (Taylor, Dawson & Fraser, 1995); the *College and University Classroom Environment Inventory* (CUCEI) (Fraser & Treagust,1986); the *What is Happening in this Class Questionnaire* (WIHIC) (Fraser, Fisher, McRobbie, 1996) and the *Questionnaire on Teacher Interaction* (QTI) (Wubbels &Levy, 1993). These instruments have now been used both nationally and internationally to examine classroom environments. The remainder of this sub-section overviews the use of these and other significant classroom environment instruments.

One historically significant instrument is the Learning Environment Inventory (LEI) which has been used extensively in classroom environment research. It was developed as an improvement from an earlier instrument, the *Classroom Climate Questionnaire* (CCQ) (Dorman, 2002). The LEI was administered as part of the evaluation of Harvard Project Physics to assess perceptions of learners in secondary school science classrooms. In its final form, the instrument contains 15 scales, with seven items per scale, and utilised a four-point Likert response format with anchors of Strongly Agree to Strongly Disagree. Some items are reverse scored.

Another historically significant instrument was the Classroom Environment Scale (CES) which was developed by Rudolf Moos (Fisher & Fraser, 1983b; Moos, 1979; Moos & Trickett, 1987). The final version of the CES has nine scales with 10 items each and has a True–False response format. The instrument gathers student perceptions of scales such as Teacher Support, Task Orientation, and Competition. The CES is published with a test manual, questionnaire, answer sheet and simple hand-scoring key (Moos & Trickett, 1987).

A further instrument, the Individualised Classroom Environment Questionnaire (ICEQ) assesses dimensions of classrooms that distinguish individualised classrooms from conventional classrooms. The instrument assesses 'individualised' type dimensions of a secondary classroom, such as participation and personalisation (Fraser, 1990; Rentoul & Fraser, 1979). The final published version of the ICEQ (Fraser, 1990) contains 50 items altogether, with five scales containing 10 items each. Each item is responded to on a five-point scale with the alternatives of Almost Never, Seldom, Sometimes, Often and Very Often. The five scales are Personalisation, Participation, Independence, Investigation and

Differentiation. The instrument contains items such "The teacher helps each student who is having trouble with the work" (Personalisation scale).

One instrument that was developed for particular use in elementary or primary schools, the My Class Inventory (MCI) is a simplified version of the LEI (Fraser, Anderson & Walberg, 1982; Fisher & Fraser, 1981; Fraser & O'Brien, 1985). The MCI differs from the LEI in several ways. It contains language more suitable to younger children, is shorter than the LEI and the final form contains only five scales with a total of 38 items. It is appropriate for use with older children who may have reading difficulties. The response format has been reduced to a two-point format of (Yes, No) where children simply circle their response. To keep response requirements as simple as possible, the response sheet is on the questionnaire. In a further development of the MCI, Goh, Young and Fraser (1995) successfully developed and used a three-point response format (Seldom, Sometimes, and Most of the Time) with a modified version of the MCI that included a Task Orientation scale.

The College and University Classroom Environment Inventory (CUCEI) was developed to assess tertiary classroom environments. The CUCEI is designed for use in tutorial groups of up to 30 students and is not suitable for large lecture or laboratory type classrooms (Fraser & Treagust, 1986; Fraser, Treagust & Dennis, 1986). The instrument contains seven 7-item scales (viz. Personalisation, Involvement, Student Cohesiveness, Satisfaction, Task Orientation, Innovation, Individualisation and it uses language suitable to tertiary learners. The CUCEI scales were considered relevant to the present study.

The Science Laboratory Environment Inventory (SLEI) was designed to assess the environment of science laboratory classes at senior high school or higher education levels (Fraser, Giddings & McRobbie, 1992, Fraser, McRobbie & Giddings, 1993; Fraser, McRobbie, 1995). Its development filled a void in classroom environment instrumentation as no previous instruments had focussed specifically on science laboratories. The SLEI scales are Student Cohesiveness, Open Endedness, Investigation, Rule Clarity and Material Environment. Five response alternatives are used: Almost Never, Seldom, Sometimes, Often and Very Often. The item "We know the results that we are supposed to get before we commence a laboratory activity" is one item from the Open Endedness scale. Extensive field-testing of the SLEI was carried out with 5,447 students in 269 classes in six countries including the United States, Canada, England, Israel, Australia and Nigeria (Fraser, 1994). The instrument was cross-validated with 1,594 Australian students in 92 classes (Fraser, Giddings & McRobbie, 1995), 489 senior high school biology students in Australia (Fisher,

Henderson & Fraser, 1995, 1997) and 1,592 year 10 chemistry students in Singapore (Wong & Fraser, 1995).

Reflecting a constructivist approach to learning, the Constructivist Learning Environment Survey (CLES) was developed to assess science and mathematics classroom environments in which students participate in dialogue to construct new knowledge in an environment characterised by three principles: learning as construction of knowledge; knowledge is constructed inter-subjectively; and the learner is an interactive co-constructor of scientific knowledge (Taylor, Dawson, & Fraser, 1995; Taylor, Fraser & Fisher, 1997). The CLES has five scales (viz. Personal Relevance, Uncertainty, Critical Voice, Shared Control, and Student Negotiation) with seven items in each scale, and utilises a response format with anchors of Very Often, Often, Sometimes, Seldom and Never. The questionnaire has been used mainly in secondary science and mathematics classrooms but could be modified for use in other curriculum areas. It has been validated with 1,083 students in high school science classes in Korea (Kim, Fisher & Fraser, 1999, 2000), 1,081 students from 50 classes in Australia, and 1,879 students from 50 classes in Taiwan (Aldridge, Fraser, & Huang, 1998).

The What is Happening in This Class? (WIHIC) questionnaire is a compilation of several classroom environment instruments. It contains modified versions of relevant scales from a wide range of existing questionnaires that reflect educational interest in areas such as constructivist perspectives and creation of cultures where individuals have equitable opportunities in classrooms to share information and learn (Fraser, Fisher, & McRobbie, 1996). The original WIHIC had 90 items with nine scales. Following refinement, the final form of the WIHIC contains seven 8-item scales: Student Cohesiveness, Teacher Support, Involvement, Investigation, Task Orientation, Cooperation and Equity. The WIHIC has two versions: the class form assesses perceptions of class as a whole; the personal form assesses students' personal perceptions of his or her role in the class.

Building on Leary's model of communication, the Questionnaire on Teacher Interaction (QTI) (Wubbels & Levy, 1991; Wubbels & Levy, 1993) was developed specifically to evaluate teacher-student relationships in secondary classrooms. It is designed and used to focus on interpersonal relationships between teachers and students (Fisher, Fraser & Wubbels, 1993; Waldrip & Fisher, 2003; Wubbels & Levy, 1991; Wubbels & Levy, 1993). The instrument examines the types of teacher and student interactions in terms of eight scales of possible classroom interactions. It formed the basis of another instrument used to examine the interaction between student teachers and their supervising teachers. This instrument is the

Questionnaire on Supervisor Interaction (Kremer-Hayon & Wubbels, 1993). Both instruments provide a basis for recognition that classroom interactions have an impact on the experience of the learner. These two instruments are discussed further detail in Section 2.4 where specific dimensions of practicum learning environments are identified.

Comprehensive reviews of classroom environment research by Dorman (2002), Fraser (1998a), Goh and Khine (2002), and Khine and Fisher (2003) have delineated studies that have taken the concept of the learning environment in many different directions. As stated in Chapter 1, instruments were used to access a number of aspects of classroom environments and broadened the scope of learning environment research. Classroom environment researchers have continued to modify these key instruments to assess dimensions of classroom environments, or have used items and scales from different instruments as inspiration for the development of new instruments.

Associations between student outcomes and environment have become a key domain of classroom environment research. In a tabulation of 40 studies, Fraser (1994) revealed associations between classroom environment perceptions and a number of cognitive and affective outcome measures. These associations between student outcomes and environment have been the dominant form of classroom environment research (see Fraser, 1994). Many of the studies have researched associations between students' cognitive and affective learning outcomes and their perceptions of psychosocial aspects of their classroom environments. They demonstrate that student perceptions of classroom environments account for learning outcome variance beyond that which may be attributed to individual student background and characteristics (Cavanagh & Waugh, 2004; Dorman, McRobbie & Foster, 2002; Fraser, 1998a; Kershner & Pointon, 2000; Khoo & Fraser, 1998). Goh and Fraser (1998) used the QTI and MCI to establish associations between student cognitive and affective outcomes and perceived patterns of student-teacher interactions in mathematics classes in Singapore.

Haertel, Walberg and Haertel (1981) conducted a meta-analysis of research studies involving 17,805 students in four different countries. The findings of this study provided strong supporting evidence for the relationship between perception and performance. The study analyses 634 correlations from 823 classes in eight subject areas. Student achievement was correlated positively with cohesiveness, satisfaction and goal direction and less disorganisation and friction.

Using the Catholic School Classroom Environment Questionnaire (CSCEQ) Dorman, McRobbie and Foster (2002) conducted an environment-outcomes study to establish

associations between the environment in religious education classes and students' attitudes to Christianity. Khoo and Fraser (1998) used the WIHIC to assess the classroom environment of 250 adult learners in Singapore to establish links between student satisfaction and dimensions of the classroom environment. Classroom environment research has proliferated in the Asian region with many researchers conducting studies that establish links between environment and outcomes (Baek & Choi, 2002; Koul & Fisher, 2005; Lee & Fraser, 2001; Teh & Fraser, 1995; Wong & Fraser, 1996).

Other recent environment-outcomes studies have investigated the relationship between learning environments, family contexts, educational aspirations and attainment (Marjoribanks, 2004), learning environment, student attitudes and achievement in middle schooling science classes (Wolf, Fraser, & Aldridge, 2006), environment and attitudes in the transition from middle school to high school (Barcia & Fraser, 2006), learning environments and attitudes among hearing enabled and hearing impaired high school chemistry students (Sencen, 2006), the effect of classroom and home environments on student academic efficacy (Claiborne & Ellett, 2005) and the effect of technology on learning environments and student attitudes in secondary science classes (Temons, 2005).

Another direction taken in classroom environment research has involved the evaluation of educational programs (Fraser, 1979). One of these studies involved Fraser's (1980a) evaluation of the Australian Science Education Project (ASEP). More recently Maor (2000) used the Constructivist Multimedia Learning Environment Survey (CMLES) to assess teaching approaches using multimedia. Other directions in which learning environment research has moved include the validation of performance assessment instruments for school principals (Ellett & Walberg, 1979), beginning teachers (Ellett, Capie & Johnson, 1980; Dhindsa & Fraser, 2004) and emerging models of educational productivity (Fraser, Walberg, Welch & Hattie, 1987; Walberg & Haertel, 1980).

One area that has revealed a number of interesting findings relates to comparisons of teachers' and students' perceptions of actual and preferred classroom environments (Byrne, Hattie, & Fraser, 1986; Fraser, 1982; Fraser & Fisher, 1983a; Fraser & Treagust, 1986; Levy, den Brok, Wubbels & Brekelmans, 2003; Wong & Fraser, 1996). This research builds on person-environment fit theory by using both actual and preferred forms of educational environment instruments to ascertain what type of environments students prefer and whether students' learning is enhanced when there is higher similarity between the actual classroom environment and that preferred by students. A number of studies have employed this approach

to classroom environment research, including the work conducted by Fisher and Fraser (1983a) which utilised the ICEQ to reveal significant differences in how teachers and students perceived the same classroom environment. This study revealed that actual-preferred congruence can be as relevant as actual perception when predicting student cognitive and affective achievement.

Other studies have investigated the influence of a host of independent variables on classroom environment (see Fraser, 1994) These include class size (Anderson & Walberg, 1972; Walberg, 1969), year level (Huang, 2001; Welch, 1979), student gender (Fraser, McRobbie & Giddings, 1993; Huang, 2003; Wong & Fraser, 1994), teacher gender (Anderson, 1971; Joiner, Malone & Haimes. 2002; Lawrenz & Welch, 1983; Waldrip & Giddings, 1995), school type (Fraser, Williamson & Tobin, 1987; Schneider & Coutts, 1982; Trickett,1978; Trickett, Trickett, Castro & Schaffner,1982), subject type (Dorman, Fraser & McRobbie, 1997; Goh & Fraser,1998; Read & Waxman, 2001), student academic efficacy (Dorman, Adams & Ferguson, 2002) and ethnicity (Banks & Banks, 1995; Goolnick & Chin, 1997; Waldrip & Giddings, 1995).

Another evolving direction for learning environment research has been cross-national studies (Aldridge et al., 1998; Fisher, Rickards, Goh & Wong., 1997; Goh & Fraser, 2000; She & Fisher, 2000). In one study, Dorman, Adams and Ferguson (2003) conducted a cross-national investigation of links among 10 classroom environment dimensions, student self-handicapping and student academic efficacy. The study's sample included 3,602 students across 29 schools in Canada, England and Australia. Simple and multiple correlation analyses between 10 classroom environment scales from the WIHIC and the CLES and self-handicapping were conducted with and without control for academic efficacy (Dorman, 2002). Results showed that classroom environment scales accounted for appreciable proportions of variance in self-handicapping beyond that attributable to academic efficacy. The researchers found that enhanced affective dimensions of the classroom environment were associated with reduced levels of self-handicapping.

Classroom environment research in university settings has not been as prevalent as in primary and secondary schools. As introduced earlier in this thesis, one of the few instruments developed to assess tertiary classroom learning environments was the College and University Classroom Environment Inventory (CUCEI) (Fraser & Treagust, 1986; Fraser, Treagust & Dennis, 1986). It is designed to assess the environment of tutorials and workshops (i.e. smaller class groups).

Yarrow, Millwater and Fraser (1997) conducted an Australian study using the CUCEI. The researchers introduced pre-service teachers to learning environment research by engaging the students in an action research project designed to improve the learning environment of both the university teacher education classes and their primary school practicum classroom. A sample of 117 pre-service students was involved in the study. Instruments were designed to gather perceptions of actual and preferred classroom environment in order to identify actual-preferred discrepancies. The discrepancies were then used as a focus and guide for improving classroom learning environments. Yarrow et al. (1997) believed that it was important for student teachers to use their growing knowledge about ways of assessing and improving classroom environment to enhance student learning outcomes. In the campus-based unit designed to introduce current knowledge and theory relating to teaching and learning, students were also introduced to learning environment research. Linked to this study, the students participated in the action research project as part of the sample and completed the College and University Environment Inventory (CUCEI). Based on the perceived differences in perceptions of the learning environments, changes were made to the teaching and learning thus encouraging "a reflective, teacher-as-researcher, action research stance" (Yarrow et al., 1997, p. 71). To apply their knowledge of learning environment research, the students used the My Class Inventory (MCI) with their practicum classes. Students gathered data about the children's actual and preferred classroom learning environments.

Working with children in the same way as was modelled in their university class, students in the Yarrow et al. (1997) study devised a series of strategies to improve the classroom learning environment. Interestingly, the use of this constructivist approach for teaching student teachers about learning environment research revealed that the dimensions of Satisfaction and Cohesion were very important in creating positive learning environments and that Competition was a deterrent. Obviously, a number of variables impacted on the research, including the personalities of university staff, competition for future employment amongst student teachers, freedom from supervising teachers to allow change in their classroom as well as overall school climate. Overall, the study provides a valid basis for including learning environment research in university teacher education courses.

Recently, Saunders and Fisher (2006) reported on a similar study where student teachers were introduced to the field of learning environment research as part of their science education class. Following this, the student teachers engaged in an action research project to assess their tertiary science education classroom environment. Using a collaborative approach, the student teachers and their lecturer used actual and preferred forms of CUCEI to assess the university

classroom environment. They responded to the scales of Personalisation, Involvement, Student Cohesion, Satisfaction, Task Orientation, Innovation and Individualisation. The data obtained provided the basis for improving classroom learning environment based on Fraser and Fisher's (1986) steps for improving classroom environments which involves assessing an environment, examining feedback, participating in reflection and discussion, intervening and making changes to the environment and then re-assessing those changes (Saunders & Fisher, 2006).

As a parallel experience, the student teachers were encouraged to implement their knowledge of learning environment research by assessing the environment of their practicum classroom environment using actual and preferred forms of the WIHIC. Using a shortened version of the WIHIC, the primary school children responded to the scales Student Cohesiveness, Teacher Support, Involvement, Task Orientation and Equity. Once again, the data provided the basis for the student teachers to engage in an action research process in consultation with their supervising teachers to improve the primary classroom environment. Interestingly, both the student teachers and the primary school children indicated they would prefer a more positive learning environment than the one they actually experienced. This approach provides ideas for ways that teacher educators can use learning environment research methods to improve both tertiary learning environments and student teacher practicum environments.

Some areas of contemporary classroom environment research include investigating metacognitive orientations of science classrooms (Thomas, 2003, Thomas & Au Kim Mee, 2005), monitoring the implementation of outcomes-based learning environments in science classrooms in South Africa (Aldridge, Laugksch, Seopa, & Fraser, 2006), developing a model of learning styles, aspirations, classroom environment and outcomes of Australian science students (Dorman & Knightley, 2005) and establishing links between students' understanding of primary science concepts, cultural learning environments and teacher-student interactions (Waldrip, Fisher, & Dorman, 2005). Interest in the study of learning environments in Asia is particularly strong with edited volumes and research articles documenting these developments (see Fisher & Khine, 2006; Goh & Khine, 2002; Huang, 2006). Since the 1960s much effort has been placed on the development of instruments to assess classroom environments. While this research has resulted in a suite of instruments with wide applicability, one important facet of classroom environment research has been the validation and use of context-specific instruments.

A detailed review of all of these studies and the many others that exist in the field of classroom environment research is beyond the scope of this thesis. However, as this discussion has shown, classroom environment research relies on the development and use of reliable measures and the field has now become both prolific, diversified and an emerging force in educational research. While classroom environment research is important to the present study, the study of learning environments at schools and universities is also important because the focus of enquiry is the extended practicum of a pre-service teacher education course. Therefore, the next section of this chapter explores previous learning environment research in these settings.

2.2.3 School-Level Environment Research

This subsection provides details on school-level environment research. While the focus of classroom learning environment research is the perceptions of classroom climate or atmosphere by students and teachers, school-level environment research deals with perceptions of climate at a whole school level (Dorman, 1996, Fraser, 1997).

Originally, school climate research was part of the field of educational administration (Fraser, 1997). Much of this research focused on the management and organisation of institutions and how to improve outcomes through the enhancement of staff related variables like morale and collegiality. Much school-level research of the 1960s and 1970s was based on the work of Halpin and Croft (1963). Their *Organizational Climate Description Questionnaire* (OCDQ) had bandwagon status. The OCDQ focused on school administration and contained eight scales that examined the behaviour of the principal. As an instrument designed to examine school environment it was limited as it had an imbalanced focus on the principal (Kottkamp, Mulhern & Hoy, 1987). For this reason, its role in learning environment research was considered restricted (Dorman, 2002). Stern (1970) developed the College Characteristics Index (CCI), which measured staff and student perceptions of college environments. Stern (1961, 1970) further adapted the CCI to create the High School Characteristics Index (HSCI) which gave students the opportunity to provide their perceptions of the school-level environment. In a further development of the OCDQ, Finlayson (1973) provided different sets of scales to be responded to by teachers, heads of departments and principals. In this way, data from each group could be examined to give an overall view of the school's learning environment.

Some studies have been conducted in Australia to examine school-level learning environments. These studies have found that school environment influences student cognitive

and affective outcomes and values (Dorman, 2002; Johnson & Stevens, 2001). Rosenholtz (1989) asserted that school climate makes a difference in improving learning opportunities. However, this position was not always accepted by the entire research community (Dorman, 2002). An Australian study conducted by Rowe, Hill and Holmes-Smith (1994) used multilevel analysis to study the relative effects of school-level, classroom-level and home variables. This research revealed that the effects of a student's background on their academic achievement was about 10% but the effect of the school and its teachers was about 30 to 40% (Dorman, 2002).

One key Australian school environment study (Docker, Fraser, & Fisher, 1989) employed the Work Environment Scale (WES) (Moos, 1981) and combined school-level environment with classroom climate variables. The WES examines school environments in terms of teachers' perceptions of them as work settings. Therefore, to make the WES suitable for use in schools and improve its validity, words such as 'people' were changed to 'teachers' and 'supervisor' was changed to 'senior staff' (Docker et al., 1989). The WES has ten 9-item scales that assess Involvement, Peer Cohesion, Staff Support, Autonomy, Task Orientation, Work Pressure, Clarity, Control, Innovation, Physical Comfort. Validation data for the WES as a school-level environment instrument were generated in a study of 599 teachers from 34 primary and secondary schools in Tasmania (Docker et al., 1989). The study revealed that teachers' perceptions of primary school environments were more positive than those of teachers in secondary school environments (Fraser, 1997). Primary schools were viewed by the participants as having greater Involvement, Staff Support, Autonomy, Task Orientation, Clarity, Innovation and Physical Comfort and less Work Pressure. From its relevance as an instrument to assess work settings of teachers, the WES has potential for application to the work of student teachers in practicum settings. The relevance of this instrument to the present study is discussed in Section 2.4.

Another important school environment instrument was developed in Australia. This is the School-Level Environment Questionnaire (SLEQ), designed by Rentoul and Fraser in 1983 to assess school teachers' perceptions of psychosocial dimensions of the environment of the school. Following a comprehensive review of existing instruments, the SLEQ was developed with eight scales (Rentoul & Fraser 1983). It consists of 56 items, with each of the eight scales being assessed by seven items. Each item is scored on a five-point scale with the responses of Strongly Agree, Agree, Not Sure, Disagree and Strongly Disagree. The SLEQ assesses Student Support, Affiliation, Professional Interest, Staff Freedom, Participatory Decision-Making, Innovation, Resource Adequacy, and Work Pressure. The SLEQ was used

in a study of differences between the climates of primary and high schools. This study by Fisher and Fraser (1991) involved a sample of 109 teachers in 10 schools and found that the climate in primary schools was more positive than the environment of high schools on most SLEQ scales.

In another school-level environment study of Catholic and Government schools, Dorman, Fraser and McRobbie (1997) developed a 57-item school environment instrument that used modified versions of five SLEQ scales (Student Support, Affiliation, Professional Interest, Resource Adequacy and Work Pressure). Dorman and others (1997) added two new scales: *Empowerment* (the extent to which teachers are empowered and encouraged to be involved in decision-making processes) and *Mission Consensus* (the extent to which consensus exists within the staff with regard to the overarching goals of the school). Data were collected from 208 science and religion teachers across 32 schools. Analyses of the data showed significant differences of approximately one standard deviation between the two school types on teacher perceived Mission Consensus and Empowerment. Significantly, Catholic school teachers perceived their schools as more empowering and higher on Mission Consensus than Government school teachers (Dorman, 2002; Fraser, 1997).

In 2001, Huang conducted a study to investigate high school teachers' perceptions of school environments to ascertain if gender was a differentiating factor. There were 275 teachers from eight high schools in the sample. The instrument used in the study was the Teacher's School Environment Survey (TSES). The results of the study indicated that teachers of both genders perceived their school environments positively. Females rated their school environments more positively, especially in terms of job satisfaction. Females indicated better relationships with both colleagues and students. Male and female teachers rated principal leadership similarly. However, females rated ethnic equity fairly low. Huang (2001) suggested that school systems consider strategies for improving male satisfaction with school environments and the employment of teachers with different ethnic backgrounds.

More recently, a comprehensive study of school-level learning environment was conducted by Webster and Fisher (2003). They investigated the relationship between school-level environments and student outcomes. The study involved 620 teachers and 4,645 students in 57 Australian secondary schools. Teacher perceptions of the school environments were assessed using the SLEQ. The outcomes measure for the study was mathematics achievement, career aspirations and student attitudes/beliefs regarding success in mathematics. Data from the teachers' responses to SLEQ were merged with student data collected as part of the Third

International Mathematics and Science Study (TIMSS). TIMSS gathered student data relating to both science and mathematics outcomes and the context in which they occurred. This study found that school-level learning environment does influence student achievement and that changes at school level will have positive effects on cognitive learning and affect student outcomes. The study revealed that school environment influences the way teachers deliver curriculum and student attitudes are influenced by instructional practices which, in turn, influence learning outcomes (Webster & Fisher, 2003).

These studies serve to emphasise the importance of further studies of school-level learning environments and the significance of school-level environments on the learning outcomes and the psychosocial environments experienced by the participants. They also demonstrate that members of school environments may be affected by factors at both school-level and classroom level.

Examination of the literature on school-level and tertiary level learning environment research has been useful in assisting with the identification of instruments and dimensions of environments useful for the present study (see Section 2.4). This review of learning environment literature revealed only one study of supervisory environment at a tertiary level. This study is discussed in the following sub-section.

2.2.4 Supervisory Learning Environments

One study has investigated supervisory learning environments at a tertiary level. This research in the area of dietetics was conducted by Stormont (2003). Although the study was not in the area of teacher education, it has relevance for this study of the extended practicum learning environment. The purpose of Stormont's study was to gather information regarding student and supervisor perceptions of the supervisory environment of practicum in dietetics. The impetus for the study was that students indicated that they believed the practicum was an important part of professional learning but that supervisory practices appeared to vary in quality. A combined qualitative and quantitative methodology was employed and data were collected in two stages. As there was only a small sample of participants in the study, it is not possible to generalise the findings. The sample for the study consisted of six supervisors and four students in a four-week block of clinical dietetics practicum, in a large, metropolitan hospital. Qualitative data were collected from the students through semi-structured interviews and journals. Quantitative data were collected using the *Questionnaire on Supervisor Interaction* (QSI) (Kremer-Hayon & Wubbels, 1993). The quantitative component of the

study was conducted to triangulate the findings of the qualitative component of the study data and as a means of providing visual feedback on individual supervisors.

The QSI is an instrument designed to assess interpersonal behaviours between supervisors and their students. In this case, the instrument was adapted to suit the context of the study. Further details about the QSI are provided in Section 2.4. The study showed that the QSI is a useful instrument for studying the interactions between supervisors and students. The study also supported the use of the QSI on a one-to-one level and its use to discriminate between preferences that students have for different supervisors. It revealed that student preferences for different supervisors can, in turn, affect the quality of the teaching and learning interactions that are taking place (Stormont, 2003). This finding has significance for the present study which examines the relationship between supervisors and student teachers in practicum learning environments.

As Stormont (2003) found, supervisors have a significant impact on the perceptions of the practicum learning environments held by students. Analogously, it is not unreasonable to assert that a similar relationship holds for beginning teachers undertaking practicum in schools. The next section of this chapter examines paradigms of teacher education, orientations to the supervision in the practicum and perceptions of participants of practicum learning environments.

2.3   THE PRACTICUM IN TEACHER EDUCATION

As the context for this learning environment study is the extended practicum learning environment of a Catholic university, it was important to review changing orientations to supervision as different paradigms for teacher education have emerged. This review examines changes of orientation from an apprenticeship approach where a novice learnt from an expert to critical inquiry and transformative approaches (Zeichner, 1983). Critical-inquiry and transformative approaches where the student teacher learns about teaching with and from other members of the learning environment are discussed and factors resulting from these changes are explored in terms of the learning environment of the practicum for student teachers (Section 2.3.1). Section 2.3.2 examines the nature and role of the supervising teacher as a key member of the learning environment and the key features of effective supervision. As this study investigated perceptions of practicum learning environments, Section 2.3.3 reviews some perceptual studies of practicum learning environments.

2.3.1 Paradigms of Teacher Education

The type of supervision and mentoring a student teacher experiences in the practicum reflects the changing paradigms of teacher education. Zeichner (1993) has been an influential educational theorist on teacher education paradigms. Through his work, Zeichner moved understanding of teacher education from a technical orientation to a critically reflective approach. Aligned with different philosophies and paradigms of teacher education, a number of models of mentoring and effective mentoring programs have evolved. An examination of current literature appears to indicate that current practices in teacher education still reflect aspects of all of the models.

As a key researcher and theorist of the practicum in teacher education, Zeichner (1999) identified four key paradigms of teacher education that have had an impact on the practicum: *Traditional Craft*, *Behaviourist, Personalistic*, and the *Inquiry-Orientated* perspective (Zeichner, 1999). He also suggested a fifth *Academic* paradigm, which promotes a sound liberal education for teachers (Zeichner, 1983). However, Zeichner (1983) argued that a sound liberal education underpins each of the four key paradigms. All of these paradigms have implications for practice within the professional community of school and university based teacher educators. Aspects of orientation to supervision style, locus of control, relationships and opportunities for personal and professional growth for the student teacher have continued to be influenced by the different paradigms. Each paradigm of teacher education may be thought of as a matrix of beliefs and assumptions about the nature and purpose of schooling, teaching, teachers and education that gives shape to specific form of practice in teacher education (Zeichner, 1983).

Traditional Craft Paradigm

The first and enduring paradigm of teacher education that reflects an apprenticeship ideology is the Traditional Craft paradigm. As described by Zeichner (1999) and Baker (1995), this paradigm represents a master and novice relationship between supervising teacher and student teacher, which may result in the practicum environment of the practicum becoming a site for socialisation into "more of the same". Student teachers are exposed to a technical, craft-based orientation to learning to teach as they observe the master, then copy and reproduce the same teaching skills and styles. Questioning the status quo is not encouraged and learning is 'on the job'. Student teachers are assessed from an inspectorial orientation by practitioners operating as experts (Martinez, 1998).

Behaviourist Paradigm

The second key paradigm described by Zeichner (1983) came out of the Behaviourist tradition of psychology. This paradigm is underpinned by a *process–product* view where a scientific knowledge base for effective teaching (Martinez, 1998) was identified and supervising teachers guided the student teachers towards the expected behaviours using an *Applied Science* model (Zeichner, 1999) His concern with this model related to its fixation on technical aspects of learning to teach, where elements of strategies are modelled by the teacher and student teachers reproduce them. He had concerns that this model provided little potential for change. However, another model of teacher education emerged which focused on the student teacher in the practicum environment learning through specific step-based models (Hopkins & Moore, 1993). In this model, the student teacher was still treated as a novice. However, emerging knowledge of teacher education called for the learning environment to be characterised by a recognition and response to the individual needs of each student teacher. The teacher was still the authority (Martinez, 1998) in the classroom but Dewey's (1933) notion of the need for a democratic learning environment was being fostered.

Reflecting the Behaviourist paradigm of teacher education but still under the umbrella of an Applied Science model, a *Clinical Supervision* model emerged (Acheson & Gall, 1997). The term 'clinical' in this sense suggested "a face-to-face relationship between teacher and supervisor and a focus on the teacher's actual behaviour in the classroom" (Martinez, 1998, p. 9). The features of this model included analysis of instruction, classroom visitations, observation techniques, data gathering and conferencing skills. The supervising teacher became the coach and modelled effective instructional strategies, demonstration teaching, reinforcing, modifying instruction, maintaining professionalism. The clinical science approach was underpinned by the notion that the student teacher goes through stages of development as identified by both Fuller (1969) and Berliner (1987). In this approach, the role of the supervisor is to be an expert modelling and coaching the student teacher as they move through the various stages of development.

The notion that student teachers progress through stages of development was highlighted by Fuller (1969). These stages were identified as beginning with 'concern for self', then moving to a 'task' stage, which involved mastery of routine teaching issues and pressures and finally the 'impact' stage. According to Fuller (1969), the 'impact' stage involved students moving their thoughts from self to the impact of their teaching on learners and how best to create learning experiences to foster improved learning. Berliner (1987) extended Fuller's (1969)

stages to five levels of teacher development. These were identified by Hawkey (1997) as "novice, through beginner, competent and proficient learner, to expert" (Hawkey, 1997, p. 327) where "competent teachers tend to rely on a set of maxims or rules in their decision-making drawn from personal experience and the prevailing culture of teaching" (Hawkey, 1997, p. 327). The experts were shown to be different in that they could change their behaviour and improvise to react to changing teaching conditions. These ideas were incorporated into, and formed the foundation for a number of specific models of learning to teach, and had implications for how to supervise. The learning environment resulting from this sort of approach is one of support and development where the supervising teacher, as expert, guided the student teacher through processes to demonstrate behaviours required of an effective teacher (Martinez, 1998).

Embedded within the Behaviourist paradigm, and based on the applied scientific approach, a number of models for supervision emerged. They include the *Accountable* model (McNeil, 1971) the *Instructional Supervision Training* program (Boyan & Copeland, 1978), the *Developmental Supervision* model (Glickman, 1985), the *Scientific Supervision* model (Russell & Hunter, 1980), the *Self-Assessment* model (Bailey, 1981) and the *Artistic Supervision* model (Eisner, 1982). Each of these models is based on "the positivistic epistemology and behaviourist psychology and emphasise the development of observable skills, competencies, knowledge" (Zeichner, 1983, p. 4). These skills were then demonstrated in an actual performance of a pre-determined task set by the teacher as expert (Zeichner, 1983). The student teacher experiencing these approaches and orientations to teacher education would encounter a learning environment that was technical and authoritative in orientation, reflected the notion of teacher as expert supervising the student teacher to develop the technical, practical aspects of teaching, according to set procedures and goals. In Zeichner's (2002) opinion, this is still a dominant paradigm in teacher education, despite what universities espouse as their philosophies of teacher education.

Personalistic Paradigm

The third key paradigm described by Zeichner (1983) is the *Personalistic* paradigm. This paradigm is founded in phenomenological epistemology and perceptual and developmental psychology and puts the self of the teacher and the notion of growth at the centre of an individual's preparation to become a teacher (Zeichner, 1983). This paradigm incorporates approaches such as Fuller's (1969) personalised teacher education approach where "the self-perceived needs and concerns of prospective teachers' should be used to guide the content of

teacher education programs" (Zeichner, 1983, p. 4). The essence of such programs was the recognition of individual stages of development and creation of models of learning to teach that meet individual needs (Fuller, 1969). Incorporated in the Personalistic paradigm are approaches such as those embedded in *Cognitive Development* theories and those resting within belief systems of individuals and their orientations to the teaching role that come out of a *Humanistic* approach to teacher education (Zeichner, 1983). As stated by (Zeichner, 1983), approaches to teacher education within the Personalistic paradigm attempt to promote the psychological maturity of a future teacher and emphasise the reorganisation of perceptions and beliefs as more important than the mastery of teaching behaviours, skills and content.

Zeichner's (1983) concerns with this paradigm, which has as its core the notion of teacher education as a process of individual growth, is that it assumes the social and educational context of learning to teach is taken as a static given. It assumes that the individual as a change agent experiences a developmental process, growing towards psychological and professional maturity. However, Zeichner (1983) warns that to be successful this paradigm of teacher education requires a practicum learning environment where positive, personal relationships based on mutual trust and respect are evident and lines of communication are open. He comments that the focus of success in this paradigm is only on the 'self-absorbed' individual learning to teach, rather than the effects of that individual on social systems (Zeichner, 1983).

Inquiry-Orientated Paradigm

Zeichner's (1983) fourth paradigm, the *Inquiry Orientated* paradigm promotes an inquiry model approach to learning to teach. At the centre of the model is student teacher engagement in action research activities in the practicum context. The main thrust of the model requires the learner to become an investigator conducting inquiries about learning and contexts of teaching. Development of teaching skills is still a valued component of the model. However, Zeichner (1983) stated that it is vital teachers are prepared with the "skills to do and the inclination and skill to analyse what they are doing in terms of its effects upon children, schools and society" (p. 6). This paradigm requires a platform of inquiry into the status quo through critical spirit, a foundation of technical skills necessary for inquiry, a mastery of content knowledge, a capacity for critical self-reflection and a recognition of self and self-development needs but not exclusive to other learning. This model brings the self of the student teacher to the heart of the experience as they reflect on their teaching and learning within a context and become agents for self-change, but not in isolation from the context and

purpose of the inquiry (Zeichner, 1983). This paradigm presents teacher education as a transformative entity (Martinez, 1998).

The Prevailing Paradigm

According to Zeichner (1983) the above paradigms are concerned in some way with mastery of content knowledge and technical skills in teaching. While all of these orientations are concerned with the reorganisation of teacher perceptions and with fostering some form of inquiry, Zeichner identified perspectives of the paradigms in terms of delivery as a curriculum of teacher education. He borrowed from the work of Eggleston (1977) who described curriculum as 'received and flexible' and aspects of Crittendon's (1973) notion of conceptions of teacher education curriculum as certain or problematic. Zeichner (1983) viewed the Traditional-Craft and Behaviourist paradigms as coming out of a received curriculum where the participant is a passive recipient of curriculum that has been constructed in advance by others. By contrast, the Personalistic paradigm and the Critical/Inquiry paradigm locate the participant as an agent of change socially constructing the curriculum. In terms of conceptions of teacher education, Zeichner (1983) explores the perspective that the paradigms of Behaviouristic, Traditional Craft and Personalistic models present the context of teaching as a given, whereas the Critical Inquiry paradigm promotes the context of teaching as problematic landscapes with which teachers are constantly contending (Zeichner, 1983).

Currently, the predominant paradigm for designing teacher education programs remains the inquiry-orientated paradigm. Reflecting aspects of all of the paradigms described by Zeichner (1983) and under the umbrella of the inquiry-orientated paradigm, many eclectic models of teacher education have emerged. The reality of what the student teacher actually experiences in the practicum setting may differ from what is espoused in the curriculum for the practicum. In particular, approaches to learning to teach have emerged that include the recognition of processes for reflective practice (Schon, 1983), the notion of self of the teacher, the recognition of stages of development of student teachers, and the propensity for student teachers to develop personal, practical theories. These approaches to learning to teach are characterised by a transformative approach. Aligned with these approaches have been the recognition of school personnel as partners in the teacher education process and therefore the emergence of professional learning communities as a concept in teacher education.

The promotion of learning communities comprising partnerships between schools and universities as teacher educators places the practicum at the heart of the experience. At the centre of the school-based practicum learning community is the supervising teacher.

Therefore the type of supervision the student teacher encounters during the practicum may determine success or otherwise of their experience. Pivotal to this situation is the type of supervisory relationship that develops between the supervising teacher and the student teacher within the learning community. As outlined in Chapter 1 of this thesis, current pressures that are impacting on teacher education place more and more responsibility on school-based learning for the student teacher. Therefore, an examination of the literature regarding supervisory practices within the practicum and perceptions of these practices was necessary for this study. This would assist in understanding the possibilities of mentoring in the learning environment of the extended practicum. Section 2.4.2 of the present chapter provides this discussion.

2.3.2. Supervision in the Practicum

The practice of supervision is an activity common to many professions and involves the professional person working with a novice in a dynamic learning environment. In teacher education, the professional person who assists or mentors the novice is usually a classroom teacher. There are also other members of the school environment, such as the administration team and other teachers, who may play a role in the process. As scholarship in the practicum increases, more is learnt about the nature and function of the role of mentoring or supervision. Its historical roots lie in an apprenticeship model where the role of the mentor was to model good teaching and assess the novice teacher. Thus the role has now changed to reflect current constructivist and critical inquiry perspectives where both mentor and student teacher are co-members of a learning community travelling further into the life-long journey of learning to teach (Fairbanks, Freedman & Kahn et al., 2000).

Defining Supervision

Reflecting the ever-changing knowledge base relating to learning to teach, one clear theme has become apparent. This theme reveals that defining the role of the supervising teacher or mentor is both difficult and challenging as the role is complex and constantly evolving (Hawkey, 1997). Even the nomenclature for the role has been disputed, with some scholars suggesting it should be 'supervisor' while others suggest 'mentor'. Ralph (2003) believes that orientations within the role reflect cognitive development psychology. Thus he contends that the role is one of instructional supervision as it is an educational leadership process where an expert assists the less experienced to acquire new professional knowledge and skills and improve the existing ones (p. 29). In contrast, Anderson and Shannon (1988) suggest the term *mentoring* and describe it as a nurturing process in which a more "skilled experienced person,

serving as a role model, teaches, sponsors, encourages, counsels, and befriends a less skilled or less experienced person for the purpose of promoting the latter's professional and/or personal development" (p. 39). As both descriptions of the role contain similar features, the terms tend to be used interchangeably. As the debate regarding nomenclature of the role is beyond the scope of this thesis, either term will be used in this study. As this thesis examines perceptions of an extended practicum learning environment, it is the nature and functions of the role of mentor/supervisor as they affect the learner that is a critical focus, rather than the nomenclature.

In a study designed to examine the function of the role, Wildman, Magliero, Niles and Niles (1992) identified features in terms of personal and professional assistance for the novice. With regard to 'direct personal/professional assistance' Wildman et al. (1992, p. 208) noted the activities of encouraging and supporting where praise, notes of appreciation and encouragement for the student teacher were in evidence. Regarding 'indirect personal/professional assistance', the mentor teacher identified what they could learn from the student teacher in terms of enthusiasm and having fun when teaching. Wildman and others reported that relationship factors seemed very significant to the support-type activities. Wider scholarship has also described mentoring in terms of activities inherent within the role. Some of these have been variously described as being a model and instructor (Furlong & Maynard, 1995), an advisor (Hawkey, 1997), a co-enquirer (Feiman-Nemser, Parker & Zeichner, 1993; Furlong & Maynard, 1995; Tomlinson, 1995), an assessor (Martin, 1996), a challenger (Martin, 1996), an inductor into teaching (Feiman-Nemser et al., 1993), and a coach or supporter (Hawkey, 1997; Maintino, 2000; Tomlinson, 1995).

Approaches to Supervision

As suggested by Martinez (1998), a teacher's approach and style of supervision appear to mirror the paradigm of teacher education within which the individual teacher operates. Early paradigms of learning to teach reflected the Traditional Craft model introduced in the previous section. This approach placed the mentor in the role of expert where the role of the student teacher is to mirror and reproduce the behaviours of the expert mentor teacher.

Further mentoring practices tend to reflect key aspects of the Behavioural Science paradigm. Within this paradigm, each model or approach had a specific focus as mentors prepared set tasks for the student teacher to master in order to be successful.

These models or approaches included:

- the *Clinical Supervision* approach where the role of the supervisor was to provide objective feedback on problems, to diagnose and solve instructional problems, to assist teachers develop skill in using instructional strategies and to assess (Acheson & Gall*;*1997, p. 13-14);

- the *Accountability Movement* approach which focused on student outcomes as a focus of student teacher assessment and performance (Hopkins & Moore, 1993, p. 94);

- the *Artistic Supervision* approach (Eisner, 1982) where the supervisor needed to be wise and experienced, aware of all the interacting dynamics of classroom teaching promoting teaching as 'an art that changes according to a variety of conditions that do not fit into pre-conceived, lock-step, models of how teachers must teach' (Hopkins & Moore, 1993, p. 94);

- the *Self-Assessment* model (Bailey, 1981) where the role of the supervisor is viewed as open-minded, a critical friend, as an objective observer assisting the student teacher to collect, self-assess realistically (Hopkins & Moore, 1993,p. 95);

- the *Scientific Supervision* approach (Russell & Hunter,1980) where the role of the supervisor is to improve teaching through a sequence of activities, including diagnosis of learner needs, creation of specific objectives, inclusion of anticipatory set (focusing attention, reviewing previous work), perceived purpose, learning opportunities, modelling, checking for understanding, guided practice, and independent practice (Hopkins & Moore, 1993, p. 93).

Emerging from the discipline of developmental psychology was the *Developmental Supervision* model (Glickman, 1985). This model called for supervisors to recognise that student teachers were not all at the same developmental point. In this model, the role of the supervisor is to assist a student teacher to develop and use thinking skills to diagnose and fix problems in classroom practice (Glickman, 1985, Hopkins & Moore, 1993, p. 92). Supervisors should match their assistance to the student teacher's conceptual level, with the ultimate goal of the student teacher taking charge of their own improvement. Three primary styles of developmental supervision have been developed. In the *Directive* style the students need frequent support and the use of advance organisers; these students have concern for self and cannot move on to concern for others. Another style is *Collaborative* and a third style is *Non-directive* where the students practise abstract thinking and need non-directive behaviours. With each style of supervision, there are supervisory behaviours ranging from clarifying, presenting, demonstrating, directing, standardising and reinforcing (through listening,

presenting, problem-solving and negotiating to listening, clarifying, encouraging and presenting) (Glickman, 1985, Hopkins & Moore, 1993, p. 93). Within this model, there are two types of student teacher variables evident—type of commitment of student teacher and abstract thinking level of student teacher. Developmental supervision is a process that encourages supervisors to analyse the developmental level of student teachers and to develop supervisory behaviours based on these levels.

Promoting a critically reflective approach to teacher education as well as developmental psychology, Maynard and Furlong (1993) conceptualised three models of mentoring to reflect the five identified stages of student teacher development. These included the *Apprenticeship* model, involving the supervising teacher as the master; the *Competency* model, where the supervising teacher models and coaches; and the *Reflective* model, where the supervisor encourages critical, reflective inquiry (Maynard & Furlong, 1993). The mentor would still introduce the student teacher to the technical aspects of teaching and the range of teaching models, but would also encourage the learner to critically analyse their own performance in terms of their own learning and the impact on the performance of the child as learner. A supervising teacher using this orientation to the role would encourage the student teacher to reflect critically on all aspects of teaching to learn about themselves as a teacher. It would also encourage them to not just accept the role of the mentor as the only model of a good teacher but re-creating the role through recognition of what the individual can bring to the role, therefore reconceptualising the role of the teacher in a flexive, reflexive manner (Maynard & Furlong, 1993).

In examining the work of Maynard and Furlong (1993), Hawkey (1997), states that while there were worthwhile aspects within these models, they were only partially effective and sometimes not adequate at different stages as the discreteness of these models did not acknowledge the personal and idiosyncratic nature of the development of student teachers (Hawkey, 1997). Watzke (2003) provided a reminder that mentoring practices will continually change to reflect current research on stages of learning to teach. For example, in a study designed to investigate Fuller's (1969) stage theory in terms of the experiences of a cohort of 82 first-year pre-service teachers and a cohort of 76 second-year pre-service teachers, Watzke (2003) developed and administered a version of the *Teacher Concerns Checklist* (TCC) (Fuller & Case, 1971). The findings of this study were not consistent with the stages of student teacher development identified by Fuller (1969) and Fuller and Case (1971). The investigators found that the student teacher's concern for self in terms of survival

was not as strong as Fuller's (1969) stages would indicate. However, the age and maturity of the cohort may have influenced the findings.

In 1999, another model reflecting an inquiry-oriented approach emerged. This was the blended teacher preparation program (Maxie, 2001). This model emerged as a result of the call for a learning to teach system supported by a coherent infrastructure that unites policy and practice (Darling-Hammond, 1998). The essence of the program is the integration of subject matter preparation and professional studies linked to an intensive field experience program in the early years of the undergraduate program (Maxie, 2001). In this program, the role of the supervising teacher or mentor is to scaffold student teacher learning and assist them to translate theory into practice. Out of these different approaches a number of features of supervision practices have emerged.

Features of Effective Supervisory Practices

While teachers grapple with different models and approaches to supervising student teachers, a number of features of supervision practices have been identified in the literature (Babkie, 1998; Carver & Katz, 2004; Evertson & Smithey, 2000; Futrell, 1988; Long, 1997; Pell, 1997; Seabrook, 2001). Several writers have discussed the qualities and characteristics of effective mentors and conditions that facilitate effective supervision. Both Babkie (1998) and Futrell (1988) described the key feature of effective supervision as relating to personal and professional needs of student teachers. Effective mentors and supervisors need to be able to deal with survival anxieties, self-concept issues, and the reality shock surrounding student teaching. Long (1997) cites three key principles of effective mentoring which concur with those of Wildman et al. (1992). These include principles of practice of the mentor, which involve "emotional and psychological support, direct assistance with career and professional development, and role modelling which is focused on achievement of skills and knowledge within the organizational context which will ultimately lead to enhanced practice and broadening of values of participants" (Wildman et al., 1992, p. 116). Berliner (1987), Borko and Livingston (1989) and Galton (1989) agree that effective supervisors are competent teachers who are able to make decisions about teaching processes based on established rules and patterns using the wisdom of their personal experience and the culture of the context of the teaching. However, Borko and Livingston (1989) go further to indicate that expert teachers and supervisors are those who are more than competent and can improvise and respond to varying contexts with ease.

Intrapersonal skills of relationship and support also appear to be common features of positive mentoring practices (Shantz & Brown, 1999). In a review of the roles of mentors, Hawkey (1997) outlined how Brooks (1996) investigated the opinions of 150 mentors and their beliefs about the skills and qualities they believe were significant to the role in order of importance. The area of relationship with student teachers was seen as crucial with 40% of the mentors indicating interpersonal skills above professional experience, personal qualities and subject/specific expertise. Hawkey (1997) explored this area of importance of relationship to the mentoring role by discussing the work of Martin (1994) who had studied stages of development in mentor and student teacher relationships. Through this work, Martin (1994) identified three stages that relationships moved through including formal, then cordial and finally friendship. The first stage was described as a more formal stage where the teacher and student teacher first came into contact, then this moved into the cordial stage where the relationship reflected characteristics such as trust, respect, constructive criticism, guidance and emotional support as the student teacher faced struggles at both personal and professional levels. The final stage of friendship was characterised by the mentor teacher demonstrating confidence in the student teacher by allowing more autonomy in classroom teaching.

Hawkey (1997) was critical of this work, finding it "simplistic as it only described the style of relationship rather than the effectiveness or ineffectiveness of the relationship in achieving its intended purposes or outcomes" (p. 325). He suggested that effective mentoring was a much more multifaceted style of relationship and was a complex web of interacting elements including personalities, interpersonal skills, the psychosocial features of the context of the relationship, the educational expertise and experience of the mentor and mentee and the mentor's orientation to the role of mentoring. While recognising the complexity of the interacting elements and the problematic nature of relationships in mentoring, Hawkey (1997) still identified the quality of the relationships the student teacher's experience in the practicum setting as being crucial.

It seems that how the mentor perceives the relationship and support role in mentoring is a determining factor in their performance in the role (Schulman, 2004). Whether the mentor perceives the role to be one of "parent, scaffolder, trouble-shooter or supporter" influences the way they perform the role (Hawkey, 1997). The work of Daloz (1986), who explored the characteristics of support and challenge in learning relationships, may shed light on these features that are inherent in mentoring relationships. Daloz described support as a caring, affirming activity, whereas challenge existed in the gap between the student and environment. This gap created tension in the student that demanded closure. Daloz (1986) examined

different combinations of support and challenge—when the level of support was low and the challenge to the learner high, the learner tended to retreat from the learning situation.

In contrast, when the learner was provided with high support and low challenge, the learner felt a sense of confirmation about their learning and was not prompted any further. When the learner was offered low support and low challenge in the learning situation, the learner stayed steady and did not develop. In contrast, when both support and challenge were high, the learner made progress and was shown to develop. Hawkey (1997) postulated that this combination of high support and high challenge created cognitive dissonance for the learner and this sense of unease seems necessary in teacher education for student teachers in the practicum setting to foster growth and change.

McNally and Martin (1998) examined mentoring in terms of the Daloz's (1986) work and subsequently developed typologies of mentors. They studied a small sample of mentors working with students learning to teach mathematics in a post graduate teacher education course. Type A mentors tended to be nurturing and supportive, providing little challenge to the learner and therefore the student teachers working with the mentor were found to stagnate. This finding resonated with the work of Daloz (1986) regarding high support and low challenge. By contrast, where the Type B mentors were found to combine both high support and high challenge, the students felt empowered and able to engage more readily in reflective processes about their teaching. A third typology, Type C, described mentors who perceived themselves as authorities in the role, with strong sense of self but engaged little with the student and thus left the student feeling unsupported and overwhelmed. Hawkey (1997, p. 326) was critical of these typologies regarding them as being "idealised, non-exhaustive conceptualization of mentor styles". However, when exploring the role of support and challenge in mentoring, Hawkey (1997) cited research conducted by Cameron-Jones and O'Hara (1997) which found that the supportive function of the mentoring role was seen as more important than the challenging role. Reasons for this may include a teacher's lack of courage in putting the friendship, support relationship at risk with the student teacher (Elliott & Calderhead, 1993) or a lack of confidence or expertise on the part of the mentor to tackle some issues (Booth, 1993).

As Jacques (1992) postulated, this scenario can represent a flaw in the mentor–student teacher relationship where the mentor tends to ignore difficulties as they might not know how to deal with them and not want to upset the student teacher. This is supported by the findings of Haggerty (1995) who examined conversations between mentors and student teachers and

noted that mentors were able to promote discussion when student teachers described their ideas, but did not appear willing to challenge the ideas of the student teacher or felt they could only make judgements the student agreed with. As Hawkey (1995, p. 328) stated "mentors may feel that beginning teaching offers sufficient challenge without adding to them" and therefore the mentors do not involve the learners in critical discussion about their teaching as they may not be able to know exactly what they do or articulate it (Feiman-Nemser et al., 1993). It seems then that the teachers are prioritising support over challenge.

In establishing appropriate conditions for an invitational mentoring environment that does not promote support over challenge student teachers, Cannon (1998) cites a number of practical ways for successful mentoring. In particular, she suggests that it is important for teachers to set the stage for success, to bring the student into the role of classroom teacher in a slow and easy process. She states that this can be achieved by allowing the student teacher time to respond to letters that children in the class have written to the student, by sharing classroom teaching by dividing the class into groups and the student teacher observe the teaching working with one group and then the student practise what they observe by teaching another group. This approach promotes a practicum learning environment characterised by establishment of collaborative, positive relationships. Ewing and Smith (2002) suggest that this is necessary as an inquiry-based notion of teacher education requires such renewal and change to the learning environment to assist student teachers to communicate and understand complexities of the teaching environment.

Inquiry-orientated practicum environments need to be characterised by strong relationships, good/open dialogue and a reflective approach and formation of flexive and reflexive learning communities. In discussing ways to promote this, Cannon (1998) and Darling-Hammond (1994) called for new models of teacher education incorporating collaborative, professional partnerships between schools and universities that serve as exemplars of practice, builders of knowledge and vehicles for communicating professional understanding among teacher educators, novices and veteran teachers.

Collaborative Learning Communities

A number of scholars have discussed features of collaborative learning communities that provide practicum environments that are characterised by an inquiry orientation (Babkie, 1998; Cannon, 1998; Ortlipp, 2003; Schilling, 1998; Zeichner, 1983). The features needed for these practicum environments include supportive relationships, effective communication processes, openness, an invitational manner, open dialogue and opportunities for development

of individual styles. Babkie (1998) developed a set of principles for successful supervision that included: stopping problems early, clear the air with students quickly to clarify misunderstanding, observe religiously, offer specific feedback on teaching, document everything that occurs, collect data as evidence, meet frequently with the student teacher, model good practice, practice supervision often, audiotape and/or videotape your student to provide accurate basis for feedback and discussion. However, it is notable that, while Babkie highlighted the importance of interpersonal aspects of supervision, she emphasised a renewed responsibility for supervising teachers in these collaborative ventures. While advocating for support, encouragement and reward for students, good communication with students, acceptance of differences in student teachers, she suggested that the supervisor be open to constant self-evaluation. In this way, she emphasised that supervising teachers should view all experiences with student teachers as an opportunity to learn.

While the supervising teacher is a key member of the practicum environment, some writers emphasised the importance and impact of other people in the broader practicum learning environment (Kremer-Hayon & Wubbels, 1993; Hopper & Sanford, 2004). Hopper and Sanford (2004) emphasise the importance of multiple voices in practicum learning environments as others help student teachers engage in self-study through teacher conversations. This assists the student to develop their own teacher identity. The authors recognise that student teachers are caught in a space between university cultures and school cultures and they have to face and negotiate all of the competing demands of the practicum, whilst at the same time moving from a student teacher mindset to a teacher mindset. Hopper and Sanford (2004) suggest that student teachers need collaborative, positive relationships and support from all members of the practicum learning environment if they are to develop a professional identity. For this development to occur, certain conditions need to exist in the learning environment.

Fostering Student Teacher Development

In a qualitative study to examine pre-service teacher growth from student to teacher Page, Rudney, and Marxem (2004) followed the development of six pre-service teachers throughout their teacher education program. They were interested in "student teacher growth and development in the context of a constructivist, developmental and standard-based program" in terms of how they "contextualised their roles, grew as teachers and what they needed to grow (Page et al., 2004). The researchers were interested in the students' processes for learning to teach in terms of four types of teachability – low ability/high teachability, high ability/low

teachability, low ability, low teachability and high ability/high teachability. However, in examining the needs of the different student teachers in relation to their mentoring needs from the university faculty and the cooperating teachers, individual needs seemed to vary with regard to the combination of their ability and teachability. It was found that students with a high teachability disposition were able to grow into a teacher role more quickly and effectively than those involved in the study who did not acquire these dispositions until near the end of the experience (Page et al., 2004). It was also found that the students varied in response to how much time was expended by supervisors with each student in terms of in-depth discussion and providing advice and support. Not surprisingly, extended time was spent on students with low ability and low teachability.

In terms of critical feedback to students, students with higher ability and higher teachability were given feedback that was positive and resulted in discussions at a more complex level about the teaching/learning process. By contrast, students with a lower ability and lower teachability had feedback that stayed at a more basic level concerning ideas for improvement on basic instructional techniques. Similarly in the area of encouragement, students with higher ability and higher teachability, were performing at a more professional level and sought more critical feedback and encouragement from their supervisors; whereas students with lower ability and lower teachability were insecure and sought reassurance from an emotional perspective.

A study by McLoughlin and Maslak (2003) examined aspects and outcomes of a program designed to allow student teachers opportunities for professional growth as they spent extended periods of time working as homework tutors in a literacy program. The study found that the experience provided students with opportunities to develop personally and professionally. Through learning to plan and reflect on the outcomes of their planning, they participated in dialogue with experienced teachers. This feature of the experience helped to develop them both personally and professionally (McLoughlin & Maslak, 2003). As approaches to teacher education moved even further towards professional partnership, practices that encourage this sort of reflection and inquiry become very important.

Challenging the traditional or conventional design of teacher education courses which they claim reflects a belief that learning to teach is a two-step process of gaining then applying knowledge, Perry and Power (2004) promoted an alternative model. This model called for extended experiences for student teachers "in working with teachers in schools which can keep local, systematic inquiry as the central force for development, collaboration, and

generating knowledge for pre-service teacher" (Perry & Power, 2004, p. 126). These experiences reflect a constructivist, transformative approach to teacher education where student teachers construct knowledge through dialogue, reflection and inquiry aided by experienced mentors. These experiences led to the creation of models where the notion of university/school partnerships were transformed into a community of learners incorporating student teachers, university teacher educators and school-based educators participating together in systematic inquiry to learn more about teaching together in terms of the multiple roles and contextual complexities of life in schools for careers as inquiring professionals (Perry & Power, 2004). Student teachers also participated in a smaller way in the inquiry and university personnel participated in the inquiry through their work with the students during the practicum.

Smith (1998) also provided an approach where reflection, support and cooperation are features of collaborative partnerships. He promoted the notion that the student teacher and the teacher should be in a process of learning from each other. He devised a plan for effective mentoring that proceeds through five phases, where the supervisor provided conditions so that the student teacher progressed from the role of assistant to a teacher with autonomy and independence.

While these collaborative ventures between schools and universities were being developed, theorists began to focus even more on the responsibility of the teacher in the emerging professional partnerships. Yendol Silva and Tom (2001) suggested that the mentoring of student teachers be based on a moral perspective. They called for greater responsibility in nurturing student teachers that reconceptualises mentoring so that it is based on authentic participation by mentors or supervisors. Such participation requires professional development of supervising teachers in a "pedagogical space to create a growth oriented experience that would meet the needs of both the children in the classroom and the specific intern to whom they had committed themselves" (Yendol Silva & Tom, 2001, p. 39). In terms of a moral stance, Yendol Silva and Tom (2001) asserted that mentors should accept professional responsibility for assisting the student teacher to become a teacher and that the mentor should see the role as part of a responsibility to the profession. Lastly, in terms of moral pedagogy, the authors suggest that the mentor help the student teacher to construct their own pedagogical thinking through reflection and inquiry, without pressure for the student teacher to adopt the mentor's ways of thinking and pedagogy.

At the centre of reflective practice and inquiry-based teacher education is communication. Several writers have discussed ways to keep communication lines open during practical experiences for student teachers (Boreen & Niday, 2000; Burant, 1999; Evans & Policella, 2000; Hanifin, 1993; Le Cornu, 1999). Groundwater-Smith (1999) called for teacher education with a *culture of discourse*. Building on Habermas's idea that life experience is constructed in communication with life experiences and that our lives are a series of intersecting narratives, she promoted the importance of communication in reflection to translate experience into learning. She called for teacher education programs to be characterised by this type of discourse, especially in the learning to teach phase. Therefore, mentoring in a practicum environment characterised by good communication, inquiry, reflection and transformation requires the provision of professional development and learning for mentors and supervisors so they have some direction to perform the role. If schools and universities are to form partnerships as learning communities sharing a joint responsibility for teacher education, each partner needs direction and consensus. The need for direction and training programs for mentors resonates with the work of Mayes (1997) and Dever, Hager and Klein (2003) who believe that mentor teachers play a key role in student teacher learning and that they have a strong influence on the development and success of student teachers with whom they work.

In terms of professional partnerships and the provision of inquiry based teacher education, Zeichner (1993) also sounded some warnings regarding challenges inherent in these practices. He expressed a concern that if professional partnerships simply meant putting student teachers into schools for extended experiences without a shared commitment by all members of the learning community to participate in transformative teaching practices then the experience could result in creating 'more of the same' rather than all members of practicum learning communities reflecting together to change and improve current practices. As Cochran-Smith (2001) states, collaborative learning communities focussed on transformation and improvement will result in teachers who teach 'against the grain' and make classrooms socially just places and sites for social change. Zeichner (1993, 2002) continues to call for the development of professional communities but wants schools, universities and teachers to share a joint responsibility for preparing future teachers. The learning environment should be characterised by commitment to continued professional learning and renewal by all members of the practicum learning environment.

Thus far, the review of supervision practices in the practicum has revealed that positive relationships, support, open communication, opportunities for personal growth are important

aspects of current approaches to supervision in teacher education programs embedded in an inquiry-based, collaborative paradigm. Both school-based teacher educators and university-based teacher educators can be involved in the creation of new theories and practical strategies for improving the practicum in teacher education. As the present study focuses on the perceptions of the participants of the practicum, the next section of this chapter examines literature in this area.

2.3.3 Participants' Perceptions of the Practicum

The key people in practicum learning environments are supervising teachers and student teachers. Therefore, it was important to review literature on how mentors and supervisors perceive their role and how they conduct themselves in the learning environment. This literature was also useful in helping to identify significant dimensions of practicum learning environments. The following three subsections provide brief reviews of research that elicited supervising teacher perceptions, student teacher perceptions, and both supervising teacher perceptions and student teacher perceptions of the practicum.

Supervising Teacher Perceptions

In relation to how mentors or supervising teachers perceive their role, Elliott and Calderhead (1993) and Jones, Reid, and Bevins (1997) found that mentors viewed their function as 'good' or 'effective' when it incorporated aspects of practical help. This included providing guidance, observing students' teaching and classroom management, providing feedback, being good listeners or 'friends' for whom the mentor-student relationship is most important, modelling and advising on teaching and classroom management, helping with time management, providing encouragement and support, and introducing student teachers to school life. Wright and Bottery (1997) found that mentors thought their most important tasks were helping students with in-classroom practical issues such as lesson objectives, planning, classroom management, developing good relationships with pupils and getting the best out of pupils. Interestingly, the great majority of these mentors perceived their role as being responsible for evaluating and advising students about lessons.

One study by Beck and Kosnik (2000) showed that supervising teachers perceived the supervision role as an opportunity for professional growth, but also challenging. The researchers conducted a study over two years to examine how supervising teachers perceived and conducted their role. It was a qualitative study utilising semi-structured interviews with 20 teachers. The interview process was informed by the findings of a previous questionnaire

that had gathered information from 53 student teachers regarding their experiences of supervising teachers. The findings indicated that the teachers found the supervisor role satisfying and that they had learned from the experience. They felt enriched by the fresh ideas of the student teachers and felt encouraged to look at their own classes in different ways. The teachers also reported that they gained both personally and professionally from the development of relationships with university colleagues (Beck & Kosnik, 2000). Teachers indicated that the role was time consuming, that it could be disruptive to the class and could be difficult with a weak student teacher (p. 211). The teachers indicated that they believed student teachers could learn how to plan lessons quickly from them and they could provide them with practical opportunities. They also indicated that their role was to be supportive, friendly and positive and to help the student teacher to relax.

However, the student teachers commented that the teachers were not as open to them and they felt pressured by the teachers. Student teachers perceived that the teachers had a demanding attitude, that there was a fair degree of tension and less empathy and rapport than the teachers reported, and that their university supervisors were more supportive of them. Teachers felt that the student teacher's stress could relate to the fact that the supervising teachers had to complete evaluations of them that could determine future employment. They did not relate the stress to their interactions with the student teachers or the work load they were experiencing (Beck & Kosnik, 2000).

In terms of preparation for the role as supervising teachers, these teachers showed little interest. They wanted their student teachers to be involved in action research but did not see a role for themselves within it. They believed their teaching role was heavy enough without any additional load of preparation to be part of a professional partnership in teacher education. Overall the study found that teachers saw their supervising roles as rewarding and satisfying, but further dialogue was needed between schools and universities. The supervising teachers saw their role more as teaching the practicalities of teaching and believed they were supportive of the student teachers. Many of these findings resonate with the work of Elliott and Calderhead (1993), Jones, Reid, and Bevins (1997) and Wright and Bottery (1997) who also found that supervising teachers tended to focus on practical issues. The study revealed how perceptions of the same practicum learning environment can vary significantly amongst participants of practicum learning environments.

In a study designed to examine the impact that supervising a student teacher has on the mentor teacher's reflection on practice and changed teaching behaviours, Weasmer and

Woods (2003) conducted and analysed data collected from standardised formal interviews using an open-format with 28 public school teachers. The focus of this investigation was the explicit descriptors of what student teachers need to be able to do and how this could be achieved with guidance from the their supervising teacher. The mentor teachers identified a number of benefits to themselves in being mentors to student teachers, including the general view that supervising a student teacher resulted in an increased reflective stance.

Other advantages included an awareness of their own pedagogy as shown in the modelling for students, a sense of validation in terms of the effectiveness of their teaching practice, an exposure to innovative practice gained from ideas from student teachers, opportunities for a forum for reciprocal learning and the development of a sense of collegiality in the classroom (Weasmer & Woods, 2003). While the researchers saw potential, positive opportunities for the mentor teacher, they also sounded a warning that student teachers should be given the opportunity to work with a range of teachers who have varying strengths, thus considering the "potential influence of student teachers and carefully match mentors with mentees" (Weasmer & Woods, 2003, p. 70). Recognising that a student teacher's culminating field experience becomes the capstone of their teacher preparation, it was suggested that guided immersion in the field was a critical factor in the experience for the student teacher.

While recognising the important role of clarity of university expectations of the student teacher participating in the experience, Woods and Weasmer (2003) emphasised the importance of the supervising teacher because "student teachers spend far more time with their co-operating teacher than with university supervisors" (p. 682). Outcomes of this study revealed three key expectations. First, student teachers must display a professional demeanour, because a profession has responsibilities and therefore the teacher is seen as a positive role model in the community and should dress professionally (Woods & Weasmer, 2003). Second, supervising teachers expected student teachers to keep a professional distance from learners but still establish a warm rapport with them. Third, student teachers need to be adaptable and flexible to changes of routine.

To enable student teachers to meet these expectations, the teachers saw their role as providing the students with the opportunity to immerse themselves in the broader context of teaching by including them in meetings with a diverse range of parents, other staff and administrators and modelling professional behaviour. While cooperating teachers were generally satisfied with university guidelines, two of the sample identified a lack of specific direction from the university in terms of the role of mentoring. They also saw their role as developing positive

relationships with university personnel as an important part of the preparation of the student teacher for the broader role of the teacher (Woods & Weasmer, 2003). The teachers recognised that communication between the host teacher and the university supervisor is integral to providing a quality experience and it was recognised that often the rapport established between the host teacher and the university supervisor makes the difference in terms of how communication and development evolve.

In a British project designed to examine the *Explicit Mentoring Scheme*, a program to foster effective mentoring by supervising teachers, teachers were asked to describe their perceptions of their role in terms of outcomes and the learning processes for interns (Lathtean, Hagger, & McIntyre, 1997). It was noted that there was a lot of discourse about the mentors themselves. In discussion of the role, the mentors revealed how they tended to evaluate their own performance through remarks such as "I could have done better", or "I talk too much" (p. 136). In terms of their rationale and goals for mentoring, they outlined outcomes they wanted the student to achieve. Once again, in terms of discussing their outcomes and effectiveness in the role, they measured the interns on whether they were able or unable to do something. With regard to the learning process of mentoring, the mentors did not discuss this in terms of how they felt student teacher learning was facilitated by aspects of mentoring—instead speaking of specific incidents. When asked about the characteristics of interns, the mentors described how different interns should try different things in different ways.

Mentors cited a number of challenges to effective mentoring. They cited lack of time, logistics of school timetables, and uncooperative school colleagues as barriers to mentoring. However, as to whether the role was good or bad, the decision linked to the experience with different interns. Those who had had a good intern cited it as a good experience; those who had had a problem with an intern cited the opposite. In relation to learning, the mentors mentioned contact with the university, curriculum tutors, reliance on their own resources and experience, past experiences, commonsense and learning by doing the job, meeting with other mentors at the university, involvement in the special diploma in mentoring and the documentation about the internship. Interestingly, the authors commented that all of these aids to learning came from outside the school setting (Lathtean et al., 1997). However, when asked to respond to the usefulness of the materials provided to assist with the mentoring process, the results showed that the mentors had not internalised the materials but they still approved of them. The researchers found clear evidence that mentors liked discussing the role, were concerned about student teacher experiences in different contexts and were keen to

discuss characteristics of students. However, the researchers also found that there was little focus on the teachers' own actions and the role that they undertake in student learning.

Student Teacher Perceptions

Two key studies that have specifically sought the perceptions of student teachers were conducted by Martinez (1998) and Mayer and Austin (1999) (see Chapter 1). In both of these studies, the student teachers' perceptions of good supervisors and good supervisory environments were ascertained. In the Martinez (1998) study, features of good supervisors were supportive, warm, friendly, approachable, good role model, give professional advice, accept mistakes, not pedantic, organised, and enthusiastic. In the Mayer and Austin (1999) study, students described good supervisory environments as those where relationships, communication, professionalism, commitment and a critical approach were evident.

In a study conducted in 1997, Hansford and Brooker surveyed student teachers to find out the dimensions that underpin a student teachers' capacity to achieve their expectations in relation to practice teaching and what factors student teachers perceive as either contributing or limiting their effectiveness. The students identified a number of limitations, including lack of teacher feedback, lack of teacher support, teacher absence, and needing to conform to teacher control and expectations. Additionally, the need for a good class, the feeling of being a temporary teacher, the concern about discipline, and not having across the board experiences were also mentioned. At the school level, the students cited lack of resources, a lack of collegiality in a school, no access to resources, and no opportunities for extra-curricula activities. The same items were cited in the reverse as contributing factors to a positive experience. The student teachers reported on a number of factors relevant to the supervising teachers that contribute to the effectiveness of their practicum.

Utilising a grounded theory approach, Dunn, Ehrich, Mylonas and Hansford (2000) investigated student perceptions of the role and purpose of field-based practice, their perceived outcomes of the experience and a critical incident inherent in the experience. Semi-structured interviews with 39 students were conducted to ascertain student perceptions. Students identified the importance of the relationship with mentors as role models, the significance of context of the experience as a site for socialisation into the culture of the workplace, and opportunity for development of confidence in terms of personal growth as important outcomes of the experience. In exploring the students' comments, the researchers cited three particular outcomes of the study. They identified the need for university lecturers to be more pro-active in supporting students and making the links between theory and practice

more evident to students, the need for collaborative partnerships amongst university and field-based staff and that universities allow more time and resources for professional practice (Dunn et al., 2000).

At a time when accountability, achieving standards and demonstrating outcomes are a focus of teacher education, Goldstein and Lake (2003) signal the importance of remembering that caring is indeed a facet of good teaching and that teacher educators must make caring an important part of teaching programs (Goldstein & Lake, 2003). Due to this strong interest in the dimension of caring, they conducted a study to examine pre-service teachers' preconceived understandings, perceptions and beliefs of caring and how those perceptions impacted on their initial field experience and their perception of the role of the teacher. A number of the students perceived caring initially as akin to love on a level of babysitting. While not being sure how exactly the development of caring student teachers evolves, the writers do suggest that in their study that the student teachers' vulnerability and confusion offer teacher educators a lot of teachable moments and offer the novices a range of opportunities for professional growth that may assist to develop ideas of caring teaching that will stay with them throughout their teaching life (Goldstein & Lake, 2003).

In a another study to examine how effective mentors supervise student teachers, Fairbanks et al., (2000) collected data from 15 experienced teachers and their assigned student teachers. These teachers had excellent reputations as supervisors and had between 4 and 20 years' experience. According to the student teachers, features of effective supervision included welcoming student teachers into the classroom, offering advice about school programs and how to keep a balance between administration and teaching, modelling how to negotiate professional relationships and being willing to respond to questions. From a professional perspective, the effective supervisors shared craft knowledge and the thinking underlying their practice. They shared reflections and kept dialogue open with the student teacher through questions. They accepted differences in practice and established a relationship with their student teachers that would foster professional growth through reflective dialogue. Overall, the study found that effective mentors "act as fellow travellers, tour guides, diplomatic counsels, or on occasion, organizers of refugee centres …[and in all these types of relations] … they share the wisdom of their experience on the road and our student teachers can learn much from the stories they tell" (Fairbanks et al., 2000, p. 109).

Other literature revealed student teachers' expectations of their mentors. Zanting, Verloop and Vermunt (2001) gathered perceptions of 30 student teachers studying secondary teaching in

the Netherlands about their beliefs of good mentoring. Seventy-two per cent of the student teachers expected the mentor to provide emotional support. The student teachers were expected to be open-minded and accepting of criticism and flexible and they expected their supervising teachers to be honest, respectful and involved with them. Fifty per cent of the student teachers wanted to "share their mentor's experiential knowledge and make use of their teaching expertise" (p. 64). They wanted their teachers to be evaluative and give feedback. The student teachers also wanted to be introduced to school life, practical issues, procedures and overall school goals and curriculum; they also wanted to be self-regulating, taking initiative and to develop their own teaching ideas and styles and be able to analyse teaching style. Interestingly, 33% of the student teachers did not see that their mentor as their only role model and therefore did not seem as fearful of them and did not perceive that they had to be a clone of the teacher. Overall, this study noted there can be mismatches between mentors and mentees and that the supervisory environment should have an emphasis on the self and interpersonal support. Mentoring needed to match the level of the mentees' self-regulation and mentors needed to articulate their practical knowledge (Zanting et al., 2001).

Supervising Teacher and Student Teacher Perceptions

Some studies have provided insights into the shared perceptions of the practicum learning environment by both student teachers and supervising teachers. Work by Sudzina, Giebelhaus and Coolican (1997) revealed student teacher perceptions of characteristics of effective supervisors. They had previously conducted a study of 25 cases of students who had failed the practice teaching component of their teacher education course. The findings recorded weak classroom skills but also placement difficulties relating to personal conflict, philosophical and cultural misunderstandings, poor relationships and mismatches between student teacher and supervising teachers.

In seeking to explore further the features of the mentoring relationship, these researchers conducted another study of 74 student teachers and 13 cooperating teachers to ascertain their perceptions of what qualities a mentor should possess, what the responsibilities of the mentor and the mentee should be, and what factors do each group perceive as contributing to a successful practice teaching experience for the student teacher (Sudzina et al., 1997). Student teachers identified key qualities of a supportive role model (p. 25). They saw their role as needing to work hard, being willing to change as well as try new things but definitely identified success in practice teaching as requiring a positive relationship with the co-operating teacher and a supportive learning environment (Sudzina et al., 1997). One group

perceived the role of the mentor as hierarchical with student teachers needing to do more whereas the other group saw the role of mentoring as a shared enterprise. In terms of what was needed for mentoring programs, both the co-operating teachers and the student teachers overwhelmingly responded that a good relationship, open communication, and a positive work environment were key factors (Sudzina et al., 1997). As a result of their study, the writers promoted the need for mentor education programs and developed a program to help teachers become true mentors, rather than advisers to the students.

To further understand the supervisory or mentoring environment. Williams, Butt, Gray & Leech 1998) conducted a study of the conversations between mentors or supervisors and mentees or student teachers. The researchers recorded, transcribed and analysed 34 discussions between 8 mentors and 15 mentees. Overall, the role descriptors for the mentee were generally grouped under teaching, assessment and personal support. In terms of teaching, most aspects were practical and included advisor; guide; provider of information, regarding pupil management, school policies and procedures and practical strategies; trying new ideas and identifying issues for further action. In terms of personal support, the mentees wanted the teacher to praise and give support (Williams, et al., 1998). The teachers wanted the student teachers to engage in discussion and listen to advice. One key outcome of this study of conversations was that all mentors and mentees had their own varied and diverse perceptions and beliefs about the role and that mentors would need a broad repertoire of skills and approaches to meet the varying perceptions and needs of the mentees (Williams, et al., 1998). This study supported the work of Moore (2003) who also found that perceptions vary markedly amongst the participants but that the student teachers often rejected current theory to teach in the same way as the mentor, rather than risk the disapproval of the mentor. This practice was also noted by Hawkey (1997).

In exploring the roles and responsibilities of mentors, Hawkey (1997) reported on the work of Furlong, Hirst, Pocklington, and Miles (1988) who explored an analytical framework of four learnings for student teachers where university tutors and mentor teachers had differing roles and responsibilities. The writers identified the mentor teachers as being responsible for direct and indirect practice, with university tutors contributing to the student teacher learning in terms of theory of teaching and learning and principles of practice. Student teacher perceptions of this divide in responsibility between schools and universities were also found in a small study conducted by Bennett and Dunne (1996).

However, other researchers have reported ways to overcome this school-university divide. Millwater and Yarrow (1995) conducted a small study with a sample of seven school-based supervisors, two university-based supervisors and six pre-service teachers. They developed and reported on a model to develop meaningful partnerships between school-based supervisors and university-based supervisors during student teachers' 10-week supervised practicum. The model brought together both school-based supervisors and the university-based supervisors, members of the pre-service teachers in a program presented at the school site. The model was designed to extend the knowledge and skills of the school-based supervisors as both explored the critical nature of supervision as a learning community. A key finding was that a partnership between schools and universities means sharing ownership through collaboration, commitment, responsibility in action (Millwater and Yarrow, 1995). For this to occur, it appears that positive relationship within the learning milieu is paramount. This theme has been repeated constantly in research involving both supervising teachers and student teachers in the practicum environment.

Examining this literature regarding the role and orientations to supervision in the practicum learning environment and perceptions of participants of those environments has revealed a number of dimensions that need to be investigated in this study of practicum learning environments at a Catholic university. These dimensions include:

positive, supportive relationships between supervising teachers and student teachers;

positive relationships between student teachers and pupils;

modelling of teaching strategies for student teachers;

provision of both advice and a challenge for student teachers;

organised, knowledgeable supervising teachers;

clarity of instructions and expectations for student teachers;

a reflective, inquiry-based environment;

opportunities for professional growth for the student teacher;

opportunities for the student teacher to have some autonomy in the classroom;

opportunities for student teachers to ' teach against the grain';

committed student teachers and supervising teachers.

As this study focuses on the application of learning environment research to the practicum, it was also important to examine literature in this area. This literature is presented in the next section of this chapter.

2.4 RESEARCHING THE LEARNING ENVIRONMENT OF THE PRACTICUM IN TEACHER EDUCATION

The purpose of this section is to review research on the learning environment of the practicum in teacher education. Because only a few studies have researched psychosocial dimensions of this practicum, analogous research of relevance to the present study has been presented. While Section 2.4.1 focuses on specific learning environment research, Section 2.4.2 present this analogous research. Section 2.4.3 summarises this section by listing the key dimensions of the practicum learning environment.

2.4.1 Previous Research on Practicum Learning Environments

One of the earliest studies of student perceptions of classroom environment in teacher education programs was conducted by Duschl and Waxman (1991). The intention of the research was to investigate student perceptual data and assess student teachers' instruction and classroom environment. These researchers conducted two investigations examining relationships that existed among students', student teachers', cooperating teachers', and university supervisors' perceptions. The first study utilised the ICEQ to gather students' perceptions of the learning environment of the science classroom created by the student teacher (Duschl & Waxman, 1991). The second study investigated the instructional behaviours of the student teacher through the use of the Our Class and Its Work (OCIW) questionnaire (Eash & Waxman, 1983). A key aspect of science classrooms is the opportunity to interact with teachers. Findings of the study showed that perceptions of the students and university supervisors were similar in rating opportunities for student interaction with the student teacher. The student teachers perceived them to be higher than did the students and the university supervisor. In terms of the second study, the student teachers' beliefs that they had provided appropriate instructional opportunities for the students was not shared by the students or the supervisors. This study gave support to the proposition that student teachers should be encouraged to conduct studies where student teachers seek the students' perceptions of the learning environment they create in the classroom. The authors saw this as a valid part

of learning to teach which was supported by the later research of Yarrow and others (1997) which is reported in Section 2.2.

Another study that involved student teachers and supervising teachers assessing the same learning environment was conducted by Kiley and Jensen (1998). Their work may provide ideas for a way that school-level learning environment research may help to improve supervising teacher support for student teachers. These researchers used SLEQ to examine cooperating teachers preferred and actual school-level environments and students teachers preferred and actual school-level environments. Both groups responded to the scales Student Support, Affiliation, Professional Interest, Staff Freedom, Participatory Decision-Making, Innovation, Resource Adequacy and Work Pressure. Kiley and Jensen (1998) then conducted a matched-paired analysis to compare each cooperating teacher's perceptions to those of the specific student teacher. The study found that student teachers and supervising teachers had different perceptions of the same practicum environment. Overall, the cooperating and student teachers' perceptions agreed on the preferred learning environment except for Student Support and Participatory Decision making. However, significant statistical differences were found between the cooperating and students teachers on five of the eight scales of the SLEQ. Cooperating or supervising teachers were more favourable than student teachers' actual scores for Freedom, Participatory Decision Making and Innovation. In relation to Work Pressure and Resource Adequacy, student teacher perceptions were more favourable than cooperating teachers. Kiley and Jensen (1998) found that when teachers and student teachers use an instrument such as SLEQ to assess the same learning environment and then the two groups are brought together to share their perceptions and reflections regarding the context, shared perceptions of the environment begin to emerge.

Yarrow and Millwater (1995, 1997) and Duschl and Waxman (1991) asked their student teachers to assess their learning environments. They were also able to develop shared understandings with their supervising teachers about what was happening as a result of their performance in particular contexts. This led to professional growth for all involved in the learning environment. This work has implications for improving the extended practicum learning environment for student teachers at a Catholic university as it appears that supervising teachers need to be prepared with a broad repertoire of skills and approaches to meet the varying perceptions and needs of their student teachers.

In Australia, a small study by Kwan (1995) also used the SLEQ to explore primary and secondary student teachers' beliefs about what makes a good supervising teacher. A key finding of this study was the importance of the teacher's personal qualities and the relevance of those qualities to the type of classroom learning environment created for all learners, both pupils and student teachers.

During 1993, researchers from The Netherlands (Kremer-Hayon & Wubbels, 1993) developed the QTI further to look at the relationship between supervising teachers and student teachers. The development of the QTI is discussed in detail in Section 2.4.2 of the current chapter which outlines important learning environment research, analogous to this study. Based on both the QTI and the Questionnaire on Principal Interaction (QPI)(a later instrument examining principal interpersonal interaction), they developed the Questionnaire on Supervisor Interaction (QSI). The scales were adapted to better fit the teacher/student teacher relationship and included Leadership (DC), Helpful/Friendly (CD), Understanding (CS), Student Teacher Responsibility and Freedom (SC), Uncertain (SO), Dissatisfied (OS), Objecting (OD) and Strict (DO) (Kremer-Hayon & Wubbels, 1993, p. 123). The study involved 113 student teachers in a State Teacher's College in the Northern part of Israel completing the Questionnaire on Supervisor Interaction. In this case, the term supervisor is used to describe the classroom teacher, not university supervisor. While responding to the QSI, the students also completed the Student Teachers' Satisfaction Questionnaire (STSQ) containing ten items, which was designed to measure student teachers' satisfaction with supervision. This data obtained through the use of the STSQ was used for comparison with supervisor types on the communication style typology (Kremer-Hayon & Wubbels, 1993, p. 131). The types of communication styles that emerged included: Directive/Authoritative, Tolerant and Authoritative/Tolerant, Tolerant/Tolerant/Uncertain, Uncertain/Aggressive, and Repressive/Drudging. Of significance to this study, analysis of the two showed that the more helpful the supervisor, the greater the student teacher satisfaction; the more uncertain the supervisor, the less the satisfaction. In general, it seemed that tolerance on the part of the supervisor, combined with friendliness and guidance, leads to greater student satisfaction in the practicum.

The overall outcomes of the study demonstrated that the dimensions of interpersonal relationship borrowed from Leary's (1957) model are generic and may be used to examine the one-to-one relationship between supervising teacher and student teacher. In this study, there was a definite positive correlation between a supervising teacher's communication style that

is positive and co-operative and student teachers' satisfaction (Kremer-Hayon & Wubbels, 1993). Another outcome of this study is also important to research on the practicum in teacher education. The researchers signalled that other aspects of the environment might impact on student teachers' satisfaction. The student centre could be seen at the centre of a circle in the practicum learning environment. As an inner circle, the relationship between the student teacher and teacher were signalled as important, but the researchers flagged that an outer circle effect appeared to affect student teacher satisfaction in the practicum (Kremer-Hayon & Wubbels, 1993). This outer circle included whole school ethos and psychosocial climate. For the current study, this work became the genesis for inclusion of items, at both school and class level, in a questionnaire that assesses interpersonal interactions in extended practicum learning environments.

Responding to concerns raised by the use of the QSI that school-based field experiences serve as an enculturation into traditional teaching roles, Holvast, Wubbels and Brekelmans (1993) looked at socialisation of student teachers by cooperating teachers. It was recognised that the influence of the supervising teacher was considered to be greater than the influence of the university supervisor. The researchers expressed concern that the practicum appeared to have become a technical, utilitarian, functional experience rather than an opportunity for professional growth for the student teachers that was underpinned by an inquiry-oriented approach to learning to teach (Holvast et al., 1993).

To explore the mechanisms relating to this socialisation, they conducted a comparative study of the influence of cooperating teachers on student teachers in the United States and the Netherlands. To see whether the student teachers' type of interpersonal behaviour was influenced by the supervising teacher, it was decided that the student teachers' behaviour towards the pupils would be the focus. By researching how the students interacted with the children, they could find out the extent to which teachers socialise student teachers into performing the role similar to them. The researchers wanted to learn if and how cooperating teachers' behaviours and ideals influence the behaviour and ideals of the student teachers (Holvast et al., 1993). To achieve this, data was gathered using the theoretical framework of the QTI.

The context of the study was a teacher education program where student teachers were placed for the practicum in groups of two or three with one supervising teacher. They were given theoretical preparation for the practicum by the university. In the school context, the student teachers observed the teacher, and each other, and often planned shared lessons. The

university provided a short professional development program to assist the teachers with their role as supervisor.

The project was designed in the following way. In 1985 and 1986, the QTI was administered to 142 student teachers and the classes they taught in their final assignment. The classes completed the questionnaire at the end of the student-teaching period. Class means were used as the students' perceptions of the interpersonal behaviour of the student teacher. The student teachers simultaneously completed the QTI for their own behaviour in the targeted class (self-perceptions) and they also answered it in terms of their ideal interpersonal behaviour. After the student teachers had departed, the same process was repeated between two and four months later with twenty-four cooperating teachers (though not all completed their self-perception and ideal QTIs). As a consequence of the dyad and triad groupings these twenty-four cooperating teachers supervised a total of 67 student teachers. Every combination of student and cooperating teacher yielded a maximum of six sets of perceptions: student teacher's self-perception (1) and ideal (2); cooperating teacher's self-perception (3) and ideal (4); students' perceptions of the student teacher behaviour (5) and students' perceptions of the cooperating teacher behaviour (6). No research questions about self-perceptions were proposed and consequently these were not used in the analyses (Holvast et al., 1993).

The study found that 50 – 70 % of the variance in the student teachers' behaviour was accounted for by their membership of the dyad or triad place in the same school – therefore concluding that the school environment (including group membership) is related to their classroom performance. The study found that a cooperating teacher's communication style corresponds to a similar style in the student teachers. An interpretation of the study was that the cooperating teachers' behaviour influences the student teachers' behaviour and not vice versa, but the student teachers' ideals are not influenced by their cooperating teachers' behaviour, nor by their ideals. The researchers called for diversity in student placements for field experience as the whole school environment may have impact on the student teacher. This study provided many ideas for developing an instrument for this study.

Another teacher education study was conducted in Brunei by Dhindsa and Fraser (2004) to cross-validate the Cultural Learning Environment Questionnaire (CLEQ) in relation to culturally sensitive factors—including gender equity, collaboration, defence, competition, teacher authority, modelling and congruence in that learning environment. Data were collected from 475 student teachers. Other than the teacher authority scale, factor and reliability analyses confirmed that the instrument was suitable for assessing the cultural

learning environment for this context. Findings from the study revealed no gender differences in how each of the genders perceived the environment; but a warning was sounded that students may feel reluctant to express their personal views, especially in terms of students being equally co-operative and competitive. As the current study also seeks to assess gender differences in perception of the extended practicum environment, the findings of this study were of interest.

In a study designed to examine and improve the clinical component of a nursing course, Chan (1999) conducted a study of the clinical field or practicum placement for 138 second-year undergraduates in a university nurse education degree. The study was designed to assess student perceptions of the clinical practicum learning environment and examine associations between student satisfaction of their clinical placement and their perceptions of the learning environment. A combined qualitative and quantitative approach was used to assess perceptions of the hospital learning environment and student satisfaction. Qualitative data were collected through interviews where participants were chosen at random. One intention of the study was to develop and validate an instrument to assess the nursing students' perceptions of hospital learning environment. The instrument was the Clinical Learning Environment Inventory (CLEI). The study confirmed the reliability and validity of the CLEI for use in the hospital learning environment.

The second purpose of the study was to investigate associations of the CLEI with outcomes. Students' perceptions of the outcome of their clinical placement were found to be strongly associated with all five scales of the CLEI—Individualisation, Innovation, Involvement, Personalisation, and Task Orientation (Chan, 1999, p. 90). Some students perceived their supervisor as a supportive mentor who provided help and support. However, some students viewed the supervisor as authoritarian and not responsive (Chan, 1999).

The study demonstrated that when a supervisor was not responsive, a student's learning was compromised. Students indicated that they preferred supervising nurse facilitators who were innovative in their approaches. The study also found that while students wanted guidance from their supervisors they also wanted some freedom (Chan, 1999). Both the quantitative and qualitative findings of the study reinforced each other. Overall, there was a strong association between student satisfaction with the clinical practice learning environment and their perceptions of the learning environment. The scale of task orientation was an important dimension of the learning environment in terms of student satisfaction. In the third area investigated in the study, significant differences were found to exist between students'

perceptions of the actual clinical learning environment and their preferred clinical learning environment. As the present study seeks to examine a similar type of practicum learning environment, the findings of this study provided a focus for scale development regarding task orientation and student perception.

2.4.2 Analogous Learning Environment Research of Importance to this Study of Practicum Learning Environments

The review of research presented in the preceding sections of this chapter suggests two existing instruments that would be useful in developing the instrument for the present study: the Work Environment Scale (WES) (Moos, 1981) and the Questionnaire on Teacher Interaction (QTI) (Wubbels & Levy, 1993). As part of his interest in work settings, Moos created a significant instrument called the Work Environment Scale (WES) (Moos, 1981). The dimensions of the WES proved to be useful for developing an instrument to study student teacher perceptions of the extended practicum as practice teaching occurs in the work context of a school. The WES comprises 10 scales that measure the social environments of different types of work settings. The instrument has three forms: the Real Form (Form R), which measures perceptions of existing work environments; the Ideal Form (Form I), which measures conceptions of ideal work environments; and the Expectations Form (Form E), which measures expectations about work settings (such as a prospective employee's expectations of a new work milieu) (Moos, 1981).

As mentioned earlier in this thesis, the WES has 10 scales assigned to the three categories of human environments: Relationship, Personal Growth and System Maintenance and System Change. The Relationship scales are Involvement, Peer Cohesion, and Supervisor Support. These scales assess the extent to which employees are concerned about and committed to their jobs; the extent to which employees are friendly to and supportive of one another; and the extent to which management is supportive of employees and encourages employees to be supportive of one another, respectively. The Personal Growth scales are Autonomy and Task Orientation. These scales assess the extent to which employees are encouraged to be self-sufficient and to make their own decisions and the degree of emphasis on good planning, efficiency, and getting the job done.

System Maintenance and System Change scales are Clarity, Control, Innovation, Physical Comfort and Work Pressure. These scales assess, respectively, the extent to which employees know what to expect in the daily routines and how explicitly rules are communicated; the

extent to which management uses rules and pressure to keep employees under control; the degree of emphasis on variety, change, and new approaches; the extent to which the physical surroundings contribute to a pleasant work environment; and the degree to which the pressure of work and time urgency dominate the job milieu (Moos, 1986).

During the development phase, the Real Form of the WES was administered to a sample of 624 employees and managers in 44 work environments. This included a range of professional and para-professional health workers and non-professional workers (Moos, 1986). Extensive development and validation procedures were used to create the final form of WES (Form R) containing 10 scales with 90 items. The instrument was used extensively with up to 1,442 employees in representative general work groups and 1,607 employees in a variety of health care work groups which included the original 624 respondents (Moos, 1986). Data were collected to examine differences in perceptions of work environments with regard to areas such as gender differences, manager-employee differences, and the differences between patient care and non-patient care staff in health-care settings. While the WES has been used extensively in health care settings it has also been used to examine work environments of schools. Although the WES had not been used to assess practicum learning environments as work environments, the dimensions and scales of the instrument are relevant to this study and the instrument was easily modified to assess the extended practicum environment at the centre of this study.

As mentioned in Section 2.4.1 of the present chapter, other work that provided ideas for assessing practicum environments was conducted by researchers in The Netherlands. These researchers built on the work of the psychologist, Leary (1957) (Levy, Creton & Wubbels, 1993; Wubbels & Levy, 1991; Wubbels et al., 1993). Leary (1957) who had created a Model of Communication that originated in the study of personality in the field of clinical psychology. The model describes and measures specific interpersonal behaviour and puts personality at the centre of interpersonal behaviour. Leary (1957) believed that as personality was at the heart of interpersonal behaviour, the way people communicate reflects their behaviour. He suggested that important forces that drive human behaviour are reduction of fear and corresponding maintenance of self-esteem, so that when communicating with people consciously choose behaviours that avoid anxiety and allow them to feel good about themselves and that this differs amongst people depending on their personality. Hence, the Leary model is a graphic representation of human interaction (Wubbels et al., 1993, p. 14). The model which was developed after extensive observation and testing identified a two-dimensional plane of interpersonal behaviour labelled Proximity (Cooperation–Opposition)

and Influence (Dominance–Submission) (Wubbels, et al., 1993, p. 14). Using these dimensions, Dutch researchers adapted the model to create a Model for Interpersonal Teacher Behaviour (Wubbels & Levy, 1991; Wubbels et al., 1993). The researchers were convinced that styles of teacher communication affected student learning. Hence, they devised ways for this model to be used as a basis for an observation instrument to describe a teacher or student's classroom behaviour by graphing responses of students to a teacher's behaviour or the reverse. Figure 2.2 shows this model which has eight sectors in a regular octagon. Each sector has a title and a common sense description.

DOMINANCE

OPPOSITION

COOPERATION

DO Strict Behaviour — Keep reins tight, check, judge, get class silent, maintain silence, be strict, exact norms and set rules

DC Leadership Behaviour — Notice what's happening, lead, organise, give orders, set tasks, determine procedure, structure the classroom situation, explain, hold attention

OD Admonishing Behaviour — Get angry, take pupils to task, express irritation and anger, forbid, correct, punish

CD Helping/Friendly Behaviour — Assist, show interest, join, behave in a friendly or considerate manner, be able to make a joke, inspire confidence and trust

OS Dissatisfied Behaviour — Wait for silence, consider pros and cons, keep quiet, show dissatisfaction/look glum, question, criticise

CS Understanding Behaviour — Listen with interest, empathise, show confidence and understanding, accept apologies, look for ways to settle differences, be patient, be open to students

SO Uncertain Behaviour — Keep a low profile, apologise, wait and see how the wind blows, admit one is in the wrong

SC Student Responsibility/Freedom Behaviour — Give opportunity for independent work, wait for class to let off steam, give freedom and responsibility to students

SUBMISSION

Figure 2.2 The model for interpersonal teacher behaviour

Source: Wubbels, Creton, Levy & Hooymayers (1993, p. 16)

In order to obtain specific data on teacher interpersonal behaviour the Questionnaire on Teacher Interaction (QTI) was developed as an expansion of the Interpersonal Adjective Checklist (IACL) (Leary, 1957), which Leary used to obtain data for his Model of

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Communication (Leary, 1957). The IACL needed modification for teacher and student use. The Dutch version of the QTI contained eight behaviour aspects focussing on the scales of Leadership (DC), Helpful/ Friendly (CD), Understanding (CS), Student Responsibility/Freedom (SC), Uncertain (SO), Dissatisfied (OS),

Using the QTI, students were asked to record their perceptions of teacher behaviour then their answers were plotted and profiled using the Model for Teacher Interpersonal Behaviour. Students were asked to respond to questions such as the following by ranking their responses from Never to Always. "S/he expresses himself clearly; S/He is a good listener; S/He seems uncertain; S/He gets angry" (Wubbels & Levy, 1993, p. 20). A shorter version was also developed for easier use by teachers. This work was useful for the current study and provided ideas of items to be used to examine interpersonal interaction between supervising teachers, student teachers and children. It also lead to further research in the area of interpersonal interactions between student teachers and supervising teachers (Kremer-Hayon & Wubbels, 1993).

2.4.3 Key Dimensions of Practicum Learning Environments

The literature reviewed in the previous sections of this chapter has identified important dimensions of practicum learning environments. The dimensions include:

The relationship between the supervising teacher and the student teacher
The relationship between the student teacher and the class
The relationship between the student teacher and other members of the school environment

In terms of personal relationships amongst members of the practicum environment, the literature has revealed certain key aspects of relationships to be important. These include:

Support and challenge at school and class level
Encouragement and a caring, invitational approach
Commitment to the role by the supervisor
Collaborative, collegial approach between student teacher and supervisor
Teachability of student teachers.
Professional discourse between the student teacher and other professional staff

In terms of the personal, professional growth dimension of the practicum learning environment, a number of features emerged.

These include:

Student teacher commitment to tasks

Critical and constructive feedback

Opportunities for professional growth

Opportunity for development of individual teaching style and autonomy

Sharing of pedagogical knowledge

Respectful relationships

A notion of learning community in the practicum setting

Encouragement for student teachers

Open processes for communication between the student teacher and other members of the school community

In terms of organisational features of the practicum, a number of other important features were evident. These include:

Clarity of expectations

Organised approach by both the student teacher and the teacher

A reflective disposition in the learning environment

Availability of teaching resources

These dimensions provide a framework for the development of scales to assess student teacher perceptions of practicum learning environments and relationships between those perceptions and their self-efficacy for future teaching.

2.5   CONCLUSION

This chapter has reviewed salient literature for this study of the practicum learning environment of a teacher education program. It has examined the extensive field of learning environment research and revealed relevant scholarship and methodology for assessing relationships amongst perceptions of learning environments and outcomes of the experience for participants (Section 2.2). Notably, there were no studies found that have examined relationships amongst the perceptions of extended practicum environments of student teachers from a Catholic university and their self-efficacy for future teaching. In order to study the

supervisory environment of the extended practicum, a review of the literature relating to the practicum in teacher education was conducted (Section 2.3). Key paradigms of teacher education, approaches to supervision and perceptions of participants in the practicum experience were reviewed. Current approaches to mentoring were explored and existing literature regarding student teacher and supervising teacher perceptions of practicum environments was studied. This review was needed to identify dimensions of the practicum that a context-specific learning environment instrument should assess.

Section 2.4 reports limited research on practicum learning environments and analogous learning environment research. In particular, this review of literature suggested particular dimensions of practicum learning environments that needed to be assessed by a context-specific instrument. Key educational theorists have indicated that the practicum lies at the heart of teacher education (Darling-Hammond, 1999; Martinez, 1998; McIntyre, 1997; Zeichner, 1983, 2002). A feature of the literature regarding the practicum is that the learning environment of the practicum is unique and complex and that perceptions of the environment may affect student outcomes within an environment. Furthermore, the experience of the student teacher is influenced predominantly by factors within the learning environment at both the school and classroom level. It is therefore surprising that few studies of the practicum have employed the theory and methodology of learning environment research.

Overall, this chapter reveals a gap in research knowledge regarding the practicum. In particular, the literature reveals that student teacher perceptions of the learning environment have rarely been used to define and assess the practicum learning environment. This study builds upon and extends scholarship on teacher education programs by investigating the psychosocial dimensions of the practicum's learning environment. To facilitate the empirical phase of this study, a methodology rooted in the strong quantitative tradition of learning environment research was developed. Chapter 3 of this thesis reports this methodology.

CHAPTER 3

METHODOLOGY

3.1   INTRODUCTION

This chapter discusses the important methodological issues of the present study of the extended practicum of a pre-service teacher education course at a Catholic university. The choice of methodology for this study acknowledges that the purpose of educational research is to provide better understanding of the educational process and therefore improve educational practice (Wiersma, 2000). This research is applied educational research as the aim of the study was to find answers to questions that relate to immediate problems or challenges inherent in the learning environments of the extended practicum (Wiersma, 2000). The extended practicum learning environment was examined in terms of student teacher perceptions of a variety of dimensions that impact on their practicum experience.   The research should therefore develop further understanding of teacher education and assist in improving practice in the field-based component of teacher education, an area of continued challenge in teacher education (Millwater & Yarrow, 1995, 2001; Zeichner, 2002).

Reflecting the view of Dorman (1994), that "research questions should determine data collection techniques and analysis" (p. 70), the methodology for this study was chosen to suit the research questions driving the study. Hence, a quantitative approach in the tradition of learning environment research was utilised to answer the research questions. Reasons for this decision are outlined in following sections of this chapter.

The research questions were:
Instrument Development Questions

1a.   What are the dimensions of the extended practicum learning environments of a pre-service teacher education course at a Catholic university?
1b. Can instruments be developed that assess the environment dimensions identified above?

Determinants Questions

2a. To what extent are student teachers' perceptions of the extended practicum learning environment related to age?

2b. To what extent are student teachers' perceptions of the extended practicum learning environment related to gender?

2c. To what extent are student teachers' perceptions of the extended practicum learning environment related to school type?

Perception Question

3a. To what extent do student teachers' perceptions of the extended practicum learning environment and supervising teachers' perceptions of the extended practicum learning environment differ?

Environment – Outcomes Questions

4a. What relationship exists between student teachers' perceptions of the extended practicum learning environment and their self-efficacy for teaching?

4b. Can a valid model be developed that relates student teachers' perceptions of the extended practicum learning environment to their self-efficacy for teaching?

This study acknowledges the importance of research questions driving choice of research method by establishing two methodological principles that would permit the particular research questions to be answered. In summary, these principles required: (1) a focus on the perceptions of the inhabitants (in particular, the student teacher) of the extended practicum learning environment and (2) the use of quantitative methods to develop a distinctive learning environment instrument for the assessment of the extended practicum learning environment. Full details on the development and validation of the instrument as required by the Instrument Development Research Questions 1a and 1b are reported in Chapter 4 of this thesis.

The purposes of the present chapter are to discuss methodological issues that surrounded the study, to describe and justify the methods chosen for the study, and to comment on the validity of the research.

Discussion in the chapter falls into three main areas:

- Section 3.2 focuses on research orientation and methodological issues that underpin the principles of the research design

- Section 3.3 discusses the overall research design.
- Section 3.4 provides comments on validity of this research study.

3.2   RESEARCH ORIENTATION

This section reviews definitions and background pertaining to methodology in learning environment research that has informed this teacher education study. When student teachers participate in school-based practica, it is recognised that their experiences are affected by elements of the environment at both school and class level (Hastings & Squires, 2002; Martinez, 1998; Martinez & Coombs, 2001; Mayer, 1998; Zeichner, 1999, 2002). A plethora of studies have revealed the importance of aspects of practicum learning environments in terms of psycho-social aspects at both school and classroom level (Dunn, Ehrich, Mylonas & Hansford, 2000; Kremer-Hayon & Wubbels, 1993; Maynard & Furlong, 1993; Zanting, Verloop & Vermunt, 2001). As discussed in Chapter 2 (Section 2.1.3), a number of aspects at school level and classroom level impact on the experience of the student teacher. At the classroom level, aspects include features like the level of supervising teacher support and the behaviour of the children.   At school level, the support of other teachers, the principal and office staff has been found to influence the student teacher's experience in a practicum learning environment (Kremer-Hayon & Wubbels, 1993; Martinez, 1998; Martinez & Coombs, 2001; Mayer, 1998).

Therefore, decisions regarding research orientation and methodology need to take both school and classroom levels of the learning environment into account. Section 3.2.1 provides an overview of the historical and theoretical perspectives of learning environment research and the importance of unit of analysis to the current study. Section 3.2.2 discusses learning environment research relevant to this study. The outcome of each of these two sections is a methodological principle for the conduct of the study reported in this thesis.

3.2.1 Historical and Theoretical Perspectives of Learning Environment Research

An examination of learning environment literature has suggested that there are three main approaches to the assessment of learning environments (Dorman, 1994; Fraser, 1997; Soerjaningsih, Fraser, & Aldridge, 2001). These approaches include the use of trained observers to observe, record and analyse specific aspects of classroom events, the use of

student and teacher perceptions obtained through questionnaire administration and the use of ethnographic data collection methods (Dorman, 1994). Both the trained observer approach and the questionnaire approach use quantitative methods and ethnographic data collection utilises qualitative approaches. In recent times, the dominant approach in learning environment research has been the use of perceptions of students and teachers in evaluating classroom learning environments through the combination of both qualitative and quantitative methods (Fraser, 2002).

The use of perceptual measures to assess learning environments is considered valid for at least three reasons. First, it has a sound theoretical basis in the seminal work of Walberg (1976) who developed a perceptual model of the learning process (See Section 2.3.2). The perceptual model demonstrates how perceptions are thought to influence student learning. As discussed in Chapter 2 of this thesis, the model shows how student learning is not only affected by external and internal stimuli and emergent structures but those stimuli and structures are also filtered through student perceptions which in turn become mediators of the learning process (Walberg, 1976).

Second, from an efficiency perspective, the use of perceptual measures is considered to be sound as responses by participants to a questionnaire are more economical than training outside observers to spend time in classrooms and schools. In this way, collection of perceptual data from the participants of an environment through the use of self-report instruments provides a pool of data to be analysed (Soerjaningsih et al., 2001). Third, another valid reason is that the use of trained observers who can only observe specific, limited events over short periods supplies only the view of each individual observer rather than a pool of perceptual data (Dorman, 1994). For these reasons, using perceptual measures for assessing learning environments is valid and useful for this study.

To assess the importance of perceptual measures and judge how this approach was appropriate for this study, it was necessary to review the historical background of learning environment research (see Chapter 2, Section 2.2.1). This review assisted the researcher to make decisions regarding the specific methodology for the study. The tradition of learning environment research originated in the work of early social psychologists. These psychologists used many aspects of quantitative methodology. They studied people's behaviour in natural settings, translated social reality into variables, developed and used

techniques to collect and analyse data and used statistical inferences to generalise findings to study people in work and learning environments (Lewin, 1936; Moos, 1974b; Walberg, 1976). As discussed in Chapters 1 and 2 of the current thesis, Lewin's (1936) *field theory* defining behaviour as a function of person and environment (i.e. B = f {P, E}) provided direction for methodology for studying the perceptions of students and their fit in the extended practicum learning environment. In particular, Lewin's theory was relevant as it acknowledged that environment and a person's individual characteristics interact to determine individual behaviour. As described in Chapter 2, Murray (1938) extended this work to develop a *needs-press* theory where people are conceptualised in terms of their psychological needs and the environment in terms of its press.

This theory had relevance to the current study in terms of the situation in a practicum psychosocial environment where an individual student teacher has the need for learning how to become a teacher while contending with the press of the practicum learning environment (the physical and psycho-social aspects of the environment) which may either frustrate or satisfy their needs. Therefore, *needs-press* theory in terms of person-environment fit provided a valid theoretical base for this study which seeks to assess the perceptions of inhabitants of practicum learning environments in terms of the press of the environment meeting the individual needs such as support, clarity of expectations and physical comfort.

As outlined in Chapter 2, Murray (1938) stated that alpha press usually requires observers to code specific events according to some scheme and beta press represents the environment as perceived and experienced by the inhabitants. As this study seeks to assess student teacher perceptions as inhabitants of extended practicum learning environments, the use of data collection techniques that gather perceptual data indicating exactly what each student teacher feels, interprets and responds to in the practicum environment is important.

As Neuman suggests (2003), "researchers need to be clear and precise in terms of what they want to measure and how they want to measure variables" (p. 71). There are two types of measures that have been used in learning environment research. These include low-inference and high-inference measures (Dorman, 1994). As discussed earlier, low-inference tools such as the Flanders Interactional Analysis System (Flanders, 1970) were used in many classroom observation studies. In contrast, high-inference measures which require respondents to make

inferences based on a series of classroom events using specific constructs such as task orientation (Dorman, 1994) were more suitable for the current study.

High-inference measures of classroom environments were promoted by Walberg (1976). He suggested that "students seem quite able to perceive and weigh stimuli and to render predictively valid judgements of the cohesiveness, democracy, goal direction, friction, and other psychological characteristics of the social environments of their classes" (Walberg, 1976, p. 160). This perspective has underpinned learning environment research over the past 35 years in that the use of high-inference beta measures has been used to assess the contemporary learning environment (Fraser, 1997).

A number of studies using high inference measures have indeed demonstrated that individual pupils and teachers are able to make valid judgements about classrooms and schools (Fraser, 1991). Student teachers are also able to form opinions based on experiences in practicum settings and therefore make valid judgements about aspects of the environments (Kremer-Hayon & Wubbels, 1993; Holvast, Wubbels & Brekelmans, 1993). Student teachers, as inhabitants of the practicum learning environment, are ideally placed to provide perceptual data regarding aspects of those environments and this information may be obtained through the use of high-inference, private beta press measures.

Another important methodological consideration for researchers is the choice of unit of analysis for a study. Neuman (2003) states that all research studies have both levels and units of analysis. The level of analysis is described as "the level of social reality to which theoretical explanations refer" (p. 154). Neuman (2003) states that levels of analysis may vary from the macro to the micro, depending on the point of the continuum of micro to macro level of social reality to which it relates. Macro level studies deal with topics such as structural aspects of whole nations whereas micro level studies deal with smaller groups of people and their interactions. As this study deals with individual perceptions of student teachers in a small Catholic university, it may be categorised as a micro level analysis. However, the findings of the study may inform the social reality of the practicum in teacher education courses both nationally and internationally.

While the level of analysis refers to level of social reality, the unit of analysis for a study refers to the type of unit a researcher is measuring (Neuman, 2003). Common units include

individuals, groups such as families, organisations and institutions. The unit of analysis is determined by the research questions and should be chosen to match the hypotheses driving the study (Dorman, 1994). Different research techniques may be utilised with specific units of analysis and hypotheses about individuals as a unit require the measurement of beta press (Dorman, 1994). It is considered important that the units of statistical analysis are seen to be consistent with the primary sampling unit as inconsistencies will violate the independence of sampling units (Dorman, 1994; Fraser, 1991). As the focus of this study is the individual perceptions of student teachers, the unit of analysis for the research is the individual student teacher experiencing the extended practicum.

As Neuman (2003) suggests, the unit of analysis determines how a researcher measures variables and "corresponds loosely to the level of analysis" and that the "individual is usually the unit of analysis in survey and experimental research" (p. 156). Therefore the decision to develop a survey questionnaire as an instrument to collect student teacher perceptual data is consistent with the use of the individual student teacher as the unit of analysis. It is an appropriate research tool for this type social-psychological, micro level of analysis, which deals with the social reality of individual student teachers operating within the institution of a school and fits with the individual as the unit of analysis for the study.

This discussion forms the basis for the first principle underpinning this study that: <u>the perceptions of the inhabitants (in particular, the student teacher) should be used to assess the extended practicum learning environment</u>. This principle is consistent with the theories of Lewin (1936), Murray (1938) and Stern (1970) Walberg (1976) and means that the environment of the extended practicum is defined in terms of the perceptions of the inhabitants. These perceptions focus on the psychological meaning of events of the practicum at both class and school level.

The next section of this chapter discusses features of context-specific learning environment research methodology that provide a basis for the second principle guiding this study which relates to the development of a specific research instrument to assess the extended practicum learning environment.

3.2.2 Use of Context-Specific Instruments to Assess Learning Environments

To answer the questions driving this study, the research methodology chosen included methods that gathered perceptual data from student teachers on the learning environment of the extended practicum. The approach chosen for the collection of perceptual data was embedded in a positivistic research paradigm and reflects the quantitative methodology utilised in early learning environment research. As such, it was underpinned by a scientific approach using set procedures for the collection and analysis of data to examine relationships, effects and causes (Wiersma, 2000). The study's design is consistent with characteristics of quantitative research as it incorporates the collection of "quantitative data based on precise measurement using structured and validated data collection instruments" (Johnson & Christiansen, 2004, p. 31) to establish whether statistical relationships exist among the perceptions of the inhabitants of the practicum learning environment. In particular, the study incorporated the development and validation of an instrument to examine the relationship of student teacher perceptions of practicum learning environments to their self-efficacy for future teaching as required by Methodological Principle 1 stated above.

A second important issue concerning learning environment research is the use of instruments that assess the particular environments under investigation. The practicum learning environment is unique in that it encompasses a notion of 'classroom for learning' for the student teacher, which incorporates the psycho-social and physical features of the specific classroom as well as the psycho-social and physical features of the broader school context where the student teacher is placed for the practicum. The classroom level of the learning environment includes many aspects of psycho-social interactions and dimensions of the classroom. These aspects include teacher-student teacher interaction, teacher-pupil interaction, student teacher-pupil interaction and pupil-pupil interaction in terms of support, clarity of expectations as well as organisation. The physical aspects of the classroom that also impact on the student teacher's experience include design, furniture layout and resources.

At the broader school-level, student teachers' experiences are also influenced by psycho-social and physical aspects operating across the whole school environment. These psycho-social features may include support from principals and other members of the school administration, support from and clarity of expectations from other teachers in the school, general staff and fellow student teachers. Physical aspects of the whole school that may affect the student teacher are school layout, physical comfort for teachers and available school

resources. Therefore, this study needed to incorporate learning environment methodology that could assess perceptions of the environment at both school and classroom level.

As Dorman (1997) states, "classroom level and school-level environment of schools have been conceptualised as distinct constructs" (p. 87). Fraser (1997) indicated that classroom-level studies deal with specific dimensions of the classroom whereas school-level studies involve the "psycho-social aspects of the climate of the school" (p. 4). Furthermore, "school climate research owes much in theory, to instrumentation and methodology to earlier work on organisational climate in business context" (Fraser, 1997, p. 4). As such, school-level environment research had been associated with the field of education administration and educational leadership. Fraser (1994) called for a 'confluence of the two areas of research" (p. 4). Therefore, this study acknowledges this perspective and assesses features of the extended practicum learning environment at both the school and classroom level.

Section 2.3.2 of Chapter 2 of this thesis provides a comprehensive review of recent and past classroom-level and school-level learning environment studies that examined the associations of learning environment variables and learning outcomes that have informed this study. These classroom-level studies were developed to assess specific aspects of classroom environments.

The *Individualised Classroom Environment Questionnaire* (ICEQ) (Asghar & Fraser, 1995; Fraser, 1990; Rentoul & Fraser, 1979) was designed to ascertain dimensions of classrooms which distinguish individualized classrooms from conventional classrooms. The *Constructivist Learning Environment Survey* (CLES) (Taylor, Dawson, & Fraser, 1995; Taylor, Fraser, & Fisher, 1997) was designed to assess specific dimensions of science learning environments that provide students with opportunities to participate in dialogue to construct new knowledge. The *Questionnaire on Teacher Interaction* (QTI) (Wubblels, Creton, Levy & Hooymayers, 1993**;** Wubbels & Levy, 1991) was designed to focus on interpersonal relationships between teachers and students. The *College and University Classroom Environment Inventory* (CUCEI) (Fraser & Treagust, 1986) was designed to assess tertiary learning environments and was useful only in small tutorial groups of about 30 students and not suitable for large lecture or laboratory type classrooms (Fraser & Treagust, 1986; Fraser, Treagust, & Dennis, 1986). The *Science Laboratory Environment Inventory* (SLEI) (Fraser & McRobbie, 1995; Fisher, Henderson, & Fraser, 1997) (SLEI) was designed

to assess the environment of science laboratory classes at senior high school or higher education levels.

Some existing school-level learning environment instruments provided ideas for assessing learning environments at a school level. As discussed in Chapter 2, the *Work Environment Scale* (WES) (Moos, 1986; Docker, Fraser, & Fisher (1989) which was initially developed for use in hospitals and correctional centre environments was adapted to reflect features and inhabitants of school environments. The instrument was designed specifically to assess participant perceptions of the school environment in terms of Relationship dimensions, Personal Development Dimensions and System, Maintenance and Change Dimensions. *The School-Level Environment Questionnaire* (SLEQ) (Rentoul & Fraser, 1983; Fisher & Fraser, 1991) was designed to assess teachers' perceptions of school-level environments in terms of the psychosocial dimensions. Dorman and Fraser (1996) used the SLEQ to examine differences between school-level environments of Catholic and government schools.

Reviewing this literature provided a foundation for understanding learning environment research and also assisted in identifying specific studies that could provide some ideas for choice of methodology for the current study. However, no existing study has examined extended practicum learning environments that form part of teacher education courses. This provides a basis for the study's second methodological principle: <u>a distinctive context-specific instrument should be developed to assess the extended practicum learning environment.</u> This principle is consistent with methods of learning environment research methodology reported by Fraser (1991, 1997) and Dorman (1994, 2002).

3.2.3 Summary of the Methodological Principles of the Study

In summary, the two methodological principles that guided the collection of data in the study were:

- the perceptions of the inhabitants (in particular, the student teacher) should be used to assess the extended practicum learning environment.

- a distinctive context-specific instrument should be developed to assess the extended practicum learning environment.

The next section of this chapter outlines the specific design of the study. Ethics clearance was obtained from ACU to conduct this study (see Appendix B).

3.3 RESEARCH DESIGN

This section provides a comprehensive discussion of the design of the study. Section 3.3.1 discusses the sample used in the study. Section 3.3.2 provides a statement on the overall design of the study. Section 3.3.3 describes the instrument and data collection methods used. Section 3.3.4 outlines the variables, units of analysis and data analysis procedures of the present study and Section 3.3.5 provides an overview of the research period.

3.3.1 Sample of Study

This subsection describes the sample used for data collection purposes. A purposive sampling method (Neuman, 2003) was used to select the population for each stage of this research. As Neuman (2003, p. 312) states, "purposive sampling is an acceptable kind of sampling for special occasions". In this case, the special occasion was the practicum experience of Bachelor of Education (primary) student teachers at a Catholic university in Queensland and the particular criteria was that all participants were involved in the practicum. In the first stage of the research, the purposive sample included all student teachers participating in the practica at the Catholic university as the purpose of the study was to seek their perceptions of the practicum learning environment. In the second stage of the research, the purposive sample included student teachers participating in the semester 2, 2001 extended practicum. In the third stage, the purposive sample consisted of student teachers involved in the extended practicum and their supervising teachers in semester 2, 2002. In all stages of the research, participation by student teachers (and their supervising teachers in Stage 3) was voluntary. Descriptions of the samples for the three stages of the research are as follows.

Stage 1
Stage 1 of the research involved the trial of the preliminary from of the instrument designed to seek student teachers perceptions of the practicum. The sample for Stage 1 which was conducted in semester 1, 2001, consisted of Bachelor of Education (primary) student teachers. Students involved in both third and fourth year of the course were invited to complete the preliminary form of the instrument. Of the 223 students involved in the practicum in 2001,

197 students completed the questionnaire. These students were chosen as all of them had completed at least one practicum and met the criteria for understanding the components of school-based practica and their responses were appropriate for providing data to refine and validate the design of the instrument.

Stage 2

Stage 2 of the research involved the initial administration of the instrument to all final year Bachelor of Education (primary) students who participated in the extended practicum in semester 2, 2001. A total of 64 students responded to the questionnaire.

Stage 3

Stage 3 of the research involved the administration of the instrument to the full cohort of student teachers participating in the extended practicum in semester 2 of 2002 and a supervising teacher version of the instrument to their respective supervising teachers. This purposive sample was chosen because the focus of the research was student teacher perceptions of the extended practicum. A total of 57 student teachers (from a population of 68 students) and 58 supervising teachers responded to the Stage 3 questionnaire. As some student teachers did not identify their supervising teachers, paired student teacher- supervising teacher data were available for 28 student teachers. Of the 57 Stage 3 student teachers, 28 were in Catholic, 4 in Other Christian and 10 in state schools with 15 not identifying.

Gender balance and age of student teachers

The Stage 1 sample of 197 students (23 male, 107 female, 67 did not identify) completed a trial form of the instrument. The Stage 2 sample consisted of 64 students (8 male, 50 female, 8 did not identify) who were involved in the 2001 extended practicum. Stage 3 of the research involved a student sample of 57 students (8 male, 31 female, 18 did not identify) who were involved in the 2002 extended practicum. All three samples had a range of ages from 20 years of age to 50 years of age. Most students were below 25 years of age with 23.4% of students in the Stage 2 sample and 27.9% in the Stage 3 sample above 25 years of age.

3.3.2 The Overall Design of the Study

Based on the principles and issues discussed in the previous section, a three- stage sequential research program was developed. In order to answer the research questions, the study was

designed to proceed through three stages. Its elements are shown in Figure 3.1. Chapter 4 of this thesis describes the details of the development and validation of the instrument used in Stage 1 of the research. This stage involved the development, refinement and trial of an instrument designed to gather student teacher perceptions of the dimensions of the practicum learning environment.

The second stage was the initial administration of the instrument in 2001 to collect student teacher perceptions of the extended practicum learning environment and analysis of that data.The third stage required the administration of the instrument in 2002 to collect data of both student teacher and supervising teacher perceptions of the learning environment where the student was completing the 2002 extended practicum and the analysis of this data. This Stage 3 instrument also included three student teacher self-efficacy scales which were employed as outcomes measure of this study.

Stage 1	Development of a high-inference measure of beta press at the class and school level
	Part A – Examining evaluation data from previous practica to determine dimensions of the extended practicum
	Part B - Development and refinement and trial of instrument

| Stage 2 | Initial administration of the instrument in 2001 to collect pre-service teacher perceptions of the learning environment and analysis of that data |
| | Use of the instruments with the sample of to investigate several research questions (e.g.. To what extent do male and female students differ in their perceptions of the school-learning environment) |

| Stage 3 | Administration of the instrument in 2002 to collect data of student teachers participating in the extended practicum and the administration of the teacher version of the instrument to ascertain the supervising teacher perceptions of the learning environment where the student was completing the extended practicum and the analysis of this data. Student teacher self-efficacy data was also collected at this stage. |

Figure 3.1 Stages of the research program.

3.3.3 Instrumentation and Data Collection Methods

An instrument for the assessment of the extended practicum learning environment for students participating in the Bachelor of Education course at a Catholic university needed to be developed. In accordance with the two methodological principles, these instruments were designed to assess high-inference beta press at the school and classroom level where the pre-service teachers were participating in the extended practicum. The use of a questionnaire was an appropriate choice for this study as conditions were present for it to be pre-tested, questions could be written to avoid any leading or psychologically threatening content and individual respondents possessed the knowledge to answer the questions (Gall, Gall, & Borg, 2005).

As discussed in detail in Chapter 2 of this thesis, the work of Walberg (1976) provided a theoretical basis for use of student teacher perceptual data to measure associations between perceptions of the practicum learning environment and self-efficacy for future teaching. Most importantly, the work of the psychologist Rudolf Moos in developing the Work Environment Scale (1986) provided key information on dimensions of environments that could be assessed. The work done by Wubbels and others (1993) in creating the Questionnaire on Teacher Interaction (QTI) was useful in development of scales in the relationship between the student teacher, the teacher and the class. However, it was research of Kremer-Haydon and Wubbels (1993) and the study they did using the Questionnaire on Supervisor Interaction (QSI) that was most useful in providing ideas to assess the relationship, support and clarity of expectations that exist in the complex realm of student teacher-supervising teacher interaction. The College and University Classroom Environment Inventory (CUCEI) developed and used by Halpin and Croft (1963) and Stern (1970) with students in the learning environments of tertiary classrooms provided scales that could be modified for use in the practicum setting.

Each of these studies utilised methods designed to seek perceptions of the inhabitants of a psycho-social environment and were useful in this study in the following ways. Each of the studies:

- utilised scales and dimensions within the instruments that were relevant as bases for the development of a questionnaire to assess the extended practicum;

- utilised methods including the development of instruments that could be administered in a pencil-paper format;
- contained instruments with structure and format that provided suitable ideas for instruments to be used with student teachers;   and
- provided ideas for assessing learning environments at both the school and classroom level.

To gather data for the outcomes measure of this study, a student teacher efficacy scale needed to be created as part of the research instrument. An investigation of teacher efficacy literature revealed studies that provided ideas for scales to measure student teacher self-efficacy. Building on from the seminal work of Bandura (1986), scholars including Gibson and Dembo (1984) and Midgley and others (2000), Enochs and Riggs (1990) and Newman, Moss, Lenarz, and Newman (1998) created teacher efficacy scales. However, a key instrument that informed the development of the Student Teacher Efficacy Scales was the Ohio State Teacher Efficacy Scale (OSTES) (Tschannen-Moran & Woolfolk Hoy, 2001, p. 85). Chapter 4 contains a comprehensive outline of the development of the scales.

Subsequent to the development of the instrument, quantitative data were collected in Stages Two and Three from all of the fourth year pre-service teachers. There were both theoretical and practical reasons for the choice of data collection methods for the study. Some of the practical reasons related to limitations of time to access teachers in schools and student teachers for collection of data. In particular, the choice of methodology was influenced by the time frame available for collecting data and the diversity of contexts where student teachers were involved in the practicum. At the time this study was conducted, the extended practicum at ACU was conducted during the final six weeks of the final semester of the Bachelor of Education course. Students came on to campus for one morning only at the conclusion of the practicum. Therefore, the available time to access these student teachers to collect perceptual data was minimal. As the practicum occurred at the end of the school year, time available to access the teachers to collect their perceptual data was also limited.

As the study was based on the collection of perceptual data, it was vital that data were collected as soon as possible after the conclusion of the experience so that memories of perceptions of the extended practicum were fresh. Another factor impacting on the choice of methodology for the study was the spread of contexts where students were completing the

experience. The student teachers were placed individually in schools across the state of Queensland. Therefore, research methods that enabled efficient collection of data needed to be utilised.

3.3.4 Variables, Units of Analysis and Data Analysis Procedures and Considerations

This section focuses on three important issues pertaining to the quantitative component of this study. First, variables used in the study are stated and their choice justified. Second, the unit of analysis for the study is stated. Third, procedures for analysing the quantitative data are discussed.

This study's focus was the assessment of the extended practicum environment. Accordingly, environment variables were employed as dependent variables when answering Questions 2a, 2b and 2c. The measurement of these variables was achieved by the use of a specific instrument that possessed several conceptually distinct scales (see Chapter 4).

Variables

The study focussed on the learning environment of the extended practicum experienced by student teachers at a Catholic university. For any study to be effective, it is important that concepts to be studied are identified and described precisely. In social science research, concepts may relate to topics such as self-esteem or perceptions of work or learning environments. In this study, there are two types of variables to be measured: independent and dependent variables. To enhance the significance and validity of a study, it is important that the definitions of the variables are consistent with methods used to measure them (Gall et al., 2005). Therefore, considerable attention was given to the description and definition of the variables measured in this study.

A comprehensive outline of the identification and definition of the environment variables is provided in Chapter 4 of this thesis. The measurement of these variables was achieved using a context-specific instrument, which possessed several conceptually distinct scales. A questionnaire format was chosen as "questionnaires typically measure many variables" (Gall at al., 2005, p. 133) as was the case in this study. This instrument was the Extended Practicum Learning Environment Inventory (EPLEI) and the features, development and validation of this instrument are also outlined in Chapter 4.

To answer Research Questions 2a, 2b and 2c of this study, the independent variables included: age of student teacher, gender of student teacher, school type where the student teacher participated in the extended practicum. To answer Research Questions 2a, 2b and 2c, the dependent variables were the dimensions of the extended practicum as perceived by the participants. These environment dimensions included: Supervising Teacher Support, Administration Support, Fellow Teacher Support, Fellow Student Teacher Support, Student Teacher Involvement, Pupil-Pupil Cohesiveness, Clarity, Control, Physical Comfort, Work Pressure, Autonomy and Task Orientation. These dimensions are described in detail in Chapter 4 of this thesis. The variables: Age of Student Teacher, Gender of Student Teacher and School Type where student teachers participated in the extended practicum are described as follows.

Age of Student Teacher. Investigating the effect of age of the student teacher on perceptions of the extended practicum learning environment is important to the teacher education courses in universities across Australia as an increasing numbers of mature age students are studying teaching. This may mean that different approaches to preparation for the practicum experience may be required for the different age groups. This may include work at both the university and school level.

Gender of Student Teacher. Investigating the effect of gender on perceptions of the extended practicum learning environment is important to teacher education. As few males are entering the teaching profession, it is important to gather information that may assist in providing data that may improve the experience for both females and males. In particular, identifying aspects of practicum learning environments that may be altered to suit the needs of male student teachers may assist in attracting and retaining males to the teaching profession.

School Type. School type refers to the type of school where the student participated in the practicum. Investigating the effect of school type on the perceptions of the extended practicum learning environment is important to each of the education systems where the student teachers are placed for the practicum. There were three school groups. They included Catholic, State and Other Christian schools. Other Christian schools included small numbers of students from a cross-section of Lutheran, Anglican, Uniting Church and Christian schools. As each group of school systems have mission statements regarding partnerships in teacher

education, student teacher perceptions of the learning environment in the different schools is important to the perpetuation of the profession.

For Research Questions 4a, environment is the independent variable and student teacher self-efficacy is the dependent variable. In the modelling conducted to answer Research Question 4b, environment mediated the effect of the original grouping variables age, Gender and School Type on student teacher self-efficacy.

Unit of Analysis: Procedures and Considerations

As discussed in Section 3.2.1 of this chapter, the individual student teacher is the unit of analysis for this study. The basis for this decision was that the research questions focus on the perceptions of the student teachers as individuals. The validation of the extended practicum learning environment questionnaire required the individual to be used as the unit of analysis.

Data Analysis

The software program, SPSS was used to analyse the research data in order to answer Research Questions 2a, 2b and 2c, which hypothesised that each would have an effect on the individual's perception of the extended practicum environment.

Multivariate Analysis of Variance (MANOVA) using the dimensions of the extended practicum as dependent variables was performed. Conceptual distinctiveness of environment scales was preserved through the use of Multivariate Analysis of Variance (MANOVA). The use of MANOVA, which allows several dependent variables to be analysed simultaneously, is preferable to a series of Analysis of Variance (ANOVA) tests because the MANOVA gives an indication of the overall relationship between the set of dependent variables and the independent variables. In the present study, ANOVAs (one for each dependent variable) were conducted only when the MANOVA yielded a significant result.

According to Stevens (2002), three statistical reasons favour MANOVA. First, the use of a series of univariate ANOVAs leads to an inflated overall Type I error rate. Second, univariate tests ignore the correlation among the variables. Third, multivariate tests are more powerful, especially where small differences on several of the variables combine to produce a significant result. It can occur that none of the individual ANOVA results is significant, even though the MANOVA result is significant.

In some comparisons, a grouping variable can have more than two values (e.g. three school types) and the ANOVA will not indicate which pairs of values of the grouping variable have scale values that differ significantly. In the present study, and only if the ANOVA result was significant, Tukey's post-hoc procedure was employed to identify such pairs. For example, a significant ANOVA with school type as the grouping variable does not indicate which particular pairs of school types are significantly different from each other. Therefore, a post-hoc procedure is required. The level of significance accepted for all statistical tests was .05.

In order to answer Research Question 3a, which assessed the differences in perceptions of the extended practicum learning environment between the student teachers and their supervising teachers. Once again MANOVA was used to identify scale scores for each student teacher and each supervising teacher for each of the scales of the research instrument. Repeated measures MANOVA was then conducted as the data were in paired form (i.e. dependent sample).

In order to answer the Research Questions 4a which assessed the relationship between student teachers' perceptions of the extended practicum and their self-efficacy for teaching, correlational analyses were conducted. Research Question 4b examined whether a valid model could be developed to relate the student teachers' perceptions to teacher self-efficacy. To answer this question, information from correlational analyses of Question 4a was used to develop a baseline or *postulated* model for testing using structural equation modelling (SEM).

To report the strength of associations between the 12 EPLEI scales and the three student teacher efficacy scales, simple, multiple and canonical correlation analyses were performed. A simple correlational analysis was used to investigate the relationship between each classroom environment scale and each student teacher efficacy scale. Additionally, a multiple correlation analysis explored models using the 12 EPLEI scales as predictors of each student teacher efficacy scale. The use of multiple correlation reduces the risk of an inflated Type I error rate associated with a series of simple correlational analyses. The standardised regression coefficient (β) was used to identify which classroom environment scales were statistically significant predictors of student teacher efficacy scales.

Canonical correlation was used to establish the strength of the relationship between the set of correlated EPLEI scales and the set of student teacher efficacy scales. It is more parsimonious than multiple correlation and overcomes the possible inflated Type I error problem in multiple correlation due to relationships among the dependent variables (Stevens, 1992). The canonical correlation coefficient (R_c) represents the highest correlation between two transformed variables – one formed by a linear combination of dependent variables and the other formed by a linear combination of the independent variables. Additionally, because R_c^2 cannot be used to interpret variance overlap between the EPLEI and student teacher efficacy scales, a redundancy analysis that provides meaningful information on variance overlap was conducted (Stewart & Love, 1969).

While correlational analyses are important in their own right, they served another important purpose in the present study. Based on the information from these analyses, a baseline or *postulated* model was developed for testing using structural equation modelling (SEM) using LISREL 8.3 (Jöreskog & Sörbom, 1993). Such models attempt to bring together all salient information about the predictor and outcome variables in the one model. In the present study the 12 EPLEI scales were the predictor variables and the student teacher efficacy scales were the outcome variables. Structural equation modelling examines relationships among *latent* variables. Such variables are not measured directly. Their values are indicated by observed variables. For example, in the present study, the latent variable Autonomy was indicated by an observed variable computed from the Autonomy items.

Munck (1979) showed that loadings of paths (λ) which link observed variables to latent variables and error variances (θ) for observed variables can be fixed in structural equation modelling and that, provided correlation matrices are analysed, they are related to reliability (r) by the formulae

$$\lambda = \sqrt{r} \qquad \text{and} \qquad \theta = 1 - r.$$

These formulae allow for paths from observed composite variables to latent variables and error variances of observed composite variables to be fixed. The advantage of this theory is that the number of parameters to be estimated by LISREL is sharply reduced with consequent improvement in model robustness.

Of the many indices available to report model fit, model comparison and model parsimony in structural equation modelling, three indices are reported in this thesis: the Root Mean Square

Error of Approximation (RMSEA), the Tucker-Lewis Index (TLI) and the Parsimony Normed Fit Index (PNFI). Whereas the RMSEA assess model fit, the TLI and PNFI assess model comparison and model parsimony respectively. To interpret these indices, the following rules which are generally accepted in the SEM literature as reflecting good models were adopted: RMSEA should be below .05 with perfect fit indicated by an index of zero, TLI should be above 0.90 with perfect fit indicated when TLI = 1.00, and PFNI should be above 0.50 with indices above 0.70 unlikely even in a very sound fitting model. Further discussion on indices and acceptable values is provided in Byrne (1998), Kelloway (1998) and Schumacker and Lomax (1996). The results of χ^2 tests that examine the fit of the model to the data were also reported.

Modelling statistics reported in this thesis included squared multiple correlation coefficients (R^2) for each structural equation and a total coefficient of determination (Jöreskog & Sörbom, 1989). While R^2 is a measure of the strength of a linear relationship, the total coefficient of determination is the amount of variance in the set of dependent variables explained by the set of independent variables. In addition to overall fit statistics, it is important to consider the strength and statistical significance of individual parameters in the model. Each path was tested using a t-test ($p < .05$).

3.3.5 Research Period

The research for this study was conducted from April 1999 to November 2002. These key periods are shown in Table 3.1.

TABLE 3.1
RESEARCH PERIOD AND ACTIVITY FOR EACH STAGE OF THE RESEARCH PROGRAM

Stage	Period	Activity
1	April 1999 – April 2001	Instrument Development
	May 2001	Trial of Instrument
2	October 2001	Initial Administration of Instrument
3	October 2002	Final Administration of Student teacher Instrument
	November 2002	Administration of Teacher Version of Instrument

3.4   COMMENTS ON RELIABILITY AND VALIDITY

The previous section of this chapter discussed the research design for this study. Section 3.5 explores the reliability and validity issues relevant to this study. In research, it is vital that instruments designed to collect data to answer research questions are as precise as possible and that the measurement be both reliable and valid. The reliability of a measurement is indicated by its consistency and how dependable it is. The more reliable a measure is the more confidence one can have that the scores obtained are essentially the same scores that would be obtained if the measure were readministered (Gay, 1987). Validity refers to "the degree to which a test measures what it is supposed to measure" (Gay, 1987, p, 128). Therefore, an instrument designed to measure student teacher perceptions of an extended practicum learning environment needs to be both reliable and valid if the outcomes of the study are to be considered authentic. Attention to detail is required to ensure that the design of the instrument measures specifically the perceptions of the dimensions of the environment it is intended to and that the instrument would be a dependable measure for seeking the perceptions of student teachers under the same research conditions. To ensure both reliability and validity, the questions for the instrument must be written so that they are "clean, specific and unambiguous" (Shaughnessy, Zechmeister & Zechmeister, 2003, p. 543). Chapter 4 of this thesis reports instrument reliability issues for this study.

A critical factor in quantitative studies is the internal and external validity of its design. Internal validity means the "ability to eliminate alternative explanations of the dependent variables" as "variables other than the treatment, that affect the dependent variable are threats to internal validity" (Neuman, 2003, p. 251). External validity "is the ability to generalize experimental findings to events and settings outside the experiment itself" (Neuman, 2003, p. 255). A study that is not externally valid has findings that only remain true for that one study and is therefore useless to "basic and applied research" (Neuman, 2003, p. 255). As Dorman (1994) states, "although an internally valid experiment could or could not be externally valid, an experiment that lacks internal validity cannot be externally valid. For this reason, internal validity has become accepted as the more important of the two forms of validity" (p. 103).

Internal Validity

Ten common threats to internal validity include "selection bias, history, maturation, testing, instrumentation, mortality, statistical regression, diffusion of treatment or contamination, compensatory behaviour and experimenter expectancy" (Neuman, 2003, pp. 253-254). The next section discusses these possible threats in terms of this study.

Section Bias. The ethics of conducting any social science research requires the willingness of subjects to be involved in the research process. As the groups of student teachers surveyed in both 2001 and 2002 were all volunteers and the teachers surveyed in 2002 were also volunteers, the threat of any selection bias was overcome.

History, Maturation, Statistical Regression, Testing, Mortality. As all aspects of the extended practicum remained constant without any unrelated events affecting the research over the short duration that data were collected, these possible threats were not considered serious to the present research.

Instrumentation. A significant part of the research program was the development of an environment instrument. Chapter 4 of this thesis details the instrument validation strategies used in this study. Procedures and guidelines for scale development were followed strictly during the development of the instruments (Dorman, 1994; Fraser, 1991). A colleague, not the researcher administered the questionnaires to the student teachers and the supervising teachers' questionnaires were posted to them. Both the student teachers and the supervising teachers were informed that results were to be kept confidential to the researcher and that there were no right or wrong answers. All participants were given the same instructions and the researcher relied upon the professional integrity of the colleagues to implement these instructions. The supervising teachers also were made aware of the confidentiality of their responses. In this way, the stability reliability threat regarding instrumentation was controlled.

Diffusion of Treatment, Compensatory Behaviour. As the questionnaires were administered to two different groups of final year student teachers in two different years and the first group finished their studies at the university the day the instrument was administered, student teachers were not in a position to communicate with each other regarding the content of the instrument, nor were they aware that another group would complete the questionnaire the

following year. This situation overcame these types of threats to the internal validity of the study. Also, as only one group of supervising teachers completed the questionnaire, these threats did not apply to their component of the research.

Experimenter Expectancy. As the researcher did not administer any component of the questionnaire and participants were informed of the confidentiality of the research, this threat was not relevant.

External Validity

Neuman (2003) cites five possible threats to external validity. They include, experimental realism, mundane realism, Hawthorne effect, demand characteristics and placebo effect (p. 255).

Experimental Realism. This relates to when research participants become caught up in or influenced by the research. (Neuman, 2003, p. 255) As the only involvement by participants in the research is the completion of a questionnaire over a very short period of time, there was no opportunity for them to become caught up in or influenced by the experience. Therefore this threat was eliminated.

Hawthorne Effect. The Hawthorne Effect "refers to the tendency of people to act differently simply because they are aware of their role as research subjects" (Dorman, 1994, p. 107). As a questionnaire was used in this study, both the student teachers and their supervising teachers knew that they were part of a data gathering exercise. The Effect was minimised by having a questionnaire The questionnaire was designed to be easy to answer and questions were specifically focussed and sequenced so that participants would provide authentic answers and not be influenced unduly by their involvement in the research (Dorman, 1994).

Demand Effect. As the participants were not aware of the questions driving the research, they would not be able to pick up clues about the full intention and would therefore not be able to change their behaviour in terms of what they think might be demanded from them for the study. Therefore this possible threat to external validity was addressed.

Placebo Effect. As this study did not involve the administration of any medications or direct interventions, there was no scope for participant perception to be affected by such belief as to affects of taking or not taking a substance or participation in some sort of intervention. Therefore, this threat to validity did not apply to this study.

Dorman (1994) identified other possible threats to external validity in learning environment research. These threats related to the lack of representatives of available and target populations, failure to describe independent variables explicitly and inadequate operationalising of dependent variables.

Lack of Representatives of Available and Target Populations. In terms of lack of representatives of a target population, this study did not use random sampling to identify the population for the study. The purposive sample chosen for the study meant that all of the 2001 and 2002 student teachers from ACU participating in the extended practicum and the supervising teachers of the 2002 student teachers formed the target population and were invited to participate. As these students have the right to participate or not, there could be a possibility of some inherent bias as some student teachers and teachers support research and participated and some chose not to.

Failure to Describe Independent Variables Explicitly. This study had three independent variables: school type, year level, and student gender. Each of these variables has been defined clearly in Section 3.4.5

Inadequate Operationalising of Dependent Variables. The dependent variables for this study were sets of extended practicum learning environment scales. These scales were developed with the specific notion of being applicable to extended pratica in school-based teacher education courses - not simply the sample used in this study. Chapter 4 of this thesis shows that the scales have been operationalised in a manner that enhances the generalisability of findings (Dorman, 1994).

3.5   CHAPTER SUMMARY

The purpose of this study was to investigate the extended practicum in a Catholic university. This chapter provides a detailed discussion of the particular methodological issues and

decisions of the study. Two methodological principles which incorporated the present state of learning environment research have been developed. These principles required: the perceptions of the inhabitants (in particular, the student teacher) should be used to assess the extended practicum learning environment and a distinctive context-specific instrument should be developed to assess the extended practicum learning environment.

The importance of the unit of analysis issue to the present study was discussed. It was decided to use the individual student teacher as the unit of analysis for analyses of the practicum learning environment. A three-stage research program that operationalised the two methodological principles of this study was adopted. In the first stage, development, refinement and validation of the Extended Practicum Learning Environment Inventory (EPLEI) were conducted. Full details of the development and validation of the instrument are provided in Chapter 4 of this thesis. The instrument was trialled with students who were participating in a practicum in first semester 2001. This stage of the research program answered Research Questions 1a and 1 b.

The second stage of the study involved the initial administration of the EPLEI to the 2001 cohort of Australian Catholic University, Bachelor of Education students involved in the extended practicum. Using these data and the student teacher data from Stage 3 of the study, Research Questions 2a to 2b and 2 c (see Section 3.1) which focus on four determinants of classroom or school environment (school type, age and student gender) and relationships between dimensions of classroom and school environment were answered. MANOVA and ANOVA were used to investigate the influence of these determinants on the extended practicum learning environment where appropriate.

Stage 3 of the study involved the administration of the EPLEI to the cohort of student teachers involved in the 2002 extended practicum. It also involved the administration of a teacher version of the EPLEI to the teachers supervising these students in their practicum schools. Analysis of these data was used to answer Research Questions 3a. MANOVA was used to find scale scores for each student teacher and each supervising teacher for each of the scales of the research instrument. Repeated measures MANOVA was then conducted as the data were in paired form. In order to answer the Research Questions 4a which assessed the relationship between student teachers' perceptions of the extended practicum and their self-efficacy for teaching, correlational analyses were conducted. To answer Research Question

4b which examined whether a valid model could be developed to relate the student teachers' perceptions to teacher self-efficacy, information from the correlational analyses for Question 4a was used to develop a baseline or *postulated* model for testing using structural equation modelling (SEM).

This study of the extended learning environments of students at a Catholic university had a degree of methodological uniqueness. First, it attempted to assess the extended practicum at both classroom and school level. Second, it used quantitative methods to assess student teacher perceptions of an extended practicum environment and relate these to the student teachers' self-efficacy for future teaching. Third, methods for creating a valid model that relates student teachers' perceptions of the extended practicum to their self-efficacy for teaching were developed. The focus of the following chapter is on the development and validation of the Extended Practicum Learning Environment.

CHAPTER 4

DEVELOPMENT AND VALIDATION OF INSTRUMENTS

4.1   INTRODUCTION

This chapter reports the development and validation of the instruments used in this study. The first instrument was used to assess psychosocial environments in the current study of the climate of the extended practicum experienced by Bachelor of Education students during their final practicum. Reflecting the conceptualisation of learning environment of extended practicum at both school and a classroom levels, an instrument incorporating items that would assess the two levels of the practicum learning environment as experienced by pre-service teachers needed to be developed. To compare student teacher and supervising teacher perceptions of the same practicum learning environment, an analogous teacher version of this instrument was also developed. The second instrument was developed to assess student teacher self-efficacy for future teaching. It was employed as an outcomes measure of the study. The development of this instrument is described later in this chapter.

The general procedure adopted for the development of the learning environment instrument was to use examine existing instruments as the bases for the construction of a context specific instrument that would assess the important dimensions of a typical extended practicum learning environment located in a Queensland school context. Four approaches to instrument development including intuitive-rationale, intuitive-theoretical, factor analytical and empirical group discriminative have been presented by Dorman (1994) and Fraser (1986). The approach utilised in the development of the learning instrument reported in this chapter is the intuitive-rationale approach, an approach which depends on the researcher's intuitive understanding of the dimensions to be assessed. Subjective opinions and understandings of the investigators and other experts in fields relevant to the study are pivotal to the validity of intuitive-rational scales. Throughout the processes reported in this chapter, the researcher was supported by expert advice about scale design and the characteristics of the practicum as part of pre-service teacher education. Similar processes were followed in the development of the teacher version of the learning environment instrument and the outcomes measure self-efficacy instrument.

The remaining sections of this chapter address four areas.

- Section 4.2 discusses firstly the learning environment instrument development criteria adopted for this study and secondly, the instrument development and validation procedure utilised in the study.
- Section 4.3 reports on the application of the development and validation procedure to create the extended practicum learning environment inventory (EPLEI) and the analogous teacher version of the instrument.
- Section 4.4 reports the development of three scales of the Student Teacher Efficacy Instrument (STEI) which were used as outcome measures for this study.
- Section 4.5 concludes the chapter.

4.2 LEARNING ENVIRONMENT INSTRUMENT DEVELOPMENT CRITERIA AND INSTRUMENT DEVELOPMENT AND VALIDATION PROCEDURE

This section outlines the instrument development criteria and the learning environment instrument development procedure adopted for this study of the extended practicum learning environment in a teacher education course. It is important to distinguish between instrument development criteria and instrument development and validation procedure. Instrument development criteria are concerned with standards of judgment, rules or principles that can be used to guide instrument development. On their own, such criteria do not indicate explicitly the specific decisions taken during the instrument development process. To report and justify decisions taken during instrument development, an instrument development and validation procedure that allows for specific decisions to be described is both logical and valuable. Therefore, it was considered important to the present study that both instrument development criteria and an instrument development and validation procedure be established. Clearly, the development and validation procedures need to reflect the standards contained in the development criteria adopted for this study.

4.2.1 Instrument Development Criteria Adopted For This Study

Utilising the scholarship and processes underlying the work of previous learning environment researchers, four principles guided the instrument development process. These principles included: consistency with relevant literature, coverage of Moos's (1974b) three general

categories of human environments, consistency with aspects of the practicum context, and economy and efficiency of administration of instrument.

1.   Consistency with Literature

First, the instrument should reflect the literature relating to learning environment research and the practicum in teacher education at a Catholic university.   Chapters 1 and 2 of this thesis introduce and review the literature and reveal specific characteristics of an extended practicum for students participating in teacher education course at a Catholic university.

2.   Coverage of Moos's Three General Categories

Second, an important conceptual issue in human environment research concerns the dimensions that any measuring instrument seeks to explore. Moos's (1974b) schema for exploring human behaviour conceptualises three categories that instruments should possess to examine psycho-social environments. Therefore, a final but very important consideration was that the instrument should provide coverage of Moos's (1974b) three general categories of human environments appropriate for examining the extended practicum learning environment: Relationship, Personal Growth and System Maintenance and Change. For the present research, these categories were defined as follows:

> Relationship: How the members of the school community where the student teacher is completing the practicum are involved in the setting, how much they help each other, and how spontaneously they express feelings

> Personal Growth: The extent to which the school community encourages or stifles personal growth of the student teacher

> System Maintenance and Change: How orderly and organised the practicum setting for the student teacher is, how clear the expectations are for the student, how much control it maintains, and how responsive it is to change

> Moos (1974b).

The learning environment instrument designed for this study had to cover these categories of human environments.

3.   Consistency with Aspects of the Practicum

Third, individual scales should reflect the different levels of both school and classroom learning environments and the myriad of aspects of the practicum that impact on student teacher learning in different school and classroom environments. To ensure this, perspectives critical to understanding the practicum context were explored with a number of stakeholders of the practicum. These stakeholders included the practicum co-ordinator, relevant school principals and teachers of partnership schools, student teachers experiencing the practicum experience and academic colleagues involved in practicum supervision. Chapter 2 of this thesis reviews this literature and identifies specific aspects of the practicum experience for pre-service teachers.

4.   Economy and Efficiency

Fourth, the instrument's design should be consistent with general psychometric principles of scale development in that it should possess ideally several internally consistent, mutually exclusive scales and be economical in terms of the time needed for scoring. As Neuman (2003) states, clarity in measurement is essential for maintaining validity in research. Clarity of measurement requires a researcher to define concepts to be measured so that "there is no ambiguity or vagueness" Neuman (2003, p. 172) and therefore the instrument 'measures what it claims to measure' (Shaunhessy, Zechmeister and Zechmeister, 2003, p. 25). Scales need to be defined clearly and items written succinctly and accurately to be measure reliable and validly (Neuman 2003; Shaunhessy et al., 2003).

4.2.2 Instrument Development and Validation Procedure

To provide a framework for the development and validation of instruments to assess extended practicum learning environments, a five-element procedure was implemented. This section describes and justifies this five-element procedure which is illustrated in Figure 4.1.

Element 1		Element 2
Review of Catholic ethos and relationship to teaching practice. Review of the Practicum in Teacher Education, Learning Environment Research (from Chapters 1 and 2)	→ ←	Obtaining perceptions of the practicum from stakeholders including pre-service teachers at a Catholic university, practicum co-ordinator, academic colleagues , principals and supervising teachers from practicum schools

Element 3		Element 4
Identification of dimensions and appropriate scales from existing instruments	→ ←	Identification of specific scales and the writing and scrutinising of associated items

Element 5

Field testing, refinement and validation procedures using trial and actual study data

Figure 4.1 The five-element instrument development and validation procedure

Chapters 1 and 2 provide reviews of salient literature on the practicum in teacher education, Catholic ethos and learning environment research. To ensure that the instrument included aspects that assess a Catholic ethos in a practicum learning environment, documents published by the Australian Catholic University (ACU), Brisbane Catholic Education Centre and the Queensland Catholic Education Commission were examined (see Catholic Education: Archdiocese of Brisbane, 2004, Queensland Catholic Education Commission, 2005). These documents identify important characteristics of the practicum environments for pre-service teachers learning to teach at a Catholic university. The function of Element 1 of the procedure is to bring these literature-based characteristics into the instrument development process. In particular, work conducted by Martinez (1998) and Mayer and Austin (1999) with pre-service teachers and their supervising teachers regarding perceptions of 'good and ideal other' became important in helping to identify aspects of practicum environments. Also significant was work done to identify relevant aspects of the practicum in teacher education. The scholarship of by Babkie (1998), Perry and Power (2004) Watrous (2004); Woods and Weasmer (2003) and Zeichner (1983, 1986) provided insights into specific aspects of mentoring and supervision. Also, research conducted by Moos (1986) and Wubbels & Levy

(1993) and the instruments they designed to assess the work and learning environments and different types of interpersonal interactions respectively informed the process of developing an instrument to assess the extended practicum.

The purpose of Element 2 of the instrument development process was to obtain *first-hand* perceptions of the aspects of environments of the extended practicum from a cross-section of stakeholders who have experienced the practicum from both a school and university perspective over significant periods of time. These data complemented the literature of Element 1. In contrast to the often rhetorical statements of the literature, the stakeholder perceptions contextualise and humanise the instrument development process by providing an experiential dimension.

Accordingly, the second element involved obtaining the perceptions of extended practicum learning environments from a large sample of stakeholders of the extended practicum. The sample of stakeholders included: student teachers, academic colleagues and school staff involved in the practicum. This process was quite extensive and obtained data through a number of strategies including reflections by the practicum co-ordinator, formal collection of practicum evaluation data from 250 teachers, informal discussions with both school principals and teachers of partnership schools, evaluation comments and dialogue with academic colleagues involved in practicum supervision. Data were sought from these stakeholders in terms of organisation of the practicum, levels of support for student teachers, characteristics of a good student teacher, desirable qualities of teachers in Catholic schools, worthwhile aspects of the program, aspects that could be improved. Data including formal evaluation of the practicum by 250 students and 250 surveys of student teachers as stakeholders experiencing the extended and other practicum were also collected. The evaluation data sought student teacher and teacher perceptions of aspects of the practicum experience relating to practicum tasks, documentation relating to the practicum, levels of support from supervising teachers, aspects of student teacher learning during the experience and ways to improve the experience. The data collected from the groups were examined and salient comments pertaining to the extended practicum learning environment were extracted. Because of their voluminous nature, these data were categorised using Moos's (1968) three general categories for human environments. A representative excerpt of these data is shown in Table 4.1. For example, a personal growth comment of one academic colleague was "Students are not given any freedom to develop their own style of teaching".

TABLE 4.1
REPRESENTATIVE EXCERPT OF DATA REGARDING ASPECTS OF THE PRACTICUM

Moos's Categories	Supervising Teacher Comments	Principal/Other School Administrator Comments	Academic Colleagues at University Comments	Practicum Coordinator's Comment	Final Year Students' Extended Practicum Comments	Students' General Practicum Comments
Relationship	Prac student was given time to develop relationships with pupils.	We have an orientation program for student teachers when they arrive at this school.	Students need to feel wanted at a school.	The experience of the students during practicum is affected by all members of the school including supervising teachers, other teachers and teacher aides.	My teacher wants me to be just like her.	The principal and other teachers at this school do not acknowledge student teachers at this school.
Personal Growth	Am I doing enough for my student.	Prac students can attend staff meetings and in-service programs at school.	Students are not given any freedom to develop their own style of teaching.	Student teachers need guidance and freedom to experiment with different teaching and learning strategies.	The teachers in this school give student teachers lots of opportunities to act as a real teacher.	Everyone in this school is stressed and unhappy.
System Maintenance & Change	Students are lucky to come in to such a good school where staff work well together.	Students need to realise that schools are busy places and they need to work hard.	Student teachers need explicit instructions from both the administration and the teachers in the school.	All members of the school environment where the student teacher is involved in the practicum need to know the expectations of their role.	The workload is too heavy.	My classroom was very hot and boring.

Appendix C provides more detailed tabulation of the responses of all of the stakeholders in terms of Moos's three categories: Relationship, Personal Growth and System Maintenance and Change. Data are arranged in terms of data collection method, type of respondent, their comments regarding the practicum and Moos's three categories. For example, a closer examination of some of the student teacher data was useful for considering specific aspects of each of the three categories in preparation for scale development and item writing. Some examples of these specific comments by student teachers are shown in Table 4.2.

These comments were helpful in creating items for Relationship scales such as Supervising Teacher Support. For example a student commented that the supervising teacher was 'very helpful and realistic' where another commented that 'I found my teacher to be very negative'. In terms of the Personal Growth aspects, a student commented 'The encouragement the teacher gave by giving full freedom in the classroom'. Accordingly, many student teacher comments linked to Moos's categories and provided ideas for the choice of scales and the writing of items.

TABLE 4.2
REPRESENTATIVE EXCERPT OF STUDENT TEACHER DATA ORGANISED ACCORDING TO MOOS'S CATEGORIES

Category	Data Collection Method	Comments by Student Teachers about Aspects of the Practicum
Relationship	Pre-Service Teacher Extended Practicum Evaluation/Survey	Supervising teacher – very helpful and realistic Very supportive supervising teacher Support from practicum teacher Interactions between staff and students Fantastic teachers General interaction with class The warm and supportive response from the students and the parents Teacher did not offer feedback about level of performance I found my teacher to be very negative
Personal Growth	Pre-Service Teacher Extended Practicum Evaluation/Survey	The encouragement the teacher gave by giving full freedom in the classroom. I could experiment and find my feet Working with children, being in control and feeling that this is what it will be like next year Being able to belong in a school environment
System Maintenance & Change	Pre-Service Teacher extended Practicum Evaluation/Survey	Understanding the importance of being familiar with the school policies- discipline, attendance etc Getting into the routine of the classroom Being able to be left alone with the class

Chapters 1 and 2 introduce the view that, over the past 35 years, much progress has been made in conceptualising and assessing learning environments (see Dorman, 2002; Fraser, 1997; McRobbie & Fraser, 1993). An important aspect of Element 3 of the instrument development procedure was to recognise this work and integrate it with Elements 1 and 2. Relevant scales were identified and items constructed by considering existing instruments (see Section 1.5.2) in the light of the practicum in teacher education, the notion of Catholic ethos and learning environment literature (Element 1) and the stakeholders' perceptions of aspects of the practicum (Element 2).

The purpose of Element 4 was to supplement the scales identified in Element 3 with possible new scales that would tap distinctive dimensions of extended practicum learning environments. In particular, identifying levels of support for student teachers at both classroom and school-levels was important. Tentative scales and items were discussed with learning environment researchers and colleagues involved in the extended practicum. This validation procedure was designed to provide feedback to the researcher on face and content validity. The following three groups of people were involved in scrutinising the tentative scales and items:

- Faculty of Education colleagues at the Australian Catholic University (ACU), Brisbane;
- practising principals and teachers who were involved in postgraduate study at the Australian Catholic University, Brisbane; and
- two academics who have recognised expertise in making judgements on scale development in learning environment research.

Whereas the first two groups above checked principally, but not exclusively, on the practicum in teacher education and Catholic ethos aspects of the study, the third group focused on the quality of scales and items in terms of face validity, scale allocation, and item faults and ambiguities. By obtaining advice and ideas from a range of people, improved validity was expected.

Following modifications suggested by the groups described above, the preliminary form of this instrument, the Extended Practicum Learning Environment Inventory (EPLEI) was field tested with a sample of pre-service teachers at the Australian Catholic University. This process met the requirements of Element 5 of the instrument development validation process

shown in Figure 4.1. Item-scale correlations, scale-scale correlations, internal consistency reliability and discriminant validity indices were calculated. Based on these analyses and statistics, the Extended Practicum Learning Environment Inventory (EPLEI) was finalised.

To show how the four development criteria stated in Section 4.2.1 are addressed by this five-stage development and validation procedure, Table 4.3 has been assembled. Each development criterion is matched with at least one of the elements of the development and validation procedure. For example, the criterion "Salience to aspects of the practicum" was achieved in the procedure by "Obtaining the perceptions of stakeholders" (Element Two) and the "Identification of extra scales and the writing and scrutinising of associated Items" (Element Four). This five-stage procedure meets fully the development criteria adopted for this study.

The development process described above and illustrated in Figure 4.1 is consistent with the intuitive-rational scale development procedure suggested in Fraser (1986) and Murphy and Fraser (1978) which involves the identification of salient dimensions, writing of test items, field testing and item analysis.

TABLE 4.3
CROSS-REFERENCING OF DEVELOPMENT CRITERIA WITH ELEMENTS
OF THE DEVELOPMENT AND VALIDATION PROCEDURE

Development Criterion	Development and Validation Element
Consistency with literature	1. Review of the Practicum in Teacher Education, Learning Environment Research and the and the Practicum (from Chapters 1 & 2)
Moos's general categories	3. Identification of appropriate scales from existing instruments (from Chapter 3) 4. Identification of extra scales and the writing and scrutinising of associated items
Salience to aspects of the practicum	1. Obtaining perceptions of stakeholders 2. Examining Practicum Evaluation Data 3. Examining student surveys linked to Martinez's concepts of (Ideal other) 4. Identification of extra scales and the writing and scrutinising of associated items
Economy	3. Identification of appropriate scales from existing instruments (from Chapter 3) 4. Identification of relevant scales and the writing and scrutinising of associated items

4.3 DEVELOPMENT AND VALIDATION OF THE EXTENDED PRACTICUM LEARNING ENVIRONMENT INVENTORY

This section reports the specific aspects of the development of the extended practicum learning environment inventory (EPLEI). The report follows the framework of the five element development and validation procedure discussed in the previous section. The final version of the EPLEI has 72-items assigned to 12 scales. Validation data supporting this version of the instrument are provided.

4.3.1 The Practicum Learning Environment: Literature

Chapters 1 and 2 of this thesis identified important characteristics of the extended practicum learning environment for pre-service teachers at a Catholic university. The literature relating to the practicum in teacher education revealed three key characteristics of the extended practicum. These are student teacher – teacher relationships, the personal growth of student teachers and the importance of the Catholic ethos to practicum learning environments.

Literature relating to the practicum and learning environment research identified student teacher – teacher relationships as the first key characteristic of the extended practicum. This finding is congruent with previous research that has identified Relationships as important to psychosocial dimensions of learning environments (Fraser, 2002; Kremer-Hayon & Wubbels, 1993; Moos, 1986). In a study using the *Questionnaire on Supervisor Interaction,* Kremer-Hayon and Wubbels (1993), demonstrated that the style of interpersonal communication between the student teacher and their supervising teacher affects the relationship between the two and has an impact on the student teacher's satisfaction in the setting. Martinez's (1998) 'ideal other' research (see Appendix A) and Mayer and Austin's (1999) 'effective supervisor' study also identified that positive relationships between student teachers and their supervising teachers were crucial to student teacher satisfaction in the practicum environment. Kiley and Jensen (1998) claimed that the supervising teacher becomes the student teacher's significant other in the practicum environment and the amount of support a supervising teacher gives to a student teacher is pivotal to their experience in the practicum setting. Establishment of positive relationships between teacher and the student teacher was identified as a key feature of supervisory relationships in the research undertaken by a number of researchers (Daloz,

1986; Hawkey, 1997; Holvast, Wubbels & Brekelmans, 1993; Huang, Waxman & Houston, 1993; McNally & Martin, 1998; Zanting, Verloop & Vermunt, 2001).

Students in Martinez's (1998) study described the ideal supervising teacher as 'relaxed', 'supportive, warm, friendly' and 'approachable'. Babkie's (1998) discussion of effective supervision also emphasised the importance of relationship by stating that practicum learning environments should provide student teachers with support and encouragement. Schilling (1998) went further to suggest that supervising teachers adopt an 'invitational approach' towards student teachers. Daloz's (1986) research revealed that effective supervisory relationships between teachers and student teachers need to be characterised by both challenge and support. However, a common theme in the literature is that positive relationships between student teachers and their supervising teachers are critical to the success of student teachers' practicum experiences. Therefore, it is an important dimension of the extended practicum learning environment for assessment.

The personal growth of student teachers was a second characteristic identified in the literature. It was evident that the student teachers in Martinez's (1998) study were concerned about their personal growth and wanted teachers who nurtured them through 'oral and written feedback'. Student teachers indicated that they also wanted teachers to accept the 'mistakes' they made as they were 'still learning'. Student teacher concern for personal growth was also evident in the comment of one student who wanted to be 'treated with respect' and another who requested that the teacher 'give professional advice'.

From a personal growth perspective, Page, Rudney and Marxen (2004) emphasised that supervising teachers should acknowledge that student teachers have individual needs at different stages of their development. This work stressed that supervising teachers allow opportunities for individual students to develop at their own rate and that teachers should provide each student with feedback and strategies that match their personal needs. As Maynard and Furlong (1993) suggest, supervising teachers should continue to encourage student teachers to reflect on all aspects of their teaching but most importantly learn about themselves as a teacher. Perry and Power (2004) promoted the use of an alternative model for student teachers' personal growth. Their work suggested strategies that involved student teachers constructing new knowledge through dialogue, reflection and inquiry with experienced supervisors. This approach was promoted as a means of preparing students with the personal skills necessary for participation as members of a community of learners. The

literature provides a clear focus for an instrument to be developed for this study that takes account of the personal growth of student teachers.

The importance of the Catholic ethos to practicum learning environments was a third characteristic revealed by the literature. Chapter 1 (Section.1.8.) of this thesis provides an overview of this ethos which is espoused in documents that pertain to Catholic universities, education systems and schools. All Catholic education providers, including schools and universities, are charged with the responsibility of creating learning environments imbued with the Gospel values of faith, love, hope, compassion, integrity, priority for those in need, orientation towards God, gratitude of God, and be egalitarian with all equal under God.

Chapter 1 of this thesis provides a rationale specifically for ACU practicum learning environments to be characterised by inclusiveness, support, encouragement and behaviours reflective of the Gospel values that underpin Catholic education. It is important that these aspects of Catholic ethos are embedded in the learning environment for student teachers participating in an extended practicum at a Catholic university. Hence, it was critical that the instrument developed for this study assess this dimension of the practicum environment.

To summarise, three key characteristics have been identified in the literature as being important to the extended practicum environment of student teachers at a Catholic university. These are <u>student teacher – teacher relationships, the personal growth of student teachers, and the importance of the Catholic ethos to practicum learning environments.</u> The design of an instrument assessing the extended practicum needs to reflect these areas.

4.3.2 The Practicum Learning Environment: Stakeholder Perceptions

As indicated earlier in this chapter, data were collected from a number of groups of people regarding aspects of extended practicum environments for students at a Catholic university. Perceptions were obtained from a number of stakeholders including student teachers at a Catholic university, principals and supervising teachers from practicum schools, the practicum co-ordinator and academic colleagues at the university (see Appendices C-G). These data were organised according to Moos's (1974) categories (viz. Relationship, Personal Growth and System Maintenance and System Change) (see Appendix C). A key outcome of the analysis of data was a series of the aspects of the practicum that relate to student teacher experiences. Analyses of these data indicated that some of the key aspects of the practicum

affecting student teachers were student teachers' experiences with children and other staff members in practicum schools and organisational features of the practicum. Importantly, the quality of relationships was identified as a vital component of practicum environments. Table 4.4 shows stakeholder data evidence of the importance of the Relationship aspect of the practicum for student teachers

In particular, data identified that the student teacher – children relationship as a key characteristic of the extended practicum. As a regular part of the ACU practicum evaluation process, student teachers provide feedback on a range of aspects of the practicum that affect their experience. When asked to comment on aspects of classes (see Appendices D, E), student teachers provided both positive and negative responses. From a positive perspective, students identified good classes as those that liked them and were 'caring', 'respectful', accepted 'new comers', were 'well-disciplined' and 'co-operated 'with the (student) teacher's agenda'. Student teachers also indicated several aspects of classes that were not good. These comments included responses such as 'not viewing them as a teacher but just as a student teacher regardless of what was said or done'. Poor classes were identified as ones that had 'no time for a prac. student' and those that showed a complete 'lack of respect'. One student stated 'that a class that is not good makes for a very difficult practicum'.

Appendix C contains students' responses regarding perceptions of the characteristics of good or difficult classes. These data indicate a strong sentiment from student teachers that there is almost a need for the children in the class to be good so that they can succeed in the practicum experience. Surprisingly, only one supervising teacher indicated any awareness of the relevance of student teacher and children relationships. This teacher at least gave the student some 'time to develop relationships with pupils'. Similarly, stakeholder data from other supervising teachers, principals and academic colleagues did not indicate a strong awareness of the relevance of student teacher and children relationships. The only stakeholders whose comments acknowledged this aspect of the practicum were the student teachers and the practicum co-ordinator. The volume of student teacher comments about the impact of their relationships with the children and as those at the centre of the practicum experience, confirms that any instrument developed for the study assesses the dimension of children and student teacher relationships in the extended practicum learning environment.

TABLE 4.4.
COLLECTION OF DATA REGARDING RELATIONSHIP ASPECTS OF THE PRACTICUM

Supervising Teacher Comments	Principal/Other School Administrator Comments	Academic Colleagues at University's Comments	Practicum Coordinator's Comment	Final Year Student's Extended Practicum Comments	General Practicum Students' Comments
Prac. student was given time to develop relationships with pupils. How wonderful for a supervising teacher to have a well-prepared, diligent and enthusiastic teaching associate to share the load with at this time of the year.	We (school) have an orientation program for student teachers when they arrive at this school.	Students need to feel wanted at a school.	The experience of the students during practicum is affected by all members of the school including supervising teachers, other teachers and teacher aides. Student teachers need to feel welcome in a school. A negative supervising teacher is able to diminish a student's sense of self-confidence which, in turn affects the student's performance.	Pupils in this class do not support student teachers. Student teachers are not welcome in this school A good teacher is one that makes the student teacher feel welcome in the classroom and not that they are not imposing. A good supervising teacher is one that doesn't treat a student teacher just like a university student but one who listens to their thoughts and opinions. Children in classes should be –caring-respectful – accept 'new comers', 'well-disciplined', 'co-operated 'with the (student) teacher's agenda".	The principal and other teachers at this school do not acknowledge student teachers. My teacher is really supportive and gives me ideas. The pupils work well together. The kids in my class made it difficult for me. Staff allow you to use resources. Secretary be friendly. Attentive children.

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Relationships between student teachers and other members of school staff was another characteristic identified by stakeholders. Analysis of the data indicated that these relationships refer to all staff members the student teacher encounters during their practicum. These people include principals, other teachers, other student teachers, office staff and teacher aides. Table 4.4 provides some stakeholder comments regarding student teachers and other staff. Appendix C provides a summary of relationship responses according to Moos's three categories, and Appendices D and E contain all of the student teacher practicum evaluation responses. Student teachers provided feedback on ways that administration staff could facilitate positive practicum experiences. Students suggested that they 'could be more welcoming and show an interest' in them and that 'the principal could communicate with students from time to time and allow them involvement in staff meetings'. They commented that staff could ask 'how you are going' and one student said 'the secretary could be friendly'.

When asked about the features of a good school for practice teaching, students indicated an 'environment of care and concern' and a 'principal that is seen in the school working with others, not absent' Other students indicated that a 'friendly school with staff willing to assist and give guidance' and 'staff who are interested in students and not see them 'as annoying' as being important. Another student teacher indicated that a good school was one where there was 'community spirit'. Two further students mentioned the importance of tone of the whole school environment and suggested 'teacher harmony' within the school was an important feature of a good practicum school. One student mentioned that a good school has a 'quality environment that fosters a good Catholic ethos'.

Conversely, when asked to identify the features of schools that were not good practicum schools, student teacher responses ranged from schools 'that have teachers who do not have time to help' or are 'unfriendly or unwelcoming'. Students also commented that poor schools had staff that are 'continually putting you down and referring to you as simply a student'. They also thought a poor school was characterized by a 'principal that does not interact with you and does not take an interest' and 'staff who don't 'associate with you in the staff room, corridors, and playground' and are 'unapproachable'. Table 4.5 provides an overview of the collection of stakeholder data regarding organisational features of the practicum. These responses indicate that student teacher perceptions of relationship with other staff in the school do impact on their experience within the school. This view was also supported by other stakeholders. As the university practicum co-ordinator said, 'the experience of the students during practicum is affected by all members of the school including supervising teachers,

other teachers and teacher aides. Another academic colleague mentioned that 'other teachers in schools can make student teachers feel threatened when they cut them out of staffroom conversations'. However, few comments from supervising teachers or principals indicated their awareness of the impact of other staff in the school on student teacher experiences. The volume of comments from student teachers and university personnel indicated that relationships between student teachers and other members of school staff was another important characteristic that the instrument for the current study should assess (see Appendices F, G).

Organisational features of practicum environments for student teachers is the final dimension identified by stakeholder data. Table 4.5 provides a snapshot of stakeholder perceptions of these organisational features. Data showed that student teachers are affected by organisational features at both practical and professional levels. From a practical perspective, student teacher comments indicated that they required information regarding matters such as being shown the location of 'toilets' and 'photocopying rooms' and how to organise 'setting up a photocopy account'. The student teachers indicated that they wanted to be allowed to 'use resources such as copiers, paper' and 'card'. Students 'wanted to be kept up to date with school events'. One student indicated that 'he appreciated the school having good facilities' but another complained that the 'classroom was very hot and boring'. One principal acknowledged the importance of these features of practicum environments by stating that 'student teachers were lucky to be in their school as it had a 'safe and pleasant physical environment and atmosphere' (see Appendix G). These comments show that features of practicum schools at a practical level were important to student teachers-.

From a professional perspective, one academic colleague suggested that 'student teachers need clear guidelines from supervising teachers' while another suggested that 'student teachers need to be informed of the school's requirements in terms of arrival and departure time at school, playground duty, and protocols for dealing with all staff". School organisation was also a feature of student teacher comment. One student suggested that before the practicum begins 'teachers should give a description of each of the units (for each subject area) in advance so that they know exactly what they have to cover and what they have already covered, so they can plan further ahead for lessons'. Another student stated that

TABLE 4.5
COLLECTION OF DATA REGARDING ORGANISATIONAL FEATURES OF THE PRACTICUM

Supervising Teachers' Comments	Principal/Other School Administrators' Comments	Academic Colleagues at University's Comments	Practicum Coordinator's Comment	Final Year Student's Extended Practicum Comments	General Practicum Students' Comments
Students are lucky to come in to such a good school where staff works well together.	We expect student teachers to behave and follow all the school's guidelines.	Student teachers need explicit instructions from both the administration and the teachers in the school.	All members of the school environment where the student teacher is involved in the practicum need to know the expectations of their role.	This school has really good facilities.	My classroom was very hot and boring.
Once my student came to the school and we could actually sit down and discuss things one-to-one it seemed so much better and many things then developed from then on.	Safe and pleasant physical environment and atmosphere.	Student teachers deserve the opportunity to try out new ideas in the classroom.		Let students know the timetable.	Giving or setting up a photocopy account for ' students'. Show around school grounds.
I feel it is a little hard for the student to plan effectively when they have little ' real' knowledge of the situation.	Students have been enthusiastic and have learnt about the running of a classroom in an informal manner.		It would be helpful if all documentation that went out to schools was passed on to teachers and that all teachers read the practicum guidelines.	Good teachers provide guidance and support and extend a wealth of information to the student.	Showing where things are i.e. toilet, photocopy room etc. Show you where resources are. Allow you to use resources such as 'photocopier, paper, card.
Student had an overview of lesson plans but not well thought out	The sooner student teachers get face-to-face teaching the better.			Teachers need more information regarding our requirements.	Schools so involved with football and other sport that it takes over the day to day running of the classroom Give ideas/ possible lesson topics appropriate to learning ability. Inform students of what us expected.
	The extended block practicum engages a full immersion into classroom and staff experiences (staff meetings, curriculum development/socialisation) our experience of 4th yrs has been most productive. - enabled them to experience a genuine involvement in the stark reality of school life.				Teachers who won't let you use your own ideas and techniques.

'good teachers give feedback' and another said 'good teachers provide guidance and support and extend a wealth of information to the student' (see Appendix E). Therefore, analysis of these data revealed that the organisational features of the practicum is an important component of the extended practicum that needs to be assessed.

In summary, analysis of the stakeholder data regarding aspects of the practicum suggested three characteristics of importance to the extended practicum of pre-service teachers at a Catholic university: <u>student teacher – children relationships, relationships between student teachers and other members of school staff, and organisational features of the practicum.</u>

4.3.3 Appropriate Existing Learning Environment Scales

In the light of the literature (Section 4.3.1) and the stakeholder perceptions, (Section 4.3.2) the extended practicum learning environment instrument should assess these six dimensions: student teacher – teacher relationships, the personal growth of student teachers, the importance of the Catholic ethos to practicum learning environments, student teacher – children relationships, relationships between student teachers and other members of school staff, and organisational features of the practicum. A review of existing school environment instruments (see Section 1.5.1) indicated clearly that no instrument assessed the above six dimensions.

However, existing instruments were useful in selecting appropriate scales and items. At this point the comments students offered as part of the evaluation program of the practicum were examined. These data revealed the importance of student perceptions of the supervising teacher's support, friendliness, organisation, clarity of expectations, willingness to offer professional advice, positive encouragement, openness in communication as well as the support of the children and other members of the school staff. These data were compared with the findings of Martinez's (1998) and Mayer and Austin's (1999) research on the supervisory environment of student teachers. While the work on teacher communication of Wubbels and others (1993) was useful when considering existing scales and items, the instrument that was found to be most appropriate for the development of the Extended Practicum Learning Environment Inventory was the Work Environment Scale developed by Moos (1986). Scales from this instrument matched many of the aspects revealed in the

practicum evaluation data and the aspects highlighted by Martinez (1998) and Mayer and Austin (1999). Accordingly, the WES was used as a basis for the development of the trial form of the Extended Practicum Learning Environment Inventory (See Appendix I) Table 4.6 shows descriptive information for each scale of the WES.

The work on teacher communication of Wubbels and others (1993) was useful when deciding on scales and items for the instrument. The work of Kremer-Hayon and Wubbels (1993) who developed the Questionnaire on Supervisor Interaction provided ideas for interpersonal interactions that affect student teachers at both a school and class level. This work was useful when considering existing scales and items. However, the instrument that was found to be most appropriate for the development of the Extended Practicum Learning Environment Inventory was the Work Environment Scale developed by Moos (1986).

TABLE 4.6
ADAPTATION OF MOOS'S WORK ENVIRONMENT SCALES

Scale	Description	Moos's Category
Involvement	The extent to which the student teacher, the other members of the school staff and the pupils are concerned and committed to their jobs/tasks	Relationship
Support	The extent to which the student teacher, other student teachers at the school, the supervising teacher, the other members of the school staff, the pupils support each other	Relationship
Peer Cohesion	The extent to which the relationships amongst the student teacher, the other student teachers at the school, the supervising teacher, the other members of the school staff and the pupils help each other and bond together	Relationship
Clarity	Relates to whether the student teacher knows what is expected and how explicitly rules, policies and expectations are communicated to the student teacher in the school setting	System Maintenance & Change
Control	Relates to how much control of the members of the school community is maintained	System Maintenance & Change
Physical Comfort	The extent to which the physical surroundings of the school and classroom where the student teacher is completing the practicum are a pleasant environment to work in	System Maintenance & Change
Work Pressure	The extent to which the pressure of work dominates the school community where the student teacher is completing the practicum	Personal Growth
Task Orientation	The extent to which there is emphasis on good planning, efficiency and getting the job done in the student teacher's practicum school	Personal Growth
Autonomy	The extent to which student teachers are encouraged to be self-sufficient and make decisions	Personal Growth

The WES has eight scales: Involvement, Support, Peer Cohesion, Clarity, Control, Physical Comfort, Work Pressure, Task Orientation and Autonomy. Each scale has seven items. Each item is scored on a five-point scale with a response format of Strongly Agree, Agree, Not Sure, Disagree and Strongly Disagree. Scales from this instrument matched many of the aspects revealed in the stakeholder data and the aspects highlighted in the literature by practicum and learning environment researchers. Accordingly, the WES was used as a basis for the development of the trial form of the Extended Practicum Learning Environment Inventory. Table 4.6 shows descriptive information adapted from for each of the scales of the WES.

While the WES provided a good starting point for the development of the present instrument, it was evident that the context of the extended practicum required new scales that would assess the distinctive aspects of the environment of student teachers when in schools. In particular, the relationship dimensions of the WES did not provide sufficient coverage of the various types of support that student teachers receive. Table 4.7 shows the 12 dimensions of the tentative instrument that was trialled as part of this instrument development process. A cursory review of Tables 4.6 and 4.7 reveals that the Support dimension of the WES has been broken into four support dimensions. These dimensions included Supervising teacher Support, Administration Support, Fellow Teacher Support and Fellow Student Teacher Support.

Two other Relationship dimensions were modified to reflect the practicum context. The scale, Involvement was changed to Student Teacher Involvement and Peer Cohesion was changed to Pupil-Pupil Cohesion. The scale names from the Personal Growth dimensions: Work Pressure, Task Orientation and Autonomy and the System Maintenance and Change dimensions; Clarity, Control and Physical Comfort remained the same as those developed for the WES.

Following identification of the scales for each dimension, sets of items for each scale were established. As indicated in Table 4.7, a total of 107 items were assigned a priori to the 12 scales. New items were devised to reflect the information gleaned from the literature, the wisdom of university colleagues, school personnel and student practicum evaluation. To improve the face validity of the instrument, these items were checked for item faults and ambiguities (see Appendix H). This instrument was an actual form of a learning environment instrument – it sought to elicit students' perception of the actual environment they encountered (see Appendix I). All items employed a 5-point Likert response format with

anchors of 1 (Strongly Agree) and 5 (Strongly Disagree). It is noteworthy that six scales referred to relationship dimensions. Clearly, relationships (and in particular support) were considered crucial to the practicum environment. Table 4.7 provides an overview of the tentative instrument with scale names, description of scales, number of items per scalae, sample items organised according to Moos's categories (1968).

TABLE 4.7
SCALES OF THE TENTATIVE INSTRUMENT

Scale Name	Description	Items per Scale	Sample item	Moos's Category
Supervising Teacher Support	The extent to which the supervising teacher supports the student teacher	8	The supervising teacher encourages you when you have difficulties with lessons.	R
Administration Support	The extent to which the administration of the school support the student teacher	12	Members of the administration team create a welcoming environment for student teachers.	R
Fellow Teacher Support	The extent to which the other teachers in the school support the student teacher	8	The other teachers in the school support you.	R
Fellow Student Teacher Support	The extent to which the other student teachers in the school support the student teacher	7	Student teachers at this school give each other constructive criticism.	R
Student Teacher Involvement	The extent to which the student teacher, is concerned and committed to the jobs/tasks	10	You feel willing to be involved as a staff member at this school.	R
Pupil-Pupil Cohesiveness	The extent to which the pupils in the class where the student teacher is placed help each other and bond together	6	The pupils in this class encourage each other.	R
Clarity	Relates to whether the student teacher knows what is expected and how explicitly rules, policies and expectations are communicated to the student teacher in the school setting	9	The supervising teacher communicates clear guidelines for student teachers.	S
Control	Relates to how much control of the members of the school community is maintained	9	Supervising teachers keep a close watch on student teachers.	S
Physical Comfort	The extent to which the physical surroundings of the school and classroom where the student teacher is completing the practicum are a pleasant environment to work in.	8	The classroom provides an attractive learning setting.	S
Work Pressure	The extent to which the pressure of work dominates the school community where the student teacher is completing the practicum	11	There is a lot of work pressure in this school.	S
Autonomy	The extent to which the student teacher is encouraged to be self-sufficient and make decisions	9	The teacher allows you to make decisions about lessons.	P
Task Orientation	The extent to which there is emphasis on good planning, efficiency and getting the job done in the student teacher's practicum school	10	Task completion is important in this classroom.	P

Note. R: Relationship, S: System Maintenance & Change, P: Personal Growth

4.3.4 Field Testing, Refinement and Validation of the Extended Practicum Learning Environment Inventory (EPLEI)

The final element of the development procedure for the extended practicum learning Environment Inventory (EPLEI) involved field testing, refinement and compilation of scale validation statistics. The following sections report internal consistency reliability data for the trial of the tentative instrument, subsequent refinement decisions, and validation data for the final form of the instrument. Additionally, validation data collected from the use of the EPLEI in two later administrations are provided. Collectively, these data attest to the sound structural characteristics of the EPLEI.

Internal Consistency Reliability –Tentative Form of EPLEI

The preliminary form of the instrument was trialled with a sample of 197 Australian Catholic University students participating in the practicum program at McAuley campus in Semester 1, 2001. Following administration of the trial instrument, data were analysed using the SPSS package. Estimates of the internal consistency of the 12 preliminary scales were calculated using Cronbach's Coefficient alpha. Overall, reliability coefficients for all scales were very sound with the highest Coefficient alpha (.93) for the Supervising Teacher Support scale and the lowest (.67) for the Task Orientation scale. Table 4.8 shows these coefficients.

Scale Refinement

The preliminary instrument had 107 items and it was desirable that this be reduced to a more manageable number of items. Additionally, it was hoped that scale reliability might be improved through the deletion of items that had the weakest item-remainder of scale correlations. Each item was examined in terms of its item-remainder of scale correlation and the scale Coefficient alpha if that item was deleted. Before removing any item, the rationale for its original inclusion and whether rewriting the item might clarify its intent were considered. For example, Item 59 in the trial instrument was 'The atmosphere in the classroom is laissez-faire' had a low corrected item-total correlation. This was considered an important item. Therefore, rather than removing this item, the researcher conducted a telephone interview with some students who had responded anonymously to the trial questionnaire. The purpose of the interview was to gauge student understanding of the

question. Student teacher feedback indicated that they did not know or understand the term 'laissez-faire'. One student thought that it meant that the teacher was relaxed and other students had no idea at all of the item's meaning. Hence, it was decided to change the wording of the item to read, 'The atmosphere in the classroom is casual'. Two items with low corrected item-total correlation were Items 36 and 72: 'There is a lot of work pressure in this school' and 'Student teachers can take it easy and still get the job done'. While these items had low scores, they were considered important indicators of the psychosocial environment of the extended practicum and were subsequently retained in the final form. Regarding all proposed changes of items in the scales, consultation occurred with fellow academics knowledgeable in measurement issues and the extended practicum in teacher education.

As a result of this exhaustive process, the instrument was refined to 12 scales with 6 items in each scale. Reducing the number of items to 72 made the final form of the *Extended Practicum Learning Environment Inventory* (EPLEI) much more efficient and user friendly (see Appendix J).

TABLE 4.8

SCALE STATISTICS FOR TENTATIVE INSTRUMENT AND FINAL FORM OF INSTRUMENT

Scale Name	Coefficient α for Preliminary Form of Instrument	Scale Statistics for Final Form of Instrument				
		Coefficient α	Mean Correlation	Scale Mean	Standard Deviation	Standard Error of Meas.
Supervising Teacher Support	.93	.91	.42	26.10	5.04	1.33
Administration Support	.83	.78	.39	24.19	4.05	1.90
Fellow Teacher Support	.86	.85	.38	23.95	4.37	1.69
Fellow Student Teacher Support	.77	.79	.21	22.59	4.41	2.02
Student Teacher Involvement	.90	.94	.42	26.43	5.19	1.27
Pupil-Pupil Cohesiveness	.81	.82	.26	23.65	4.29	1.82
Clarity	.77	.76	.36	22.21	4.46	2.18
Control	.69	.75	.33	22.13	3.71	1.86
Physical Comfort	.80	.81	.33	23.96	4.30	1.86
Autonomy	.74	.74	.35	23.98	4.42	2.25
Task Orientation	.67	.70	.31	23.12	3.69	1.73
Work Pressure	.68	.69	.04	19.06	4.35	2.42

Validation Data – Final Form of EPLEI

Table 4.8 also shows that the refinement process resulted in improved internal consistencies for 8 of the 12 scales and only minor reductions for the remaining four scales. Coefficient alphas ranged from .69 to .94. Standard error of measurement data of Table 4.8 ranged from 1.27 for the Student Teacher Involvement scale to 2.42 for Work Pressure. These data indicate that the 'true' scores of any respondent did not vary much from their respective obtained scores. Even for the Work Pressure scale which had the lowest Coefficient alpha (.69), the obtained respondent score can be expected to fall within 4.84 of the 'true' score about 95% of the time, assuming a normal distribution of respondent scores. Scale means ranged from 19.06 ($SD = 4.35$) for Work Pressure to 26.43 ($SD = 5.19$) for Student Teacher Involvement (see Table 4.8).

Discriminant Validity

One desirable characteristic of an instrument possessing several internally consistent scales is that these scales do not overlap appreciably. Overlap breaches the parsimony goal and confounds interpretation of subsequent findings. One convenient index for such discriminant validity for learning environment instruments is the mean of the correlations of one scale with the remaining scales in the instrument (see Fraser, 1986). Ideally, these mean correlations should have low absolute values. Table 4.8 shows mean correlations for each of the 12 final scales of the EPLEI. These data indicate that the scales of the final form of the EPLEI do overlap with the highest mean correlation being .42 for Student Teacher Involvement and Supervising Teacher Support and .04 for Work Pressure. However, the overlap was not to an extent that would violate the EPLEI's structure. Additionally, the conceptual distinctiveness of each of the scales warrants their retention in the EPLEI.

Validation Data from the Use of the EPLEI in Semester 2, 2001, and Semester 2, 2002

The final version of the EPLEI was administered to cohorts of students in Semester 2, 2001, and Semester 2, 2002 (see Appendix K). As detailed in chapter 3, these samples consisted of 64 and 57 student teachers respectively. Estimates of the internal consistency of the 12 preliminary scales were calculated using Cronbach's Coefficient alpha as shown in Table 4.9. Overall, reliability coefficients for all scales in Semester 2, 2001 administration were sound with the highest Coefficient alpha (.93) for the Supervising Teacher Support scale and the

TABLE 4.9
SCALE STATISTICS FOR 2001 AND 2002 ADMINISTRATIONS OF THE EPLEI

EPLEI Scale	Semester 2, 2001 administration			Semester 2, 2002 administration		
	Coeff't α	*M*	*S D*	Coeff't α	*M*	*SD*
Supervising Teacher Support	.93	25.90	4.98	.86	26.82	3.56
Administration Support	.78	24.66	4.16	.82	25.40	3.78
Fellow Teacher Support	.85	23.35	4.06	.84	23.78	4.35
Fellow Student Teacher Support	.79	20.95	4.20	.79	23.31	4.03
Student Teacher Involvement	.94	26.22	4.96	.85	26.75	3.47
Pupil-Pupil Cohesiveness	.82	23.56	3.98	.76	23.80	3.66
Clarity	.76	22.21	4.18	.83	22.39	4.64
Control	.75	22.32	2.87	.65	23.73	2.93
Physical Comfort	.81	22.97	4.26	.67	24.23	3.66
Autonomy	.74	24.25	4.20	.64	24.33	3.43
Task Orientation	.70	22.67	2.45	.65	21.44	2.40
Work Pressure	.69	19.94	4.28	.59	16.91	3.23

lowest (.69) for the Work Pressure Scale. For the Semester 2, 2002 sample, the reliability coefficients were also generally sound with the highest Coefficient alpha for the Supervising Teacher Support scale (.86) and the lowest for the Work Pressure scale (.59). Table 4.9 also shows scale means and standard deviations from the Semester 2, 2001 and Semester 2, 2002 administration of the EPLEI.

4.3.5 Development of the Extended Practicum Learning Environment Inventory (Supervising Teacher Version)

In order to compare student teacher and supervising teacher perceptions of the extended practicum learning environment (Research Question 3), a form of EPLEI that could be administered to supervising teachers needed to be developed.

The overall structure of this analogous instrument, the EPLEI (Supervising Teacher Version) was identical to the EPLEI administered to the students. Each scale remained the same but items were re-written to suit supervising teachers. The outcome of this process resulted in the teacher version of the EPLEI (see Appendix L). Table 4.10 provides an example of the modifications of the EPLEI items. While Table 4.10 shows the changes to items of the Supervising Teacher Support scale, similar adjustments were made to all EPLEI items where appropriate.

Table 4.11 shows scale statistics for the EPLEI (Supervising Teacher Version). Reliabilities ranged from .33 for the Autonomy scale to .86 for Supervising Teacher Support. As the internal consistency reliability of the Autonomy scale was unacceptably low and could not be improved, this scale was deleted from the instrument. Accordingly, the EPLEI (Supervising Teacher Version) had 66 items assigned to 11 scales: Supervising Teacher Support, Administration Support, Fellow Teacher Support, Fellow Student Teacher Support, Student Teacher Involvement, Pupil-Pupil Cohesiveness, Clarity, Control, Physical Comfort, Task Orientation, and Work Pressure. Analyses conducted to answer Research Question 3 used these 11 scales (see Chapter 5).

TABLE 4.10
EXAMPLE OF ITEM MODIFICATIONS TO FORM THE EPLEI (SUPERVISING TEACHER VERSION)

Supervising Teacher Support Scale EPLEI (Student Teacher Version)	Supervising Teacher Support Scale EPLEI (Supervising Teacher Version)
1. The supervising teacher supports you	1. I support my student teacher.
2. The supervising teacher is committed to his/her role of supervising student teachers.	2. I am committed to the role of supervising student teachers.
3. The supervising teacher goes out of his/her way to help student teachers.	3. I go out of my way to help my student teacher.
4. The supervising teacher encourages you when you have difficulties with lessons.	4. I encourage my student teacher when she/he has difficulties with lessons.
5. The supervising teacher shares lesson ideas.	5. I share lesson ideas with my student teacher.
6. The supervising teacher encourages you to try out new ideas.	6. I encourage my student to try out new ideas.

TABLE 4.11

SCALE STATISTICS FOR EPLEI (SUPERVISING TEACHER VERSION)
(N = 58 supervising teachers)

Scale Name	Coefficient α	Mean	Standard Deviation
Supervising Teacher Support	.69	28.53	1.83
Administration Support	.71	26.27	2.82
Fellow Teacher Support	.66	24.60	2.77
Fellow Student Teacher Support	.85	21.53	3.69
Student Teacher Involvement	.73	27.33	2.53
Pupil-Pupil Cohesiveness	.75	26.20	3.08
Clarity	.63	24.70	3.03
Control	.64	23.27	3.03
Physical Comfort	.66	24.00	3.08
Autonomy	.33	–	–
Task Orientation	.58	22.20	2.08
Work Pressure	.54	18.93	2.73

4.4 DEVELOPMENT AND VALIDATION OF THE STUDENT TEACHER EFFICACY INSTRUMENT

This section reports the development of the Student Teacher Efficacy Instrument (STEI) which was employed as an outcomes measure to answer the following research questions:

4a.   What relationship exists between student teachers' perceptions of the extended practicum and their self-efficacy for teaching?

4b.   Can a valid model be developed that relates student teachers' perceptions of the extended practicum to their self-efficacy for teaching?

4.4.1 Development Criteria for the Student Teacher Efficacy Instrument (STEI)

Four criteria guided the development of three self-efficacy scales for the Student Teacher Efficacy Instrument (STEI). These principles were: consistency with relevant literature

relating to self-efficacy and teacher efficacy including previously developed instruments, coverage of the dimensions of the teaching role, consistency with psychometric principles and economy and efficiency of administration of instrument.

The first criterion for the development of the instrument required an examination of the nature of self-efficacy and teacher efficacy as reported by eminent researchers (e.g., Bandura, 1986; Enochs & Riggs, 1990; Gibson & Dembo 1984; Midgley et al., 2000; Onafowora, 2004; Pajares, 2002; Tschannen-Moran & Woolfolk Hoy, 2001). Each of these researchers has critiqued self-efficacy and teacher efficacy research and its relevance to humanity for living and learning. Research instruments developed by these researchers informed the development of the self-efficacy scales used in this study.

A second key criterion in the development of the instrument was that each individual scale should reflect the different aspects of the role of the teacher. Aspects relating to teachers as they work as a member of a professional team, as they plan and implement curriculum, as they work as classroom managers were examined so that consistency with aspects of expectations of effective teachers would be covered. Chapter 2 of this thesis reviews this literature and identifies aspects of teacher efficacy as an outcomes measure of student teachers' perceptions of the extended practicum learning environment.

Thirdly, the instrument's design should be consistent with general psychometric principles of scale development in that it should possess ideally several internally consistent, mutually exclusive scales. Finally, it was important that the scales be efficient to administer as the present study already involved the EPLEI which has 72 items.

4.4.2 Development of the STEI

The first criterion was that the instrument should reflect the literature and instruments relating to student teacher efficacy. As outlined in Chapter 1 (Section 1.7.2), the study of self-efficacy originated in the work of psychology (Rotter, 1966) and was studied extensively by Bandura (1986) whose work was grounded in social cognitive theory. Bandura (1994, p. 71) advanced the idea that self-efficacy relates to peoples' beliefs regarding their ability to produce levels of performance that have influence over the events in their lives. Pajares (2002, p. 39) applied this notion of self-efficacy to classroom learning environments and explored self-efficacy to reach the conclusion that 'research findings over these past 20 (sic) years have strengthened

Bandura's claim that self-efficacy beliefs play an influential role in human agency' and that 'researchers and school practitioners should look to students' self-beliefs about their academic capabilities, for they are important components of motivation, self-regulation, and academic achievement".

Analagous assumptions may be made about student teachers with regard to their self-efficacy for teaching. Fives (2003) claimed that ' the construct of teacher efficacy had been derived from two separate lines of research, Rotter's (1966) locus of control theory and Bandura's (1977) social cognitive theory". An early definition by Tschannen-Moran and Woolfolk Hoy (2001) describes teacher efficacy as "the extent to which teachers believe that they can control the reinforcement of their own initiated actions; that is whether reinforcement of self-motivated actions lay within an individual or external to the individual' (Onafowora, 2004, p. 35). These beliefs about the nature and role of self-efficacy in people's lives have significant implications for the present study as they provide a foundation for collecting student teacher perceptions of their self-efficacy for future teaching in relation to their perceptions of their extended practicum experiences.

As outlined in Chapter 1, teacher efficacy has been described as being on two levels. One level relates to general teaching efficacy which involves a teacher's impact on learner outcomes irrespective of environment influences. The other level of personal teaching efficacy relates to the individual teacher's belief in their capability to generate student learning. Therefore, teacher educators should be cognisant of the influence of student teacher self-beliefs or 'outcomes expectancy' (Bandura, 1986) on their perceived academic capabilities for future teaching. Collecting data that examines relationships amongst student teachers' sense of self-efficacy for teaching and their perceptions of practicum environments in which they learn to teach may provide knowledge of ways to improve student teacher capability for teaching.

A number of researchers have conducted studies that may assist in the development of instruments for examining student teacher self-efficacy. Accordingly, previously developed instruments for assessing environments were examined. The work of Gibson and Dembo (1984) who created an instrument for measuring the two levels of general and personal teacher efficacy and the work of Midgley and others (2000) who developed the *Patterns of Adaptive Learning Scales (PALS)* where "many of the scales are based on research relating to goal orientation theory and of particular relevance to this study, perceptions of goal structure

in the school and personal teacher efficacy" (Midgley et al., 2000, p. 2) informed the development of instruments for this study. Also, the work of Enochs and Riggs (1990) who developed the *Science Teaching Efficacy Beliefs Instrument (STEBI)* which was designed to measure the self-efficacy of pre-service elementary science teachers was reviewed. The work of Newman, Moss, Lenarz, and Newman (1998) who designed a *Student Teaching Questionnaire* as part of a study examining pre-service teachers' views at the beginning and end of a Professional Development School Collaboration Project was also useful.

Another key instrument that informed the development of the Student Teacher efficacy Scales was the *Ohio State Teacher Efficacy Scale (OSTES)* (Tschannen-Moran & Woolfolk Hoy, 2001, p. 85). This instrument reflected, extended and improved on much of the work of earlier teacher efficacy researchers. It was the developed sequentially through three studies that included in-service teachers, pre-service teachers and teacher educators who examined previous instruments in the light of current knowledge of the work of the teacher. There was a long form with 24 items and a short form with 12 items. After extensive factor analyses, the instrument was considered reasonably valid and reliable (Tschannen-Moran & Woolfolk Hoy, 2001, p.84). The three scales developed for the instrument are of particular relevance to this study: Efficacy for Instructional Strategies, Efficacy for Classroom Instruction and Efficacy for Student Engagement (Tschannen-Moran & Woolfolk Hoy, 2001). The broad scales and the items in each scale provided ideas for the aspects of the student teacher efficacy to be assessed in this study. A review of the scholarship relating to self-efficacy and teacher efficacy coupled with an examination of existing teacher instruments was a key element in the stimulus for design of the instrument for this study.

Another component of the STEI's development involved obtaining the perceptions of extended practicum learning environments from a large sample of the stakeholders of the extended practicum. This process was quite extensive and obtained data through a number of strategies including the collection and examination of documentation published by key stakeholders of teaching in Queensland. These stakeholders included the Queensland Board of Teacher Registration [BTR] and the Queensland Department of Education and the Arts. The BTR is responsible for the registration of teachers in Queensland and has published the document, *Ethical Standards for Teachers* (BTR, 2004) as a guide for teachers who wish to teach in the State of Queensland. No teacher is able to work in Queensland without the consent of the Board. The Department of Education and the Arts, Queensland is the major employer of teachers in the

State of Queensland and in 2002 produced a pilot document outlining the expected standards for teachers in Queensland. The document is entitled *Professional Standards for Teachers: Guidelines for Professional Practice* (Department of Education and the Arts, 2002). Both of these documents informed the writing of items for the Student Teacher Efficacy Instrument, especially the scale relating to a teacher's professional behaviour.

Another source of information was the collection of perceptions of the nature and role of the teacher from university-based teacher educators including the following:

- The researcher's knowledge of aspects of the practicum developed over ten years as practical experience as co-ordinator of the practicum for the Bachelor of Education Course. Also, the researcher's knowledge and experience as a lecturer in Studies of Society and Environment Curriculum and Teaching and Classroom Management. Studies were utilised.
- Dialogue with teacher education colleagues involved in the pedagogy of teaching and curriculum design.

The data collected from the stakeholders were examined and salient comments pertaining to student teacher self-efficacy were extracted. Both the literature and stakeholder perceptions suggested three dimensions of student teacher efficacy:

- *Professional Teacher Behaviour Efficacy* – The extent to which student teachers believe that they are able to demonstrate the professional interpersonal skills and behaviours of a teacher.
- *Formal Curriculum Planning Efficacy* – The extent to which student teachers believe that they are able to plan curriculum units and organize classrooms for delivery of units across the key learning areas.
- *Formal Curriculum Delivery Efficacy* – The extent to which student teachers believe that they are effective in classroom management and curriculum delivery.

Table 4.12 shows these scales and information of the sources of these scales. Accordingly, the final STEI contained three scales with six items per scale (see Appendix M). Scoring of individual items uses a 5-point Likert format: Strongly Agree, Agree, Not Sure, Disagree and Strongly Disagree. Examples of items for these three scales are:

- I am able to work in a collegial manner with other members of the teaching profession. (Professional Teacher Behaviour Efficacy)
- I am able to plan units of work across the key learning areas. (Formal Curriculum Planning Efficacy)

- I am able to use assertive discipline techniques to maintain a safe, harmonious learning environment for all members of a class. (Formal Curriculum Delivery Efficacy)

A copy of the STEI as part of the final instrumentation for the study is included in Appendix N. The next section reports validation data for the STEI scales.

TABLE 4.12

SOURCES OF THREE STEI SCALES AND ITEMS

Student Teacher Efficacy Instrument (STEI) Scale	Instrument Source for Scales / Items	Relevance of Scale or Items
Professional Teacher Behaviour Efficacy	Patterns of Adaptive Learning Styles (PALS) (Midgley et al., 2000)	Wording and content of items: e.g. PALS – Personal Teacher Efficacy scale: "I am certain I am making a difference in the lives of my students". Perspectives to be assessed in STEI. –
	Self Teaching Questionnaire (STQ) (Newman, Moss, Lenarz, & Newman, 1998)	e.g. student teacher awareness of learners.
	Science Teaching Efficacy Beliefs Instrument (STEBI) (Enochs & Riggs, 1990)	Content of item: e.g. " Given a choice, I will not invite the principal to evaluate my science lesson."
	Board of Teacher Registration, Queensland. (n.d.) - *Ethical Standards for Teachers* Department of Education and the Arts, Queensland, 2002).	Content of items: e.g. 'Responsibilities to teacher employers and the community and society" and 'Commitment to colleagues and to the teaching profession generally" Set of Professional Standards for Queensland Teachers.
Formal Curriculum Planning Efficacy	Science Teaching Efficacy Beliefs Instrument (STEBI) (Enochs & Riggs, 1990);	Wording and content of items from STEBI e.g. "I know the steps necessary to teach science concepts effectively", 'I understand science concepts well enough to be effective in teaching elementary science."
	Ohio State Teacher Efficacy Scale (OSTES) (Tschannen-Moran & Woolfolk Hoy, 2001)	Ideas for items and specific scales: Efficacy for Instructional Strategies, Efficacy for Classroom Instruction and sample item- e.g. "How much can you do to adjust your lessons to the proper level for individual students?" "To what extent can you use a variety of assessment strategies?"
Formal Curriculum Delivery Efficacy	Teacher Efficacy Scale (TES) (Gibson & Dembo ,1984)	Content of items e.g. "How much can you do to control disruptive behaviour in the classroom?"
	Ohio State Teacher Efficacy Scale (OSTES) (Tschannen-Moran & Woolfolk Hoy, 2001)	Ideas for items and specific scales: e.g. "How well can you establish a classroom management system with each group of students?"
	Science Teaching Efficacy Beliefs Instrument (STEBI) (Enochs & Riggs, 1990)	Wording and content of items from STEBI. e.g. "I will find better ways to teach science"

4.4.3 Validation of the Student Teacher Efficacy Instrument (STEI)

Internal consistency reliability of the STEI scales was calculated using Cronbach's Coefficient alpha (see Table 4.13). Overall, the reliability for all three scales were very sound with the highest Coefficient alpha (.92) for Formal Curriculum Delivery Efficacy scale and the lowest (.78) for the Professional Teacher Behaviour Efficacy. Table 4.13 also shows means and standard deviation for these STEI scales.

TABLE 4.13
SCALE STATISTICS FOR STEI
(N = 57 students)

STEI Scale	Coefficient α	Scale Mean	Standard Deviation
Professional Teacher Behaviour Efficacy	.78	27.05	2.77
Formal Curriculum Planning Efficacy	.84	27.12	2.70
Formal Curriculum Delivery Efficacy	.92	27.51	2.68

4.5 CHAPTER SUMMARY

This chapter has detailed the specific steps involved in the development of the Extended Practicum Learning Environment Inventory (EPLEI) to assess the extended practicum learning environment of pre-service teachers at a Catholic university. An analogous form of the EPLEI was also developed to assess supervising teacher perceptions of the extended practicum learning environment. A second instrument, the Student Teacher Efficacy Instrument (STEI) was developed as an outcomes measure in the present study. The instrument development criteria adopted for the development of the EPLEI were discussed in Section 4.2. A five-element procedure which operationalised these criteria was introduced, discussed and justified as an appropriate framework for the development of the EPLEI.

Section 4.3 has discussed the specific steps for the development and validation of the EPLEI. This procedure began with a review of salient literature on the practicum in teacher education, learning environment research and the Catholic ethos which Chapters 1 and 2 of this thesis reviews (Section 4.3.1). The procedure also involved the collection of perceptions of the practicum from stakeholders through practicum evaluation data and collegial discussion

(Section 4.3.2). Dimensions of the extended practicum of a typical practicum environment for student teachers at a Catholic university were identified. Existing learning environment instruments (see Chapter 1, Section 1.5.1 & Chapter 4, Section 4.3.3) were examined and appropriate scales were selected.

Based on this work and further validation and refinement decisions, the final form of the EPLEI was established. It has 72 items assigned to 12 scales (6 items per scale). These scales are: Supervising Teacher Support, Administration Support, Fellow Teacher Support, Fellow Student Teacher Support, Student Teacher Involvement, Pupil-Pupil Cohesiveness, Clarity, Control, Physical Comfort, Autonomy, Task Orientation, and Work Pressure. Scoring of individual items uses a 5-point Likert format: Strongly Agree, Agree, Not Sure, Disagree and Strongly Disagree. The EPLEI meets the four development criteria discussed at the beginning of this chapter: consistency with literature, coverage of Moos's three general categories (relationship, personal growth, and system maintenance and system change), salience to aspects of the practicum, and economy of administration and scoring. Validation data attest to the sound structural characteristics of the instrument and provide a basis for subsequent data analyses which are reported in Chapter 5 of this thesis. To compare student teacher and supervising teacher perceptions of the same extended practicum, the EPLEI (Supervising Teacher Version) was developed (see Section 4.3.5) provides an overview of the development of the teacher version of the EPLEI.

Section 4.4 has provided an overview of the procedures for the development of the second instrument used in the study, the Student Teacher Efficacy Instrument (STEI). The development procedure involved a review of literature on the practicum in teacher education and teacher self-efficacy in Chapters 1 and 2 and a review of existing teacher efficacy instruments. The procedure also involved the collection of perceptions of the practicum from stakeholders. Several teacher efficacy instruments were examined with the STEBI and OSTES found to be very useful in developing the STEI. The STEI has three 6-item scales: Professional Teacher Behaviour Efficacy, Formal Curriculum Planning Efficacy, and Formal Curriculum Delivery Efficacy. Scoring of individual items uses a 5-point Likert format: Strongly Agree, Agree, Not Sure, Disagree and Strongly Disagree. Internal consistency reliability of these scales was satisfactory (see Section 4.4).

This chapter has reported comprehensively the development and validation of the instruments employed in this study. This discussion and evidence provides a sound foundation for the analysis of data which is the focus of the following chapter.

CHAPTER 5

RESULTS

5.1   INTRODUCTION

Data reported in the previous chapter attest to the validity of the Extended Practicum Learning Environment Inventory (EPLEI). The purpose of the present chapter is to report on the use of this instrument with a sample of Queensland pre-service teachers and their supervising teachers to answer the Research Questions posed in this study. The research design of this study involved the use of the EPLEI scales as dependent variables with age, gender and school type as independent variables. It is important to recognise that there were three school types (Catholic, Other Christian, and State).

The data analysis procedure used to compare group means was multivariate analysis of variance (MANOVA). In general, the significance level adopted for all inferential tests of significance was .05. While it is a traditional multivariate strategy to conduct univariate F tests only if the overall MANOVA is statistically significant, recent reviews of research have suggested that this should not be a binding strategy. In their extensive study on this issue, Keselman et al., (1998) concluded that there is very limited support for this entrenched doctrine. Accordingly, while MANOVAs investigating the effect of age, gender and school type were performed, univariate F tests were conducted for all comparisons.

Repeated measures MANOVA was used to compare perceptions of student teachers with their supervising teachers. Where appropriate, an effect size is reported. Effect size refers to the extent to which the groups in the population differ on the dependent variable (Stevens, 1992). The difference between the group means as a fraction of the full sample standard deviation was used as a convenient index. Graphs of the sample data illustrate the results. Correlational analyses were used to study the relationship between EPLEI scales and three Student Teacher Efficacy Instrument (STEI) which were taken as outcomes measures in the present study. Finally, LISREL was employed to model relationships among EPLEI and STEI scales simultaneously.

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Apart from this introductory section, there are four main sections to this chapter. Section 5.2 provides details of the particular research questions answered in this component of the study. In particular, Section 5.2 states the research questions answered in this chapter. Section 5.3 reports the findings related to determinants of the extended practicum learning environment (Research Questions 2a – 2c). Section 5.4 reports differences between student teacher and supervising teacher perceptions of the extended practicum learning environment. Section 5.5 reports correlational analyses on the relationships between EPLEI and STEI dimensions (Research Question 4a) and modelling these relationships simultaneously (Research Question 4b). Section 5.6 summarises these results.

5.2   RESEARCH QUESTIONS ANSWERED IN THIS CHAPTER

Apart from the instrument development questions, there were six questions explored in this study:

Determinants Questions

　　2a. To what extent are student teachers' perceptions of the extended practicum learning environment related to age?

　　2b. To what extent are student teachers' perceptions of the extended practicum learning environment related to gender?

　　2c. To what extent are student teachers' perceptions of the extended practicum learning environment related to school type?

Perception Question

　　3. To what extent do student teachers' perceptions of the extended practicum learning environment and supervising teachers' perceptions of the extended practicum learning environment differ?

Environment – Outcomes Questions

　　4a. What relationship exists between student teachers' perceptions of the extended practicum learning environment and their self-efficacy for teaching?

4b. Can a valid model be developed that relates student teachers' perceptions of the extended practicum learning environment to their self-efficacy for teaching?

5.3   ANALYSIS OF DETERMINANT QUESTIONS DATA

This section reports the investigation of the determinant Questions 2a, 2b and 2c. The three determinant research questions hypothesised age of student teachers, gender of student teachers and school type (i.e. the type of school where the practicum was conducted) would have an effect on perceptions of the learning environment (assessed by the 12 scales of the EPLEI).   The combined student data set from the initial 2001 and final 2002 administration was used to answer these questions. EPLEI data were collected from the fourth year Bachelor of Education (primary) students undertaking an extended practicum in a primary school. The sample of student teachers who responded to the EPLEI consisted of 64 respondents in 2001 and 57 in 2002.

To examine differences between school types, students were grouped according to Catholic, Other Christian (Lutheran and other Christian) or State school types. Comparisons of EPLEI scale scores were conducted for the three grouping variables: age of respondent, gender group of respondent and school type. Multivariate analysis of variance (MANOVA) using the 12 EPLEI scales as dependent variables was performed. In general, the significance level adopted for all inferential tests of significance was .05. Where appropriate an effect size is reported. Effect size refers to the extent to which the groups in the population differ on the dependent variable (Stevens, 1992). Cohen's (1977) d – the difference between the group means as a fraction of the full sample deviation – was used as a convenient index. Graphs of the sample data illustrate the results.

5.3.1 Comparisons of EPLEI scores according to Age

Question 2a. To what extent are student teachers' perceptions of the extended practicum learning environment related to age?

To investigate this question, a MANOVA with the 12 extended practicum learning environment variables consisting of the set of dependent variables and age as the independent variable was

performed. The MANOVA for the effect of age was not significant (Wilks' $\lambda = 0.87$, $p = .71$). Univariate F tests for the effect of age on each EPLEI scale revealed one statistically significant result: Supervising Teacher Support [$F (1, 70) = 4.62$, $p<.01$]. Figure 5.1 shows mean scale scores for the 12 EPLEI scales according to age. Effect sizes were computed using Cohen's (1977) d ranged from 0.04 for the comparison of Control and 0.05 for Physical Comfort to 0.56 for Supervising Teacher Support ($M = 0.27$, $SD = 0.25$). Apart from the Supervising Teacher Support scale, these effect sizes were small. The effect sizes for Control, Physical Comfort were low (0.04 and 0.05 respectively) and moderate for Supervising Teacher Support (0.56). Student teachers in the older age range (age 25 years and above) perceived Supervising Teacher Support in the extended practicum learning environment to be higher ($M = 27.94$) than student teachers in the younger age group (age 24 years and below) ($M = 25.56$).

Figure 5.1. Mean scores for 12 EPLEI scales for age of respondent

5.3.2 Comparisons of EPLEI scores according to Gender

Question 2b. To what extent are student teachers' perceptions of the extended practicum learning environment related to gender?

To investigate this question, a MANOVA with the twelve extended practicum learning environment variables consisting of the set of dependent variables and gender as the independent variable was performed. The MANOVA for the effect of gender was not significant (Wilks' $\lambda = 0.78$, $p = .25$). Univariate F tests for the effect of gender on each EPLEI scale revealed one statistically significant result: Control [F (1, 67) = 7.36, $p<.01$]. Figure 5.2 shows mean scale scores for the 12 EPLEI scales according to gender. Effect sizes ranged from 0.02 for the comparison of Fellow Student Teacher Support to 0.80 for Control ($M = 0.20$, $SD = 0.21$). Apart from the Clarity and Control scales, these effect sizes were small. The effect sizes for Clarity and Control were moderate (0.47) and large (0.80) respectively. Male student teachers perceived a higher level of Control ($M = 25.07$) in the extended practicum learning environment than did females ($M = 22.51$).

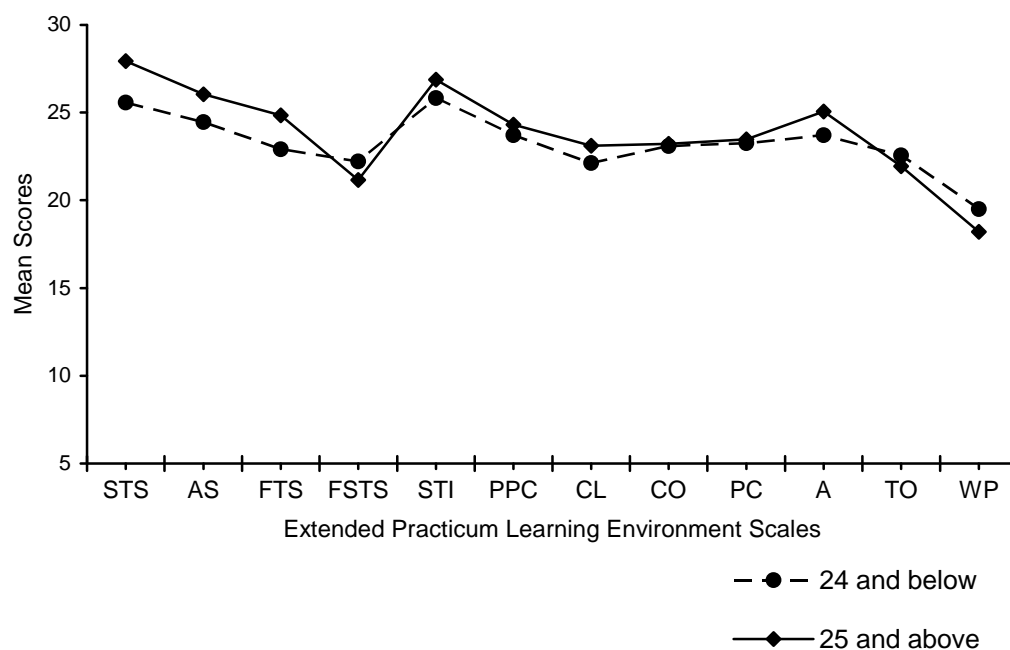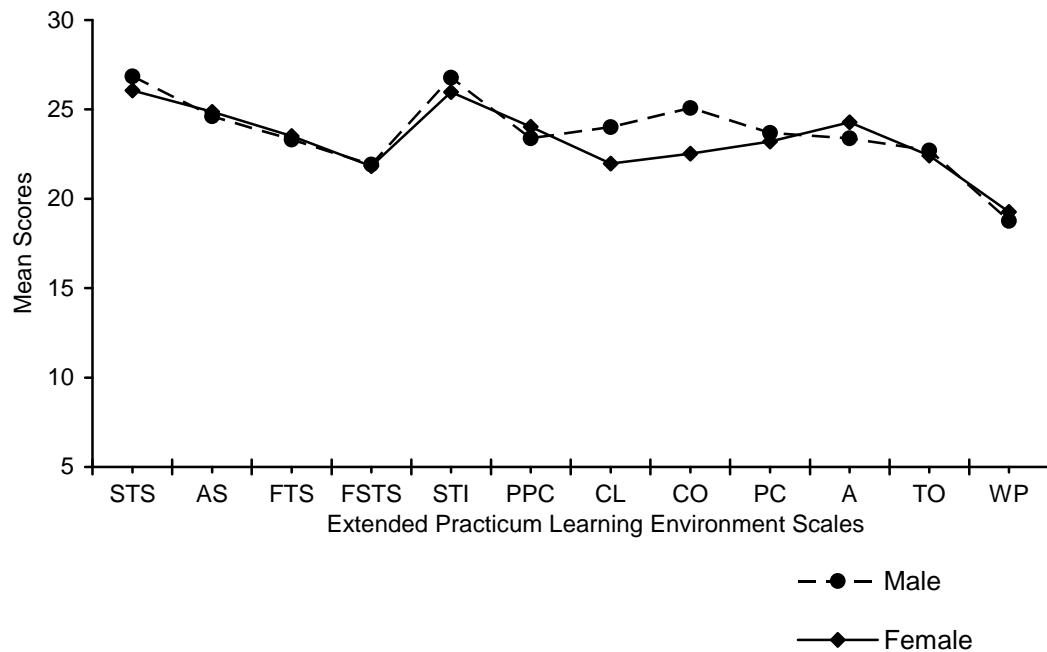**Figure 5.2 Mean scores for 12 EPLEI scales for gender of respondent**

5.3.3 Comparisons of EPLEI scores according to School Type

Question 2c. To what extent are student teachers' perceptions of the extended practicum learning environment related to school type?

To investigate this question, a MANOVA with the 12 extended practicum learning environment variables consisting of the set of dependent variables and school type as the independent variable was performed. The MANOVA for the effect of school type was significant (Wilks' $\lambda = 0.55$, $p<.05$). Univariate F tests for the effect of school on each EPLEI scale revealed three statistically significant results: Fellow Teacher Support [F (2, 69) = 4.16, $p<.02$], Fellow Student Teacher Support [F (2, 69) = 3.39, $p<.04$], and Work Pressure [F (2, 69) = 3.81, $p<02$]. Figure 5.3 shows the results. Effect sizes ranged in the following way for the different school types. Differences in school type were evident. Between Catholic and Other Christian (Lutheran/Christian) Schools the range of the effect size was from .18 for the comparison of Physical Comfort to 0.82 for Work Pressure ($M = 0.56$, $SD= 0.19$). This large effect size indicates that student teacher perception of Work Pressure in Other Christian (Lutheran/ Christian) schools is higher than students placed in both Catholic and State schools. Between Other Christian (Lutheran/Christian) and State Schools, the range of the effect size was from .01 for Administration Support to 0.77 for Fellow Student Teacher Support. ($M = 0.29$, $SD = 0.23$) Between Catholic and State Schools the range of the effect size was from .12 for Pupil-Pupil Cohesiveness to 0.73 for Fellow Teacher Support. ($M= 0.32$, $SD = 0.22$).

To explore further the effect of school type on student teacher perceptions of the extended practicum learning environment, Tukey's post-hoc tests were performed. Tukey's post-hoc procedure showed significant differences between the Catholic and State schools for the Fellow Teacher Support scale with Catholic schools being perceived by the student teachers as providing higher levels of Fellow Teacher Support than State schools. The effect size was 0.73. For the Fellow Student Teacher Support scales, there were significant differences between Catholic and Other Christian (Lutheran/Christian) schools ($d = 0.92$). This effect size is large. This size may reflect the fact that individual students in Other Christian (Lutheran/Christian) schools are often the only student teacher participating in an extended practicum in the school. For the Work Pressure scale, there were significant differences between Catholic and Other Christian (Lutheran/Christian) schools ($d = 0.82$). This effect size is large and may indicate that student

teacher perception of the Work Pressure inherent in participating in an extended practicum in Other Christian (Lutheran/Christian) schools is higher than student teacher perception of Work Pressure in Catholic schools. Student teacher perception of absence of Fellow Student Teacher and Fellow Teacher Support may relate to increased perception of the level of Work Pressure in Other Christian (Lutheran/Christian) schools.
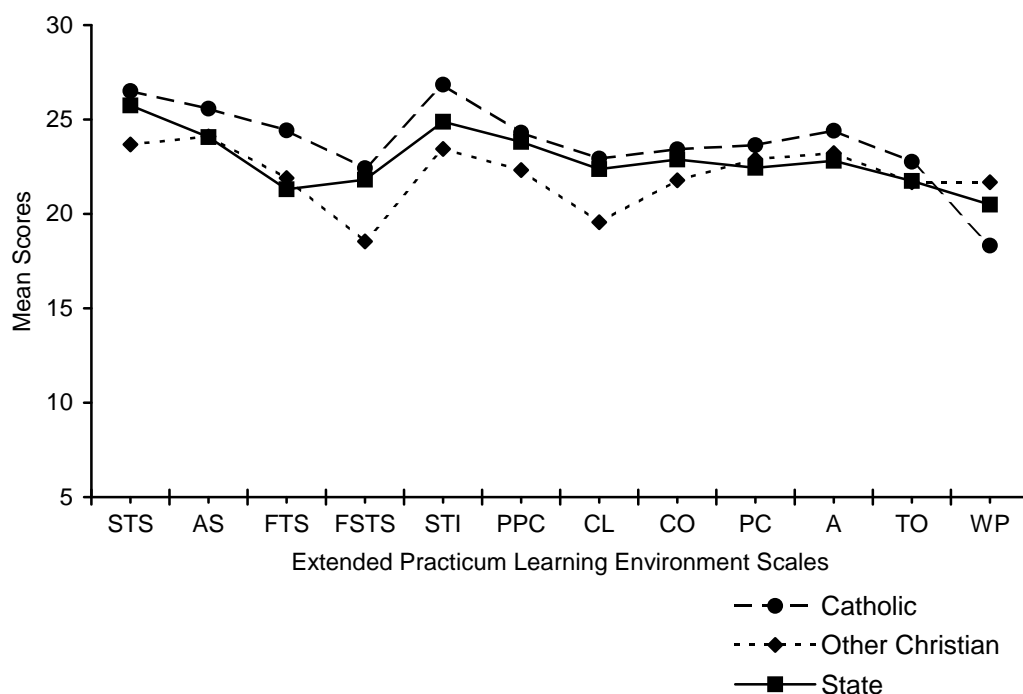
Figure 5.3 Mean scores for 12 EPLEI scales for three school types

5.4 ANALYSIS OF PERCEPTUAL QUESTION DATA

Question 3. To what extent do student teachers' perceptions of the extended practicum learning environment and supervising teachers' perceptions of the extended practicum learning environment differ?

As indicated in the research design for this study (see Section 3.3), the final phase of this study involved data collection from student teachers and their supervising teachers. Student teachers

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responded to the student teacher form of the EPLEI and supervising teachers used an analogous supervising teacher form of the EPLEI. Chapter 4 has provided full details of the development of these instruments. In total, there were 28 pairs of student teachers and their supervising teachers. To explore this question, scale scores were computed for each student teacher and each supervising teacher for 11 scales: Supervising Teacher Support, Administration Support, Fellow Teacher Support, Fellow Student Teacher Support, Student Teacher Involvement, Pupil-Pupil Cohesiveness, Clarity, Control, Physical Comfort, Task Orientation and Work Pressure. Because the data were in paired form, a repeated measures MANOVA with type of respondent (viz. student teacher or supervising teacher) as the within-subjects effect was conducted.

The MANOVA described above was significant (Wilks' λ = 0.05, $p<.05$). Univariate F tests revealed significant differences ($p<.05$) between respondent means for 4 of the 11 scales: Supervising Teacher Support [$F(1, 27)$ = 6.90]; Pupil-Pupil Cohesiveness [$F(1, 27)$ = 9.14], Clarity [$F(1, 27)$ = 6.11] and Work Pressure [$F(1, 27)$ = 17.33]. Effect size indices were 0.75, 0.78, 0.73, and 0.58 respectively. These effect sizes are in the moderate to high range. Another scale that recorded a moderate effect size (0.49) was Fellow Teacher Support. Figure 5.4 shows the results.

Of interest is the consistent pattern in the direction of the differences between student teachers' and supervising teachers' perceptions of the same extended practicum learning environment. Relative to student teachers, supervising teachers perceived the extended practicum to have significantly higher levels of Supervising Teacher Support; Pupil-Pupil Cohesiveness, Clarity and Work Pressure. Figure 5.4 also shows that, in general, Fellow Teacher Support, Administration Support, Fellow Student Teacher Support, Student Teacher Involvement, and Task Orientation were perceived to be higher by supervising teachers compared to the perceptions held by the supervisor's student teacher.
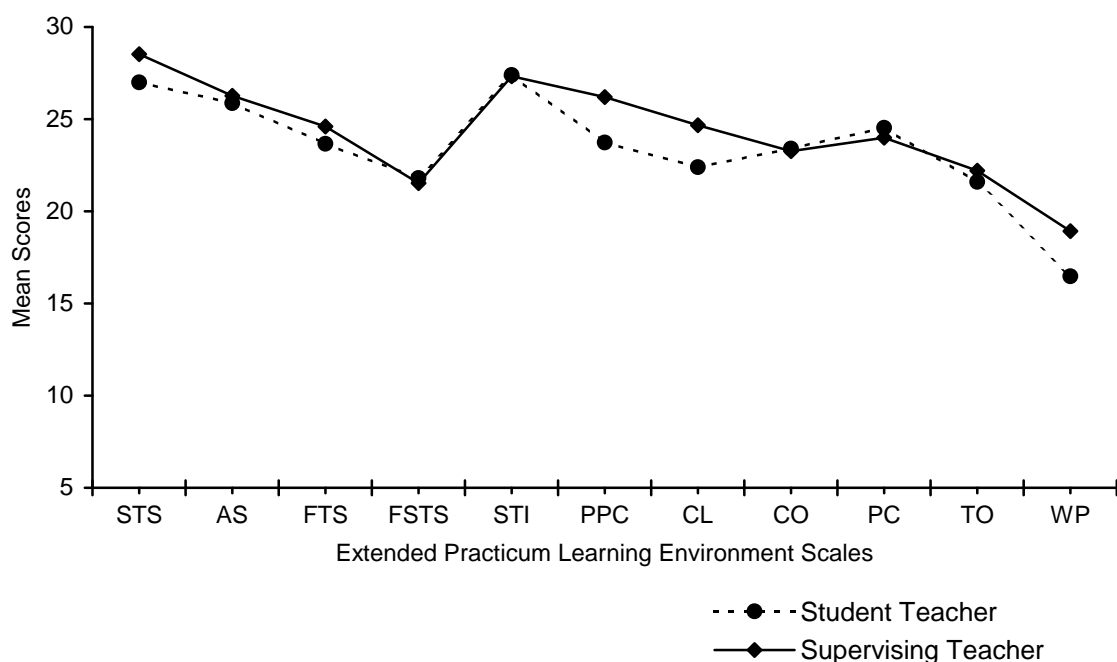
Figure 5.4 Mean scores for 12 EPLEI scales for student teachers and supervising teachers

5.5 ANALYSIS OF ENVIRONMENT – OUTCOMES QUESTIONS DATA

Question 4a. What relationship exists between student teachers' perceptions of the extended practicum learning environment and their self-efficacy for teaching.

Associations between the 12 EPLEI scales and the three student teacher efficacy scales were explored with performed, simple, multiple and canonical correlation analyses. As shown in Table 5.1, 10 of the 36 simple Pearson correlations between the 12 classroom environment scales and the 3 student teacher efficacy scales were statistically significant ($p<.05$), a result which is about 6 times that which could be expected by chance. A total of 31 of the 36 correlations were positive. It is noteworthy that 8 of the 12 correlations between EPLEI scales and Professional Teacher Behaviour Efficacy were statistically significant ($p<.05$). The strongest association was between Administration Support and Professional Teacher Behaviour Efficacy ($r = .48$). Increased levels of Administration Support, Supervising Teacher Support, Fellow Teacher

TABLE 5.1
RESULTS OF SIMPLE CORRELATION ANALYSES BETWEEN 12 EXTENDED PRACTICUM LEARNING
ENVIRONMENT INVENTORY SCALES AND THREE STUDENT TEACHER EFFICACY SCALES.

Extended Practicum Learning Environment Inventory Scale	Simple Pearson Correlation (r)		
	Professional Teacher Behaviour Efficacy	Formal Curriculum Planning Efficacy	Formal Curriculum Delivery Efficacy
Supervising Teacher Support	$.39^{**}$	.14	.11
Administration Support	$.48^{**}$	.06	.08
Fellow Teacher Support	$.44^{**}$	.13	.10
Fellow Student Teacher Support	.13	-.04	-.03
Student Teacher Involvement	$.30^{*}$	.02	.09
Pupil-Pupil Cohesiveness	.09	-.02	.07
Clarity	$.28^{*}$	.06	-.01
Control	.19	.22	.12
Physical Comfort	.18	.16	.03
Autonomy	$.29^{*}$	.10	.15
Task Orientation	$.32^{*}$	$.35^{**}$	$.28^{*}$
Work Pressure	$-.28^{*}$	.04	-.03

$^{*}p<.05$ $^{**}p<.01$

Support, Student Teacher Involvement, Clarity, Autonomy and Task Orientation but reduced levels of Work Pressure were associated with increased levels of Professional Teacher Behaviour Efficacy.

Multiple correlation in the present study involved the 12 EPLEI scales being taken as the set of independent variables and each student teacher efficacy scale as a dependent variable. Table 5.2 shows the results. All three multiple correlation coefficients were significant ($p<.05$). However, analyses revealed only three significant standardised regression coefficients (β). The data suggest that higher levels of Control ($\beta = .66$, $p<.01$) were associated with higher levels of Formal Curriculum Planning Efficacy. Also, higher levels of Control ($\beta = .56$, $p<.05$) and Task Orientation ($\beta = .51$, $p<.05$) were associated with higher levels of Formal Curriculum Planning Efficacy.

TABLE 5.2
RESULTS OF MULTIPLE CORRELATION ANALYSES FOR EXTENDED PRACTICUM LEARNING
ENVIRONMENT INVENTORY SCALES PREDICTING THREE STUDENT TEACHER EFFICACY SCALES.

Student Teacher Efficacy Scale	Multiple Correlation (*R*)	EPLEI Scale	*B*	*SE B*	β
Professional Teacher Behaviour Efficacy	.69	Supervising Teacher Support	.13	.18	.17
		Administration Support	.12	.18	.16
		Fellow Teacher Support	.05	.21	.06
		Fellow Student Teacher Support	-.06	.14	-.08
		Student Teacher Involvement	.11	.18	.13
		Pupil-Pupil Cohesiveness	-.06	.15	-.07
		Clarity	-.10	.18	-.16
		Control	.37	.23	.37
		Physical Comfort	-.22	.19	-.27
		Autonomy	.09	.20	.09
		Task Orientation	.50	.29	.39
		Work Pressure	-.25	.25	-.26
Formal Curriculum Planning Efficacy	.60	Supervising Teacher Support	.16	.18	.22
		Administration Support	-.13	.19	-.19
		Fellow Teacher Support	.09	.21	.12
		Fellow Student Teacher Support	-.12	.14	-.17
		Student Teacher Involvement	-.19	.19	-.24
		Pupil-Pupil Cohesiveness	-.11	.16	-.14
		Clarity	-.27	.18	-.44
		Control	.61	.24	.66**
		Physical Comfort	.14	.20	.19
		Autonomy	.15	.21	.16
		Task Orientation	.51	.30	.43
		Work Pressure	-.01	.26	-.01
Formal Curriculum Delivery Efficacy	.56	Supervising Teacher Support	.17	.19	.24
		Administration Support	-.09	.19	-.12
		Fellow Teacher Support	-.05	.22	-.08
		Fellow Student Teacher Support	-.01	.15	-.02
		Student Teacher Involvement	-.05	.19	-.07
		Pupil-Pupil Cohesiveness	.10	.16	.14
		Clarity	-.36	.19	-.58
		Control	.52	.25	.56*
		Physical Comfort	-.14	.21	-.19
		Autonomy	.12	.22	.12
		Task Orientation	.61	.31	.51*
		Work Pressure	-.22	.27	-.24

*p<.05   **p<.01   ***p<.001

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Although multiple correlation overcomes the problem of relationships among the independent variables, an inflated Type I error is possible due to relationships among the dependent variables. As discussed in Section 3.3.4, canonical correlation overcomes this problem and provides greater parsimony in relating a set of independent variables with a set of dependent variables. In the present analysis, canonical correlational analysis revealed one significant coefficient (R_c = 0.82, $p<.05$). Table 5.3 shows the salient information for this analysis. Interpretation of the correlations between the original variables and the canonical variate and the standardised canonical coefficients revealed that high levels of Administration Support, Student Teacher Involvement, Clarity, but reduced levels of Work Pressure were associated with enhanced levels of Professional Teacher Behaviour Efficacy. A redundancy analysis (Stewart & Love, 1969) indicated that the variance overlap of the EPLEI scales and the student teacher efficacy scales for the first canonical variate was 17.2%.

TABLE 5.3
RESULTS OF CANONICAL CORRELATION ANALYSIS BETWEEN 12 EXTENDED PRACTICUM LEARNING ENVIRONMENT INVENTORY SCALES AND THREE STUDENT TEACHER EFFICACY SCALES.

Variable	Standardised Canonical Coefficient	Correlation with Canonical Variate
Extended Practicum Learning Environment Inventory Scale		
Supervising Teacher Support	-.02	.62
Administration Support	.56	.81
Fellow Teacher Support	.09	.75
Fellow Student Teacher Support	-.02	.28
Student Teacher Involvement	.49	.58
Pupil-Pupil Cohesiveness	-.15	.23
Clarity	.49	.57
Control	-.20	.23
Physical Comfort	-.50	.28
Autonomy	-.04	.44
Task Orientation	.04	.30
Work Pressure	-.31	-.55
Student Teacher Efficacy Scales		
Professional Teacher Behaviour Efficacy	1.60	.65
Formal Curriculum Planning Efficacy	-.58	.01
Formal Curriculum Delivery Efficacy	-.68	.06
	$R_c = .82^*$	

[*] $p<.001$

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Question 4b. Can a valid model be developed that relates student teachers' perceptions of the extended practicum learning environment and their self-efficacy for teaching.

LISREL Analyses

Values for λ and θ for each scale were computed using Munck's (1979) theory described in Section 3.3.4. From the simple, multiple and canonical correlational results reported above, three EPLEI scales (Fellow Student Teacher Support, Pupil-Pupil Cohesiveness and Physical Comfort) were not identified as predictors of any of the three student teacher efficacy scales. Accordingly, these three EPLEI scales were not included in the postulated model shown in Figure 5.5. Apart from its incorporation of the results of the correlational analyses, this model hypothesised relationships among the three outcome variables. Based on the definitions of these scales, it was hypothesised that Professional Teacher Behaviour Efficacy would predict Formal Curriculum Planning Efficacy and Formal Curriculum Delivery Efficacy. Additionally Formal Curriculum Planning Efficacy would predict Formal Curriculum Delivery Efficacy.

The LISREL analysis of the postulated model shown in Figure 5.5 revealed a very good fit to the data (see Table 5. 4). However, a review of path coefficients revealed four paths for which the coefficients were not statistically significant (viz. Control $\rightarrow$ Formal Curriculum Planning Efficacy, Control$\rightarrow$ Formal Curriculum Delivery Efficacy, Clarity $\rightarrow$ Formal Curriculum Delivery Efficacy, and Task Orientation $\rightarrow$ Formal Curriculum Delivery Efficacy). These four paths were removed from the model and the new fit indices are shown in Table 5.4.

TABLE 5.4
SUMMARY OF SPECIFICATIONS AND FIT STATISTICS FOR TWO STRUCTURAL MODELS.

Model	Actions	χ^2	*df*	RMSEA	TLI	PNFI
1 (Postulated) (see Figure 5.5)	-	17.58	13	.03	.99	.17
2 (Final) (see Figure 5.6)	Path Control $\rightarrow$ Formal Curriculum Planning Efficacy removed. Path Control$\rightarrow$ Formal Curriculum Delivery Efficacy removed. Path Clarity $\rightarrow$ Formal Curriculum Delivery Efficacy removed. Path Task Orientation $\rightarrow$ Formal Curriculum Delivery Efficacy removed.	20.02	17	.02	1.00	.22
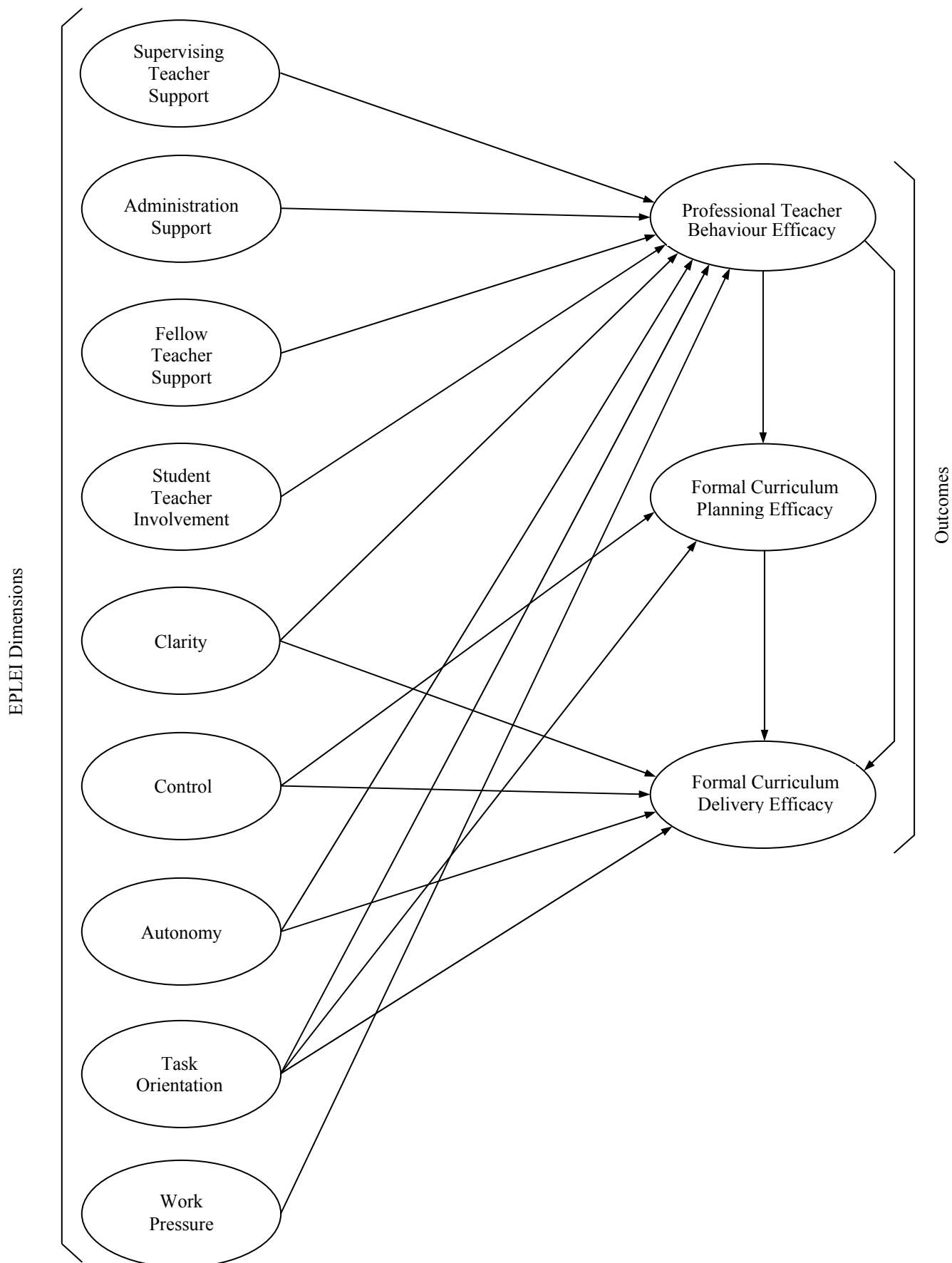
Figure 5.5 Postulated model for three efficacy outcome variables (observed variables, fixed paths from observed variables to latent variables and error variances for observed variables have been omitted).

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Figure 5.6 shows this final model with path coefficients, all of which were statistically significantly different from zero (*p*<.05). While model fit and model comparison indices for this final model were excellent (RMSEA of .02 and a TLI of 1.00), the model parsimony was not above the benchmark value of .50 indicating mediocre parsimony in the model (see Table 5.4). Nevertheless, this model should be interpreted as having very good fit to the data.

In general, the strength and direction of the statistically significant path coefficients are plausible. For example, Supervising Teacher Support was a moderate positive predictor of Professional Teacher Behaviour Efficacy ($\beta = 0.12$). Increased levels of Administration Support were positively related to Professional Teacher Behaviour Efficacy ($\beta = 0.15$). Task Orientation was a significant, positive predictor of Professional Teacher Behaviour Efficacy ($\beta = 0.13$) and Formal Curriculum Planning Efficacy ($\beta = 0.13$). It is noteworthy that, apart from the effect of Work Pressure on Professional Teacher Behaviour Efficacy ($\beta = -0.06$), all eight EPLEI dimensions in the final model had positive effects on student teacher behaviour efficacy. These results are entirely plausible. Hypothesised relationships among the three student teacher efficacy scales were supported by the LISREL modelling. Professional Teacher Behaviour Efficacy had direct effects on Formal Curriculum Planning Efficacy ($\beta = 0.34$) and Formal Curriculum Delivery Efficacy ($\beta = 0.27$). Formal Curriculum Planning Efficacy had a positive effect on Formal Curriculum Delivery Efficacy ($\beta = 0.32$). Direct and indirect effects of predictor variables can also be investigated. For example, Autonomy had a direct effect on Formal Curriculum Delivery Efficacy ($\beta = 0.13$) and an indirect effect via Professional Teacher Behaviour Efficacy and Formal Curriculum Planning Efficacy (.14 x .34 x .32) + (.14 x .27) = .05. Thus the total effect of Autonomy on Formal Curriculum Delivery Efficacy is 0.18.

From this modelling, the squared multiple correlation coefficient for the prediction of Professional Teacher Behaviour Efficacy was computed to be .25 which indicates that 25% of variance in Professional Teacher Behaviour Efficacy could be explained by its contributing variables (viz., Supervising Teacher Support, Administration Support, Fellow Teacher Support, Student Teacher Involvement, Clarity, Autonomy, Task Orientation and Work Pressure). Over 15% of variance in Formal Curriculum Planning Efficacy was attributable to Task Orientation

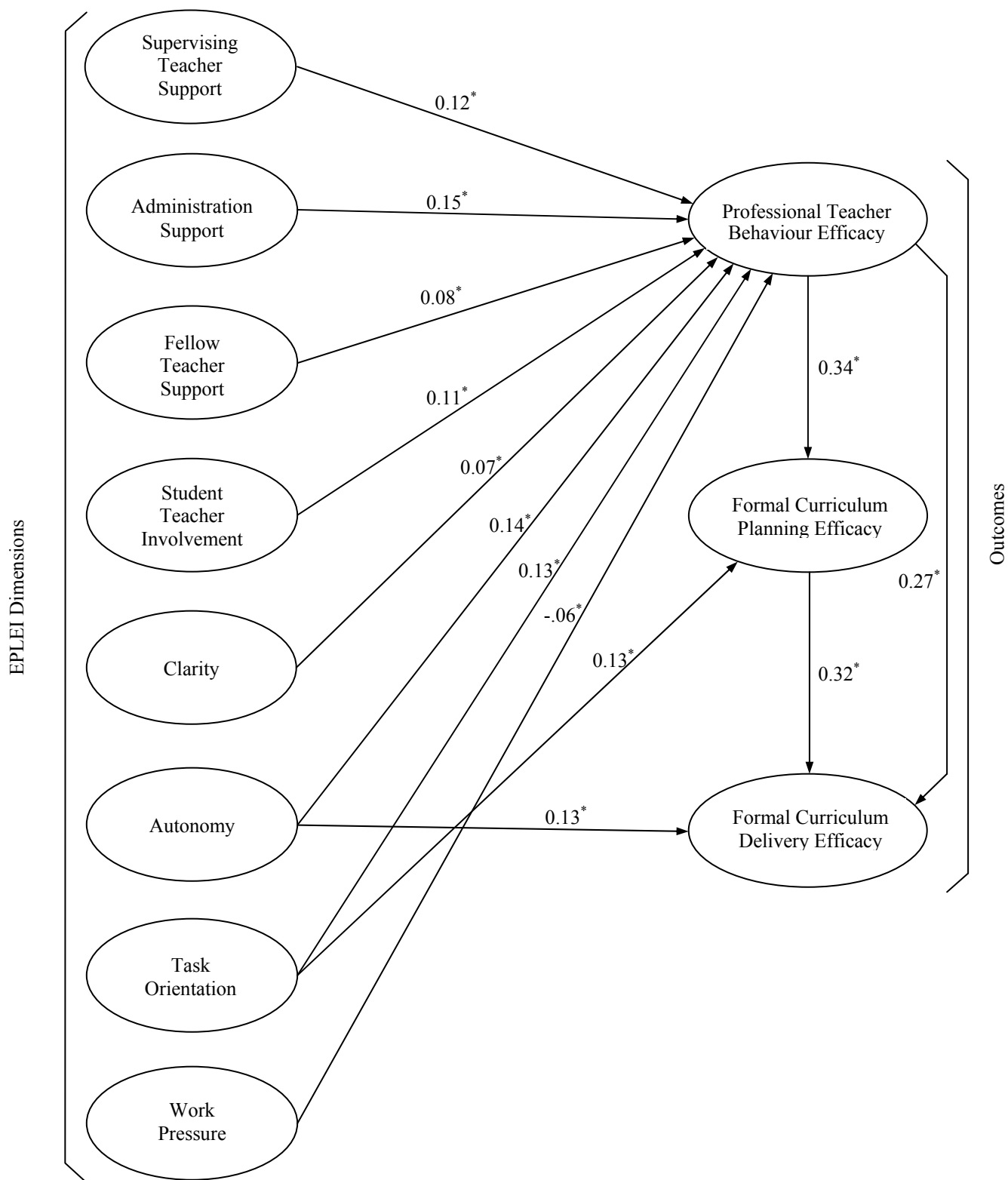**Figure 5.6 Final structural model for three efficacy outcome variables (observed variables, fixed paths from observed variables to latent variables and error variances for observed variables have been omitted).**

and Professional Teacher Behaviour Efficacy. Similarly, Autonomy, Professional Teacher Behaviour Efficacy and Formal Curriculum Planning Efficacy accounted for 29% of variance in Formal Curriculum Delivery Efficacy.

The total coefficient of determination was calculated to be .28 indicating that 28% of variance in Professional Teacher Behaviour Efficacy, Formal Curriculum Planning Efficacy and Formal Curriculum Delivery Efficacy was explained by Supervising Teacher Support, Administration Support, Fellow Teacher Support, Student Teacher Involvement, Clarity, Autonomy, Task Orientation and Work Pressure. Overall, Figure 5.6 provides a comprehensive structural model for these three student teacher efficacy scales based on the EPLEI data collected in the present study.

5.6 CHAPTER SUMMARY

This chapter has reported analyses of the data collected in this study. This final section summarises the key findings of the various analyses. Discussion of these findings is provided in Chapter 6 of this thesis. The analyses of extended practicum environment data reported in Section 5.3 revealed that Age, Gender and School Type have an effect on student teacher perceptions of extended practicum learning environments. While a MANOVA showed that the effect of Age was not significant, univariate F tests revealed that student teacher Age did have an effect on student teachers' perceptions of Supervising Teacher Support. Similarly, the MANOVA for the effect of Gender was not significant. Univariate F tests did reveal one scale where there the effect size was large (0.80). Control was significantly higher for male students compared to female students.

The effect of School Type on student teachers' perceptions of the 12 EPLEI scales was significant. Univariate F tests found significant differences for three scales: Fellow Teacher Support, Fellow Student Teacher Support and Work Pressure. Tukey's post-hoc tests revealed significant differences between student teachers in Catholic and Other Christian schools. A key finding worthy of further investigation showed that student teachers participating in practicum experiences in Other Christian schools perceived a much higher level of Work Pressure than student teachers in Catholic schools.

Section 5.4 reported to differences in the perceptions of student teachers and supervising teachers. Repeated measures MANOVA with these paired data revealed four scales with significant differences in student teacher and supervising teacher scale scores: Supervising Teacher Support, Pupil-Pupil Cohesiveness, Clarity and Work Pressure with effect sizes were in the moderate to high range. Supervising teachers consistently perceived these aspects of the practicum learning environment more positively than did student teachers. This pattern and its implications for teacher education are discussed in the next chapter of this thesis.

Section 5.5 reported the use of simple, multiple and canonical correlation analyses to examine relationships between student teacher perceptions of the extended practicum environment and self-efficacy for future teaching. That is, student teacher perceptions of the EPLEI scales were examined in relation to the three Student Teacher Efficacy Scales: Professional Teacher Behaviour Efficacy Scale, the Formal Curriculum Planning Scale and the Formal Curriculum Delivery Scale. Interestingly, 10 of the 36 simple Pearson correlations between the 12 classroom environment scales and the 3 student teacher efficacy scales were statistically significant. In particular, 8 of the 12 correlations between EPLEI scales and Professional Teacher Behaviour Efficacy were statistically significant. The strongest association was between Administration Support and Professional Teacher Behaviour Efficacy. This finding exposes an area of practicum environments that has not previously attracted a lot of attention in preparation of student teachers for practicum experiences and thus has implications for teacher educators. This will be discussed further in Chapter 6.

Multiple correlation analyses of the environment-outcomes data suggested that higher levels of Control were associated with higher levels of Formal Curriculum Planning Efficacy and higher levels of Control and Task Orientation were associated with higher levels of Formal Curriculum Planning Efficacy. Canonical correlation analyses revealed that high levels of Administration Support, Student Teacher Involvement, Clarity, but reduced levels of Work Pressure were associated with enhanced levels of Professional Teacher Behaviour Efficacy. These results suggest that student teacher perceptions of the whole school environment relates to their growing sense of capability to perform the role of the teacher. This perspective will be explored in the following chapter.

The final component of this results chapter explored a model that relates student teachers' perceptions of extended practicum learning environments to their self-efficacy for future teaching. Structural equation modelling using LISREL, developed a model in which EPLEI scales predicted Professional Teacher Behaviour Efficacy which, in turn, predicted Formal Curriculum Planning Efficacy and then Formal Curriculum Delivery Efficacy. Variance in Professional Teacher Behaviour Efficacy, Formal Curriculum Planning Efficacy and Formal Curriculum Delivery Efficacy was explained by Supervising Teacher Support, Administration Support, Fellow Teacher Support, Student Teacher Involvement, Clarity, Autonomy, Task Orientation and Work Pressure. Thus, it has been possible to develop a comprehensive structural model that fitted the data collected in the present study. This model is discussed in the next chapter.

This section has reviewed the major findings of the quantitative data analysis. These findings provide a focus for the discussion of the results in relation to the questions driving the study and the literature underpinning the research. Chapter 6 provides a comprehensive discussion of these findings.

CHAPTER 6

DISCUSSION OF RESULTS

6.1   INTRODUCTION

This chapter synthesises the research findings of Chapters 4 and 5, and ensures that the research questions stated in Chapter 1 are answered and discussed in the light of literature regarding the practicum in teacher education and previous learning environment research. Therefore, the aim of this chapter is to interpret the research findings and assess their educational importance. The four sets of research questions (see Section 1.2.2) are used to organise the chapter. The first two questions (Research Questions 1a and 1b) refer to instrument development issues and are discussed in Section 6.2. These questions were essential to the feasibility of the project. In Section 6.3, answers to Research Questions 2a to 4b are discussed. This discussion is based on the results reported in Chapter 5. It needs to be understood that, although such statistical analyses arrive at conclusions about a population based on a sample, they do not provide an assessment of the educational importance of any conclusions (Daniel, 1977; Lawrenz & Welch, 1983). The chapter summary (Section 6.5) provides a basis for the conclusionary nature of Chapter 7 of this thesis.

6.2   RESEARCH QUESTIONS RELATING TO DEVELOPMENT OF INSTRUMENT

One of the methodological principles adopted for this study required the development of two versions of the instrument for the assessment of extended practicum learning environment. One version was designed for student teachers and an analogous form was developed for their supervising teachers. The literature and issues review reported in Chapters 1 and 2 and the stakeholder perceptions discussed in Chapter 4 indicated that the important dimensions of the extended practicum learning environment for student teachers at a Catholic university were: children and student teacher relationships; teacher and student teacher relationships; student

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teacher and other school staff relationships, student teacher and personal growth, student teachers and organisational features of practicum settings and learning environment and Catholic ethos.

6.2.1 What are the dimensions of the extended practicum learning environments of a pre-service teacher education course at a Catholic university?

One of the methodological principles adopted for this study required the development of an instrument for the assessment of the extended practicum environment. The literature review reported in Chapter 2, the stakeholder perceptions of practicum environments and the field experience evaluation data discussed in Chapter 4 indicated that the important dimensions of the extended practicum environment were: children and student teacher relationships; teacher and student teacher relationships; student teacher and other school staff relationships, student teacher and personal growth, student teachers and organisational features of practicum settings and learning environment and Catholic ethos.

6.2.2 Can instruments be developed that assess the environment dimensions identified above?

A considerable amount of research of the past 35 years has focused on the development of instruments for assessing a range of learning environments at both class and school level and more recently at tertiary level including practicum supervisory environments level (Dorman, 2002; Fraser, 1997; Goh and Khine, 2002; Khine & Fisher, 2003; Stormont, 2003). As this study dealt with student teachers in an extended practicum learning environment which has features at both school and classroom level, instruments that have been used in all these levels were examined to check the suitability of their scales and items for assessing practicum learning environments (Chan, 1999; Khine & Fisher, 2003; Kremer-Hayon & Wubbels, 1993; Moos & Trickett, 1987). Inappropriate scales and items were replaced in accordance with the development criteria explained in Chapter 4. The 12 tentative scales of the extended practicum environment instrument were field tested. Analyses of these data resulted in a refined 72-item school-level environment instrument with 12 reasonably distinct scales. Full details of the decisions taken are provided in Chapter 4. As already noted in Chapter 4, the instrument exhibited very satisfactory psychometric properties. That is, the factorial structure,

scale internal consistency and discriminant validity indicated that the instrument was valid and reliable. The questionnaire had satisfactory economy. The 72-item extended practicum learning environment instrument required less than 20 minutes for administration. Therefore, it has been possible to develop a context-specific instrument that examines extended practicum learning environments for student teachers from a Catholic university operating in extended practicum learning environments affected by aspects at both school and classroom level environments in schools across Queensland.

6.3   RESEARCH QUESTIONS ANSWERED WITH THIS STUDY'S DATA

6.3.1 To what extent are student teachers' perceptions of the extended practicum learning environment related to age?

As indicated in Chapter 5 (Section 5.3.2), the MANOVA for the effect of age was not significant. In terms of the Relationship dimensions student teacher perception of the scales Student Teacher Involvement, Administration Support, Fellow Teacher Support and Fellow Student Teacher Support and Pupil-Pupil Cohesiveness, results indicated that there was little or no relationship between the Age of student teacher and their perception of these features of the extended practicum learning environment. Similarly, results indicated that Age had little influence on student teachers' perceptions of the Systems Maintenance and Change Dimension scales Clarity, Control and Physical Comfort nor the Personal Growth Dimension scales, Task Orientation and Autonomy.

However, Univariate F tests for the effect of age on each EPLEI scale revealed one statistically significant result for: Supervising Teacher Support. Interestingly, results showed that student teachers in the older age range (age 25 years and above) perceived Supervising Teacher Support in the extended practicum learning environment to be higher than student teachers in the younger age group (age 24 years and below). These results may be interpreted in two ways. Possibly older students are more mature and appreciate any level of support. Alternatively, they may also be more proficient in communicating with the supervising teacher to request support and clarification of expectations. Their life experiences may have also made them more independent and need less support. These finding may also indicate that students in the 24 years and below age bracket do not have the life experience to enable

them to both seek support and clarify teacher expectations.

This is consistent with the findings of Kremer-Hayon and Wubbels (1993) who used the Questionnaire on Supervisor Teacher Interaction to examine interpersonal relationship between supervising teacher and the student teacher. They found that student teachers in the younger bracket had less experience in providing leadership to others and had less practice in aspects of interpersonal behaviour regarding provision of friendly, helpful understanding to others. They found that people in the older age group had more experience in these aspects of interpersonal behaviour. This lack of experience in helping and understanding others may indicate that younger students are not aware of these aspects of support that a supervising teacher may offer and therefore they may not be able to delineate, describe or assess what levels of support they need or want from a supervising teacher. Similarly, student teachers with greater life experience may be able to be realistic about levels of need and appropriate levels of support. This view supported by the studies of Crump and Rennie (2004) who found that mature, female student teachers were able to access teacher support more readily and tended to be able to monopolise teachers. Similarly, the scholarship of Evans and Policella (2000) also indicates that younger students may need more support in this area. In a small qualitative study, these researchers studied the journey of a self-identified, young student teacher as she recounted her journey of learning to teach. The study revealed that the younger student teacher needed clear and open lines of communication, an extended period of time to develop and change to occur and most importantly modelling of the learning to teach process.

A study focusing on the retention of teachers by Huang, Waxman and Houston (1993) compared first year beginning teachers and their experienced mentor teachers' perceptions of a school-level learning environment. The instrument used to assess the learning environments was an adaptation of *SLEQ*. Although the age of the first year teachers was not stated, an assumption may be made that many of these first year teachers were similar in age to the final year students surveyed in the current study. The study found that over 75% of first year teachers found the help of their mentor teachers either helpful, very helpful or extremely useful and that 50% of them had regular meetings with the mentor (Huang et al., 1993). While both groups tended to view the environment positively, there was a small difference in how each group viewed Work Pressure and a significant difference in how each group scored on the scale of Professional Interest.

Interestingly, there was a significant difference in the scores for Professional Interest with experienced mentors demonstrating a greater interest in discussing professional issues and seeking further professional learning than the first year teachers (Huang et al., 1993). According to Huang et al., (1993), first year teachers demonstrated a higher score for Work Pressure than the experienced mentors, it may be extrapolated that the focus of the younger, less experienced teachers was on dealing with the immediate pressures of work. They were in *survival mode* and neither able, nor ready to be operating at a level to seek further professional development. This has implications for the present study in that the student teachers (who may be similar in Age to the first year teachers in Huang and others' (1993) study also indicated a lower level of Supervising Teacher support than the older students.

An implication of these findings for teacher educators is the need to prepare students teachers and supervising teachers for the differences in perception and expectation of the age groups. Regrettably, few previous studies by other researchers in the field of learning environments and the practicum in teacher education have not used Age as a variable in individual perceptions of learning environments. Few recent studies of learning environments have been conducted in tertiary environments and of those that have been conducted Age has not been used as a determinant of individuals' perceptions of their learning environments.

6.3.2 To what extent are student teachers' perceptions of the extended practicum learning environment related to gender?

The MANOVA for the effect of gender was not significant (see Section 5.3.2). Univariate *F* tests for the effect of gender on each EPLEI scale revealed only one statistically significant result: Control with an associated large effect size. The results indicated that male student teachers perceived a higher level of Control in the extended practicum learning environment than females did. Therefore, the findings show that student perceptions of other dimensions of the extended practicum learning environment including Student Teacher Involvement, Administration Support, Fellow Teacher Support and Fellow Student Teacher Support and Pupil-Pupil Cohesiveness, Clarity and Physical Comfort, Task Orientation and Autonomy are not related to student gender As the Control scale related to the areas such as expectation to

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follow set regulations, how much the members of the school community enforce rules and regulations, the results indicate that male students feel a greater sense of pressure regarding requirements of them to perform according to rules and regulations in that environment.

Other learning environment research studies that have examined the relationship of gender to perceptions of learning environments have often found that females perceive their learning environments more positively than males (Byrne, Hattie, & Fraser, 1986; Carroll, 2006; Dorman, 1994; Sinclair & Fraser, 2002; Teh & Fraser, 1994; Wong & Fraser, 1994). However, in the present study, there was only the one scale, Control, where there was a significant difference in male and female perceptions. The work of other learning environment researchers may shed some light on reasons why the male student teachers in this study indicated a higher sense of Control than females in extended practicum learning environments of students at a Catholic university.

 In two other studies of Catholic school learning environments, both Dorman (1994) and Carroll (2006) found that male student perceptions of learning environments of Queensland Catholic secondary schools indicated a greater sense of both Teacher Authority and Competitiveness than female students. Dorman (1994) suggests that possibly males use a different frame of reference when assessing environments and that their frame of reference may reflect differing cultural norms and values (p. 238). Carroll (2006) suggested that a reason for difference in male perceptions of classroom learning environments may reflect Sadker and Sadker's (1995) view that teachers spend more time disciplining males than females. This would account for males in schools feeling a greater sense of Control and this sense of teachers disciplining males more readily than females may be projected to supervising teachers supervising male student teachers.

In another learning environment study focussing on gender perceptions of teachers in high school learning environments, although all members of staff perceived the school environment fairly positively, Huang (2001) identified that male perceptions of their work environments was not as high as females with regard to scale of Job Satisfaction. This finding may be relevant to the findings of this study when considering reasons why the male teachers in this study did not feel as positive as females. Although the gender balance was fairly even amongst the teachers with 127 males and 148 females, Huang (2001) indicated

that the females demonstrated greater influence on students and the development of school programs (p. 169). It seems that the females felt more empowered in this school environment than the males and had a greater sense of job satisfaction. Conversely, it may be possible that the males did not have as strong an influence on the students and did not feel as empowered to be involved in the development of school programs. As a result of this situation, they may have felt a stronger sense of being controlled and disempowered within the environment which may have lead to a reduced sense of job satisfaction. In attempting to interpret these findings, Huang (2001) suggested that males and females perceive environments differently and work together differently and that communication styles used by males and what they value (i.e. Competition) may account for the differences in their perceptions. It may be extrapolated then that male student teachers from a Catholic university who are entering school environments where females predominate in large numbers may also be affected by these factors. They, too may feel more controlled within the environment as they may not have been able to communicate with their supervising teachers who are predominantly female and they may value different aspects of the learning environment.

Two other learning environment studies may provide support for this theory. Both studies found that males' perceptions of the learning environment were more positive particularly in the areas of Cohesiveness and Competition. The study by Majeed, Fraser and Aldridge (2002) used the My Class Inventory (MCI) to examine relationship between student perceptions of a Mathematics learning environment and student satisfaction. While the gender differences were statistically significant, they were small. Interestingly, this finding relates to a mathematics classrooms, a setting that boys have traditionally preferred and one that tends to promote Competition. It may be that males feel more in control in mathematics classrooms that function in ways that match their values and are based on communication styles with which they are familiar.

To support the view that males would perceive a learning environment more positively if it was seen to have a reduced sense of being controlled and was characterized by Competition was provided Dhindsa and Fraser (2004). In the study of 475 trainee teachers in Brunei, Dhindsa and Fraser (2004) used the Classroom Learning Environment Questionnaire (CLEQ) to examine differences in gender regarding perceptions of culturally-sensitive factors in teacher training. The findings indicated that there was no significant difference in the way the

males and females were treated in the classroom and that students were equally competitive and collaborative. Therefore, a learning environment where Competition is a feature and a sense of being control is absent may result in male student teacher perceptions of their learning environments being more positive.

A consideration of the findings of this study in terms of these ideas may indicate that those who are responsible for providing an effective learning environment in an extended practicum for student teachers should examine the features of the environment to find ways to reduce the sense of control experienced by males, include aspects that appeal to a male's preference for competition and incorporate communication processes that enable the student teacher to feel empowered in a practicum context.

6.3.3 To what extent are student teachers' perceptions of the extended practicum learning environment related to school type?

The MANOVA for the effect of school type on the EPLEI scales was significant with Univariate F tests revealing significant differences for three scales: Fellow Teacher Support, Fellow Student Teacher Support and Work Pressure. While, previous studies involving student teacher perceptions of extended learning environments in relation to school type have not been reported in learning environment literature, analogous studies have examined participant perceptions of learning environments in relation to school type (Docker, Fraser, & Fisher, 1989; Dorman, 1997; Dorman & Fraser, 1996; Schneider & Coutts, 1982; Trickett, Trickett, Castro, & Schaffner, 1982). Interestingly, the findings of this study are consistent with previous research showing relationships between students' perceptions of learning environments and school type.

As described in Chapter 5 (Section 5.3), Tukey's post-hoc procedure was used to further explore the effect of school type on student teacher perceptions of the extended practicum learning environment. Results showed significant differences between Catholic and State schools for the Fellow Teacher Support scale with Catholic schools being perceived by the student teachers as providing higher levels of Fellow Teacher Support than State schools. Therefore, the student teachers in the study indicated that other teachers in Catholic schools provided significant support for them during the practicum experience. This is in contrast to the findings of Dorman and Fraser (1996) regarding differences between Catholic and Government (State) schools. In a study of 104 Queensland secondary schools using the Catholic School Environment Questionnaire (CSEQ), the students of Catholic schools did not perceive Interactions and Co-operation (which are features of a supportive teacher) as positively as the teachers in the study's sample did. In fact, State schools were found to have higher levels of Interactions than the Catholic schools.

However, in contrast to teachers in the State schools, the teachers in Catholic schools did indicate that they saw their schools as more empowering and higher on Mission Consensus. According to the findings of the present study, it seems that teachers in Catholic schools are performing their supervision role in a way that reflects both their perception of Mission Consensus in their schools and the espoused mission statements for teachers in Catholic schools (see Catholic Education: Archdiocese of Brisbane, 2004).

Levels of Fellow Teacher Support in the practicum environment have been described as pivotal to the student teacher's practicum experience. As Kremer-Hayon and Wubbels (1993) advocate, there is an important 'outer circle' component to the practicum which includes aspects of school ethos and psychosocial climate. This 'outer circle' impacts on the learner in the practicum environment. Fellow Teacher Support contributes to school ethos and psychosocial climate and thus forms part of the 'outer circle' of the practicum environment. Therefore, when student teachers do not have this support, it may well affect their overall practicum experience. This finding alerts practicum providers to consider ways to improve the levels of Fellow Teacher Support for student teachers participating in extended practicum experiences in State schools.

For the Fellow Student Teacher Support scale, there were significant differences between Catholic and Other Christian (Lutheran/Christian) schools. This difference in size may reflect the fact that individual students in Other Christian (Lutheran/Christian) schools are often the only student teacher in the school whereas students in the Catholic school environments are usually placed with at least two other students with whom they can share experiences. Being able to share experiences with a peer is an important part of student teacher development and is a required component of learning to become a member of a professional learning community (Darling-Hammond, 1994; Zanting, Verloop & Vermunt, 2001). The lack of this opportunity has implications for student teachers in other Christian schools and needs attention by school and university-based partners in teacher education.

The finding for the Work Pressure scale was significant. The effect size was large and the extent of student teacher perception that Work Pressure inherent in Other Christian (Lutheran/Christian) schools is higher than Work Pressure in Catholic schools needs to be addressed. These differences between Catholic and Other Christian (Lutheran/Christian) schools is concerning. As shown in Figure 5.3 in Chapter 5 of this thesis, student teacher perceptions of a number of dimensions of Other Christian extended practicum learning environments was lower than any of the other school environments. Dimensions of the practicum learning environments including Supervising Teacher Support, Fellow Student Teacher Support, Student Teacher Involvement, Pupil-Pupil Cohesiveness and Clarity were each perceived less favourably by students in Other Christian schools. Therefore, the student teachers in these schools felt less support from their teacher, felt unclear about expectations, felt that there was less cohesiveness amongst the children in their practicum class and felt less willing to be involved as a staff member of the school.

In the light of these student perceptions, it is not surprising that they indicated such a high level of Work Pressure in the environment. For members of those partnership schools and the practicum co-ordinator, these finding provide a clear outline of issues to be addressed in order to improve the experience for the student teachers. Attention to levels of support and clarity of expectation are two key areas that may improve a student teacher's sense of Work Pressure in the environment.

In contrast to the findings in relation to Other Christian schools, student teachers who

participated in extended practica in Catholic and State schools indicated a more positive perception of all of the dimensions of the EPLEI. Hence, providers of practicum experiences may extrapolate that there appears to be a relationship between provision of learning environments characterised by the following features and a reduced sense of work pressure. If a student teachers feel supported by their supervising teacher; other teachers and the school administrators; have expectations for the practicum stated clearly; are allowed some autonomy and have a class that are more cohesive, then they appear to feel less work pressure in the environment. In the current study, student teachers' perceptions of these features of the extended practicum learning environment in Catholic schools were positive. This indicates that the Catholic schools where the students participated in the practicum are imbued with the ethos espoused in system documents (see Catholic Education: Archdiocese of Brisbane, 2006). The students in Catholic schools did indicate more positive perceptions of the Relationship dimension of support at all levels which provides evidence that these learning environments do reflect Gospel values and were characterised by warmth, welcome and a sense of belonging to a Christian community (see Catholic Education: Archdiocese of Brisbane, 2006). These positive perceptions of extended practicum learning environments in Catholic schools support ACU's mission statement regarding a university education underpinned by Gospel values (McMullen, 2004). The finding is also a clear indication that learning environment and Catholic ethos is a significant dimension of extended practicum learning environments for student teachers at a Catholic university. While the findings are positive for student teachers participating in extended practica in Catholic schools, it indicates that there needs to be further investigation in terms of expectations in different school types and student teacher perception of support.

In terms of the research question regarding the extent to which student teachers' perceptions of the extended practicum learning environment related to school type, the findings are clear. Student teacher perceptions of the Fellow Teacher Support, Fellow Student Teacher Support and Work Pressure dimensions of extended practicum learning environments are related to different school types and require further attention by stakeholders.

6.3.4 To what extent do student teachers' perceptions of the extended practicum learning environment and supervising teachers' perceptions of the extended practicum learning environment differ?

In the school-based practicum component of teacher education courses, the two key participants of the learning environment are the supervising teacher and the student teacher. As outlined in Chapter 2 of this thesis, both characteristics of the student teacher and the approaches of the supervising teacher affect the experience of the student teacher in the learning environment (Chan, 1999; Holvast, Wubbels & Brekelmans, 1993; Martinez, 1998; Mayer & Austin, 1999; Zeichner, 1999). A key focus of this study was to examine the relationship between student teacher perceptions of the extended practicum learning environment and their self-efficacy for future teaching. As Kiley and Jensen (1998) suggest, the supervisor is extremely important in examining practicum environments as they become the student teachers' 'significant other' during the experience. Therefore, as the supervising teacher is the student teacher's 'significant other' in the practicum learning environment, examining the differences between supervising teachers' and student teachers' perceptions of the dimensions of the practicum environment may be a critical component in understanding the relationship between student teacher perceptions of the practicum learning environment and their self-efficacy for future teaching. Analysing the results regarding the degree of differences between student teacher and supervising teacher perceptions of the same extended practicum learning environment is important. It assists in the identification of dimensions of the extended practicum learning environment that warrant attention by teacher educators.

While some learning environment research (Chan, 1999; Holvast et al., 1993; Kiley & Jensen, 1998; Kremer-Hayon & Wubbels, 1993; Kwan, 1995; Stormont, 2003) has been conducted on practicum supervisory learning environments, analogous learning environment studies have found that there can be significant differences in the way participants of the same learning environment view the same experience. An Indonesian study using the WIHIC to investigate the nature of science classroom learning environments, Treagust and Treagust (2004), found that teachers' perceptions of the learning environment were more positive and favourable than the students. Similar to the findings of this study, teacher perceptions of Student Cohesiveness in the classroom environment were higher than the actual perception of the

students in the class. Levels of Teacher Support in the classroom were also perceived to be higher by the teachers than the students. Both the findings by Treagust and Treagust (2004) and the present study regarding teachers' perceptions of classroom learning environments being more positive than the learners are consistent with earlier study by Fraser and Fisher (1983).

In a study of nurse education learning environments, Chan (1999) used the Clinical Learning Environment Inventory (CLEI) to collect student nurses' perceptions of their actual and preferred clinical learning environments. This work also demonstrated that student nurses desired a more positive and favourable practicum or clinical learning environment than they experienced. Student nurses who are akin to student teachers in practicum environments wanted higher levels of Individualisation, Personalisation and Task Orientation in the learning environment. Similar to the students in the present study, Chan (1999) reported that nursing students not only wanted more support from their supervisors in the learning environment but also respect, recognition and clear, detailed instructions.

Huang and others (1993) conducted a study to examine first-year teachers' and their experienced teachers' perceptions of the same school-level work environment using an adapted version of the SLEQ. The study resulted from a concern that the loss of teachers from the profession may be linked to levels Work Pressure in the environment. The findings indicated that generally both groups perceived the environment positively with only a small difference in Professional Interest which the experienced teachers scored higher than the first years. An interesting finding of the study was that both groups scored Work Pressure similarly. The researchers suggested that this may relate to the amount of support that beginning teachers were experiencing as part of the school's mentoring program. Interestingly, the findings of the current study also found that supervising teachers perceived Work Pressure in the extended practicum learning environment to be higher than their student teachers and yet they did not perceive supervising teacher or mentor support as high as the students in Huang, Waxman and Houston's (1993) study. Understanding possible reasons for differences in perceptions of student teacher and supervising teacher support in the same practicum learning environment may be enhanced by examining the work of other learning environment researchers and scholars in the field of the practicum in teacher education.

Results for this research question have shown that supervising teachers and student teachers in the present study do differ significantly in their perceptions of some of the dimensions of the practicum learning environment. As indicated in Chapter 5 (Section 5.4) each student teacher responded to the EPLEI and their supervising teacher responded to an analogous form of the instrument. This resulted in 28 pairs of student teacher and their supervising teachers scale scores being computed for each student teacher and each supervising teacher for 11 scales of the EPLEI. These scales are Supervising Teacher Support, Administration Support, Fellow Teacher Support, Fellow Student Teacher Support, Student Teacher Involvement, Pupil-Pupil Cohesiveness, Clarity, Control, Physical Comfort, Task Orientation and Work Pressure.

Pupil Cohesiveness, Clarity, Control, Physical Comfort, Task Orientation and Work Pressure

As the data were in paired form, a repeated measures MANOVA with type of respondent (viz. student teacher or supervising teacher) as the within-subjects effect was conducted. This MANOVA revealed significant differences between respondent means for 4 of the 11 scales: Supervising Teacher Support, Pupil-Pupil Cohesiveness, Clarity and Work Pressure with moderate to high effect sizes. Another scale that recorded a moderate effect size was Fellow Teacher Support. The consistent pattern in the direction of the differences between student teachers' and supervising teachers' perceptions of the same extended practicum learning environment is of concern. The supervising teachers perceived the extended practicum to have significantly higher levels of Administration Support, Supervising Teacher Support, Pupil-Pupil Cohesiveness, Clarity and Work Pressure than the student teachers did. These specific findings are discussed in the next section of the chapter.

Supervising Teacher Support

Supervising teacher support has been shown to be a significant determinant of student teacher satisfaction in the practicum learning environment (Kremer-Hayon & Wubbels, 1993). Therefore, the fact that there are significant differences between supervising teacher perceptions and student teacher perceptions of levels of support in the extended practicum environment warrants concern and further investigation. As the work of Chan (1999), Holvast et al. (1993), Kremer-Hayon and Wubbels (1993), Kwan (1995), Mayer and Austin

(1999) and Stormont (2003) have confirmed, student teacher perception of levels of supervisor support in a practicum learning environment is pivotal to the student's experience. When considered in terms of the literature reviewed in Chapter 2 of this thesis, while these findings are concerning and deserve further investigation, they are not surprising. This literature demonstrated that supervising teachers and student teachers have different beliefs and perspectives as to what constitutes appropriate supervising teacher support. The review of literature revealed that student teachers' and supervising teachers' perceptions of good supervisor support reflect the perspective of each individual involved in the practicum experience. In the case of the student teacher, this may relate to personal characteristics, needs and aspects of 'teachability'. For the supervising teacher, this may relate to the paradigm of teacher education they espouse (Martinez, 1998; Zeichner, 1999).

Therefore, it is not surprising that results indicate significant differences in how the supervising teacher and student teacher in the same context view levels of supervising teacher support. A number of scholars have reported different ways that student teachers and supervising teachers perceive practicum environments (Beck & Kosnik, 2000; Wright & Bottery, 1997). Beck and Kosnik's (2000) work discussed how participants in the same practicum environment had quite different perceptions of the same learning environment. In their study, supervising teachers believed they were providing a supportive learning environment but their student teachers thought they were demanding and unsupportive. Martinez's (1998) study also highlighted how different perceptions and expectations between a supervising teacher and a student teacher within the same supervisory environment can result in dilemmas for both members of the learning environment. As outlined in Chapter 2 (Section 2.3.2) of this thesis, Martinez suggested that each supervising teacher's perception of the level and type of support they provided for their student teacher may differ according to their orientations to the role of supervision and the paradigm of teacher education they operate within.

Also as Zeichner (1999) stated, teachers may perform the role to reflect approaches ranging from Traditional Craft, Behaviourist, Personalistic through to the Inquiry-Orientated perspectives. The teacher operating within a Traditional Craft Orientation may perceive good supervising teacher support as modelling the craft of teaching for student teachers to reproduce without question or variation. In contrast, the teacher operating within a

Personalistic paradigm may focus on the 'self' of the student teacher and provide a supportive environment in which an individual student's needs are identified and the student is allowed the opportunity to progress at their own pace. Therefore, the type and level of support a student teacher experiences in each practicum learning environment may differ according to these perspectives.

As suggested earlier, what student teachers judge as appropriate levels of support from their supervising teacher is determined by their individual needs and characteristics. Several scholars have researched and reported on student teacher expectations and desires within the supervisory environment (Beck & Kosnik, 2000; Fairbanks, Freedman & Kahn, 2000; Hansford & Brooker, 1997; Martinez, 1998; Mayer & Austin, 1999). In studies by Mayer and Austin (1999), Martinez (1998), Hansford and Brooker (1997), Sudzina, Giebelhaus & Coolican (1997) and Williams, Butt, Gray & Leech (1998), student teachers indicated that they wanted a good relationship, clear communication, positive professional interaction, commitment and a critical approach from their supervising teachers. However, the students in Martinez's (1998) study also wanted supervising teachers who accepted mistakes, were not pedantic, were organized and maintained enthusiasm in their teaching. Student teachers in Hansford and Brooker's (1997) study went further to indicate that they did not want their teachers to be controlling.

The student teachers in Dunn, Ehrich, Mylonas and Hansford's (2000) study desired further support and wanted supervisors to be role models who shared the significance of the context of the experience as a site for socialization into the culture of the workplace. Opportunities for development of self-confidence in terms of personal growth were also cited by the student teachers as a need. These student teachers described supervisors who did not provide good support as those who did not give feedback, were often absent from the learning environment and pressured them to conform to their expectations. As well as wanting positive, welcoming interpersonal relationships with their supervising teachers, the student teachers in Fairbanks and others' (2000) study wanted advice about school programs and how to keep a balance between administration and teaching. Modelling of strategies for negotiating professional relationships and willingness of teachers to respond to questions were also priorities for the students. From a professional perspective, these students also desired supervisors who shared their craft knowledge and the thinking underlying their practice. They also required

supervising teachers who shared reflections and kept dialogue open with them and accepted differences in practice and established a relationship with their student teachers that would foster professional growth through reflective dialogue.

In Zanting et al.'s (2001) study, 72% of the student teacher sample expected the mentor to provide emotional support but they also wanted their teachers to be honest and respectful of them, be evaluative and give constructive feedback. Student teachers also required an introduction to school life, practical issues, procedures and overall school goals and curriculum. They wanted to be self-regulating, to be able to take the initiative and to develop their own teaching ideas and styles. Therefore, student teachers' perceptions of what is good teacher support is comprised of a myriad of personal and professional requirements. It is also clear that student teachers are able to articulate what they want from their supervising teachers in the practicum learning environment. Some common themes are evident within the requirements. While there a many differences, it is clear that student teachers require a positive, welcoming interpersonal relationship with their supervising teacher. They want their teachers to share their craft knowledge and model teaching but allow freedom and opportunities for personal and professional growth through constructive feedback.

Supervising teachers also differed in their perceptions of supportive supervision. As Williams et al. (1998) suggested, each supervising teacher has their own varied and diverse perceptions and beliefs about the role which in turn determines their style of supervision. While Martinez (1998) and Zeichner (1999) suggest that the type of supervision teachers' practice reflects their orientation to good teaching and teacher education, a number of researchers have reported on approaches to supervision that are eclectic and incorporate aspects of Traditional Craft, Behaviourist, Personalistic and Critical-Inquiry orientations. Researchers have developed and reported on a range of effective approaches which are practiced by some supervising teachers. Some scholars promoted models that highlight a Personalistic approach. Cannon (1998) shared practical ways for teachers to set the stage for success and to bring the student into the role of classroom teacher in a slow and easy process. Anderson and Shannon (1988) suggested a nurturing process in which the supervising teacher served as a role model to teach, encourage, counsel and befriend the student teacher in order to help the student teacher grow personally and professionally. Berliner (1987), Borko and Livingston (1989), and Galton (1989) built on these approaches to suggest that effective supervisors make

decisions about teaching processes based on established rules and patterns using the wisdom of their personal experience and the context of the teaching.

Other scholars presented models for effective supervision that incorporated the use of reflective approaches for the student teachers to construct new knowledge. Perry and Power (2004) promoted a model that called for extended experiences for student teachers that allowed them extensive periods of time to conduct systematic inquiries into teaching and learning environments and reflect on the findings in light of their growing knowledge base. Page, Rudney and Marxem (2004) promoted student teacher growth and development through a constructivist, developmental and standards-based program. Babkie (1998) suggested that effective supervising teachers should stopping problems early, clear the air with students quickly to clarify misunderstanding, observe carefully, offer specific feedback on teaching, document everything that occurs, collect data as evidence, meet frequently with the student teacher, model good practice, practice supervision often, audiotape and/or videotape the student teacher to provide accurate basis for feedback and discussion.

While some supervising teachers may operate in ways that are eclectic and represent a contemporary critical inquiry approach, a number of supervising teachers still tend to discuss effective supervision from a utilitarian perspective. As Wright and Bottery (1997) found, supervising teachers thought their most important tasks were helping students with in-classroom practical issues such as lesson objectives, planning, classroom management, developing good relationships with pupils and getting the best out of pupils. They also perceived their role as being responsible for evaluating and advising students about lessons. Similarly, teachers in Woods and Weasmer's study (2003) had practical and pragmatic expectations of their student teachers. In this way, the supervising teachers had specific expectations of their student teachers. They expected them to display a professional demeanour and be a positive role model in the community, to keep a professional distance from learners but still establish a rapport with them. They also suggested that the student teachers need to be adaptable and flexible to changes of routine.

Another cause for differences in teacher and student teacher perceptions of the same practicum learning environment may reflect the dilemmas facing them in terms of knowledge of student teacher growth and development. Both supervising teachers and student teachers

have to deal with dilemmas that result from the varied views of what constitutes good supervising teacher support. Supervising teachers have consider what levels of support are appropriate for student teachers as too much support may negate challenge in the learning environment and this may result in loss of cognitive dissonance. As cognitive dissonance is a precursor to the development of new knowledge, this may stifle student teacher development. As Daloz (1986), Hawkey (1997) and McNally and Martin (1998) outlined, student teachers need different levels of support but also challenge as they move through different stages of development as a teacher. Unless, a supervising teacher is aware that student teachers progress through different stages, they may not be aware of the level of support to provide in the learning environment. Supervising teachers may also be confronted by a student teacher's level of 'teachability'. As outlined earlier in this thesis, student teachers vary in terms of whether they have low ability/high teachability, high ability/low teachability, low ability, low teachability or high ability/high teachability (see Chapter 2, Section 2.3.2). These combinations have implications for how much and what type of support is needed in the learning environment.

These different views of the nature of supervising teacher support give some background as to why the student teachers in this study did not perceive supervising teacher support as high as did the supervising teachers. What appears to be needed in each practicum learning environment is shared understanding of the dimensions of the environment. The work of some learning environment researchers may provide an answer to this dilemma.

Stormont's (2003) study gathered information regarding student and supervisor perceptions of the supervisory environment of practicum in dietetics using an adaptation of the QSI (Kremer-Hayon & Wubbels, 1993). Combining the data from the QSI with qualitative data, the study revealed perceptions differed markedly between some students and their supervisors in terms of levels of support and clarity of expectations. The study also found that student preferences for different supervisors can, in turn, affect the quality of the teaching and learning interactions that are taking place (Stormont, 2003). Kwan's (1995) study used the SLEQ to examine student teacher's perceptions of their school environment where they were participating in the practicum environment. Like Stormont's (2003) work, this study also showed that the way supervising teachers interact on a personal level with their students affects the students' view of support in the environment.

In examining the impact of supervising teachers in socializing student teachers into their teaching approaches, Holvast and others (1993) found that the influence of the supervising teacher was very strong. Kremer-Hayon and Wubbels (1993) developed the QSI to look at the relationship between supervising teachers and student teachers. Their research revealed that tolerance, friendliness and guidance lead to greater student satisfaction in the practicum. Since the student teachers and the supervising teachers in the present study have indicated differences between their perceptions of supervisor support, teacher educators and especially practicum co-ordinators have a responsibility to inform supervising teachers of the impact and influence of their interpersonal communication style and statement of expectations on student teachers.

Pupil-Pupil Cohesiveness, Clarity and Work Pressure

Research results also showed that the supervising teachers perceived Pupil-Pupil Cohesiveness, Clarity, Work Pressure, Fellow Teacher Support within the extended practicum learning environment to be higher than the student teachers. It is hardly surprising that teachers who have an established role as the behaviour managers of the class with whom the student teachers are working would perceive pupil cohesiveness to be higher. This was also the case in research conducted by Treagust and Treagust (2004) where teachers also scored Pupil Cohesiveness higher than the actual students in the classroom. It may be that teachers' perceptions of their class may be affected by a 'rose-coloured glasses' syndrome. This is not the only study where student teachers wanted a higher level of Pupil-Pupil Cohesiveness. Student teachers in Hansford and Brooker's (1997) study also indicated that they wanted a 'good class' to work with in case they are having difficulties managing a class. These perspectives may provide some explanation as to why this study found differences in perception about Pupil-Pupil Cohesiveness between the supervising teacher and the student teacher in extended practicum learning environments.

In terms of the dimension of Clarity within the extended practicum learning environment, the findings indicated that supervising teachers perceive Clarity to be higher than the student teachers is also not surprising. As Clarity in the extended practicum learning environment relates to whether the student teacher knows what is expected and how explicitly rules,

policies and expectations are communicated to the student teacher, one would expect that supervising teachers would believe that they are clear in what they require of the student. These findings are supported by the work of Chan (1999), Fairbanks et al. (2000); Stormont (2003) and Zanting et al. (2001) where students in their studies wanted clear communication and expectation statements from their supervising teachers in the practicum environment.

The finding that supervising teachers perceive Work Pressure within the extended practicum learning environment to be higher than the student teachers is interesting. As the dimension of Work Pressure in this study related to the extent to which the pressure of work dominates the school community where the student teacher was completing the practicum, it may be interpreted that teachers are feeling overloaded with work beyond that attributable to supervising a student teacher. This seemed also to be the case for teachers in Huang et al. (1993) study.

Fellow Teacher Support and Administration Support

As guests in a school community, it is understandable that student teachers felt that the level of support they were given by administrators and fellow teachers was not perceived to be as high as teachers perceived. While student teachers are keen to have support from everyone in the practicum environment, the supervising teachers would have a stronger, more established relationship with these members of the school communist and may therefore feel greater support from them. However, as Kremer-Hayon and Wubbels (1993) suggest, these members of the 'outer circle' of the practicum learning environment do influence student teacher satisfaction in the practicum environment. This signals to teacher educators that schools need to be made aware of the impact of other members of the school community on student teacher practicum experiences.

Results also showed that Student Teacher Involvement and Task Orientation were perceived to be higher by supervising teachers compared to the perceptions held by the supervisor's student teacher. These results were not as significant but do show that the teachers were more positive about the extent to which there was an emphasis on good planning, efficiency and getting the job done in the student teacher's practicum school and the extent to which their student teachers was concerned and committed to tasks.

Overall, these results do deserve serious attention by those providing practicum experiences for student teachers and extend the findings of Kiley and Jensen (1998) that differences between supervisors and students in practicum learning environments do impact on learners and that exploring ways to promote shared understanding amongst the participants of a practicum learning environment may enhance the learning for the student.

6.3.5 What relationship exists between student teachers' perceptions of the extended practicum learning environment and their self-efficacy for teaching?

Results for this question inform the link between environment and outcomes in the present study. As the student teachers involved in this research have finished their final practicum and are close to the end of their course, their perceived level of self-efficacy for teaching has implications for future teaching. Research has shown that teacher self-efficacy does impact on student learning (Fives, 2003; Gibson & Dembo, 1984; Newman, Moss, Lenarz, & Newman, 1998; Tschannen- Moran, Woolfolk, & Hoy, 2001). Teacher self-efficacy relates to the realization of one's self-judgments and capabilities to create and organize instruction in order to motivate learners (Onafowora, 2004). It follows that the level of self-efficacy that student teachers in this study possess at the end of the extended practicum may determine their effectiveness as teachers. For this reason, it was important to examine the relationship between student teacher perceptions of the extended practicum learning environment and their self efficacy regarding Professional Teacher Behaviour Efficacy (the extent of student teacher belief that they are able to demonstrate the professional interpersonal skills and behaviours of a teacher), Formal Curriculum Planning Efficacy (the extent of student teacher belief that they are able to plan curriculum units and organize classrooms for delivery of units across the key learning areas and Formal Curriculum Delivery Efficacy (the extent of student teacher belief that they are effective in classroom management and curriculum delivery). As reported in Chapter 5, simple, multiple and canonical correlation analyses established associations between the 12 EPLEI scales and the three student teacher efficacy scales. The following sections discuss the findings of these analyses.

Ten of the 36 simple Pearson correlations between the 12 extended environment scales and the three student teacher efficacy scales were found to be statistically significant. A total of 31

of the 36 correlations were positive with 8 of the 12 correlations between EPLEI scales and Professional Teacher Behaviour Efficacy being statistically significant. Interestingly, the strongest association was between Administration Support and Professional Teacher Behaviour Efficacy ($r = .48$). Increased levels of Administration Support, Supervising Teacher Support, Fellow Teacher Support, Student Teacher Involvement, Clarity, Autonomy and Task Orientation but reduced levels of Work Pressure were associated with increased levels of Professional Teacher Behaviour Efficacy. This finding demonstrates the importance of support for the student teacher in the extended practicum learning environment. This support is an important factor in increasing the student teacher's level of self-efficacy as a professional person able to participate in a collegial manner with other teachers, administrators and parents within the school community. Such student teachers feel at ease and comfortable within the school environment. Pajak (2001) suggests that if the supervising teacher paid more attention to student teachers' perceptions of the supervisory environment, it would assist the supervisor to understand and know the student and that would assist them in providing ways that enable the student to develop his or her own teaching style. Tonkin and Watt's (2003) view supports this as their research found that individuals are not likely to develop a positive self concept in environments that are not meeting their needs. This finding shows strongly that student teachers need for administration support is closely associated with the Professional Teacher Behaviour Efficacy. If the administration team in a school (principals, assistant principals, teacher-aides and school secretaries) do not support the student teacher in the school environment then the student teacher's Professional Teacher Behaviour Efficacy will be adversely affected.

Analogous learning environment research provides further evidence of the relationship between perceptions of members of learning environments and their efficacy. In a study of 1,055 students in secondary schools, Dorman (2001) used the What Is Happening In This Classroom? (WIHIC) instrument and the Constructivist Learning Environment Survey (CLES) to examine associations between student perceptions of mathematics classroom environments and academic efficacy. The results of this study support the findings of this study as student perceptions of the classroom environment were positively correlated with academic efficacy. Results showed 10 scales to be statistically significant; Shared Cohesiveness, Teacher Support, Involvement, Task Orientation, Cooperation, Equity, Personal Relevance, Shared Control and Student Negotiation. While the correlations were

small, Task Orientation accounted for the most variance in the Academic Efficacy scale. These findings are congruent with the present study which has also found that higher levels of student perception of dimensions of the learning environment including Teacher Support, Student Cohesiveness, Involvement, and Task Orientation are associated with increased levels of efficacy.

A further analogous learning environment study was conducted by Kim and Lorsbach (2005). Using qualitative data collection methods, they found that kindergarten/first grade childrens' perceptions of themselves in the learning environment influenced how they interacted in the environment where they were learning to write. The researchers suggested that if the teachers in the study had encouraged the individual children to investigate their perception of themselves within the learning environment, it may have provided them with insights into how to assist the learner and improve their self-efficacy for writing. An implication of this work for the present study is that supervising teachers should acknowledge the findings that student teacher perceptions of Clarity, Autonomy and Task Orientation and Work Pressure in practicum learning environments are associated with increased levels of Professional Teacher Behaviour Efficacy. If they subsequently explore the student teachers' perceptions of these aspects of the learning environment with them, this may lead to improved self-efficacy for future teaching in the area of Professional Teacher Behaviour Efficacy.

In another learning environment study, Kurz and Knight (2004) used efficacy as a variable in a study designed to explore relationship among teacher efficacy, collective teacher efficacy and goal consensus/vision as a way to improve student learning outcomes. The study was conducted in one secondary school in Texas with 113 teachers. The study employed a correlational design with three researchers administering surveys. Three instruments including the teacher Efficacy Scale (Gibson & Dembo, 1984), the Collective Teacher Efficacy Instrument (Goddard, Hoy & Woolfolk Hoy, 2000) and the Organizational Coupling Structure Inventory – Teacher Form (Logan, 1990) were used in the study. The results showed that there is a relationship among individual teacher efficacy, collective teacher efficacy and goal consensus/ vision; that collective teacher efficacy was found to be correlated with all of the variables examined and highly correlated with goal consensus but individual efficacy although correlated with collective teacher efficacy was not related to goal consensus/ vision (Kurz & Knight, 2004). This study suggested that teacher perceptions of

themselves as teachers will have an impact on how they operate as a member of a school learning environment. This behaviour subsequently impacts on the collective synergy of the school environment which in turn affects student well-being and learning within the environment. Teacher educators need to respond to these findings by including studies of teacher self-efficacy and links with teaching performance as part of courses of teacher education.

Another finding of this study was that increased levels of Administration Support, Supervising Teacher Support, Fellow Teacher Support, Student Teacher Involvement, Clarity, Autonomy and Task Orientation but reduced levels of Work Pressure are associated with positive outcomes for student teachers in the practicum environment. These findings are supported by influential teacher educators. The scholarship of Austin (2004), Berliner (1987), Fuller (1969), Hawkey (1997) and Martin (1994) provides a strong rationale that positive levels of support, autonomy and work pressure are important features of practicum environments. As Hawkey (1997) emphasised, varied levels of supervising teacher support are needed as student teachers move through different stages of development. As the student teachers in this study were nearing the end of their course, they would be in the 'competent and proficient' (Hawkey, 1997) and 'impact' (Fuller, 1969) stages of development. In these stages, student teachers have a higher need for increased opportunities for autonomy in the practicum environment (Martin, 1994). This work provides an explanation for the relationship found between these variables and student teacher Professional Teacher Behaviour Efficacy in the present study. It becomes clear that Professional Teacher Behaviour Efficacy of the student teachers in this study is linked to their perceptions of support they are given by staff at a number of levels, opportunities for autonomy and reduction in work pressure.

The findings of this study also agree with Austin's (2004) view that teacher self-efficacy improves when they are given both coping strategies and a trustful environment to develop in. When supervising teachers provide these features within a learning environment, the sense of Work Pressure is reduced and student teacher perceptions of the learning environment improve which subsequently results in improved self-efficacy. Austin's (2004) work provides an explanation for the finding of this study regarding lowered Work Pressure being associated with increased Professional Teacher Behaviour Efficacy.

While the simple Pearson correlations between the 12 extended practicum learning environment scales and the three student teacher efficacy scales were statistically significant, further analysis using multiple correlation revealed significant associations between student teacher perceptions and other efficacy scales. The following section discusses the findings.

The multiple correlations in the present study involved the 12 EPLEI scales being taken as the set of independent variables and each student teacher efficacy scale as a dependent variable. These analyses revealed that all three multiple correlation coefficients were significant ($p<.05$). However, analyses revealed only three significant standardised regression coefficients (β). Closer examination of the data suggests that higher levels of Control ($\beta = .66$, $p<.01$) were found to be associated with higher levels of Formal Curriculum Planning Efficacy. Also, higher levels of Control ($\beta =.56$, $p<.05$) and Task Orientation ($\beta = .51$, $p<.05$) were associated with higher levels of Formal Curriculum Delivery Efficacy.

While Control is concerned with how much control is maintained of the members of the practicum learning environment, Formal Curriculum Planning Efficacy is the extent of student teacher belief that they are able to plan curriculum units and organize classrooms for delivery of units across the key learning areas. In terms of the Control variable, students responded to questions such as 'I am able to plan units of work across the key learning areas' and 'I am aware of processes for organizing and managing classroom layout, procedures and routines'. This finding may be explained by hypothesising that student teachers in the current study responded positively to a greater level of specificity regarding control over processes and procedures for curriculum planning in the school environment and this had a positive association with their Formal Curriculum Planning Efficacy.

It is not surprising that higher levels of Control and Task Orientation were associated with higher levels of Formal Curriculum Delivery Efficacy (the extent of student teacher belief that they are effective in classroom management and curriculum delivery). In this study, the variable, Task Orientation is the extent to which there is emphasis on good planning, efficiency and getting the job done with student teachers responding to items such as 'Task completion is important in this classroom'. Obviously, the student teachers in this study felt more confident that they could manage classrooms and deliver units of work effectively when

there was a high level of Control and Task Orientation in the practicum environment. These findings agree with both Chan's (1999) research that identified student nurses' preferred clinical learning environments where Task Orientation was higher and Sudzina et al., (1997) study where student teachers felt they had to meet the workload. Zanting et al., (2001) also found that student teacher self-regulation had an impact on their performance in the practicum setting. It seems that students in practicum settings prefer learning environments characterised by high levels of Control in terms of specificity in curriculum planning and a high degree of Task Orientation where they place emphasis on good planning, efficiency and getting the job done. Practicum Co-ordinators should communicate these findings to school-based supervisors in terms of providing effective environments that facilitate student teacher success.

Although multiple correlation overcomes the problem of relationships among the independent variables, an inflated Type I error is possible due to relationships among the dependent variables. Therefore, as discussed in Chapter 3 (Section 3.3.4) canonical correlation was used to overcome this problem and these findings are discussed in the next section.

Results reported in Chapter 5 (see Table 5.3) revealed that high levels of Administration Support, Student Teacher Involvement, Clarity, but reduced levels of Work Pressure were associated with enhanced levels of Professional Teacher Behaviour Efficacy. These results are not surprising. It seems logical that if student teachers feel supported by the school principal, assistant principal, teacher aides and school secretaries, are clear as to what is expected of them, are keen to plan well, be efficient and get the job done and do not feel too pressured by work in the environment then their Professional Teacher Behaviour Efficacy is more likely to be enhanced. What is surprising is that this analysis has not identified high levels of Supervising Teacher Support as enhancing Professional Teacher Behaviour Efficacy. However, the supervising teacher may act as a mediating force in terms of linking the student teacher into a supportive relationship with people such as principals and assistant principals, school secretaries and teacher aides who provide students with knowledge regarding resources, procedures, rules and regulations in the broader school environment. The supervising teacher is also the person who needs to provide clarity in terms of planning and personal, professional protocols in a school environment and is ultimately responsible for the allocation of timelines and assessment of work for the student. These factors would influence

student teachers' perceived level of Work Pressure in a practicum environment.

These findings are supported by the work of other researchers. Newman and others (1998) and Tschannen-Moran and Woolfolk Hoy (2001) found that higher levels of structure and programs for student teachers resulted in higher levels of efficacy. Ebmeier (2003) also found that principals as supervisors of practicing teachers play a significant role in the development of teacher efficacy and work satisfaction. While Goldstein and Lake (2003) promoted the notion that student teachers need 'caring' environments in which to progress positively, Fairbanks et al., (2000) suggested that supervising teachers should accept individual differences between student teachers. A caring environment and acceptance of individual difference are factors that would reduce the sense of work pressure for student teachers.

Of importance to this study is the finding that Administration Support is so significantly associated with enhanced levels of Professional Teacher Behaviour Efficacy. This supports Kremer-Hayon and Wubbels's (1993) view that student teacher perceptions of the practicum environment are affected by an 'outer circle' of influence. It is not just the supervising teacher in the classroom learning environment who affects the student teacher. The 'outer circle' which includes the influence of people such as fellow teachers, fellow student teachers, principals, assistant principals, secretaries, library aides and teacher aides play an important role in supporting student teachers. How these members of the learning environment communicate and relate to the student teacher impact on the outcomes of the practicum. In particular, student teachers in this study were affected by levels of Administration Support in the extended practicum learning environment.

Therefore, it behoves teacher educators to be mindful of multiple levels of features of practicum environments that impact on the student teacher and determine their sense of efficacy to feel like a teacher, to plan and implement curriculum in a manner that is required of an effective, beginning teacher.

6.3.6 Can a valid model be developed that relates student teachers' perceptions of the extended practicum learning environment to their self-efficacy for teaching?

This study has shown that it is possible to create a valid model relating student teachers'

perceptions of the extended practicum learning environment to their self-efficacy for teaching. The research builds upon the few previous learning environment studies that have used structural equation modelling using LISREL to examine relationships between the participant perceptions of learning environments and learning outcomes (Aldridge, Dorman, & Fraser, 2004; Dorman, Fraser, & Aldridge, 2006; Dorman, Waldrip, & Fisher, 2006) and shows that this method is also successful in examining relationships of perceptions of learning environments of the practicum context of a teacher education course.

Research results reported in Chapter 5 indicated that, other than the effect of Work Pressure on Professional Teacher Behaviour Efficacy, seven of the eight EPLEI dimensions (Supervising Teacher Support, Administration Support, Fellow Teacher Support, Student Teacher Involvement, Clarity, Autonomy and Task Orientation) in the final model had positive effects on Student Teacher Behaviour Efficacy (see Figure 5.3). As indicated in Chapter 5 (Section 5.5), three EPLEI scales (Fellow Student Teacher Support, Pupil-Pupil Cohesiveness and Physical Comfort) were not identified as predictors of any of the three student teacher efficacy scales and were not used in the postulated model.

It is not unreasonable that seven of the eight EPLEI scales that feature in the final model related positively with Professional Teacher Behaviour Efficacy. As mentioned earlier, previous research reported by Dorman, Fraser and Aldridge (2006) and Dorman, Waldrip and Fisher (2006) has shown analogous positive associations between learning environment dimensions and student self-efficacy outcomes. In particular, in this study, significant positive effects of student teacher perceptions of the Support dimensions (Supervising Teacher Support, Administration Support, Fellow Student Teacher Support) were related to student teacher Professional Teacher Behaviour Efficacy. These findings are significant for providers of practicum experiences in teacher education. Stakeholders of the practicum including both university-based teacher educators, especially practicum co-ordinators and school-based teacher educators including members of school administration teams and supervising teachers should consider these results as confirming both anecdotal views and teacher education literature (Newman et al., 1998).

These results are entirely plausible and it is not surprising that there are significant paths between student teacher perception of extended practicum environments and their sense of

self-efficacy in assuming the persona of the professional teacher. Professional Teacher Behaviour Efficacy is the extent to which a student teacher believes they are able to demonstrate the professional, interpersonal skills and behaviours of a teacher. Therefore, it is plausible that their perceptions of the level of support provided by the supervising teacher in the extended practicum learning environment are related to their Professional Teacher Behaviour Efficacy. In the practicum setting, the supervising teacher is expected to be their coach and mentor for the development of learning strategies and skills and the facilitator of opportunities for them to interact in a collegial manner with other members of the teaching profession and the broader school community. It is therefore reasonable that their perceptions of their supervising teacher will affect their sense of self-efficacy in these areas. These finding reflect the scholarship of a number of teacher education researchers who have also identified supervising teacher support as critical to student teacher development (Beck & Kosnik, 2000; Cameron-Jones & O'Hara, 1997; Hawkey, 1997; Martinez, 1998; Mayer & Austin, 1999; Maxie, 2001; Zanting et al., 2001). In particular, Newman and others (1998) and Pajak (2001) have conducted studies of student teacher self-efficacy and found that supervising teacher relationship and support were linked to student teacher self-efficacy. It may therefore be extrapolated that how the supervising teacher supports the student teacher in all aspects of their professional learning may well affect their self- efficacy for future teaching.

Each of the findings illustrated in Figure 5.3 showing the effects of each of the EPLEI scales may be discussed in their own right. For example, the model shows that student teacher perceptions of Administration Support and Fellow Student Teacher Support affect their Professional Teacher Behaviour Efficacy. This finding substantiates the studies conducted by Hopper and Sanford (2004), Perry and Power (2004), Ewing and Smith (2002) who also discussed the important impact and influence of others in the broader practicum learning environment. Hopper and Sanford (2004) found that student teachers need the support and interaction with multiple voices in the practicum environment for learning to be enriched. This finding supports this view as the student teachers have indicated that their sense of self–efficacy in demonstrating their professional interpersonal skills relates to the support they are given by these three key members of the extended practicum learning environment. Woolfolk Hoy (2000) also found that characteristics of whole school environments impact on student teacher self-efficacy.

The direct paths identified in the model between student teacher perceptions of the dimensions of Student Teacher Involvement, Clarity, Autonomy and Task Orientation and Professional Teacher Behaviour Efficacy should also be seen as important to teacher educators. The student teachers in this study have clearly indicated that features of the extended practicum learning environment including clarity of stakeholder expectations of them in the practicum environment; the opportunities to develop professionally; the opportunity to develop a sense of autonomy; the provision of conditions to help them feel like a staff member in the school; and their task orientation impact significantly on their sense of efficacy to perform the role of the teacher. It is noteworthy that, apart from Work Pressure, all of the EPLEI dimensions had a positive effect on their Professional Teacher Behaviour Efficacy. These findings send a clear message to teacher educators that these aspects of the practicum learning environment need monitoring. This message supports the views of Maxie (2001) and Wright and Bottery (1997) who state that student teachers need scaffolding in order to translate theory into practice. McLoughlin and Maslak (2003) go further to suggest that practical advice should be provided in a learning environment characterized by support and encouragement of professional growth.

The model also shows that there is an indirect path between Student Teacher perceptions of the seven of the eight EPLEI scales and the efficacy scales of Formal Curriculum Planning Efficacy (extent of student teacher belief that they are able to plan curriculum units and organize classrooms for delivery of units across the key learning areas) and Formal Curriculum Delivery Efficacy (extent of student teacher belief that they are effective in classroom management and curriculum delivery) with Professional Teacher Behaviour Efficacy (extent of student teacher belief that they are able to demonstrate the professional interpersonal skills and behaviours of a teacher) being the mediating variable. Work Pressure was the only scale that had a decreased effect on Formal Teacher Behaviour Efficacy. The model shows a clear causal path from Professional Teacher Behaviour Efficacy to Formal Curriculum Planning Efficacy and subsequently to Formal Curriculum Delivery Efficacy. The model shows a cascade effect of student teacher perceptions of the EPLEI scales on the variables, Professional Teacher Behaviour Efficacy then Formal Curriculum Planning Efficacy and finally Formal Curriculum Delivery Efficacy. Within the model, it is noteworthy that Professional Teacher Behaviour Efficacy has a direct, positive effect on Formal Curriculum Delivery Efficacy and also an indirect effect, positive effect on Formal

Curriculum Planning Efficacy. Clearly, Professional Teacher Behaviour Efficacy and Formal Curriculum Planning Efficacy have a mediating effect on how the EPLEI scales influence Formal Curriculum Delivery Efficacy. Accordingly, stakeholders attending to both Professional Teacher Behaviour Efficacy and Formal Curriculum Planning Efficacy can also influence Formal Curriculum Delivery Efficacy in a positive sense.

The only scale that had a direct effect on Formal Curriculum Delivery Efficacy was Autonomy. This highlights the fact that when the student teachers in the study did feel self-sufficient to make decisions about their planning, it had a direct positive effect on their sense of efficacy to deliver curriculum effectively. These results provide clear of evidence to teacher educators involved with practicum co-ordination and supervision of student teachers to attend to the supervisory learning environment to ensure that student teachers are given opportunities to develop some autonomy in their teaching practice. This finding builds on and extends the work of Martinez (1998) who discussed the negative impact on student teacher development when supervising teachers expected them to become their 'clone'. Martinez (1998) highlighted the dilemma for the student teacher when they were prevented from developing any sense of autonomy in their practicum learning environment and could not develop their own teaching style.

The model identified one other direct link between student teacher perception of Task Orientation in the extended practicum learning environment and Formal Curriculum Planning Efficacy. These findings showed that the student teachers in this study felt that, when there was a high emphasis on good planning, efficiency and getting the job done in the extended practicum environment, their belief regarding their ability to plan curriculum units and organize classrooms for delivery of their planned units was enhanced. This finding alerts stakeholders of the practicum to the important relationship between task orientation in the practicum learning environment and student teacher self-efficacy for future planning. The findings also support the beliefs of other scholars who have indicated that student teachers need emotional and personal support in the practicum learning environment (Babkie, 1998; Futrell, 1988; Wildman et al., 1992) but they also need a supervising teacher who is able to model effective curriculum planning and delivery and expect similar of their student teacher within an environment characterized by scaffolding of student teacher learning (Cannon, 1998; Hawkey, 1997; McNally & Martin, 1998; Page, Rudney & Marxen, 2004).

The findings in relation to this question provide evidence that a model can be developed to relate student teachers' perceptions of the extended practicum and their self-efficacy for teaching. They also provide overwhelming evidence for stakeholders of the practicum in teacher education that student teacher perceptions of extended practicum learning environments do relate to their future self-efficacy for teaching. Overwhelmingly, the environment that student teachers experience is positively related to efficacy. According to the model developed in this study, teaching efficacy can be enhanced by improving the quality of the environment. Hence, dimensions of practicum learning environments warrant attention if the practicum component in teacher education programs is to continue to improve.

6.4   CHAPTER SUMMARY

This chapter has discussed the results of this study by drawing mainly on learning environment research, practicum in teacher education and teacher-efficacy literature. In summary, this discussion has drawn conclusions about learning environments of the extended practicum of a pre-service course at a Catholic university. First, four dimensions of an extended practicum for student teachers at a Catholic university have been identified: children and student teacher relationships; teacher and student teacher relationships; student teacher and other school staff relationships and learning environment and Catholic ethos. Second, it is possible to develop and instrument that assess student teacher perceptions of the dimensions of the extended practicum learning environment: The Extended Practicum Learning Environment Inventory (EPLEI).

Third, student teacher perceptions of the extended practicum learning environment are affected by Age. Student teachers in the older age range (age 25 years and above) perceived Supervising Teacher Support in the extended practicum learning environment to be higher than student teachers in the younger age group (age 24 years and below). Fourth, student teacher perceptions of the extended practicum learning environment are affected by Gender. Females view the dimensions of the extended practicum learning environment more positively than males and results indicated that male student teachers perceived a higher level of Control in the extended practicum learning environment than females.

Fifth, student teacher perceptions of the extended practicum learning environment are affected by School Type. There were significant differences in the way student teachers perceive Fellow Teacher Support, Fellow Student Teacher Support and Work Pressure in the three different types of schools (Catholic, State and other Christian). Results showed significant differences between Catholic and State schools for the Fellow Teacher Support scale with Catholic schools being perceived by the student teachers as providing higher levels of Fellow Teacher Support than State schools and significantly higher levels than Other Christian (Lutheran/Christian) schools. Significantly, students in Other Christian schools perceived all of the following dimensions of the extended practicum learning environment less favourably than student teachers in Catholic and state schools: Supervising Teacher Support, Fellow Student Teacher Support, Student Teacher Involvement, Pupil-Pupil Cohesiveness and Clarity. Therefore, the student teachers in these schools felt less support from their teacher, felt unclear about expectations, felt that there was less cohesiveness amongst the children in their practicum class and felt less willing to be involved as a staff member of the school

Sixth, there was a consistent pattern in the direction of the differences between student teachers' and supervising teachers' perceptions of the same extended practicum learning environment. Supervising teachers perceived the extended practicum to have significantly higher levels of Administration Support, Supervising Teacher Support, Pupil-Pupil Cohesiveness, Clarity and Work Pressure than student teachers did. Student teachers perceived Student Teacher Involvement and Task Orientation lower than their supervising teachers.

Seventh, student teacher Professional Teacher Behaviour Efficacy is enhanced when student teachers perceive increased levels of Administration Support, Supervising Teacher Support, Fellow Teacher Support, Student Teacher Involvement, Clarity, Autonomy and Task Orientation but reduced levels of Work Pressure in the extended practicum learning environment. Interestingly, increased perceptions of Control was significantly associated with enhanced Professional Teacher Curriculum Planning Efficacy and both Task Orientation and Control are associated with Professional Formal Curriculum Delivery Efficacy. The most significant outcome of associations between student teacher perceptions of the extended

practicum learning environment and their self-efficacy for teaching was that Administration Support, Student Teacher Involvement, Clarity, but reduced levels of Work Pressure were associated with enhanced levels of Professional Teacher Behaviour.

Finally, structural equation modelling using LISREL can be utilised to develop a model to examine relationships between the participant perceptions of learning environments and learning outcomes. The model shows how seven of the eight EPLEI dimensions (Supervising Teacher Support, Administration Support, Fellow Teacher Support, Student Teacher Involvement, Clarity, Autonomy and Task Orientation) in the final model had positive effects on Student Teacher Behaviour Efficacy with direct paths identified in the model between student teacher perceptions of the dimensions of Student Teacher Involvement, Clarity, Autonomy and Task Orientation and Professional Teacher Behaviour Efficacy. The model also shows that there is an indirect path between Student Teacher perceptions of the seven of the eight EPLEI scales and the efficacy scales of Formal Curriculum Planning Efficacy and Formal Curriculum Delivery Efficacy with Professional Teacher Behaviour Efficacy being the mediating variable. Work Pressure was the only scale that had a decreased effect on Formal Teacher Behaviour Efficacy. The model shows a clear causal path from Professional Teacher Behaviour Efficacy to Formal Curriculum Planning Efficacy and subsequently to Formal Curriculum Delivery Efficacy.

The discussion in this chapter provides a platform for the conclusions and recommendations in the next chapter which concludes this thesis.

CHAPTER 7

CONCLUSION: SUMMARY, IMPLICATIONS, RECOMMENDATIONS AND LIMITATIONS

7.1 INTRODUCTION

This chapter concludes the thesis by addressing four important areas. Section 7.2 summarises the study by re-stating its purpose, methodology, structure and key findings. Section 7.3 considers the discussion of the previous chapter and identifies the important implications of the study. These implications focus on four areas including practicum experiences for students at a Catholic university, the practicum in teacher education, methodology in learning environment research and future learning environment research. Also, recommendations of the study are provided throughout Section 7.3. Section 7.4 summarises these recommendations. Section 7.5 addresses the limitations of the study. Concluding remarks to the thesis are provided in Section 7.6.

7.2 SUMMARY OF THE STUDY

The genesis of this study was the important role of the practicum in teacher education courses in the past, present and future. In particular, the impetus of this study was the nature of student teacher perceptions of their experiences of extended practicum learning environments in a teacher education course at a Catholic university, how the student teachers' perceptions differ from their supervising teachers and how their perceptions of the extended practicum learning environment relate to their self-efficacy for future teaching. Accordingly, the purpose of this study was to conceptualise, assess and investigate the extended practicum learning environments of student teachers from a Catholic university and to examine the relationship between those perceptions and the student teachers' self-efficacy for future teaching. Pursuant to this goal, a series of research questions were defined. As detailed elsewhere in this thesis

(Section 1.2.2), these research questions were of two types: measurement (i.e. conceptual) and quantitative.

The field of learning environment research provided the conceptual and methodological approach for investigating the practicum learning environments (Fraser, Anderson, & Walberg, 1982; Moos, 1968; Walberg, 1976). A review of learning environment literature revealed appropriate methodology for investigating human environments. In particular, Moos's (1968) use of the perceptions of inhabitants to assess a range of social environments provided ideas for assessing student teacher perceptions of practicum environments. The work of Kremer-Hayon and Wubbels (1993) was also useful in highlighting levels of school-based supervisory environments that impact on student teachers.

The review of teacher education literature identified the importance of practicum experiences in teacher education (Hansford & Brooker, 1997; Sudzina, Gielbelhaus, & Coolican, 1997; Zeichner (2002); Cochran-Smith, 2001; Zeichner & Gore, 1990), the role of supervisors (Berliner, 1987; Borko & Livingston, 1989, Galton, 1989; Wildman, Magliero, Niles & Niles, 1992), the nature of supervision (Daloz, 1986; Hawkey, 1997) and the variations of perceptions of participants of practicum environments (Beck & Kosnik, 2000; Daloz, 1986; Elliott & Calderhead, 1993; Jones, Reid, & Bevins, 1997; Martinez, 1998; Mayer & Austin, 1999; Wright & Bottery, 1997). Literature regarding teacher efficacy highlighted links between efficacy and learning to teach (Newman, Moss, Lenarz, & Newman, 1998; Onafowora, 2004). However, there was a lacuna of research that brought learning environment research, practicum in teacher education research and student teaching self-efficacy scholarship together. To answer the questions driving this study (see Chapter 1, Section 1.2.2), a research methodology had to be developed that brought the three areas of research together.

Therefore, a research methodology based on three principles was developed for the study. The first principle required the use of student teacher and teacher perceptions to assess learning environment of the extended practicum. The second principle required the use of quantitative data collection methods. The third principle required the development of an instrument to assess extended practicum learning environments and a context-specific instrument to assess student teacher self-efficacy for future teaching.

In order to answer the research questions, a three-stage research program was developed. The first stage involved the development, refinement and trial of a context-specific instrument designed to gather perceptions of the dimensions of the practicum learning environment from student teachers. This instrument is the Extended Practicum Learning Environment Inventory (EPLEI). The sample for Stage 1 which was conducted in semester 1, 2001, consisted of 197 Bachelor of Education (primary) student teachers. The second stage was the initial administration of the refined version of the EPLEI, in semester 2, 2001 to collect final year Bachelor of Education (primary) students' perceptions of the extended practicum learning environment. A total of 64 students responded to this questionnaire.

The third stage required the administration of the EPLEI to student teachers and a supervising teacher version of the EPLEI to their supervising teachers after the extended practicum in semester 2, 2002. Another instrument, the Student Teacher Efficacy Instrument (STEI) was designed to collect data on three student teacher efficacy scales as an outcomes measure of the study. A total of 57 student teachers (from a population of 68 students) and 58 supervising teachers responded to the Stage 3 questionnaire. Because some student teachers did not identify their supervising teachers, paired student teacher- supervising teacher data were available for 28 student teachers.

Statistical analyses including multivariate analysis of variance and correlational analyses were performed on the quantitative data. Structural equation modelling with LISREL was used to develop a model showing the relationships between EPLEI scales and the three STEI outcomes scales. This model had sound fit to the data collected in this model. Results from analyses of the quantitative data were discussed in the light of the literature relating to the practicum in teacher education and previous learning environment research.

Notwithstanding the importance of all of the results reported in Chapters 5 and discussed in Chapter 6, there are six major patterns to the findings. First, it is possible to identify specific dimensions of extended practicum learning environments for pre-service teachers at a Catholic university. Second, student teacher perceptions of extended practicum learning environments are associated with their self-efficacy for future teaching. Third, younger student teachers need more supervising teacher support than older students in extended

practicum learning environments. Fourth, student teachers perceptions of extended practicum experiences in Catholic and State schools are more positive than student teachers participating in Other Christian school environments. Fifth, there are differences between supervising teacher and student teacher perceptions of the same extended practicum learning environment. Sixth, student teacher extended practicum experiences are affected by aspects at both classroom and school levels of the environment.

7.3   IMPLICATIONS OF THE STUDY

In the previous chapter, the eight research questions are discussed in the light of practicum in teacher education literature and previous learning environment research. The purpose of the present section is to highlight the key implications of this study for teacher education, and in particular, implications for practicum experiences in teacher education at Catholic universities. The discussion in Chapter 6 dealt with the findings of the study in relation to each of the research questions. This section synthesises the findings to form a number of recommendations. It is not possible to include all of the findings in this synthesis. An emphasis has been placed on those results for which possible initiatives are evident. Recommendations are noted throughout the section and are summarised in Section 7.4.

7.3.1 Implications for Teacher Education

The first implication for teacher education relates to the instrument used in the study. It is clear from the results of this study that an instrument, the Extended Practicum Learning Environment Inventory (EPLEI) was able to be developed and used to tap the specific dimensions of extended practicum learning environments for pre-service teachers at a Catholic university. Use of the EPLEI has established these dimensions of the extended practicum learning environment within Moos's (1968) three categories for conceptualising and assessing human environments: Relationship, System Maintenance and System Change and Personal Growth. In terms of Relationship, the dimensions of the extended practicum learning environment are Supervising Teacher Support, Administration Support, Fellow Teacher Support, Fellow Student Teacher Support, Student Teacher Involvement and Pupil-Pupil Cohesiveness. The System Maintenance and System Change dimensions are Clarity, Control, Physical Comfort and the Personal Growth dimensions are Work Pressure,

Autonomy and Task Orientation. Findings of this study have shown that student teacher perceptions of extended practicum learning environments are affected by each of the dimensions (see Chapter 6, Section 6.3.5). Therefore, the first implication of this study is that school-based teacher educators need to be informed of the importance of positive relationships between members of the practicum environment and student teachers. Members of school supervisory staff need to be vigilant in facilitating the establishment of positive relationships within practicum environments among children and student teachers, supervising teachers and student teachers, fellow teachers and student teachers, fellow student teachers and student teachers, student teachers and school administrators, student teachers and school support staff. School supervisory staff should be advised that student teachers need personal and professional support from the school staff within these groups.

Supervisors should also be aware that personal and professional support is needed from a number of different perspectives and levels of the school environment. These levels include supervising teachers, school administrators and other teachers in the school regarding clarity of expectations, levels of control exerted over the student teacher, levels of work pressure and opportunities for autonomy within the setting. This study has shown that all of these factors are extremely important dimensions of practicum environments. All stake-holders of practicum experiences, especially school-based personnel need to be informed of the dimensions of extended practicum learning environments if student teacher perceptions of these experiences are to be positive. Therefore, it is recommended that members of school-based supervisory staff are informed of the specific dimensions of practicum learning environments (*Recommendation 1*).

A second implication of this study relates to the significant results that demonstrate that student teachers' perceptions of practicum learning environments are positively associated with their self-efficacy for future teaching. This has implications for supervision in the practicum. The discussion of results in Chapter 6 outlines the specific relationship between student teacher perceptions of the dimensions of the extended practicum learning environment and student teacher Professional Teacher Behaviour Efficacy, Formal Curriculum Planning Efficacy and Formal Curriculum Delivery Efficacy. As teacher professional behaviour and effective curriculum planning and delivery are central to successful teaching, aspects of extended practicum learning environments that relate to the development of student teacher

efficacy need to be acknowledged and attended to by supervisory staff in schools. In particular, supervisors need to acknowledge that student teacher perceptions of support have strong associations with student teacher Professional Teacher Behaviour Efficacy. Supervisors need to be made aware that student teacher perceptions of increased Administration Support, Student Teacher Involvement and Clarity, but reduced levels of Work Pressure are associated with enhanced levels of Professional Teacher Behaviour Efficacy. As shown in the model (Figure 5.5**),** there is a cascade effect of student teacher perceptions of the EPLEI scales on Professional Teacher Behaviour Efficacy then Formal Curriculum Planning Efficacy and finally Formal Curriculum Delivery Efficacy.

Therefore, members of supervisory staff need to be cognisant of these relationships as a student teacher's perception of Control exerted in the practicum environment is associated with increased levels of Formal Curriculum Planning Efficacy. Student teachers respond positively to direct, clear instructions from supervising teachers when planning curriculum units. The resulting Formal Curriculum Planning Efficacy that is associated with this perception of Control has a subsequent effect on Formal Curriculum Delivery Efficacy. Significantly, the way supervising teachers support, monitor and scaffold student teacher curriculum planning and delivery within an atmosphere of reduced work pressure is associated with student teacher overall sense of Professional Teacher Behaviour Efficacy then Formal Curriculum Planning Efficacy and subsequently Formal Curriculum Delivery Efficacy. These findings have significant implications for supervisory staff in extended practicum environments. Therefore, it is recommended that members of school-based supervisory staff are informed that student teachers' perceptions of practicum learning environments are positively associated with their self-efficacy for future teaching (*Recommendation 2).*

A third significant implication of the findings of this study relates to the fact that student teacher perceptions of practicum learning environments are affected by features at both classroom and school-levels. While findings of this study have shown strong associations between student teacher perceptions of supervising teacher and fellow teacher support in the practicum and their self-efficacy for future teaching, members of administration staff also play a significant role in the practicum experience for student teachers. Teacher educators, especially practicum co-ordinators need to acknowledge and implement strategies to ensure

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that student teachers are given adequate support by administration staff in schools. This study has used the term, *administration staff* when referring to school principals, assistant principals, teacher aides, library aides and school secretaries. While Recommendations 1 and 2 focussed on the role of the supervisory staff, it is clear that student teacher perceptions of the practicum are also affected by the way school secretaries, teacher aides and library aides support them in the school environment. This has implications for their perceptions of the practicum and hence the development of the Professional Teacher Behaviour Efficacy. Without administration support, student teacher perceptions of the practicum may well be affected negatively.

As Kremer-Hayon and Wubbels (1993) advocate, there is an important 'outer circle' component to the psycho-social environment of the practicum which includes aspects of school ethos and aspects of psychosocial climate. Members of Administration staff including teacher-aides and school secretaries are significant members of this outer circle. Hence, both supervisory staff and practicum coordinators need to liaise with these staff members to inform them of processes that can be employed to support student teachers in the practicum environment that would subsequently increase their perception of support at both class-room and school levels. This should result in an increased sense of Professional Teacher Behaviour Efficacy for the student teacher. Therefore, it is recommended that members of school administration staff are informed that student teachers' perceptions of their support in the practicum learning environments are positively associated with their self-efficacy for future teaching *(Recommendation 3).*

A fourth implication of this study relates to the finding that student teachers' perceptions of practicum learning environments are related to their age. The results of the study revealed differences between younger students and older students' perceptions of Supervising Teacher Support in the extended practicum. Older students' perceptions of extended practicum learning environments were generally more positive regarding all dimensions of the practicum environment than younger students. In particular, the younger students' perceptions of Supervising Teacher Support were lower than older students' perceptions which has implications for the younger students' experiences in the practicum setting. Supervising teachers should be advised to induct young students into the standards of professional teacher behaviour and protocols for interacting at the broader school level. Supervising teachers

should be advised to model teaching and classroom management strategies for younger student teacher. They should be encouraged to provide clear guidelines for younger students and scaffold their growing pedagogical knowledge. Supervising teachers should also be encouraged to allow younger student teachers some autonomy in developing their own style of teaching without fear of retribution. Therefore, it is recommended that members of school-based supervisory staff are made aware that younger students need increased levels of supervising teacher support (*Recommendation 4).*

A fifth implication of the study is that school-based supervisors need to be aware that student teacher perceptions of the extended practicum differ according to school type (Catholic, State and Other Christian) and students in some school environments perceive a higher sense of Work Pressure. This has implications for different school systems, especially the supervisory staff in the different schools. Student teachers in Catholic schools viewed all of the dimensions of their extended practicum learning environments more positively than student teachers in the other school types. This included Supervising Teacher Support, Administration Support, Fellow Teacher Support, Fellow Student Teacher Support, Student Teacher Involvement, Pupil-Pupil Cohesiveness, Clarity, Control, Physical Comfort, Autonomy, Task Orientation and Work Pressure. It seems that the ethos espoused in Catholic school documents promoting inclusion and support for all members of the school environment is extended to student teachers participating in the practicum. The experience of student teachers in State schools was similar to Catholic schools with their perceptions of the extended practicum learning environments being only marginally lower that the students in Catholic schools. While the results for Catholic and State school environments were generally positive, the findings regarding Other Christian (Christian and Lutheran) schools were concerning and have significant implications for the Christian and Lutheran school systems. Student teacher perceptions of the extended practicum learning environments in Christian and Lutheran schools were lower than student teachers in the other two school systems on almost all of the dimensions of the extended practicum learning environments. Student teacher perception of Work Pressure in Other Christian schools was significantly higher than student teachers in Catholic and State schools.

This finding has significant implications for ACU students participating in practicum experiences in Other Christian schools because ACU has an agreement with the Lutheran

school system in Queensland to prepare teachers for their schools. It is disturbing that student teachers going into Lutheran schools perceive lower levels of support from both their supervising teachers and their fellow teachers compared to student teachers in State and Catholic schools. One way forward on this issue would be for ACU Education Faculty staff, the ACU practicum coordinator, representatives of Other Christian school systems and school-based supervisory staff to negotiate and reach a consensus regarding both university and school requirements for student teachers. Following negotiations, an important outcome could involve working with these schools to ensure that university and school requirements for student teachers are congruent and clear and that student teachers are provided with appropriate levels of support so that perceptions of work pressure are reduced. Therefore, it is recommended that the practicum coordinator works with supervisory staff in Other Christian schools to reduce Work Pressure for student teachers (*Recommendation 5).*

A sixth implication of this study relates to the need for student teachers and supervising teachers to engage in assessment of the learning environment to overcome differences in perceptions between student teachers and supervising teachers in extended practicum learning environments. These differences in perceptions relate to a key finding of this study which found significant differences in the way student teachers and their supervising teachers perceived the same extended practicum learning environment. When there are differences in perceptions between student teachers and their supervising teachers, a number of problems may arise. These may include a lack of clarity regarding expectations, a lack of support, a reduction in task orientation for the student teacher and a heightened sense of work pressure in the environment. This has enormous implications for the success of the student teacher in the practicum environment.

It was suggested in Chapter 6 that one way to overcome these differences in the perceptions may be through the use of learning environment instruments to assess the learning environment where the student teacher is participating in the practicum. As outlined in Chapter 2 of this thesis, the work of Kiley and Jensen (1998) provides ideas for using learning environment research to align the perceptions of supervising teachers and student teachers. Methods used by Kiley and Jensen (1998) to assist teachers and student teachers to examine their perceptions of the same practicum environment may also be useful as a basis for student teacher and supervising teacher discussion and reflection of school-level and classroom level learning environments. The use of other learning environment instruments such as the *My*

Class Inventory (Fisher & Fraser, 1981), the *Learning Environment Instrument* (Fraser, Anderson, & Walberg, 1982), the *Classroom Environment Scale* (Moos & Trickett, 1987); and the *What is Happening in this Class* (Dorman & Adams, 2004; Dorman, Aldridge, & Fraser, 2006; Koul & Fisher, 2006) questionnaire may also provide a basis for sharing perceptions and clarifying purposes. The student teacher version and the supervising teacher version of the EPLEI used in the present study also have the potential to be used as a basis for the development of shared perceptions of the practicum experience for the student teacher and supervising teachers as the EPLEI contains items that assess dimensions of the extended practicum learning environment at both school and classroom levels. Therefore, it is recommended that student teachers and supervising teachers engage in the assessment of the learning environments in which they teach *(Recommendation 6).*

The seventh implication for teacher education builds on Recommendation 6 in suggesting that learning environment research be employed in all teacher education courses. For student teachers to participate in assessment of learning environments, they need to be introduced to the history, philosophy and theoretical base of learning environment research and introduced to learning environment research methods including a suite of instruments that would enable them to assess learning environments (Fraser, 1994; 1997; 2002). Not only would this assist student teachers to improve their own practicum learning environment but it could also improve the learning outcomes for the children they teach as student perception of classroom learning environments has been shown to affect both cognitive and affective learning outcomes for students. Therefore, it is important that student teachers are introduced to learning environment research not only for their own learning but as part of their preparation to be effective teachers. It is therefore recommended that pre-service teacher education courses include studies on the assessment of practicum learning environments *(Recommendation 7).*

The eighth implication of this study relates to further research regarding associations between student teacher perceptions of practicum learning environments and self-efficacy. While there is a plethora of research into the practicum in teacher education programs and learning environments generally (see Fisher & Khine, 2006), only a small amount of learning environment research has been conducted in tertiary environments (Chan, 1999; Kremer-Hayon & Wubbels, 1993; Stormont, 2003). Research has also been conducted on teacher

self-efficacy (Fives, 2003; Gibson & Dembo, 1984; Newman et al., 1998). However, studies that bring together research on practicum learning environments and student teacher self-efficacy are minimal. In particular, research into the psychosocial dimensions of extended practicum learning environments for student teachers from a Catholic university and their self-efficacy for future teaching is virtually non-existent. By identifying specific dimensions of extended practicum learning environments for student teachers at a Catholic university and establishing associations between student teacher perceptions of support in practicum environments and self-efficacy, this study has provided a platform for further research.

A future direction for learning environment research in teacher education research could involve the investigation of change in student teacher perceptions of practicum learning environments after school supervisory staff have participated in professional learning regarding dimensions of practicum learning environments and methods for assessing learning environments. This professional learning could involve induction of supervisory staff into awareness of the importance of all dimensions of extended practicum environments at both classroom and school levels as well as specific learning environment research approaches (see Recommendations 6 & 7). To ensure the staff at all levels of the school are informed of the need to support student teachers, outcomes of the professional learning would need to be shared with administration staff (including teacher aides, library aides and school secretaries). Therefore, it is recommended that research is conducted to examine associations between student teacher perceptions of practicum learning environments and self-efficacy for future teaching after supervisory staff have participated in professional learning regarding dimensions of practicum learning environment
(*Recommendation 8*).

7.3.2 Implications for Future in Learning Environment Research

Based on the conduct of this research, seven implications in future learning environment research are suggested. First, following a rigorous process of development, validation and trial, the Extended Practicum Learning Environment Inventory (EPLEI) was used successfully to identify and assess extended practicum learning environments of a pre-service course at a Catholic university. This has implications for its potential to be used to assess practicum learning environments in other contexts. Therefore, it is recommended that the Extended

Practicum Learning Environment Inventory be employed by learning environment researchers to assess practicum learning environments *(Recommendation 9).*

Second, this learning environment research has implications for the practicum component of teacher education courses for other levels of schooling. The present study was conducted in primary school environments. Therefore, the findings of this study regarding aspects of the practicum learning environments relate only to the primary school context. As the practicum is a component of teacher education programs at all levels of schooling, it is important that teacher education researchers gather information to inform the practicum component of courses relating to other levels of schooling. In particular, the complexity of secondary schools where student teachers move between different classes and different teachers will have dimensions that are different to primary schools. Consequently, student teacher experiences in the practicum learning environment in secondary schools will be affected by variables that are different to the student teachers in this study of primary school extended practicum learning environments. Therefore, it is recommended that further learning environment research be conducted on the practicum in secondary teacher education programs (*Recommendation 10*).

The third implication for learning environment research is the potential use of the EPLEI to examine the extended practicum learning environment in other contexts. The findings of this research can only be generalised to a pre-service course at a Catholic university in Queensland. In order to study the generalisability of findings and improve practicum experiences for student teachers in other contexts, it is desirable that similar studies are conducted in a wider range of settings. Therefore, it is recommended that this learning environment research using the EPLEI be replicated in other Australian states and internationally (*Recommendation 11).*

Fourth, this study has implications for studying student perceptions of practicum learning environments and cognitive outcomes. One tradition of learning environment research has been to investigate associations between perceptions of learning environments and cognitive learning outcomes. While this study found significant associations between student teacher perceptions of the extended practicum learning environment and affective outcomes, it did not investigate associations between perceptions of practicum learning environments and

cognitive outcomes. In the current climate of concern and debate regarding quality of teachers being prepared in Australia (Ministerial Council on Education Employment Training and Youth Affairs [MCEETYA], 2003), it seems that investigation of practicum learning environments and student teacher cognitive outcomes could shed further light on this issue. Therefore, it is recommended that further research be conducted in which environment of practicum is associated with cognitive outcomes (*Recommendation 12*).

The fifth implication for learning environment research relates to the use of cluster analysis which examines how student teachers could be grouped according to the likeness of their perceptions. Further study could employ cluster analysis to establish typologies of the practicum learning environments. Identification of relevant typologies may assist practicum coordinators to prepare both student teachers and supervising teachers for practicum experiences in teacher education courses. Therefore, it is recommended that learning environment researchers employ cluster analysis to establish typologies of the dimensions of the practicum learning environment *(Recommendation 13).*

The sixth implication for learning environment research relates to a novel aspect of this study which was the use of structural equation modelling to develop a model that shows the links between student teacher perceptions of the extended practicum learning environment and three areas of student teacher self-efficacy: Professional Teacher Behaviour Efficacy, Formal Curriculum Planning Efficacy and Formal Curriculum Planning Efficacy. This model reveals to teacher educators and practicum coordinators the relationship between specific aspects of practicum learning environments and each of the self-efficacy scales. It also shows the cascading effect of relationships between student teacher perceptions of dimensions of practicum learning environments from one self-efficacy scale to other efficacy scales. Using structural modelling to develop models that show this interrelationship would be useful for future learning environment research. Therefore, it is recommended that, where appropriate, structural equation modelling be used in other learning environment research studies (*Recommendation 14*).

A seventh and final implication of this study for learning environment research relates to the use of qualitative techniques to research practicum environments. This study employed quantitative techniques within the strong tradition of learning environment research to assess

the dimensions of the extended practicum learning environment. However, there is also a growing body of learning environment research that has successfully employed qualitative techniques to examine learning environments (Fraser, 2002). Qualitative techniques provide a means to view and assess environments through different lenses. They allow different types of research questions to be answered and provide new perspectives that humanise findings. Hence, qualitative techniques may enable researchers to address different questions and investigate more intricate aspects of practicum environments which would advance knowledge of the practicum in teacher education. Therefore, it is recommended that learning environment research using qualitative techniques be used to assess practicum learning environments (*Recommendation 15).*

7.4   SUMMARY OF RECOMMENDATIONS

7.4.1 Recommendations for Teacher Education

Recommendation 1   That members of school-based supervisory staff are informed of the specific dimensions of practicum learning environments

Recommendation 2   That members of school-based supervisory staff are informed that student teachers' perceptions of practicum learning environments are positively associated with their self-efficacy for future teaching

Recommendation 3   That members of school administration staff are informed that student teachers' perceptions of their support in the practicum learning environments are positively associated with their self-efficacy for future teaching

Recommendation 4   That members of school-based supervisory staff are made aware that younger students need increased levels of supervising teacher support

Recommendation 5   That practicum co-ordinators work with supervisory staff in Other Christian schools to reduce Work Pressure for student teachers

Recommendation 6   That student teachers and supervising teachers engage in assessment of the learning environments in which they teach

Recommendation 7   That pre-service teacher education courses include studies on the assessment of practicum learning environments

Recommendations 8   That research is conducted to examine associations between student teacher perceptions practicum learning environments and

self-efficacy for future teaching after supervisory staff have participated in professional learning regarding dimensions of practicum learning environments

7.4.2 Recommendations for Learning Environment Research

Recommendation 9   That the Extended Practicum Learning Environment Inventory be employed by learning environment researchers to assess practicum learning environments

Recommendation 10   That further learning environment research be conducted on the practicum in secondary teacher education programs

Recommendation 11   That this learning environment research using the EPLEI be replicated in other Australian states and internationally with larger sample sizes

Recommendation 12   That further research investigating associations between environment of the practicum and cognitive outcomes be conducted.

Recommendation 13   That learning environment researchers employ cluster analysis to establish typologies of the practicum learning environment

Recommendation 14 That structural equation modelling be used in other learning environment studies involving antecedents and outcomes

Recommendation 15 That learning environment research using qualitative techniques be used in the study of practicum learning environments

7.5   LIMITATIONS OF THE STUDY

All research has limitations. Mindful of the discussion of internal and external validity in the methodology chapter of this thesis (see Chapter 3, Section 3.4), the following limitations of the study are acknowledged. The greatest limitation of this study relates to the sample. First, the quantitative results are generalisable only to the fourth year Bachelor of Education students from a Catholic university in Queensland. Therefore, findings cannot be generalised to students from other Catholic universities or secular universities in other contexts both nationally or internationally. Student teachers from a Catholic university in Queensland do not represent all student teachers. Improvement in external validity would require replication of the study through studies both nationally and cross-nationally.

The second key limitation of this study relates to the instrumentation of for the study. The results are based on the validity of the EPLEI. As outlined in Chapter 4 of this thesis, established psychometric procedures were followed in the development and validation of scales for the EPLEI and development of the STEI. However, it has to be acknowledged that the results of the use of the instruments can only be generalised to the population for which the instrument was validated.

Third, a key limitation of this study relates to perceptual measures. Like all learning environment research, this study is based on individual perception. It is recognised that perceptual measures do not necessarily equate to reality. However, as discussed in Chapter 3 of this thesis, perceptual measures are important as individuals act on personal perceptions. In this way, the growing body of learning environment research continues to add weight to the relevance of the use of perceptual data as having a relationship to individual performance in educational settings.

Fourth, there were statistical limitations to this study. Correlational analyses as used in this study cannot be used to infer causality. Chapter 3 provides an overview of the limitations of these types of analyses. For example, it cannot be assumed that student teacher perceptions of extended practicum learning environments will determine self-efficacy for future teaching in all settings. While path diagrams developed through the use of structural equation modelling provide the imagery of causation, they are based on correlation matrices. Accordingly, no causation can be implied. Causation can only be established through true experimental designs. Given that the quantitative results of this study are generalisable only to student teachers in a pre-service course at a Catholic university, their applicability to the wider research community will provide a starting point for further research. Replication of studies is important for the checking of original results, especially if they impact heavily on theory and practice (Good, 1992). A replication of this study in other university extended practicum environments would be highly desirable.

7.6 CONCLUDING REMARKS

Teacher quality is under scrutiny both nationally and internationally (MCEETYA, 2003). Consequently, teacher education has also become a focus of interest and concern for both governments and the wider community (Cochran-Smith, 2001; Cunningham & Hall, 2000; Darling-Hammond, 1999; Jasman, 2003; Mayer, Mitchell, Macdonald, & Bell, 2005; Zeichner, 2002). Coupled with this are calls for extended periods of school-based practical experiences in teacher education programs (Board of Teacher Registration, 2003). Traditionally, the practicum has been viewed as the heart of teacher education courses (Cochran-Smith, 2001; Darling-Hammond, 1999; Zeichner, 2002). As the practicum holds such an important place in teacher education, those interested in the education of 'quality teachers' would see quality practicum experiences as a fundamental component of quality teacher education. Anecdotal observations of practicum experiences, practicum evaluation data from student teachers at a Catholic university and an interest in preparing teachers of 'quality' became the motivation for this study.

As Weasmer and Woods (2003, p. 1) state, 'the culminating student teaching experience plays a primary role in shaping pre-service teachers' values, beliefs and teaching skills". Hence, significant attention should be paid to the facilitation of 'quality' practicum experiences in

teacher education courses. McCorley (2005) noted in the Queensland Catholic Education Commission's response to the National Inquiry into Teacher Education that "the Inquiry should give serious consideration to the role and input of schools and their staff to the preparation of those in teacher education courses" as schools "play an integral role in providing teaching experience for associate teachers" (p. 5). This study has built on both these views and Weasmer and Wood's (2003) position that student teachers' final practicum experiences play an important role in their self-efficacy for future teaching. As Fives (2003) asserts, teacher efficacy relates to a teacher's belief in their own ability to have an impact on student learning. Therefore, to ensure positive student learning outcomes, schools and society generally need teachers entering the profession who have a high level of self-efficacy for teaching.

Cognisant of the relationship between teacher efficacy and student learning, the focus of this study has been the school environments where student teachers participate in practicum experiences and their future self-efficacy for teaching. It is important that student teachers develop high levels of self-efficacy in preparation for entering the profession. Previous research in teacher education has highlighted differences in the way student teachers and supervising teachers view practicum experiences (Martinez, 1998; Mayer & Austin, 1999) and that the environment student teachers encounter in school settings affects their experiences (Hansford & Brooker, 1997). Therefore, the focus of this study was the examination of relationships between student teacher perceptions of extended practicum learning environments and their self-efficacy for future teaching.

A significant outcome of the study has been the development, validation and use of the Extended Practicum Learning Environment Inventory, an instrument designed to assess student teacher perceptions of the extended practicum learning environment. An additional outcome was the development and use of the Student Teacher Efficacy Instrument which was designed to assess student teacher self-efficacy as an outcomes measure of the study. The study has resulted in a number of recommendations for general learning environment research and teacher education learning environment research including replication of the use of the EPLEI in other contexts, the use of learning environment research methods to assist the development of shared understanding of the same practicum learning environments by supervising teachers and student teachers and the promotion of learning environment

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research as an integral component of teacher education courses. The complete list of implications and recommendations are provided in Section 7.3 of the current chapter.

This study extends the scholarship and research of the practicum in teacher education and learning environments. Most importantly, the findings provide suggestions for improving the practicum learning environment in teacher education. In particular, it is important that student teachers from a Catholic university deserve practicum learning environments that are imbued with a Catholic ethos. Preparing future teachers who have enhanced levels of self-efficacy is a vital element in the provision of 'quality' teachers for Australian and international contexts. The children of today and the future deserve no less for their teachers of tomorrow.

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APPENDIX A

SUPERVISION WORKSHOP

'IDEAL OTHER' LISTS

Appendix A

Primary Model Supervising Teacher (developed in 1997 workshop)

- open to bribery
- supportive warm/friendly/approachable
- wide knowledge base
- outside-school interests
- confidence in students ability-to take risks reflective
- understand the students' financial situation
- open to new ideas and suggestions
- relaxed
- provides honest, fair and constructive criticism but still professional
- organised, realistic, enthusiastic
- realistic expectations
- good role model
- willing to share
- devoted and committed to the job
- not pedantic
- treat student with respect
- positively
- written and oral feedback
- give professional advice
- accepts mistakes/still learning
- sense of humour

Primary Model pre-service Teacher

- (Developed in 1997 Workshops)
- keen, committed
- fresh, enthusiastic
- committed wholly
- free of outside commitments - uni-art-special Ed, assessment overload
- sound knowledge based - how children learn/curriculum documents
- active listener/ takes notes/ well organised/ loves children
- self evaluation & reflection
- flexible
- dependable/reliable
- willing to go the distance
- role model children/ community
- Involvement in school extra curriculum
- write Qld cursive handwriting
- pride in work
- presentation
- calls first name
- Works "crafts" teaching eg. handwriting
- plan single lessons
- list of strategies
- level of initiative
- communication - adults
- feed back
- Commitment to come in each week
- attendance in pupil free days
- staff meetings, playground duty
- school diary/ noticeboard

- sense of humour
- learn to make positive out of negative
- prepared to take risks
- valued colleague and friend
- 'Our' shared classroom
- professionalism /ethics
- neat dress 'look the part'
- role model /set an example

APPENDIX B

AUSTRALIAN CATHOLIC UNIVERSITY
ETHICS CLEARANCE DOCUMENTS

APPENDIX C

OVERALL SUMMARY OF STAKEHOLDER DATA ORGANISED ACCORDING TO MOOS'S THREE CATEGORIES OF HUMAN ENVIRONMENTS

COLLECTION OF DATA REGARDING RELATIONSHIP ASPECTS OF THE PRACTICUM

Moos's Categories	Supervising Teacher Comments	Principal/Other School Administrator Comments	Academic Colleagues at University's Comments	Practicum Coordinator's Comment	Final Year Student's Extended Practicum Comments	General Practicum Students' Comments
Relationship	Am I doing enough for my student? The extended practicum was useful in that it gave the students a chance to get to know the pupils of his./her class and he/she could build a relationship with them. For the student, the length of time (extended practicum) was good but I missed my class. The students in my Year 2 class also enjoyed their new teacher and were very sad to say goodbye.	As present leader of the school, I believe that any student teacher will find our school and its members to be an excellent experience. First year of teaching is a culture shock and drain on energy. I enjoy having prac students — any teaching strategies or professional advice I could give and share with others is rewarding for me.	Student teachers need encouragement from their supervising teaches. Student teachers benefit from peer support in school settings (other student teachers). Other teachers in schools can make student teachers feel threatened when they cut them out of staffroom conversations. Student teachers need a lot of scaffolding from supervising teachers to help them develop lessons and curriculum units.	Supervising teachers need to be informed of the relationship between support and challenge when supervising student teachers. Student teachers deserve constructive criticism. Student teachers need principals to provide an induction program to help them know and understand the features of the school context. Student teachers need to be able to access resources from the library	Time in schools with other teachers is very beneficial. My field experience teacher (extended practicum) taught me more about teaching than anyone. Good features of extended practicum: • Freedom • Greater control of class • Felt like a real member of staff. Got to know the children well and could plan appropriately for them. Getting to know staff well. My teacher was very supportive. Allow to develop close relationship with class. Accepting of different teachers And teaching styles.	The principal and other teachers at this school do not acknowledge student teachers. My teacher is really supportive and gives me ideas. The pupils work well together. Respectful children. The kids in my class made it difficult for me. Nice children Staff allow you to use resources. Secretary should be friendly. AttentiveChildren .Features of difficult schools Teachers to be extremely helpful. Disunity among staff. Make you feel like a teacher All staff members need to be friendly. Bitchy teachers. Ill informed teachers and schools not welcoming. .

COLLECTION OF DATA REGARDING RELATIONSHIP ASPECTS OF THE PRACTICUM

Moos's Categories	Supervising Teacher Comments	Principal/Other School Administrator Comments	Academic Colleagues at University's Comments	Practicum Coordinator's Comment	Final Year Student's Extended Practicum Comments	General Practicum Students' Comments
Relationship	Student teacher became an accepted staff member during this term and was valued as a staff member. Prac student was given time to develop relationships with pupils. (Pupil-Pupil Cohesiveness) How wonderful for a supervising teacher to have a well-prepared, diligent and enthusiastic teaching associate to share the load with at this time of the year. How wonderful for a supervising teacher to have a well-prepared, diligent and enthusiastic associate	We have a great school, a fun curriculum, specialist learning centre, healthy working relationships and a great spirit of welcome, support and encouragement for student teachers; the more, the merrier! We have an orientation program for student teachers when they arrive at this school.	Student teachers need to develop positive relationships with the children in the class. Some supervising teachers are cruel to student teachers. Students need to feel wanted at a school.	Student teachers need to know if they can be assisted by teacher –aides The experience of the students during practicum is affected by all members of the school including supervising teachers, other teachers and teacher aides. Student teachers need to feel welcome in a school. A negative supervising teacher is able to diminish a student's sense of self-confidence which, in turn affects the student's performance.	Not good: Clash with teacher (personality) Having no other university mates at the school. Pupils in this class do not support student teachers. Student teachers are not welcome in this school. A good teacher is one that makes the student teacher feel welcome in the classroom and not that they are not imposing. A good supervising teacher is one who a teacher that doesn't treat a student teacher just like a university student but one who listens to their thoughts and opinions. <u>Children in classes should be</u> –caring-respectful- accept 'new comers'- 'well-disciplined' -'co- operated 'with the (student) teacher's agenda".	Team atmosphere. Positive learning environment. <u>School administration</u> Communicate well. Be welcoming and supportive. Answer questions. Show you where resources are. Allow you to use resources such as photocopier, paper, card. <u>Features of a good and not good Supervising Teacher.</u> Doesn't comment on the good things you do; only things that need improvement. Easy to get along with. Understanding. Smiled, warm, positive.

COLLECTION OF DATA REGARDING PERSONAL GROWTH ASPECTS OF THE PRACTICUM

Moos's Categories	Supervising Teacher Comments	Principal/Other School Administrator Comments	Academic Colleagues at University's Comments	Practicum Coordinator's Comment	Final Year Student's Extended Practicum Comments	General Practicum Students' Comments
Personal Growth	Am I doing enough for my student? I encouraged my student to develop his own teaching style to create stimulating lessons. Student teacher was well-organised and prepared. The student was extremely professional and knowledgeable.	Prac students can attend staff meetings and in-service programs at school. Students need to plan well. Good experience for students—the long period of time in the classroom really allows them to fully experience what life as a teacher is really like. The students in the program have shown initiative. Students have been enthusiastic and have learnt about the running of a classroom (in an informal manner).	Students are not given any freedom to develop their own style of teaching. During the extended practicum, student teachers need the opportunity to develop their own teaching style.	Student teachers need guidance and freedom to experiment with different teaching and learning strategies. Student teaches should be given the opportunity to experience the pressure teachers face on a daily basis.	My teacher has too high a standard. My teacher has unrealistic expectations. <u>Worst features of Practicum</u> I need a holiday. A stressful workload to cope with. The organisation of things for prac. So tiring. Not enough to time plan.	Everyone in this school is stressed and unhappy. My teacher wants me to be just like her. Lazy teacher. Student teachers should be allowed some freedom. A school should make you feel like a future teacher (of course you have a lot to learn).

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COLLECTION OF DATA REGARDING PERSONAL GROWTH ASPECTS OF THE PRACTICUM

Moos's Categories	Supervising Teacher Comments	Principal/Other School Administrator Comments	Academic Colleagues at University's Comments	Practicum Coordinator's Comment	Final Year Student's Extended Practicum Comments	General Practicum Students' Comments
Personal Growth	I firmly believe that students benefit from going on practicum experience This (extended practicum) worked well giving the student time with the class and the teacher time to do duties. We tend to involve students more in class activities, involvement and shared supervision (Buddy) with a regular involvement with the school on a time basis, students begin to develop a rapport wit the class group leading to a productive and worthwhile practicum.	The school has a strong commitment to facilitating the best possible opportunities to students undertaking the task of learning the craft of teaching. More practicum experiences will provide challenging experiences for students. Teachers are happy to have 4th Years as they can assist them.	Student teachers need to plan well to be successful.	Student teachers have to be well-prepared for the practicum. However, they need support to plan units that meet the needs of individual children in different school contexts.	Dealing with interruptions. Planning units before prac. Working full-time and trying to hold a part-time job as well.	Uni shouldn't choose teachers who have a casual attitude and don't care about prac students but want money.

COLLECTION OF DATA REGARDING ORGANISATIONAL FEATURES OF THE PRACTICUM

Moos's Categories	Supervising Teacher Comments	Principal/Other School Administrator Comments	Academic Colleagues at University's Comments	Practicum Coordinator's Comment	Final Year Student's Extended Practicum Comments	General Practicum Students' Comments
Systems, Maintenance and Change	Students are lucky to come in to such a good school where staff work well together. Much of the back-up communication needs to be provided by the student. Early childhood students need more input about CCP writing. Students were able to get a feel of the school in all aspects—excursions, exams, end of year preparation, etc.	We expect student teachers to behave and follow all the school's guidelines. Safe and pleasant physical environment and atmosphere. The sooner students get 'face-to-face' teaching, the better. The supervising teacher has to be comfortable with having student teachers in planning sessions but not to the detriment of the children. I am pleased with the open communication with the university.	Student teachers need explicit instructions from both the administration and the teachers in the school. Student teachers need to be informed of the school's requirements in terms of arrival and departure time at school, playground duty, protocols for dealing with all staff. .Student teachers deserve the opportunity to try out new ideas in the classroom.	All members of the school environment where the student teacher is involved in the practicum need to know the expectations of their role. Student teachers should not be made to feel that other staff members are checking on them. It would be helpful if all documentation that went out to schools was passed on to teachers and that all teachers read the practicum guidelines.	This school has really good facilities. Teachers unwilling to consult during the week before holidays. Confusion between university and school requirements. Could have more visits to ensure teacher satisfaction. Good teachers 'let go' of the children. Teachers need more information regarding our requirements.	My classroom was very hot and boring. My teacher confuses me. Schools need good resources. Teachers should know the expectations of the university. Teachers should let students know the timetable—inform them of what's expected. Having a student teacher requires time and effort from the teacher. Teachers need to be fully aware of the responsibility. A teacher should give ideas for lessons. Teachers should show resources and make them available to us.

COLLECTION OF DATA REGARDING ORGANISATIONAL FEATURES OF THE PRACTICUM

Moos's Categories	Supervising Teacher Comments	Principal/Other School Administrator Comments	Academic Colleagues at University's Comments	Practicum Coordinator's Comment	Final Year Student's Extended Practicum Comments	General Practicum Students' Comments
Systems, Maintenance and Change	This was a 2-way process. I learnt from the student the latest teaching methods and the student listened, took advice and improved.

It also gave an insight of the importance of long-term planning and setting goals.

It gave my student (once he had 'proved' himself) a chance to be in control and deal with all that comes up in a day. | The extended practicum block gives students a 'reality' check of school life with its many demands—i.e. school camps, sports days, fetes, in-service days etc.

I believe the best way for student teachers to learn is by conversing and observing 'good' teachers and by 'doing' (teaching).

Students have been enthusiastic and have learnt about the running of a classroom in an informal manner'. The sooner student teachers get face-to-face teaching the better. | Student teachers should be given space in a school to keep their resources.

Student teachers need clear guidelines from supervising teachers | Student teachers should be provided with facilities that make them feel comfortable | Good teachers give feedback.

Good teachers provide guidance and support and extend a wealth of information to the student. | Before prac, teachers should give a description of each of the units (for each subject area) in advance so that we know exactly what we have to cover and what they have already covered, so we can plan further ahead for our lesson. |

APPENDIX D

GENERAL STUDENT TEACHER PRACTICUM FEEDBACK

PRACTICUM SUPERVISION

WHAT ARE THE CHARACTERISTICS OF A GOOD SUPERVISING TEACHER?
Student Teacher Responses

– supportive	– able to have a good time with students
– give ideas/possible lesson topics appropriate to learning ability etc	– uses various techniques
– positive criticism	– teacher can easily talk about things other than school related
– supportive of students	– understanding
– actively involved in the process of assisting student teachers	– approachable
– understanding	– good sense of humour
– experienced	– friendly
– approachable	– helpful
– sensitive	– have time to talk to students
– knowledgeable	– be able to provide feedback to students
– approachable	– have appropriate time programs eg. Swimming
– etc that you have	– gives ideas for lessons
– someone who can give constructive criticism and not just say everything is "great"	– gives different ideas for management
– know expectations of university	– show model lessons
– one who constantly asks the student teacher how they are going, one who offers constant support	– give expectations of university
– one that makes the student teacher feel welcome in the classroom and not that they are not imposing	– be flexible
– a teacher that doesn't treat a student teacher just like a university student but one who listens to their thoughts and opinions	– welcoming – want to have a student
– have the time to demonstrate teaching strategies as well as to talk to you about ideas	– inform student of level of children – where they're at
– understanding	– have time for the student (discuss lessons)
– experience	– constructive criticism
– good sense of humour	– know when the students will be coming and therefore show models of lessons- not scheduled swimming , Japanese etc
– welcoming/friendly	– know the expectations of the university
	– has the time to give the student information, feedback, tips etc.
	– wants to have the student there
	– know what is required of the student and the procedure that is followed

WHAT ARE THE FEATURES OF A GOOD SCHOOL FOR FIELD EXPERIENCE?
Student Teacher Responses

- one that has a variety of teaching styles, range of resources, helpful and friendly staff willing to assist - a principal that is seen in the school working with others, not absent - lots of resources, prepared to assist students - diversity of students - good staff - environment of care and concern - good staff - friendly environment - welcoming - close to my house - good students - good resources	- one that is supportive - friendly staff - welcoming eg. Name tags for teachers - other teachers are friendly - good resources eg. Library / or other resources - supportive environment - teachers with name tags - good resources - welcoming, friendly - good resources - welcoming - know that there are student teachers at the school - good resources - welcoming/ friendly

WHAT FEATURES OF SCHOOL OR TEACHER DETRACT FROM A GOOD FIELD EXPERIENCE?
Student teacher Responses

- unfriendly staff - no discipline - lack of caring attitude - not enough scope/ time for students teacher's needs - teachers not present at school when necessary (eg. on holidays) - unapproachable - teacher leaves you standing alone - personality clash - unapproachable - personality clash	- not being welcome - not welcoming - unwelcoming - not informative of what's happening in their class (timetable, children's routine) - tells you exactly what and how to teach (better to make suggestions) - unwelcoming - teachers that don't know their own class - ill informed teachers and schools - teachers that can't control their own class - teacher not being able to control class

WHAT WOULD YOU LIKE A TEACHER/SCHOOL TO DO IMPROVE THE FIELD EXPERIENCE FOR YOU?
Student Teacher Responses

- for block prac in particular, I feel that it would be beneficial if teachers could give a description of each of their units(for each subject area) in advance, so that we know exactly what the children will have already covered and what has been allocated for us to cover, so we can plan further ahead for our lessons. - take account of student teacher's needs - all staff members to be friendly, approachable - do my lessons for me - be informative about school programs- discipline	- show around school grounds - make you feel like a future teacher not just a student (of course the student has a lot to learn). - show the resources that are available to the student - show the resources and make them available to us - teachers to be extremely helpful - don't choose teachers who have a casual attitude and don't care about prac students but want the money

WHAT CAN THE UNIVERSITY SAY TO SUPERVISORS TO IMPROVE THE EXPERIENCE FOR YOU?
Student Teacher Responses

- be understanding that we are still learning and that mistakes for us, are actually good learning experiences - don't be to harsh! - take account of student teacher's needs - let teachers know exactly what is expected of them - let teachers know the students (me) timetable - let teachers know what is expected of students and teachers - inform them on what is expected - personal contact - provide an outline of the different models and when they need to be taught - student teachers can full in a survey about themselves(eg. likes, dislikes, areas of concern) then the survey can be given to the supervising teacher to aid the aims and objectives of field experience	- the university could send teachers information about what we're doing, or supposed to be doing (models of teaching, our timetable. Teachers this semester don't even have a timetable of what we're teaching, if they did, they'd know where we're up to and we wouldn't feel like we're intruding on the teacher and their time - having a student requires their time and effort - we are there to learn and experience what it is like to teach and manage a class - if they have agreed to take on a student they are obligated to fulfill the requirements of a supervising teacher eg. model lessons, give feedback etc - provide information to the teachers about the models that we have to teach and when they are to be taught - make them fully aware of their responsibilities

FIELD EXPERIENCE – IMPROVING THE EXPERIENCE?

WHAT ARE THE QUALITIES OF A GOOD TEACHER?
Student Teacher Responses

- patience, guidance, constructive feedback
- supportive , gives feedback which is very beneficial
- positive
- easy to talk to/open
- someone who accepts you for who you are and not for who you know (vaguely)
- someone who gives you directions (initially) and supports you in what you are doing
- someone who includes you in the achievements of the children in the class and doesn't just ignore your presence
- someone who shares what is in their classroom/staff room/school
- listen
- offer support and advice
- not too 'old' or 'mature'
- friendly
- caring, understanding, helpful
- has time and is very willing to help or explain things
- supportive
- encouraging
- helpful
- polite
- friendly
- helpful
- discuss students progress
- caring
- supportive
- helpful
- suggest ideas
- professionalism
- youth and innovativeness
- being up-to-date
- respecting you as a student and as a young teacher
- supportive
- helpful
- honest
- consistent
- letting go of "their" children
- one who offers a lot of assistance
- someone who provides resources
- someone who is willing to let you make mistakes and learn from them
- supportive
- someone who provides positive feedback as well as critical/constructive feedback
- good support
- good feedback (supportive comments)
- willing to treat you as an equal
- introduce you to other staff
- understands the uni requirements
- supportive
- relaxed
- organised
- understands the university requirements
- supportive

- mature (at least 7 years experience is a must!)
- reflective
- warm
- good example
- patience
- assistance
- trust
- support
- positive feedback as well as negative
- regular feedback providing information about what level of performance you are at (prevents disappointment or profile viewing when it's to late and allows you time to improve)
- support
- encouragement
- positive and negative suggestions
- believe in you
- encouraging, supportive, willing to 'hand over' her class to me
- always available
- made me part of the staff included me in all aspects of teaching, planning social events etc
- encouraging, supportive, allows time for feedback, involves student in all aspects of school life
- positive attitude
- helpful willing to let you take the class
- not take over all the time
- some who gives many resources and shares experiences and is very supportive and honest
- someone who is kind/caring and offers a lot of support and guidance
- experience
- humour
- honesty
- encouraging
- positive criticism
- supportive
- comfort within their own class
- supportive attitudes and comments
- a teacher who continually provides feedback
- care and understanding of students
- provides guidance and support and extends a wealth of information to the student
- well organized and easy going
- someone who is a positive thinker
- a person who values new ideas/classroom practices offered by students
- caring and experienced
- positive attitude
- very helpful
- happy to share ideas and resources
- willing to make you feel as if you belong
- be relaxed, supportive, friendly

- relaxed
- organised
- punctual
- supportive
- feedback
- supportive
- understanding
- availability
- positive feedback
- constructive criticism
- understanding of outside/other pressure
- friendly
- willing to include you in staff etc.
- ability to allow students to find their own style
- time for consultation
- understanding
- encourages
- someone who asks about how I am feeling and how I see myself and how I am developing
- helpful
- patience
- understanding
- the ability to communicate effectively
- encouraging, provides feedback
- provides direction
- someone who gives positive reinforcement and constructive criticism
- feedback
- discussion
- reinforcement
- open
- helpful, supportive, provides assistance when necessary, gives ideas
- feedback as the prac is in progress
- warm and caring
- easy to talk to
- gives good feedback
- approachable
- concerned
- personal
- interested
- genuine
- available
- informative
- questioning
- good feedback on observations and planning
- very friendly
- understanding
- listening
- supportive
- should be approachable!!!
- should not be intimidating!!!
- approachable
- friendly
- give good feedback
- organized

- to provide a caring non threatening environment
- to give assistance in planning lesson plans
- positive
- helpful
- supportive, gets out of the way when you're

- sees student as an equal offering advice and encouragement
- realises the good job the student is doing and acknowledges this
- be relaxed and not stressed
- thoughtful and supportive
- a good listener
- humourous
- treat you as an equal
- recognises the expectations and the job the student is doing
- easy to get along with
- communication with students
- time set aside for students
- willingness to assist with resources etc
- approachable
- will give you verbal and written evaluation and feedback on each lesson and specific ways to improve
- will allow you to try and teach a variety of lessons to gain experience
- offer resources and suggestions for lessons but still allow you to use your own ideas
- friendly
- a teacher that does not mind giving information to a student teacher to assist in teaching a lesson
- co-operative
- understanding
- prepared to give you time to teach and prepare
- welcoming
- they should be well informed by the university of what is going on
- organisation
- flexibility
- interaction
- responsibility
- flexibility
- organisation
- willingness to show different aspects or teaching and resources used
- helping you when you get stuck
- providing good ideas/activities
- effective listening
- gave me a lot of feedback
- took the time to explain to me what he had written- gave verbal feed back to teacher, smiled, warm, positive
- someone willing to give detailed feedback
- confident and competent teacher
- someone who attends the university information times so they know what's happening and therefore does not continually complain
- a willingness to listen
- to give good feedback
- to give constructive criticism
- provides feedback
- provides support
- considers ability level
- someone who can separate personality from !!!!!
- someone who doesn't think they are the best ever when they are definitely not

trying to teach/discipline etc - willing to adapt - gives positive and negative feedback on a consistent basis - divides personal qualities of students to actual teaching qualities - able to listen to students point of view and reasoning - communication - motivating - encouraging - observant - warm - supportive - flexible - someone who sets out their expectations and lets the student know what they are looking for in their performance - helpful - gives feedback, doesn't run you down - S. C. came to see me, organised, talked to me about the centre, teacher, my experience - one who takes you seriously, shows you how they operate, lets you view their program - caring, responsive, gives feedback - positive, constructive criticism includes you as much as possible - supportive - approachable - flexible	- helpful - supportive - encouraging - organized - consistent feedback - knows what the criteria of the profile and aims to help a student teacher achieve their best results possible - supportive - a good teacher themselves - flexible - supportive - was free to do my own thing - helpful - honest feedback - encouragement - If there are areas for improvement, or if the teacher is not happy with something, they should have some initiative and responsibility and take it to the student. Some students, some teachers had problems and kept it quiet and didn't come to the students (How are the students supposed to improve or put in more work if they are unaware things are wrong). It should be 50:50 with teachers approaching students if they want to say something. A good supervising teacher should offer help to students when needed/warranted and asked. A good teacher should take sometime to talk to students (prac students) and not rush home at 3:10 constantly.

WHAT ARE THE QUALITIES OF A SUPERVISING TEACHER WHO IS NOT GOOD?
Student Teacher Responses

- snobby - not tolerant of part time jobs - not supportive, no positive feedback - someone who discusses the personal "problems" they have with the students, with other staff (known as bitching and nit picking comment from a teacher) - someone who brings their life into their professional like and takes it out on the student - someone who accuses the student of failings which are predominant in their own make-up - someone who insists on being in-charge of everything and then blames everyone else when things go wrong to the prac students but makes out everything is fine to the face those concerned/involved. - not been out of teaching and come back - doesn't have time to help or explain - have unrealistic expectations of students - unsociable - inconsiderate - no time for prac student - too 'busy' - unwilling to discuss student's progress - compares herself/himself to them as an experienced teacher - you are still learning - you are not completely qualified and have a	- no positive feedback only negative - someone who says you are going great and then gives you a lousy profile mark - someone who is not available for you to talk to and consult with - open friendly - won't let you use your own ideas and teaching techniques - not enough positive reinforcement - at times too trusting and so not giving feed back all the time, "You're doing fine – don't worry about it". - not supportive, not interested in units of work, not friendly - does not offer feedback - negative - doesn't comment on the good things you do only things that need improvement - someone who does not communicate - sarcastic and not open to new ideas and suggestions - general mistrust of the new uni system - negative criticism - inflexibility - narrow- mindedness that their way is the only way - not letting go of "their" children - teachers who take over lessons when they don't

wealth of experience
- not willing to discuss ideas
- does not do as they preach
- inconsistent
- makes comments of final report which were never made to student previously
- doing it for the money
- using a student teacher so that teacher can plan outside activities/holidays/next year etc. not positive feedback
- expectations – too high
- inflexible
- unapproachable
- someone who expects you to replicate them
- does not provide encouragement and feedback positive or negative
- has too many other responsibilities
- a teacher who does not have time for their students
- Assistant Principal Religious Education
- rarely talks to students
- puts students down
- doesn't provide guidance and support
- disorganized
- temperamental
- someone who does not understand that as prac "students" we have a number of other commitments outside of school
- negative attitude
- not happy to share resources not allowing you to have full responsibility of the class
- someone who is a "stressed" personality, transfers stress onto student
- someone who is stressed and has a stressed personality
- One that tells the student that the lesson (in the lesson plan) is alright, then criticises the student teacher.("You should have done this, you did not include that") after the lesson has been taught in front of the students.
- not willing to show different aspects of teaching and resources used
- Didn't have one like this
- picky
- doesn't realise that everyone makes mistakes
- Someone who makes a judgment on only a only a limited amount of information about me
- lacks constructive criticism
- Doesn't give feedback
- over critical
- dwells on what you cannot do
- is non supportive
- mine was great!
- provides no feedback
- not willing to help at all
- not willing to provide support or ideas
- only interested in their pay
- doesn't talk to you
- offers on support
- allows no freedom
- lacking the above
- I did not know her
- impatient
- rushed for time
- really picky
- Do not approach students if not happy or think

appear to be going well
- teachers who expect too much from student teachers
- someone who expects you to know everything and does not make allowances for mistakes
- no support
- no feedback
- not willing to treat you as an equal
- no supportive comments
- does not introduce you to other staff
- disorganized
- pays no attention to uni requirements
- doesn't appreciate and support their students
- stressed out
- disorganized
- pays no attention to uni requirements
- doesn't appreciate and support their students
- stressed out
- does not identify a problem and act on it
- non-supportive with little or no communication
- mean and nasty
- snappy
- abrupt
- being too busy for a student
- only doing it for the money
- not incorporating you into the class
- butting in during lessons
- over critical
- do not offer guidance
- do not give substantial feedback for improvement
- does not really want you in their classroom
- speaks down to you
- degrading
- doesn't really want you
- you get the feeling that they have you, so they do not have to work
- will not give you positive yet constructive criticism
- unorganized, not informed
- disorganized
- inflexible
- no interaction
- irresponsibility
- inflexible
- disorganized
- How are students supposed to know something is wrong.
- Lumps everything on student and expects standard to be of a teacher who has been teaching for 10 years.
- slack
- not approachable
- not available
- negative feedback
- not interested in your requirements, needs etc
- vague feedback
- does not make you feel welcomed ie ignores you
- approves my work, then after it has been done said this and that could be done
- does not compare to Early Childhood Education at QUT!
- comparing me to ECE students who are third years (ECE)
- Did not comprehend that this was my first prac.

improvement is needed.	and I was doing a primary degree with ECE specialisation and have done 4 ECE subjects.
- Think that the student should always 100% approach student.	- gave me no positive feedback all negative
- Teachers who have problems and don't tell students.	- criticised every single thing I did.
- Someone who just comments on your lessons but doesn't explain what procedure the student needs to follow to improve.	- no feedback
	- brief
	- cold
- Someone who doesn't encourage the student and not make the student feel	- formal
	- critical
- compares you to a QUT student in 3rd year early childhood - explains that I only do several subjects – said that this is irrelevant.	- suggesting I need counseling because I am an over-achiever (she said I am)
	- making assumptions about my personality and expecting me to change myself into her!!
- Someone who is not a full-time teacher	- making me feel worthless and contemplating suicide
- one that changes expectations continually along the way	- others are not good themselves and can't bare students to do anything good
- Doesn't have time for a student	- big note themselves all the time when it is obvious to blind freddy that the teacher aide is the one that does everything.
- In it only the $	
- No feedback	
- A bad teacher themselves	- disorganized
- Too higher standards	- too busy to de-brief each day
- Someone who is not responsive to your needs	- lazy (like mine)
- Expects too much for your ability level	- does not provide enough written feedback, good and bad
- Where do you want me to begin11	
- soul destroying people	- does not watch all of your lessons
- comparison to QUT (continuously!!)	- set in their ways (too much so)
- communication	- not caring
- no feedback	- not responsive
- negative comments (ie. different to constructive criticism	- give no feedback or positive constructive criticism
- one who does not take you seriously , does not show you how they operate	- does not include you as much as possible
	- unapproachable
- Does not let you view their program	- too set in their ways, not able to adjust and accept other teaching ways/manners

WHAT ARE THE FEATURES OF A SCHOOL THAT MAKE IT A GOOD SCHOOL/CENTRE FOR PRACTICE TEACHING ?
Student teacher Responses

- casual	- People who direct and don't expect you will automatically "know"
- comfortable	
- friendly	- friendly
- small	- small
- friendly school with staff willing to assist and give guidance	- accepting
	- willing to help
- People who care	- A small school with nice, understanding, friendly, helpful teachers.
- People who share	
- People who are support	- Small school – all children work together and play together – a close knit community.
- welcoming	
- show you around	- welcoming
- introduce to other teachers	- helpful
- Resources	- understanding
- Friendly atmosphere	- encouraging
- Good Principal	- supportive
- They respect you as a teacher	- welcoming
- Warm staff room	- friendly
- Well resourced	- invitations to events
- assistance	- supportive, accepting teachers, Principal
- support	- someone who really wants you and appreciates you
- trust	
- friendly staff	- small school
- welcoming teachers	- supportive, accepting teachers, Principal.

- supportive
- offer advice
- make you feel welcome
- Welcoming – included me in all aspects
- All staff are friendly, welcoming and prepared to help you fit in
- Friendly staff
- supportive/ sharing staff eg. St Eugenes
- A quality environment that fosters a good catholic ethos.
- community based
- unity of staff
- friendliness and support
- well resourced
- friendly staff
- friendly environment
- Supportive and 'fun' staff
- a diverse student population
- supportive staff, particularly the principal
- well resourced
- welcoming
- supportive
- Staff who are interested in you.
- They don't see you as just a prac. student therefore don't have to associate with you in staffroom, corridors and playground.
- A fantastic, supportive and fun staff
- A supportive and relaxed Principal
- Staff who are interested in students not seen as annoying.
- friendly staff
- other students
- friendly
- staff
- well equipped
- Friendly staff that welcome and encourage you. Other students aware that you are a teacher in training but still have a level of authority.
- Students have a level of behaviour expected.
- friendly staff
- Welcoming
- safe and pleasant physical environment/atmosphere
- warm atmosphere supportive Principal
- Good – appropriate teacher
- Very friendly staff and welcoming children, lovely location
- provides guidance
- is supportive
- welcoming of prac, students
- accepting and helpful staff
- Close proximity to home/uni.
- Friendly staff
- friendly
- open
- respect student teacher
- welcoming
- caring
- welcoming
- positive
- willing to share ideas openly
- supportive
- give feedback that is positive and objective
- definitely someone who understands university philosophy

- someone who really wants you and appreciates you
- small school
- accepting positive attitude
- assist with resources
- supportive and helpful staff
- warm ethos
- friendly/caring staff/parents
- community spirit
- Teacher harmony within school
- Some teachers are quite open about principal resentment
- Open staff and environment
- A school that makes students feel welcome
- supportive friendly teachers
- a Principal that interacts with you and takes an interest
- a non segregated staff room
- small schools are sometimes good to start off
- The staff and positive atmosphere
- Staff get to know you
- Resources are available
- They assist and support students
- co-operative, friendly staff
- support and guidance from staff
- a good principal who doesn't stifle the teacher
- friendly staff
- Open spaces, non congested, colourful – not boring
- friendly
- helpful
- supportive caring
- I think all schools are good. In all schools/centre you can learn something valuable
- Nice people Warmth – teachers form a group
- make you feel welcome,
- Are supportive and offer guidance
- Very friendly
- Accommodating
- Down to earth
- Accepting
- friendly staff
- easy access
- Friendly, caring and supportive
- friendly staff
- open
- encouraging
- provides feedback
- clear expectations
- friendly staff
- welcoming
- friendly
- supportive
- encouraging the student to interact with them during prac. Making sure that student is progressing ok and generally making constructive comments. A staff who wants the student to be at the school.
- welcoming
- principal who keeps in contact with student progress
- welcoming
- friendly
- supportive
- very welcoming

- welcoming and friendly - support - friendly - good resources - friendly atmosphere - friendly teachers - make students welcome	- welcoming - helpful - welcoming staff - friendly - approachable environment - where staff are hospitable

WHAT ARE THE FEATURES OF A SCHOOL THAT IS NOT A GOOD SCHOOL/CENTRE FOR PRACTICE TEACHING?
Student Responses

- not welcoming - friendly - have no idea- fortunately I have been blessed with schools and school staff who really cared, bar one teacher - socio-economic area - school where there are major problems with behaviour - schools that have teachers who do not have time to help or are unfriendly or unwelcoming - not welcoming - inconsiderate - no help - problems among staff - negative aura - continually putting you down and referring to you as simply "a student" - Principals who do not know or greet you - distrust - no support - bitchy teachers - unwelcoming teachers - teachers too busy for you - schools so involved with football and other sport that it takes over the day to day running of the classroom - disunity among staff - unsupportive unfriendly staff that don't get along - Teachers who do not make you feel welcome - unsupportive staff - segregated staff groups - large schools - unsupportive - a big school with many students - no bench space - no room to set it up - teacher not supportive - doesn't help students - isn't supportive - doesn't welcome students - not friendly - not helpful - doesn't give positive or negative feedback on a consistent basis - doesn't divide personal qualities of student to actual teaching qualities - not able to listen to students point of view and reasoning - non-communicative - not open - discouraging	- unsupportive staff - segregated staff groups - large schools - cold atmosphere - unfriendly staff - have not had this experience - unsupportive, unfriendly teachers - a Principal that does not interact with you and does not take an interest - a segregated staff room - large schools not good to start off - unsupportive environment - not supportive - not sociable - do not allow participation in things eg. school events - staff who are not interested in you. They see you as just a prac student. - Don't associate with you in the staff room, corridors, playground - staff that don't value prac students - too formal - staff talking about things in front of students that they shouldn't - disorganized - staff that do not support student teachers or welcome them - Everyone treats the student teacher like they do not exist, or are not very important (eg. compared to the teacher, teacher's aid, parents., other staff) - Teachers fighting - Schools in vulnerable situations - makes students feel unwelcome - Not co-operative - unfriendly staff - no support and guidance from staff - a Principal who stifles the teacher - unfriendly staff - distant communication - very critical - don't welcome you - someone who is not aware of ACU expectations - not welcoming - not friendly - no resources - no support - horrible people who think they can psychoanalyze you and make you into clones of them - teachers are not welcoming

- doesn't provide feedback - no clear expectations - not friendly staff - a school that lacks enthusiasm for the student being at the school - doesn't help to make you feel valued or wanted	- no help - rudeness - unwelcoming staff - not friendly - unapproachable environment - having supervisors that have 'unreal' expectations based on their own prac experiences.

WHAT ARE THE CHARACTERISTICS OF A GOOD CLASS?
Student Responses

- accepting of new teacher - children who are children - God's love between teacher and children - co-operative - accepting of all teachers, visitors in the school - great kits great teacher - friendly kids - teacher and children work together to make a great class - genuinely helpful and welcoming and welcoming - listens to teacher - good behaviour (most of the time)friendly - accepting to change - discipline - warm - friendly - great parent support - wide variety of learning styles and personalities - small - well behaved class - warm and friendly environment - different teaching styles - a controllable class – no extreme behavioural problems should be given to students or extended prac. - willing to learn - good students - rarely talks to students - puts student down - bright displays children's work around class - obedient - friendly - happy - fun - exciting - respond to you and your teaching - like you - respect you - laugh with /at you - like learning - laugh with/at you - enthusiastic - respond to you - respect you - obedient - caring - respectful - willing to learn - respectful to teacher and student teacher - co-operative - a level of behaviour expected	- accepting of different teachers and teaching styles - accepting of different teachers - nice children - friendly - happy - a variety of children - different children - children that have special needs - responds to direction/ instructions - co-operates with the teaching agenda - respects teachers and peers - respectful children - structured environment - children who "want to learn" - treat you with respect - not too many learning/behaviour problems - disciplined - control - respect teacher and student - good behaviour management - good resources - positive learning environment - co-operative - warm/caring for each other - "team" atmosphere - try hard - innovative children - group/class spirit - set rules and patterns - students, students and teacher that are able to work together for the benefit of all - co-operative - working - not too many misbehaving students in the one class - attentive - willing to learn - 26 perfect, well mannered, eager kids - helpful - caring - knows the rules/boundaries effective listening - There is no such thing if the class seems difficult at first then it is a challenge. All classes are good they just pose different challenges you must overcome. - Well disciplined, friendly atmosphere - Willing to learn - Challenging - accepting - flexible

- motivated - keen to learn - respond to classroom management - open to different learning styles - respect teacher - A class that is familiarised with the attendance of the student and is willing to make the student feel welcome and showing common courtesy as they would to any other teacher. - enthusiastic - attentive - a room full of children - a wide variety, not just the 'perfect' - class - not too big - Where the children are attentive, and understand the ways of the classroom - !!! for them no matter what there are always some, but they change depending on dynamics of the group - well behaved - well behaved - friendly, hard working	- small in number - easy going - polite and courteous students - good behavioural management in task - listens to teacher and others - already has good management techniques - accepts newcomers - happy children – well motivated - warm - fun - nice children - one which will respond - I loved it when my teacher introduced me as a 'teacher' not a 'student teacher' - I was taken seriously from the start, by both teacher and students - ones who are willing/ open to accept me - listen - warm - fun - use of resources - where they enjoy learning where it's not a chore - positive can manage the class - respect teacher

WHAT ARE THE CHARACTERISTICS OF A DIFFICULT CLASS?
Student Responses

- Don't know – there are no difficulties which can't be solved with live, prayer perseverance and parent support everything is possible - Socio-economic area - not viewing me as a 'teacher' but just as a student teacher regardless of what was said/done - Behaviour problems - Learning difficulties - no "team" atmosphere - not trying hard - no routine - bad students - children that don't respond - a composite classroom where the abilities of the students ranges dramatically - This makes for a very difficult practicum - angry - unhappy - disobedient - non-responsive - not interested - Bored - Friendship clicks - non responsive - friendship groups/clicks - many learning support children - ratbag kids - not willing to participate to a different teaching style - over talkative - behavioural problems - disrespectful - not disciplined - A class with over seven students with bad behavioural problems and are diagnosed with	- unsociable - inconsiderate - no time for prac student - behaviour management students - no respect for teacher - unsociable - a number of problem students - Children with behaviour probems lack of resources - all the same level - same teaching styles therefore not allowing for all children to learn - see above - special needs - behavioural problems - Those students who through their special need (behavioural/social/emotional) are disruptive to learning environment - behaviour problems - Special needs etc - unhappy children - mainly behavioural problems - unruly - disorderly - not responding to directions - aimlessly wandering - disruptive - swinging from the chandeliers - behavioural difficulties - untidy environment - children with special needs (extreme) - majority who have behaviour problems - no respect - too many learning /behaviour problems - not disciplined

ADD or ADHD - too many misbehaving students in the class (most students) - misbehaviour - disruptive - 26 non perfect, ill mannered not eager kids - behaviour problems - show no interest - not motivated - Problem children - Teacher with no control - not interested - Rude - not open etc - rude children - undisciplined children - a teacher doesn't have any management programs - don't listen - call out – no management techniques - unwelcoming - Behavioural problems - lack of motivation - not motivated - not keen to learn - Do not accept me etc - children unable to be controlled - ADD	- too many learning behaviour problems - not disciplined - no control - respect teacher and student - children with no respect for student teachers - no resources - not co-operative - no warmth or caring for each other - not responsive to classroom management - not open to different learning styles - irrespective to teacher - A class that isn't informed about the reasons of the student being in their class. Showing a lack of respect. - noisy - behavioural problems - A room full of children where the environment is positive and people are treated with respect - many behavioural problems - too big - none, they are just little challenges - naughty children - hyperactive - rude - egocentric - behaviour problems (severe) - rudeness

HOW MAY THE SCHOOL ADMINISTRATION ASSIST IN FACILITATING A POSITIVE FIELD
EXPERIENCE?
Student Responses

- Support and assistance where possible – both which I have received in all pracs. - being helpful ie. photocopying they were lovely - be helpful - helpful - welcoming welcome students - discuss any policies students would know - be supportive and friendly - By being co-operative and supportive of your teacher and yourself - photocopying - be welcoming and show an interest in you, the prac and how you are going - Include students in all aspects of teaching - Includes students in all aspects of teaching - supportive - by treating us like a normal staff member which seems to happen - Principal communicating with student from time to time - Positive attitudes towards a prac student - supportive - supportive - showing where things are eg. toilet, photocopy room etc - Be friendly/accepting/willing to assist/help - remember our name - be interested in us - Treating student teachers as 'real' teachers around the students - all must - everything is great - Be "involved" in staff meetings, not just attending them. Value your reponsed, ideas - Have a chat with you every now and them - involvement in staff meetings - communication between uni and teacher/student - Welcome you - Be friendly and welcoming help you out around the school - not sure	- Allow you to use resources such as photocopier, paper, card - Show you where resources are - Helpful and friendly - be supportive - be friendly - helpful - possibly giving student a (or setting up) a photocopy account - so as to save the teacher her amount - friendly - greets you - In my experience school staff offering their resources to me made my experience positive - Do what they did at Bracken Ridge. Nothing was too much of a problem - Being supportive - Accommodation and flexibility is the key! - be willing to answer any questions we may have about prac - Secretary can be friendly - welcome students - answer questions - be supportive and encouraging - being welcoming and supportive - being organized - being informed - helping in any way - keeping you up to date with school events etc. - offering their services as they do to any other teacher and offer assistance where requested as well as showing interest in the students progress. - No admin. only teacher - Photocopying - communicate well! - More contact with the lecturers who come to see your lesson. Mine didn't know who I was and didn't even watch! - Friendly/positive - be welcoming

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APPENDIX E

EXTENDED PRACTICUM SURVEY

STUDENT TEACHER RESPONSE DATA

FOURTH YEAR STUDENT SURVEY EXTENDED PRACTICUM

VG = very good; G = good; S = satisfactory; US = unsatisfactory; VU = very unsatisfactory

QUESTION 1 Where did you complete your field experience?	A: Brisbane – 35			B: Other – 2	
QUESTION 2 Did you consult with University staff regarding planning for the extended practicum?	Yes – 31			No – 6	
QUESTION 3 In your opinion, how would you rate the effectiveness of the consultation process?	VG	G	S	US	VU
a: with class teacher	19	12	5	-	-
b: with University staff	3	19	14	-	-
QUESTION 4 How appropriate was the University expectation of the three visits with your teacher prior to the block field experience?	11	18	6	2	-
QUESTION 5 In your opinion how did your planning suit the class?	20	15	1	1	-
QUESTION 6 Rate the implementation of your units.	15	20	1	1	-
QUESTION 7 How did your teacher rate the learning outcomes of the units?	22	12	2	-	-
QUESTION 8 Rate the level of support you received during the block field experience.	22	7	4	3	
QUESTION 9 Estimate the percentage of your units that were implemented.	30% - 1	70% - 2	85% - 1	95% - 3	-
	50% - 1	75% - 5	80% - 90% - 1	98% - 2	-
	60% - 1	80% - 9	90% - 8	99% - 1 100% - 2	-
QUESTION 10	VG	G	S	US	VU
How useful was the certificate of "Authority To Teach"	21	4	5	1	3

Comment on how you would rate the effectiveness of the consultation process with University staff.

Some discrepancies in what was considered appropriate planning for practicum.

Perhaps a little more information could be given to teachers regarding our requirements.

There is difficulty meeting the requirements and expectations of the teachers and the staff members.

Staff were most helpful.

There was confusion between school and university about some aspects of practicum.

Could be improved through older lecturers going back to the classroom.

Some teachers are unwilling or unable to consult during the week before the start of the final term because of holidays.

Student to Lecturer relationship.

Student to student relationship.

Support throughout prac.

How appropriate was the University expectation of 3 visits with your teacher prior to the block field experience?

Quite difficult to understand what teacher wants over the phone.

Perhaps more visits would have been more worthwhile to further planning.

Could have more visits to ensure teacher satisfaction.

Difficult with school holidays.

Too much emphasis placed on meeting the dates of each visit. I found this impeded the natural flow planning with my teacher.

The University was NOT flexible in their expectation of content to be taught in the classroom.

Even though my school was in Brisbane it is 1 ½ hour drive and not always convenient to pop in. It was difficult to get the signatures as we spoke usually over the phone.

Important to familiarise yourself with the class, students and teachers.

These three visits should have been made into observation visits.

It helps the organisation of the students.

It was reasonable to expect 3 levels of planning before the prac. Plenty of time for re-development of units was available.

It seemed that a lot of time was wasted in the first two years of the course with, I feel, pointless Arts subjects. These subjects have little to no relevance to becoming a teacher. The time and money could be better served in having more subjects that are directly related to the profession. Some subjects that could have been extended are SOSE, Music and Art.

What were the worst features of the extended practicum?

The assignment for Reflective Teaching.

8 weeks – too long as a student teacher.

Having no other University mates at the school.

Due to the time of year there were a lot of interruptions in teaching.

The Reflective teaching assignment was a great source of interruption and stress during this very important prac. A more suitable time must be provided.

Limited teaching time in the first couple of weeks.

Too late in the year, having an assignment due during prac.

Planning units before prac.

Timing. Term 4 is a load of time of the school year to have an extended practicum. I don't feel that my teacher provided enough feedback. This expectation should be made extremely clear to the supervising teachers.

The organisation of things for the prac. There should be university contact time allowed for the consultation of the class prior to the prac.

Working full-time and trying to hold down a part time job as well.

Time of year (too close to Christmas/end of year).

Too long.

Extra work from University whilst teaching full-time (eg assignment).

NO allowance despite the fact that we had to resign from our part time jobs.

Dealing with interruptions of end of year events.

Having an assignment during prac. This was (1) a useless subject, (2) a stressful workload to cope with. Please do not do this ever again.

I need a holiday. Assignments – A case of quantity not quality for anything I submitted. Too hard to manage time.

So tiring! 8 weeks was a killer. Assignments during prac are not realistic! (I hope you didn't expect too much).

No having more of a break before we went.

The tutors lack of consultation with the teacher and not maintaining time schedules. Having to resign from my part time job. No income. Resources cost money – where do we get the money from?

Unpaid – not being able to work. Preparation time was extremely limited and totally insufficient.

Not given enough time to plan before prac, without assignments.

APPENDIX F

EXTENDED PRACTICUM SURVEY

STUDENT TEACHER RESPONSE DATA

The following table shows the response of the supervising teachers. A list of individual teacher's comments has been included after the table.

FOURTH YEAR TEACHER SURVEY - EXTENDED PRACTICUM

VG = very good; G = good; S = sound; NI = needs improvement; U = unsatisfactory

RESULTS	NUMBER OF RESPONSES	
	YES	**NO**
QUESTION 1 Was the information you needed received?	27	0
QUESTION 2 Was it adequate?	27	0
QUESTION 3 Was it at the right time?	27	1
QUESTION 4 Can Communication be improved?	4	16
QUESTION 5 Were the guidelines relating to the extended practicum clear?	27	0
QUESTION 6 Were you aware of the goals of the extended practicum?		
QUESTION 7 Was the student's Certificate of "Authority To Teach" useful in providing opportunities for the student to learn about taking control of a class and for you to be free to participate in other professional activities.	22	1

	VG	**G**	**S**	**NI**	**U**
QUESTION 8 How supportive was supervision by University staff?	15	8	5		
QUESTION 9 How would you rate your student's preparation for Field Experience?	23	4	1		
QUESTION 10 How well did the planning match the needs of your class?	20	5	3		
QUESTION 11 How well would rate the collaborative planning process prior to the Extended Practicum?	18	7	2		
QUESTION 12 How would you rate your student's diligence?	21	4	1	1	

	YES	**NO**
QUESTION 13 Did you feel that the extended time allocated for this practicum was beneficial to student development?	21	
QUESTION 14 Would you accept another student for an extended practicum?	27	

General comments from Teacher Survey

More time with student prior to practicum would be better. We had to almost meet during the holidays.

Term 4 is not good for such a practicum. Interruption, celebrations (Term 2,3).

Term 4 very busy.

Like more contact before practicum.

More information on de-briefing week.

Am I doing enough for my student?

Once the principal, student and I felt confident to leave the student with the class, it provided many excellent opportunities for policy renewal.

Diagnostic new support, intervention of students experiencing difficulty.

Whilst it's good for students to experience school at the end of the year – it does make it difficult for "less interrupted teaching".

I was most impressed with the entire experience. The student was extremely professional and knowledgeable of the task at end.

I firmly believe that students benefit from on going practicum experience and would recommend the present load be extended.

I did make use of Teacher Comments system – Yes it was valuable. I have had a number of students over the years. Natalie has come to the Extended Practicum a lot better prepared that the other students I have had.

Maybe it could start the second week because collaborative planning was difficult, as some had to be done while teachers were on vacation.

Students were able to get a feel of the school in all aspects – excursions, exams, end of year preparations etc. It also gave an insight of the importance of long term planning and setting goals.

The Extended Practicum was useful in that it gave the students a chance to get to know the pupils of his/her class and he/she could build a relationship with them. An awareness of the resources available in the school became apparent. Staff meetings and in-service programs were also encountered.

It seems a little difficult for students doing country experience to communicate with supervising teachers prior to extended practicum. In my case this was done effectively as possible by phone and mail. Once my student came to the school and we could actually sit down and discuss things one-on-one it seemed so much better and many things developed from then on. I feel it is a little hard for the student to effectively plan when they have little "real" knowledge of the situation.

I very much enjoyed the time that Adam spent at St Joseph's. The last term of any school year is always very disrupted but I feel that it is still a good time for practicum to be held – it shows prac teachers what the "norm" can be like in the classroom. Eight weeks is a good solid length of time as it enables the student to fit into the running of the classroom, know the children and experience the high and lows of the profession. I would enjoy taking another student next year but I would prefer to answer the question 14 when the time for next years practicum draws closer.

I would be very pleased to accept another student at any time other than fourth term. During the earlier teleconference, this point was mentioned by another supervising teacher and I can understand the Universities position but I am quite sure that the students needs would be better served if their extended practicum was conducted earlier in the year. Fourth term is unsuitable for many reasons. At this school, we make a commitment to the community for the children to visit various centres to speak to and entertain the elderly intellectually impaired and the sick. There are numerous other calls on our time that decrease the available teaching time. Children are more difficult to keep motivated and to control. I know that at most times in a school we need to be able to cope with the

unexpected, but it is very frustrating having to accommodate a student's teaching needs when time in the classroom is so short with end of the year and testing and reporting commitments.

Sometimes we "out-of-Brisbane" need an ear to throw off on a one-to-one chart which one can't do over the phone especially when one is adverse to phone communication and prefers person-to-person.

It was a little uncertain about how detailed lessons had to be. Student had an overview of units but individual lessons were not always well thought out. This did not improve much prompting.

For the student the length of time was good – but I missed my class!

A realistic experience.

I find giving up my class for 8 weeks – a big ask. I feel I lost touch with some of my students at a most crucial time of the year. I feel that my student is ready to take the full responsibility of a classroom and will manage very well.

Rennaye became an accepted staff member during this term and was valued as a staff member. She made useful contributions to the running of the school and the addition of resources for some teachers.

The students in my Year 2 class also enjoyed their new teacher and were very sad to say goodbye.

The 8 weeks is great. However, having a major assignment due in the middle of the prac meant they were torn in both directions instead of being able to give full attention to their class.

It is a pity it happens so late. There are so many things happening in schools in fourth term. Wouldn't it be possible to schedule this for third term?

There may be less disruption to the students learning if the extended practicum was in term 3.

I think that it was a very good experience for the students – the long period f time in the classroom really allows them to fully experience what life as a teacher is really like. This practicum has been a very good experience for me.

This was a two-way learning process. I learned from the student latest teaching methods and in particular, planning of CCP's and work units. It was a pleasant, rewarding experience to see the student listen to advice, put it into practice, and improve so much over the eight week periods. I definitely felt she needed the eight weeks to prepare her for full-=time employment next year.

I think the 8 week practicum in fourth term is a good idea as it provides the student teacher with hands-on experience in a classroom for an extended time which is as close as you can get to what the student will experience in their initial teaching appointment. In fourth term there are many interruptions but this is what teaching is all about and students quickly become aware of the importance of flexibility and co-operation.

Maybe a four week block before the third term holidays and another four after. After speaking with Paul I realise that an eight week block would be more beneficial.

This extended practicum has prepared Alicia really well to take her own class next year. I wish I had had a similar opportunity. The research report was an interruption to the practicum and there must be a more appropriate time to do this.

The timing of the Extended Practicum was terrific. The build of "new" work had been taught earlier in the year and therefore, I felt able to relinquish control, a little more, than I would in Semester 1. It is a really tough term in school life – loads to achieve in an ever diminishing time frame. How wonderful for students to experience this in a supported and scaffolded manner.. How wonderful for supervising teachers to have a well prepared, diligent and enthusiastic teaching associate to share the load at this frantic time. I have enjoyed Melanie's freshness and ideas. I have appreciated her lecturers and tutors. Well done. Thank you for this opportunity.

It is good to heat that no assignment will fall due in EP next year. We don't encourage first year teachers to study because of the culture shock and drain on their energy. I'm glad fourth year students won't have to either.

I would like to see the students only deal with the practicum demands of implementation and not have other assignments due during this period. The practicum provided an opportunity to be "real" teachers and to deal with the demands of a "real" school and its impingements on curriculum plans. I feel that the final rating should be satisfactory or unsatisfactory rather than scaled because this allows students more freedom to experiment with their own style rather than trying to prove themselves at E, G, S etc. I also feel that Early Childhood option students should do their preschool pracs interspersed with schools because the skills required in upper grades need nurturing.

I found the University staff provided excellent support and were always available promptly for information or clarification. I thought that having an explanation gathering for Principals was an excellent idea. Thank you for providing this opportunity for the students to have a taste of their chosen career with a "safety net".

APPENDIX G

PRACTICUM FEEDBACK NOTES

PRINCIPALS
ACADEMIC COLLEAGUES
PRACTICUM CO-ORDINATOR

PRACTICUM FEEDBACK NOTES - STAKEHOLDERS

PRIMARY SCHOOL PRINCIPALS

Prac students can attend staff meetings and in-service programs at school.

Students need to plan well.

Good experience for students—the long period of time in the classroom really allows them to fully experience what life as a teacher is really like.

The students in the program have shown initiative.

Students have been enthusiastic and have learnt about the running of a classroom (in an informal manner)

Teachers are happy to have 4th Years as they can assist them.

Students are given an induction program at this school.

More time needed in schools before prac starts.

Some teachers are not suitable to supervise students
Our school is too busy to take students

The sooner student teachers get face-to-face teaching the better.

I am pleased with the open communication with the university

The extended practicum block gives students a 'reality' check of school life with its many demands—i.e. school camps, sports days, fetes, in-service days etc.

I believe the best way for student teachers to learn is by conversing and observing 'good' teachers and by 'doing' (teaching).

We expect student teachers to behave and follow all the school's guidelines.

Safe and pleasant physical environment and atmosphere.

The supervising teacher has to be comfortable with having student teachers in planning sessions but not to the detriment of the children.

Prac is timed at the wrong part of the school year.
Students need more work on spelling and maths.

PRINCIPAL FEEDACK- SAMPLE OF RESPONSES

Comment

Our staff believe they need to teach in Years 1 & 2. Year 3 is too late!!

Teachers perhaps need to see the usefulness of "another pair of hands". Not a great deal of interest amongst staff – campus took only one student.

The students who have been a part of this program have shown initiative and were keen to be helpful in the classrooms.

I enjoy having prac students – any teaching strategies or professional advice I could give and share with others is very rewarding for me.

We are open to having students in the school in this capacity.

There is an increase in demand for placements of student teachers across the board with …

All ? Parish School currently has one preschool and 19 classes. Next year an additional preschool will be operational with 21 classes. BY the year 2002 the school will be at capacity with 2 preschools and 24 classes. These statistics reflect the school's capacity to make more places for students from ACU. The school community also has a strong commitment to facilitating the best possible opportunities to students undertaking the task of learning the craft of teaching.

While we are pleased to have students visit and observe, we strongly urge that 2nd year students begin preparing and presenting lessons. The sooner students get face to face teaching experience the better.

We have not had any students for practicums over the last four years.

Students have been enthusiastic and have learnt about the running of a classroom (in an informal manner).

This arrangement has been satisfactory at our school in the past. The supervising teacher has to be comfortable with this in planning sessions that may be helpful to the student, but not to the detriment of children's normal activities.

Lack of formal communication between ACU and teacher raised as an issue.

Students, also, do not get sufficient practicum experiences especially in the first 3 years of your course. I support your last year (8 week) practicum. In today's school, teachers face many struggles and issues each day, many of which cannot be taught at a university. The 8 week block also gives a 'reality' check of school life with its many demands – ie school camps, sports days, fetes, in-service days, etc. I believe the best way for student teachers to learn is by conversing and observing 'good' teachers and by 'doing' (teaching). I have spoken to numerous Principals about the ACU course and about graduates and I have yet to speak to someone who disagrees with me. I hope that the comments are of some value to you and that you will consider them carefully. Thank you for the opportunity to learn.

Teachers in our school have generously and ably accommodated students from ACU, QUT and Armidale. Many teachers from here apply each year. We have a great school, a fun curriculum, specialist learning centre, healthy working relationships and a great spirit of welcome, support and encouragement for student teachers the more, the merrier! Year 1 and 2 fit easily into classes for basic observation and class task work.

Comments

It was very rewarding to see the student's increased confidence and progress through the term.

I think the ½ days are a good opportunity for the students to get to know the centre and the children. However, they are normally set only on a Monday – so the students only get to know one group before prac. eg they never see the Thursday, Friday group.

Generally teachers prefer to apply for 4th year students, though we have a teacher taking a 3rd year at the moment.

The 3rd year should also include regular lesson planning and presenting with a full week's teaching in the second semester.

More emphasis must be given to the practical issues of teaching. More balance between theory and practice.

Depending on the staff changes in any particular year.

See previous comments.

Again, the supervising teacher plays a key role in accepting students at this level.

The final 2 weeks of Semester 2 seems rather a difficult time for schools to accommodate students – end of year chaos prevails at this time.

3rd year students we tend to involve more in class activities, involvement and shared supervision ("Buddy") with a more regular involvement with the school on a time basis, students begin to develop a rapport with the class group leading to a promotive and worthwhile practicum each semester. A more regular contact enables students to be exposed to further activity within the school.

Comment

These students offer our school some continuity and offer "real" choices for our children.

Would depend on the class and the situation of leave, sickness that may have occurred over the year before accepting an 8 week practicum.

I find year 4 prac students very competent and professional. I prefer having 4th year students because of these reasons.

The very high standard displayed by the four students we had in 1997 seems to have been carried on by those we have at present – first semester 1998.

Teachers seem to enjoy having 4th year students at present. The students have been very motivated which has meant teachers are keen to assist them.

The 8 week prac in Term 4 is not popular with teachers. They feel it is too great a commitment to relinquish the class for such a large block of time during term 4.

Last year, one of the fourth year teacher associates completing their practicum was appointed to our staff. This teacher has been an excellent addition to our staff and the teaching profession.

Classroom teachers feel that 8 weeks in Semester 2 is too large a block; it tends to interfere with the continuity of their program and with application of the children to their work. Perhaps a variation on the break down of the 8 weeks could be addressed.

Practicums are a vital part of teacher training. (I was interested to note the amount of time trainee teachers spent in schools in New Zealand). My view is that students should be spending more time in schools – not less.

Teachers felt that by this stage of their training they need to be fulltime teaching as much as possible. As we are fairly small – 8 (eight) classes we are happy to take 1-2 students per year.

My student in Year 4 had the extended eight week practicum and it went very well. She was well prepared and very able in all areas.

Teachers appear to have interpreted the student's role differently in regards to the process of compiling special needs profile. There may be a need for clearer guidelines for teachers in assisting their students through implementation of this initial phase.

These longer practicums are practical and of great value to students.

Our experience of 4th year students is likewise excellent. Their extended block practicums engage a full immersion into classroom and staff experiences (staff meetings/curriculum development/socialisation) our experience of 4th years has been most productive. We believe strongly that we have enabled them to experience a genuine involvement in the stark reality of school life.

Our school has not been involved in this program as yet.

Additional Comments Regarding the Practicum

The acceptance of volunteer students does impact on our capacity to accept prac students. Other tertiary institutions are also making inroads with ACU's natural territory.

It is the opinion of the respondent to this survey that a more intensive "hands on" practicum be made available to students late in their first year or early in their second year. This opportunity would provide students with an early and accurate impression of their chosen career and ultimately work to improve them as practitioners engaged in the teaching profession.

I believe that teachers hosting students for their practicums take on this task because of their belief in the importance of providing experience and good model teaching to people entering the profession.

It's been my experience that host teachers are diligent in this work and very supportive of the students.

With this in mind it is important that the university listen to and act upon the advice of teachers particularly in the instance when it is evident that the student teacher is not attaining a satisfactory level during the practicum. Too often student teachers who are not ready to embark upon their professional practice have been graduated as a matter of course. If this is allowed to continue we can only expect mediocrity in the next generation of teachers.

Thank you for allowing us to respond to this survey on students from ACU. Our school has gladly requested students for teaching and practicum experiences for many years. Beenleigh is not the easiest of schools, but we believe that we have an excellent school. Our curriculum is detailed, up-to-date and relevant. Our staff are involved in continuous on-going professional development and in-service opportunities. Our spirit of welcome and hospitality is second to none and we celebrate this. Our genuine concern and accommodation for children less fortunate materially and educationally are well catered for within the pastoral programs we offer. All of our curriculum areas function effectively. Our staff are a most sociable group who continue to share a genuine interest and enthusiasm for relationship and quality teaching and learning. As present leader of the school, I believe that any student teacher will find our school and its members to be an excellent experience. We have received most encouraging and positive feedback from all student teachers who have journeyed with us for whatever period. We are a great school, becoming better each day.

PRACTICUM FEEDBACK NOTES - STAKEHOLDERS

ACADEMIC COLLEAGUES

Student teachers need to plan well to be successful.

Students are not given any freedom to develop their own style of teaching.

During the extended practicum, student teachers need the opportunity to develop their own teaching style.

Student teachers deserve the opportunity to try out new ideas in the classroom.

Student teachers should be given space in a school to keep their resources.

Student teachers need clear guidelines from supervising teachers

Student teachers need explicit instructions from both the administration and the teachers in the school.

Student teachers need to be informed of the school's requirements in terms of arrival and departure time at school, playground duty, protocols for dealing with all staff.

Some teachers won't spend any time scaffolding their student's learning.

Some teachers should never be given students.

More advice is needed for teachers to know the expectations of the uni.

It would be nice to feel welcome when you walk into a school.

PRACTICUM FEEDBACK NOTES - STAKEHOLDERS

PRACTICUM CO-ORDINATOR

Student teachers should not be made to feel that other staff members are checking on them

Student teachers have to be well-prepared for the practicum. However, they need support to plan units that meet the needs of individual children in different school contexts.

Student teachers need guidance and freedom to experiment with different teaching and learning strategies.

Student teacher should be given the opportunity to experience the pressure teachers face on a daily basis.

Student teachers should be provided with facilities that make them feel comfortable

All members of the school environment where the student teacher is involved in the practicum need to know the expectations of their role.

Student teachers should not be made to feel that other staff members are checking on them.

All members of the school environment where the student teacher is involved in the practicum need to know the expectations of their ole.

It would help if more supervising teachers came to briefing sessions.

APPENDIX H

INSTRUMENT SCALES

SCALES FOR TENTATIVE LEARNING ENVIRONMENT INSTRUMENT

SCALES FOR FINAL FORM OF EXTENDED PRACTICUM LEARNING ENVIRONMENT INSTRUMENT

EXTENDED PRACTICUM LEARNING ENVIRONMENT INVENTORY
(EPLEI) INITIAL SET OF ITEMS

<u>Directions</u>

The purpose of this questionnaire is to find out your opinions about the learning environment you would prefer to for teaching practice. This form of the questionnaire assesses your opinion about what this environment would *actually be like.* Indicate your opinion about each questionnaire statement by writing SA, A, N, D or SD on the response sheet.

SA - if you **strongly agree** that it describes what this experience is actually like

A - if you **agree** that it describes what this experience is actually like

N - if you **neither** agree that it describes what this experience is actually like **nor** disagree

D - If you **disagree** that it describes what this experience is actually like

SD - if you **strongly disagree** that it describes what this experience is actually like

All responses should be given on the separate Response Sheet.

Relationship Dimension

This dimension relates to how the members of the school community where the student teacher is completing the practicum are involved in the setting, how much they help each other, and how spontaneously they express feelings

Support -(the extent to which the student teacher, the supervising teacher, other student teachers at the school, the other members of the school staff and the pupils support each other)

Supervising teacher support

The supervising teacher supports you.
The supervising teacher is committed to their role of supervising student teachers.
The supervising teacher goes out of his/her way to help student teachers.
The supervising teacher loves teaching.
The supervising teacher encourages you when you have difficulties with lessons.
The supervising teacher criticises you over minor things.
The supervising teacher does not enjoy teaching.
The supervising teacher expects far too much from of student teachers.
The supervising teacher shares lesson ideas.
The supervising teacher is up-to date with teaching strategies and content.
The supervising teacher does not care about the quality of his/her teaching.

The supervising teacher employs a variety of teaching styles and resources.
The supervising teacher encourages you to try out new ideas.

Administration support

Members of the administration team support you.
Members of the administration team are committed to having student teachers in the school.
Members of the administration team goes out of their way to help student teachers.
Members of the administration team create a welcoming environment.
Members of the administration team encourage you when you are having any difficulties with teaching.
Members of the administration team are very critical over minor things.
Members of the administration team create an authoritative climate in the school.
Members of the administration expect far too much from of student teachers.
The teachers in this school seem stifled.
The teacher aide/s in this school are supportive.
The school office support staff are welcoming.
Student teacher supervision is encouraged by the school administration as part of a teacher's professional role.

Fellow teacher support

The other teachers in the school support you.
Other teachers in the school go out of their way to help student teachers.
Other teachers in the school love teaching.
Other teachers in the school encourage you when you have difficulties with lessons.
Other teachers in the school criticise you over minor things.
Other teachers in the school do not enjoy teaching.
Other teachers in the school expect far too much of student teachers.
Other teachers in the school stay distant from student teachers.

Fellow student teacher support

Student teachers support each other in this school.
At this school, student teachers help each other with lesson planning.
Student teachers are not happy at this school.
Student teachers at this school are very competitive.
Student teachers at this school give each other constructive criticism.
Student teachers do not know what is expected of them.
Student teachers share resources with each other.
Student teachers in this school stay distant from each other.

Pupil support

Pupils in this classroom are happy.
Pupils are happy in this school.
Pupils look forward to coming into this classroom.
The pupils in this classroom are motivated to learn.
Pupils in this classroom do not respond or cooperate with varied teaching strategies.
There are a number of pupils with behaviour problems in this class.
Pupils in this class are hard to manage.
Pupils are not disruptive in this class.
Pupils are friendly to each other

Involvement. - the extent to which the student teacher, other student teachers, the supervising teacher, the other members of the school staff and the pupils are concerned and committed to their job/tasks.

Being in this school makes you feel enthusiastic about teaching.
Being in this classroom makes you feel enthusiastic about teaching.
You feel keen to prepare stimulating lessons and activities at this school.
There's not much group spirit in this school.
Participating in extra-curricula activities at this school is encouraged and appreciated.
It is enjoyable being involved in this school.
You want to work hard with this teacher and class.
You feel welcome and involved in this class.
You feel welcome and involved as a staff member at this school.
 The teaching staff of this school is committed to their profession.
 The members of the administration team of this school are committed to their roles.
 Other student teachers at this school are enthusiastic about teaching.
 The teacher aide/s in this school are committed to their job.

Cohesiveness (The extent to which the relationships amongst the student teacher, the other student teachers at the school, the supervising teacher, the other members of the school staff and the pupils help each other and bond together
OR ?
(the extent to which all members of the learning environment are friendly and supportive of one another)

This is a happy classroom.
The teacher makes you feel welcome.
The teacher gives you encouragement.
School staff members are friendly and supportive of one another.
The pupils would look forward to coming to class.
The pupils are friendly towards each other.
The school administration makes you feel welcome and supported.

You feel supported by the school staff generally.
This is a happy school.

Systems Maintenance and Change - (relates to how orderly and organised the practicum setting for the student teacher is, how clear the expectations are for the student, how much control there is in the supervisory environment and how responsive the environment is to change)

Clarity- (relates to whether student teachers know what is expected of them and how explicitly the supervising teacher, the university, the school administration and the school support staff communicate rules, policies and expectations to the student teacher.

School rules and regulations are vague and ambiguous.
The supervising teacher communicates clear guidelines for pupil tasks.
The school administration provides clear guidelines for day-to-day activities.
School activities proceed smoothly.
Student teachers are often confused about exactly what they are supposed to do.
School activities are sometimes pretty disorganised.
Policies regarding student behaviour are clearly defined for student teachers.
Student teachers know exactly what they are supposed to be doing in the school.
Class activities proceed smoothly.
Class activities are sometimes pretty disorganised.
All members of the school staff know exactly what is expected of them.

Control - (relates to how much control of the members of the school community where the student teacher is involved in the practicum, is maintained.)

Supervising teachers keep a close watch on student teachers.
Student teachers are expected to follow set rules.
In this school, there's a strict emphasis on following policies and regulations.
The supervising teacher is very controlling.
Rules and regulations for teachers are pretty well enforced.
Supervising teachers do not often give in to student teachers.
Student teachers are expected to conform to school expectations.
Members of the school administration team ensure that student teachers are "doing the right thing".
Teacher aide/s expect student teachers to follow school rules.

Physical Comfort - (the extent to which the physical surroundings of the school and classroom where the student teacher is completing the practicum are a pleasant environment to work in.)

The classroom is neat and tidy.
The classroom provides an attractive learning setting.
The arrangement of the classroom furniture is conducive to positive teaching and learning.
The school buildings and grounds are neat and attractive.

The classroom does not provide physical comfort.
Staffroom facilities are pleasant.
Teachers have enough space to work when they are not teaching.
The physical environment of the school is not pleasant.

Personal Growth -(relates to the extent to which the school community encourages or stifles personal growth of the students)

Autonomy (The extent to which supervising teacher, student teacher, other members of school staff and pupils are encouraged to be self-sufficient and to make their own decisions)
OR
(The extent to which student teachers are encouraged to be self-sufficient and to make their own decisions)

The teacher allows you to make decisions about lessons.
There is no encouragement of independent thought about curriculum planning and delivery.
The administration staff encourage you to participate in school based decision-making.
The teacher does not allow any freedom in curriculum planning.
The teacher wants you to be a clone of him/her self.
The supervising teacher encourages student teachers to use their initiative.
Student teachers function fairly independently of supervising teachers.
The administration wants teachers to make their own decisions.
The class teacher encourages pupils to make decisions about their own learning.

Task Orientation (the degree of emphasis on good planning, efficiency, and getting the job done)

Interruptions are not welcome in this classroom.
This supervising teacher allows flexibility in curriculum delivery.
The supervising teacher expects good lesson planning.
Task completion is important in this classroom.
The atmosphere in the classroom is laissez-faire.
The student teacher is expected to be efficient.
The classroom is a work-orientated place.
Teachers pay a lot of attention to getting work done.
The school emphasises work.
The members of the administration team encourage flexibility in curriculum delivery.

Work Pressure (the extent to which the pressure of work dominates the school community where the student teacher is participating in the practicum)

Getting a certain amount of work done would be important in this class.
You feel very pressured in this classroom to complete all aspects of planned curriculum.
There is a lot of work pressure in this school.
Student teachers have to work hard to complete all of their school-related tasks.

There is no time for student teachers to relax.
Student teachers can take it easy and still get the work done.
Student teachers have no time pressures.
Student teachers always have deadlines to meet.
Members of the administration pressure some of the teachers.
There is an authoritative atmosphere in the school.
Members of the school administration team support teachers in the supervision of student teachers.

EXTENDED PRACTICUM LEARNING ENVIRONMENT INVENTORY
(EPLEI) FINAL SET OF ITEMS

Directions

The purpose of this questionnaire is to find out your opinions about the learning environment you would prefer to for teaching practice. This form of the questionnaire assesses your opinion about what this environment would *actually be like.* Indicate your opinion about each questionnaire statement by writing SA, A, N, D or SD on the response sheet.

SA -   if you **strongly agree** that it describes what this experience is
        actually like

A -   if you **agree** that it describes what this experience is actually like

N -   if you **neither** agree that it describes what this experience is
        actually like **nor** disagree

D -   If you **disagree** that it describes what this experience is actually
        like

SD -   if you **strongly disagree** that it describes what this experience is
        actually like

All responses should be given on this Response Sheet.

Relationship Dimension

This dimension relates to how the members of the school community where the student teacher is completing the practicum are involved in the setting, how much they help each other, and how spontaneously they express feelings

Support -(the extent to which the supervising teacher, other members of the school staff and the pupils support the student teacher)

1. Supervising teacher Support

1. The supervising teacher supports you.
2.The supervising teacher is committed to his/her role of supervising student teachers.
3.The supervising teacher goes out of his/her way to help student teachers.
4.The supervising teacher encourages you when you have difficulties with lessons.
5.The supervising teacher shares lesson ideas.
6.The supervising teacher encourages you to try out new ideas.

2. Administration Support

1. Members of the administration team support you.
2. Members of the administration team are committed to having student teachers in the school.
3. Members of the administration team goes out of their way to help student teachers.
4. Members of the administration expect far too much from of student teachers.
5. The teacher aide/s in this school are supportive of student teachers.
6. Members of the school office staff are welcoming to student teachers.

3. Fellow Teacher Support

1. The other teachers in the school support you.
2. Other teachers in the school go out of their way to help student teachers.
3.Other teachers in the school enjoy working with student teachers
4. Other teachers in the school encourage you when you have difficulties with lessons.
5. Other teachers in the school criticise you over minor things.
6. Other teachers in the school expect far too much of student teachers.

4. Fellow Student Teacher Support

1. Student teachers support each other in this school.
2. At this school, student teachers help each other with lesson planning.
3. Student teachers at this school give each other constructive criticism.
4. Student teachers work well with each other in the school.
5. Student teachers share resources with each other.
6. Student teachers in this school stay distant from each other.

5. Student Teacher Involvement. - the extent to which the student teacher is concerned and committed to his/her development during practicum.

1. Being in this school makes you feel enthusiastic about teaching.
2. Being in this classroom makes you feel enthusiastic about teaching.
3. You feel keen to prepare stimulating lessons at this school.
4. It is enjoyable being involved in this school.
5. You feel welcome to be involved in this classroom.
6. You feel willing to be involved as a staff member at this school.

6. Pupil-Pupil Cohesiveness - (The extent to which the pupils in the learning environment help each other and bond together.)

1. The pupils in this work well together.
2. The pupils in this class encourage each other.
3.The pupils in this classroom criticise each other.
4. The pupils would look forward to coming to class.
5. The pupils are friendly towards each other in this classroom.
6. The pupils in this class would not look forward to coming into the class.

Systems Maintenance and Change - (relates to how orderly and organised the practicum setting for the student teacher is, how clear the expectations are for the student, how much control there is in the supervisory environment and how responsive the environment is to change)

7. Clarity- (relates to whether student teachers know what is expected of them and how explicitly the supervising teacher, the university, the school administration and the school support staff communicate rules, policies and expectations to the student teacher.)

1. School regulations for student teachers are vague and ambiguous.
2. The supervising teacher communicates clear guidelines for student teachers.
3. The school administration provides student teachers with clear guidelines for day-to-day activities.
4. Policies regarding pupil behaviour are clearly defined for student teachers.
5. Student teachers know exactly what they are supposed to be doing in the school.
6. All members of the school staff know exactly what is expected of them.

8. Control - (relates to how much control is exerted over the student teacher by the other members of the school community where the student teacher is involved in the practicum)

1. Student teachers are expected to follow set regulations.
2. In this school, there's a strict emphasis on all teachers following policies and regulations.
3. Rules and regulations for all teachers are well enforced.
4. Student teachers are expected to conform to school expectations.
5. Members of the school administration team ensure that student teachers are "doing the right thing".
6. Teacher aide/s expect student teachers to follow school expectations of staff.

9. Physical Comfort - (the extent to which the physical surroundings of the school and classroom where the student teacher is completing the practicum are a pleasant environment to work in.)

1. The classroom is neat and tidy.
2. The classroom provides an attractive learning setting.
3. The arrangement of the classroom furniture is conducive to positive teaching and learning.
4. The school buildings and grounds are neat and attractive.
5. Staffroom facilities are pleasant.
6. Teachers have enough space to work when they are not teaching.

Personal Growth -(relates to the extent to which the school community encourages or stifles personal growth of the students)

10. Autonomy
(The extent to which student teachers are encouraged to be self-sufficient and to make their own decisions)

1. The teacher allows you to make decisions about lessons.
2. There is no encouragement of independent thought about curriculum planning and delivery.
3. The teacher does not allow any freedom in curriculum planning.
4. The teacher wants you to be a clone of him/her self.
5. The supervising teacher encourages student teachers to use their initiative.
6. Student teachers function independently of supervising teachers.

11. Task Orientation (the degree of emphasis on good planning, efficiency, and getting the job done in the setting where the student teacher is completing the practicum)

1. The supervising teacher expects good lesson planning.
2. Task completion is important in this classroom.
3. The atmosphere in the classroom is casual.
4. The student teacher is expected to be efficient.
5. The classroom is a work-orientated place.
6. Teachers pay a lot of attention to getting work done.

12. Work Pressure (the extent to which the pressure of work dominates the school community where the student teacher is participating in the practicum)

1. You feel very pressured in this classroom to complete all aspects of planned curriculum.
2. There is a lot of work pressure in this school.
3. Student teachers have to work hard to complete all of their school-related tasks.
4. There is no time for student teachers to relax.
5. Student teachers can take it easy and still get the work done.
6. Student teachers always have deadlines to meet.

APPENDIX I

PRELIMINARY/ TENTATIVE FORM OF EXTENDED PRACTICUM LEARNING ENVIRONMENT INSTRUMENT

LETTER AND INSTRUMENT

Survey on the Learning Environment of Field Experience

Dear Student

As part of my PhD study, I am conducting research on perceptions that students have of their field experience learning environment. You have been chosen as part of a sample of students invited to respond to this questionnaire which takes about 10-15 minutes to complete.

Participation is entirely voluntary and you may withdraw at any time without giving a reason. This research is NOT being conducted for Australian Catholic University, your school or your teachers and your responses are anonymous. It has nothing to do with your university results. All information will be treated confidentially. When all of the data is combined, a research report will be written.

This research is being conducted with the approval of the Ethics Committee of the Australian Catholic University. Any questions regarding this research can be directed to me at the address shown below.

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University Research Projects ethics Committee
C/- Office of Research
Australian Catholic University
PO Box 247
EVERTON PARK QLD 4053
Telephone: 3855 7294
Fax: 3855 7328

Any complaint will be treated in confidence, investigated fully and the participant informed of the outcome.

Yours sincerely

Mrs Joy Kennedy
School of Education
Australian Catholic University
PO Box 247
EVERTON PARK QLD 4053
Telephone: 3855 7156

**Please turn the page to
start the questionnaire**

Directions

The purpose of this questionnaire is to find out your opinions about the learning environment you would prefer for teaching practice. This form of the questionnaire assesses your opinion about what this environment would *actually be like*. Indicate your opinion about each questionnaire statement by writing SA, A, N, D or SD on the response sheet.

SA - if you **strongly agree** that it describes what this experience is actually like

A - if you **agree** that it describes what this experience is actually like

N - if you **neither** agree that it describes what this experience is actually like **nor** disagree

D - If you **disagree** that it describes what this experience is actually like

SD - if you **strongly disagree** that it describes what this experience is actually like

All responses should be given on the separate Response Sheet.

Please circle your gender: Male   Female

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
1. **The supervising teacher supports you**	1	2	3	4	5
2. **Members of the administration team support you**	1	2	3	4	5
3. **The other teachers in the school support you**	1	2	3	4	5
4. **Student teachers support each other in this school**	1	2	3	4	5
5. **Being in this school makes you feel enthusiastic about teaching**	1	2	3	4	5
6. **The pupils in this class work well together**	1	2	3	4	5
7. **School regulations for student teachers are vague and ambiguous**	1	2	3	4	5
8. **Supervising teachers keep a close watch on student teachers**	1	2	3	4	5
9. **The classroom is neat and tidy**	1	2	3	4	5
10. **The teacher allows you to make decisions about lessons**	1	2	3	4	5
11. **Interruptions are not welcome in this classroom**	1	2	3	4	5
12. **Getting a certain of work done would be important in this class**	1	2	3	4	5

		Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
13.	The supervising teacher is committed to his/her role of supervising student teachers	1	2	3	4	5
14.	Members of the administration team are committed to having student teachers in the school	1	2	3	4	5
15.	Other teachers in the school go out of their way to help student teachers	1	2	3	4	5
16.	At this school, student teachers help each other with lesson planning	1	2	3	4	5
		Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
17.	Being in this classroom makes you feel enthusiastic about teaching	1	2	3	4	5
18.	The pupils in this class encourage each other	1	2	3	4	5
19.	The supervising teacher communicates clear guidelines for student teachers	1	2	3	4	5
20.	Student teachers are expected to follow set regulations	1	2	3	4	5
21.	The classroom provides an attractive learning setting	1	2	3	4	5
22.	There is no encouragement of independent thought about curriculum planning and delivery	1	2	3	4	5
23.	The supervising teacher allows flexibility in curriculum delivery	1	2	3	4	5
24.	You feel very pressured in this classroom to complete all aspects of planned curriculum	1	2	3	4	5
25.	The supervising teacher goes out of his/her way to help student teachers	1	2	3	4	5
26.	Members of the administration team go out of their way to help student teachers	1	2	3	4	5
27.	Other teachers in the school enjoy working with student teachers	1	2	3	4	5
28.	Student teachers at this school are very competitive	1	2	3	4	5
29.	You feel keen to prepare stimulating lessons at this school	1	2	3	4	5
30.	The pupils in this classroom criticise each other	1	2	3	4	5
31.	The school administration provides clear guidelines for day-to-day activities	1	2	3	4	5
32.	In this school, there's a strict emphasis on teachers following policies and regulations	1	2	3	4	5
33.	The arrangement of the classroom furniture is conducive to positive teaching and learning	1	2	3	4	5
34.	The administration staff encourage you to participate in school based decision-making	1	2	3	4	5
35.	The supervising teacher expects good lesson planning	1	2	3	4	5
36.	There is a lot of work pressure in this school	1	2	3	4	5

		Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
37.	The supervising teacher encourages you when you have difficulties with lessons	1	2	3	4	5
38.	Members of the administration team create a welcoming environment for student teachers	1	2	3	4	5
39.	Other teachers in the school enjoy working with student teachers	1	2	3	4	5
40.	Student teachers at this school give each other constructive criticism	1	2	3	4	5
41.	There's not much group spirit in this school	1	2	3	4	5
42.	The pupils would look forward to coming to class	1	2	3	4	5
		Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
43.	School activities that student teachers assist with proceed smoothly	1	2	3	4	5
44.	The supervising teacher is very controlling	1	2	3	4	5
45.	The school buildings and grounds are neat and attractive	1	2	3	4	5
46.	The teacher does not allow any freedom in curriculum planning	1	2	3	4	5
47.	Task completion is important in this classroom	1	2	3	4	5
48.	Student teachers have to work hard to complete all of their school-related tasks	1	2	3	4	5
49.	The supervising teacher criticises you over minor things	1	2	3	4	5
50.	Members of the administration team encourage you when you are having any difficulties with teaching	1	2	3	4	5
51.	Other teachers in the school criticise you over minor things	1	2	3	4	5
52.	Student teachers work well with each other in the school	1	2	3	4	5
53.	Participating in extra-curricula activities at this school is encouraged	1	2	3	4	5
54.	The pupils are friendly towards each other in this classroom	1	2	3	4	5
55.	Student teachers are often confused about exactly what they are supposed to do	1	2	3	4	5
56.	Rules and regulations for teachers are pretty well enforced	1	2	3	4	5
57.	The classroom does not provide physical comfort	1	2	3	4	5
58.	The teacher wants you to be a clone of him/her self	1	2	3	4	5
59.	The atmosphere in the classroom is laissez-faire	1	2	3	4	5
60.	There is not time for student teachers to relax	1	2	3	4	5
61.	The supervising teacher expects far too much of student teachers	1	2	3	4	5

62.	Members of the administration team are very critical of student teachers over minor things	1	2	3	4	5
63.	Other teachers in the school do not enjoy teaching with student teachers	1	2	3	4	5
64.	Student teachers share resources with each other.	1	2	3	4	5
65.	It is enjoyable being involved in this school	1	2	3	4	5
66.	The pupils in this class would not look forward to coming into the class	1	2	3	4	5
67.	School activities that student teachers assist with are sometimes pretty disorganised	1	2	3	4	5
68.	Supervising teachers do not often give in to student teachers	1	2	3	4	5
69.	Staffroom facilities are pleasant	1	2	3	4	5

		Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
70.	The supervising teacher encourages student teachers to use their initiative	1	2	3	4	5
71.	The student teacher is expected to be efficient	1	2	3	4	5
72.	Student teachers can take it easy and still get the work done	1	2	3	4	5
73.	The supervising teacher shares lesson ideas	1	2	3	4	5
74.	Members of the administration team create an authoritative climate for student teachers in the school	1	2	3	4	5
75.	Other teachers in the school expect far too much of student teachers	1	2	3	4	5
76.	Student teachers in this school stay distant from each other	1	2	3	4	5
77.	You want to work hard with this teacher and class	1	2	3	4	5
78.	Policies regarding student behaviour are clearly defined for student teachers	1	2	3	4	5
79.	Student teachers are expected to conform to school expectations	1	2	3	4	5
80.	Teachers have enough space to work when they are not teaching	1	2	3	4	5
81.	Student teachers function fairly independently of supervising teachers	1	2	3	4	5
82.	The classroom is a work-orientated place	1	2	3	4	5
83.	Student teachers have no time pressures	1	2	3	4	5
84.	The supervising teacher encourages you to try out new ideas	1	2	3	4	5
85.	Members of the administration team expect far too much from student teachers	1	2	3	4	5
86.	Other teachers in the school stay distant from student teachers	1	2	3	4	5
87.	You feel welcome in this class	1	2	3	4	5

88.	Student teachers know exactly what they are supposed to be doing in the school	1	2	3	4	5
89.	Members of the school administration team ensure that student teachers are "doing the right thing"	1	2	3	4	5
90.	The physical environment of the school is not pleasant	1	2	3	4	5
91.	The administration wants teachers to make their own decisions	1	2	3	4	5
92.	Teachers pay a lot of attention to getting work done	1	2	3	4	5
93.	Student teachers always have deadlines to meet	1	2	3	4	5
94.	The teachers in this school seem stifled by the administration	1	2	3	4	5
95.	You feel willing to be involved as a staff member at this school	1	2	3	4	5
96.	All members of the school staff know exactly what is expected of them	1	2	3	4	5

		Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
97.	Teacher aide/s expect student teachers to follow school expectations of staff	1	2	3	4	5
98.	The class teacher encourages pupils to make decisions about their own learning	1	2	3	4	5
99.	The school emphasises work	1	2	3	4	5
100.	Members of the administration pressure some of the teachers	1	2	3	4	5
101.	The teacher aide/s in this school are supportive of student teachers	1	2	3	4	5
102.	Other student teachers at this school are enthusiastic about teaching	1	2	3	4	5
103.	The members of the administration team encourage flexibility in curriculum delivery	1	2	3	4	5
104.	There is an authoritarian atmosphere in the school	1	2	3	4	5
105.	The school office support staff are welcoming to student teachers	1	2	3	4	5
106.	Members of the school administration team support teachers in the supervision of student teachers	1	2	3	4	5
107.	Student teacher supervision is encouraged by the school administration	1	2	3	4	5

End of Questionnaire
Thank you for participating in this research

APPENDIX J

FINAL FORM OF EXTENDED PRACTICUM LEARNING ENVIRONMENT INVENTORY
2001 ADMINISTRATION

LETTER AND INSTRUMENT

Survey on the Learning Environment of Extended Practicum

<u>**22 October 2001**</u>

Dear Student

As part of my PhD study, I am conducting research on perceptions that students have of their field experience learning environment. You have been chosen as part of a sample of students invited to respond to this questionnaire which takes about 10-15 minutes to complete.

Participation is entirely voluntary and you may withdraw at any time without giving a reason. This research is NOT being conducted for Australian Catholic University, your school or your teachers and your responses are anonymous. It has nothing to do with your university results. All information will be treated confidentially. When all of the data is combined, a research report will be written.

This research is being conducted with the approval of the Human Research Ethics Committee of the Australian Catholic University. Any questions regarding this research can be directed to me or my supervisor at the address shown below.

Return of the completed survey is taken as evidence of informed consent.

In the event that you have any complaint about the way you have been treated during this study, or a query that the researcher has not been able to satisfy, you may write to:

The Chair
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C/- Office of Research
Australian Catholic University
PO Box 247
EVERTON PARK QLD 4053
Telephone: 3855 7294
Fax: 3855 7328

Any complaint will be treated in confidence, investigated fully and the participant informed of the outcome.

Yours sincerely

Mrs Joy Kennedy
School of Education
Australian Catholic University
PO Box 247
EVERTON PARK QLD 4053
Telephone: 3855 7156

Please turn the page to start the questionnaire

Directions

The purpose of this questionnaire is to find out your opinions about the learning environment of the extended practicum experienced by the student teacher you mentored in 2002. This form of the questionnaire assesses your opinion about what this environment was *actually like.* Indicate your opinion about each questionnaire statement by circling your chosen response.

SA - if you **strongly agree** that it describes what this experience was actually like

A - if you **agree** that it describes what this experience was actually like

N - if you **neither** agree that it describes what this experience was actually like **nor** disagree

D - If you **disagree** that it describes what this experience was actually like

SD - if you **strongly disagree** that it describes what this experience was actually like

Please circle either SA, A, NA or D, D, SD for your response to the following statements:

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
1. I support my student teacher.	1	2	3	4	5
2. Members of the administration team support you	1	2	3	4	5
3. The other teachers in the school support you	1	2	3	4	5
4. Student teachers support each other in this school	1	2	3	4	5
5. Being in this school makes you feel enthusiastic about teaching	1	2	3	4	5
7. The pupils in this class work well together	1	2	3	4	5
7. School regulations for student teachers are vague and ambiguous	1	2	3	4	5
8. Student teachers are expected to follow set regulations	1	2	3	4	5
10. The classroom is neat and tidy	1	2	3	4	5
10. The teacher allows you to make decisions about lessons	1	2	3	4	5

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11.	The supervising teacher expects good lesson planning	1	2	3	4	5

		Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
12.	You feel very pressured in this classroom to complete all aspects of planned curriculum	1	2	3	4	5
13.	The supervising teacher is committed to his/her role of supervising student teachers	1	2	3	4	5
14.	Members of the administration team are committed to having student teachers in the school	1	2	3	4	5
15.	Other teachers in the school go out of their way to help student teachers	1	2	3	4	5
16.	At this school, student teachers help each other with lesson planning	1	2	3	4	5
17.	Being in this classroom makes you feel enthusiastic about teaching	1	2	3	4	5
18.	The pupils in this class encourage each other	1	2	3	4	5
19.	The supervising teacher communicates clear guidelines for student teachers	1	2	3	4	5
20.	In this school, there's a strict emphasis on all teachers following policies and regulations	1	2	3	4	5
21.	The classroom provides an attractive learning setting	1	2	3	4	5
22.	There is no encouragement of independent thought about curriculum planning and delivery	1	2	3	4	5
23.	Task completion is important in this classroom	1	2	3	4	5
24.	There is a lot of work pressure in this school	1	2	3	4	5
25.	The supervising teacher goes out of his/her way to help student teachers	1	2	3	4	5
26.	Members of the administration team go out of their way to help student teachers	1	2	3	4	5
27.	Other teachers in the school enjoy working with student teachers	1	2	3	4	5
28.	Student teachers at this school give each other constructive criticism	1	2	3	4	5
29.	You feel keen to prepare stimulating lessons at this school	1	2	3	4	5
30.	The pupils in this classroom criticise each other	1	2	3	4	5
31.	The school administration provides student teachers with clear guidelines for day-to-day activities	1	2	3	4	5
32.	Rules and regulations for all teachers are well enforced	1	2	3	4	5
33.	The arrangement of the classroom furniture is conducive to positive teaching and learning	1	2	3	4	5
34.	The teacher does not allow any freedom in curriculum planning	1	2	3	4	5

35.	The atmosphere in the classroom is casual	1	2	3	4	5
36.	Student teachers have to work hard to complete all of their school-related tasks	1	2	3	4	5

		Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
37.	The supervising teacher encourages you when you have difficulties with lessons	1	2	3	4	5
38.	Members of the administration team expect far too much of student teachers	1	2	3	4	5
39.	Other teachers in the school encourage you when you have difficulties with lessons.	1	2	3	4	5
40.	Student teachers work well with each other in this school	1	2	3	4	5
41.	It is enjoyable being involved in this school	1	2	3	4	5
42.	The pupils would look forward to coming to class	1	2	3	4	5
43.	Policies regarding pupil behaviour are clearly defined for student teachers	1	2	3	4	5
44.	Student teachers are expected to conform to school expectations	1	2	3	4	5
45.	The school buildings and grounds are neat and attractive	1	2	3	4	5
46.	The teacher wants you to be a clone of him/her self	1	2	3	4	5
47.	The student teacher is expected to be efficient	1	2	3	4	5
48.	There is no time for student teachers to relax	1	2	3	4	5
49.	The supervising teacher shares lesson ideas	1	2	3	4	5
50.	The teacher aide/s in this school are supportive of student teachers	1	2	3	4	5
51.	Other teachers in the school criticise you over minor things	1	2	3	4	5
52.	Student teachers share resources with each other.	1	2	3	4	5
53.	You feel welcome in this classroom	1	2	3	4	5
54.	The pupils are friendly towards each other in this classroom	1	2	3	4	5
55.	Student teachers know exactly what they are supposed to be doing in the school	1	2	3	4	5
56.	Members of the school administrative team ensure that student teachers are 'doing the right thing'	1	2	3	4	5
57.	Staffroom facilities are pleasant	1	2	3	4	5
58.	The supervising teacher encourages student teachers to use their initiative	1	2	3	4	5
59.	The classroom is a work-orientated place	1	2	3	4	5
60.	Student teachers can take it easy and still get the work done	1	2	3	4	5
61.	The supervising teacher encourages you to try out new ideas	1	2	3	4	5

		Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
62.	Members of the administration team are welcoming to student teachers	1	2	3	4	5
63.	Other teachers in the school expect far too much of student teachers	1	2	3	4	5
64.	Student teachers in this school stay distant from each other	1	2	3	4	5
		Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
65.	You feel willing to be involved as a staff member at this school	1	2	3	4	5
66.	The pupils in this class would not look forward to coming into the class	1	2	3	4	5
67.	All members of the school staff know exactly what is expected of them	1	2	3	4	5
68.	Teacher aide/s expect student teachers to follow school expectations of staff	1	2	3	4	5
69.	Teachers have enough space to work when they are not teaching	1	2	3	4	5
70.	Student teachers function independently of supervising teachers	1	2	3	4	5
71.	Teachers pay a lot of attention to getting work done	1	2	3	4	5
72.	Student teachers always have deadlines to meet	1	2	3	4	5

End of Questionnaire

To understand links between your perceptions of the Extended Practicum and the results you were awarded for the experience, would you indicate the ratings you achieved.

Ratings on Extended Practicum Report   **Possible Ratings**

Planning ☐

Interacting ☐

E   Excellent
G   Good
S   Sound
N   Needs Improvement
U   Unsatisfactory

Thank you for participating in this research

APPENDIX K

FINAL FORM OF EXTENDED PRACTICUM LEARNING ENVIRONMENT INVENTORY 2002 ADMINISTRATION

LETTER AND INSTRUMENT

Survey on the Learning Environment of Extended Practicum

Dear Student

As part of my PhD study, I am conducting research on perceptions that students have of their field experience learning environment. You have been chosen as part of a sample of students invited to respond to this questionnaire which takes about 10-15 minutes to complete.

Participation is entirely voluntary and you may withdraw at any time without giving a reason. This research is NOT being conducted for Australian Catholic University, your school or your teachers and your responses are anonymous. It has nothing to do with your university results. All information will be treated confidentially. When all of the data is combined, a research report will be written.

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Yours sincerely

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School of Education
Australian Catholic University
PO Box 247
EVERTON PARK QLD 4053
Telephone: 3855 7156

Please turn the page to start the questionnaire

Directions

The purpose of this questionnaire is to find out your opinions about the learning environment you would prefer for teaching practice. This form of the questionnaire assesses your opinion about what this environment would *actually be like*. Indicate your opinion about each questionnaire statement by circling your chosen response.

SA - if you **strongly agree** that it describes what this experience is actually like

A - if you **agree** that it describes what this experience is actually like

N - if you **neither** agree that it describes what this experience is actually like **nor** disagree

D - If you **disagree** that it describes what this experience is actually like

SD - if you **strongly disagree** that it describes what this experience is actually like

Please circle:

Your gender: Male   Female

Your age: 20-25   26-30   31-35   36-40   over 40

Type of school where Extended Practicum was completed:

Catholic   Lutheran   Anglican   State   Christian

Please circle either SA, A, NA or D, D, SD for your response to the following statements:

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
1. The supervising teacher supports you	1	2	3	4	5
2. Members of the administration team support you	1	2	3	4	5
3. The other teachers in the school support you	1	2	3	4	5
4. Student teachers support each other in this school	1	2	3	4	5
5. Being in this school makes you feel enthusiastic about teaching	1	2	3	4	5
6. The pupils in this class work well together	1	2	3	4	5
7. School regulations for student teachers are vague and ambiguous	1	2	3	4	5

		Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
8.	Student teachers are expected to follow set regulations	1	2	3	4	5
9.	The classroom is neat and tidy	1	2	3	4	5
10.	The teacher allows you to make decisions about lessons	1	2	3	4	5
11.	The supervising teacher expects good lesson planning	1	2	3	4	5

		Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
12.	You feel very pressured in this classroom to complete all aspects of planned curriculum	1	2	3	4	5
13.	The supervising teacher is committed to his/her role of supervising student teachers	1	2	3	4	5
14.	Members of the administration team are committed to having student teachers in the school	1	2	3	4	5
15.	Other teachers in the school go out of their way to help student teachers	1	2	3	4	5
16.	At this school, student teachers help each other with lesson planning	1	2	3	4	5
17.	Being in this classroom makes you feel enthusiastic about teaching	1	2	3	4	5
18.	The pupils in this class encourage each other	1	2	3	4	5
19.	The supervising teacher communicates clear guidelines for student teachers	1	2	3	4	5
20.	In this school, there's a strict emphasis on all teachers following policies and regulations	1	2	3	4	5
21.	The classroom provides an attractive learning setting	1	2	3	4	5
22.	There is no encouragement of independent thought about curriculum planning and delivery	1	2	3	4	5
23.	Task completion is important in this classroom	1	2	3	4	5
24.	There is a lot of work pressure in this school	1	2	3	4	5
25.	The supervising teacher goes out of his/her way to help student teachers	1	2	3	4	5
26.	Members of the administration team go out of their way to help student teachers	1	2	3	4	5
27.	Other teachers in the school enjoy working with student teachers	1	2	3	4	5
28.	Student teachers at this school give each other constructive criticism	1	2	3	4	5
29.	You feel keen to prepare stimulating lessons at this school	1	2	3	4	5
30.	The pupils in this classroom criticise each other	1	2	3	4	5

		Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
31.	The school administration provides student teachers with clear guidelines for day-to-day activities	1	2	3	4	5
32.	Rules and regulations for all teachers are well enforced	1	2	3	4	5
33.	The arrangement of the classroom furniture is conducive to positive teaching and learning	1	2	3	4	5
34.	The teacher does not allow any freedom in curriculum planning	1	2	3	4	5
35.	The atmosphere in the classroom is casual	1	2	3	4	5
36.	Student teachers have to work hard to complete all of their school-related tasks	1	2	3	4	5

		Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
37.	The supervising teacher encourages you when you have difficulties with lessons	1	2	3	4	5
38.	Members of the administration team expect far too much of student teachers	1	2	3	4	5
39.	Other teachers in the school encourage you when you have difficulties with lessons.	1	2	3	4	5
40.	Student teachers work well with each other in this school	1	2	3	4	5
41.	It is enjoyable being involved in this school	1	2	3	4	5
42.	The pupils would look forward to coming to class	1	2	3	4	5
43.	Policies regarding pupil behaviour are clearly defined for student teachers	1	2	3	4	5
44.	Student teachers are expected to conform to school expectations	1	2	3	4	5
45.	The school buildings and grounds are neat and attractive	1	2	3	4	5
46.	The teacher wants you to be a clone of him/her self	1	2	3	4	5
47.	The student teacher is expected to be efficient	1	2	3	4	5
48.	There is no time for student teachers to relax	1	2	3	4	5
49.	The supervising teacher shares lesson ideas	1	2	3	4	5
50.	The teacher aide/s in this school are supportive of student teachers	1	2	3	4	5
51.	Other teachers in the school criticise you over minor things	1	2	3	4	5
52.	Student teachers share resources with each other.	1	2	3	4	5
53.	You feel welcome in this classroom	1	2	3	4	5
54.	The pupils are friendly towards each other in this classroom	1	2	3	4	5
55.	Student teachers know exactly what they are supposed to be doing in the school	1	2	3	4	5

		Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
56.	Members of the school administrative team ensure that student teachers are 'doing the right thing'	1	2	3	4	5
57.	Staffroom facilities are pleasant	1	2	3	4	5
58.	The supervising teacher encourages student teachers to use their initiative	1	2	3	4	5
59.	The classroom is a work-orientated place	1	2	3	4	5
60.	Student teachers can take it easy and still get the work done	1	2	3	4	5
61.	The supervising teacher encourages you to try out new ideas	1	2	3	4	5
62.	Members of the administration team are welcoming to student teachers	1	2	3	4	5
63.	Other teachers in the school expect far too much of student teachers	1	2	3	4	5
64.	Student teachers in this school stay distant from each other	1	2	3	4	5

		Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
65.	You feel willing to be involved as a staff member at this school	1	2	3	4	5
66.	The pupils in this class would not look forward to coming into the class	1	2	3	4	5
67.	All members of the school staff know exactly what is expected of them	1	2	3	4	5
68.	Teacher aide/s expect student teachers to follow school expectations of staff	1	2	3	4	5
69.	Teachers have enough space to work when they are not teaching	1	2	3	4	5
70.	Student teachers function independently of supervising teachers	1	2	3	4	5
71.	Teachers pay a lot of attention to getting work done	1	2	3	4	5
72.	Student teachers always have deadlines to meet	1	2	3	4	5
73.	I feel confident to participate in staff meetings.	1	2	3	4	5
74.	I have a comprehensive knowledge for teaching in the key learning areas.	1	2	3	4	5
75.	I am able to deliver lessons that are creative and motivate learners to engage in lessons.	1	2	3	4	5
76.	I am at ease working with school administrators.	1	2	3	4	5
77.	I am able to plan units of work across the key learning areas.	1	2	3	4	5
78.	I am able to create a positive, supportive learning environment for pupils.	1	2	3	4	5
79.	I feel comfortable in school environments	1	2	3	4	5
80.	I have a sound knowledge of the concepts underpinning the key learning areas.	1	2	3	4	5

81.	I am able to use assertive discipline techniques to maintain a safer, harmonious learning environment for all members of a class.	1	2	3	4	5
82.	I enjoy being a member of a school community.	1	2	3	4	5
83.	I am able to plan and implement assessment and evaluation procedures.	1	2	3	4	5
84.	I am able to implement lessons that meet the needs of diverse learners.	1	2	3	4	5
85.	I am able to work in a collegial manner with other members of the teaching profession.	1	2	3	4	5
86.	I feel confident to report on student learning to parents/guardians	1	2	3	4	5
87.	I am satisfied that I have developed my own style of teaching	1	2	3	4	5
88.	I am able to communicate with the parents of the children I teach.	1	2	3	4	5
89.	I am aware of processes for organizing and managing classroom layout, procedures and routines.	1	2	3	4	5
90.	I feel confident that I am able to facilitate learners to demonstrate core learning outcomes across the key learning areas.	1	2	3	4	5

End of Questionnaire

To understand links between your perceptions of the Extended Practicum and the results you were awarded for the experience, would you indicate the ratings you achieved.

Ratings on Extended Practicum Report   **Possible Ratings**

Planning   ☐   E   Excellent
                                       G   Good
                                       S   Sound
Interacting   ☐   N   Needs Improvement
                                       U   Unsatisfactory

Please state the name of the teacher who supervised you for the 2002 extended practicum.

Thank you for participating in this research

APPENDIX L

EXTENDED PRACTICUM LEARNING ENVIRONMENT INVENTORY
SUPERVISING TEACHER VERSION

LETTER
CONSENT FORM
INSTRUMENT

✛ACU National

INFORMATION LETTER TO PARTICIPANTS

TITLE OF PROJECT: A STUDY OF THE LEARNING ENVIRONMENT OF THE EXTENDED PRACTICUM OF A PRE-SERVICE TEACHER EDUCATION COURSE AT THE AUSTRALIAN CATHOLIC UNIVERSITY

NAME OF SUPERVISOR: DR JEFFREY DORMAN

NAME OF STUDENT RESEARCHER : **JOY KENNEDY**

AND NAME OF PROGRAMME IN WHICH ENROLLED: DOCTOR OF PHILOSOPHY

Dear Teacher

You have recently supervised a student enrolled in either the Bachelor of Education (Primary) Course or the Bachelor of Education (Primary-Post Graduate) Course for an extended practicum. I am currently conducting a study for my PhD that focuses on perceptions of the learning environment of the extended practicum. To gather data for my study, I am conducting a survey of members of the learning environment of the extended practicum. The purpose of my study is to examine perceptions of the learning environment of the extended practicum and its relationship with student performance.

As a teacher who supervised a student who has completed the extended practicum, I would like to ask you to participate in my study by completing a questionnaire survey that indicates your perceptions of the actual environment of the practicum. Your participation in this study will further knowledge about perceptions of learning environments and the many aspects that impact on the practicum.

The data collected in this survey will form part of the thesis for my study and will be used as part of the discussion in articles for academic journals and conference presentations.

Any of your responses to this survey questionnaire will be de-identified and therefore your confidentiality will be protected.

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The only time commitment sought by you is approximately twenty minutes to read this letter, complete the survey and sign the consent letter.

As a member of the community of teachers who are life-long learners, your participation in this research will assist you and others in the teaching community to learn more about the learning to teach process with regard to mentoring student teachers participating in an extended practicum. It is hoped that the findings of this research will be published in national and international academic journals relating to teacher education.

Please know that you are free to withdraw your consent to participate in this study at any time without giving any reason at all. Your decision would be completely understood and respected.

Please be assured that your confidentiality will be ensured during the conduct of this research and in any report or publication arising from it. You are not asked to identify yourself in any way on the survey. However, your response form is coded to match with the survey responses by your student teacher. This will enable the data to be paired with your student teacher's responses. Once that occurs your responses will be completely de-identified and your student teacher nor anyone else will have access to your responses. At all times, your confidentiality will be protected.

Once you have completed the survey questionnaire and returned it, your responses will be locked in a secure cabinet in the office of my supervisor, Dr Jeffrey Dorman until all extended practicum results have been finalised.

Any questions regarding this project should be directed to my Supervisor, Dr Jeffrey Dorman on telephone 3855 7219 or myself, Mrs Joy Kennedy on 3855 7156 in the School of Education.

 The address is School of Education, McAuley Campus, Australian Catholic University, PO Box 247 Everton Park 4053.

I would like to offer you feedback on the results of the project once all of the data has been collected and analysed. You may contact me on the above address to discuss this.

This study has been approved by the Human Research Ethics Committee at Australian Catholic University.

In the event that you have any complaint or concern about the way you have been treated during the study, or if you have any query that the Investigator or Supervisor and Student Researcher has (have) not been able to satisfy, you may write to the Chair of the Human Research Ethics Committee care of the nearest branch of the Research Services Unit.

QLD: Chair, HREC
      C/o Research Services
      Australian Catholic University
      Brisbane Campus
      PO Box 247
      EVERTON PARK QLD 4053
      Tel: 07 3855 7294
      Fax: 07 3855 7328

Any complaint or concern will be treated in confidence and fully investigated. The participant will be informed of the outcome.

If you agree to participate in this project, you should sign both copies of the Consent Form, retain one copy for your records and return the other copy to Mrs Joy Kennedy or Dr Jeffrey Dorman.

Yours sincerely

Joy Kennedy

CONSENT FORM

TITLE OF PROJECT: A STUDY OF THE LEARNING ENVIRONMENT OF THE EXTENDED
PRACTICUM OF A PRE-SERVICE TEACHER EDUCATION COURSE AT THE AUSTRALIAN
CATHOLIC UNIVERSITY

NAMES OF SUPERVISOR: DR JEFFREY DORMAN

NAME OF STUDENT RESEARCHER: MRS JOY KENNEDY

I .... *(the participant)* have read (*or, where appropriate*, have had
read to me*)* and understood the information provided in the Letter to Participants. Any questions
I have asked have been answered to my satisfaction. I agree to participate in this activity,
realising that I can withdraw at any time (*or stipulate the deadline by when the participant may
withdraw*). I agree that research data collected for the study may be published or may be
provided to other researchers in a form that does not identify me in any way.

NAME OF PARTICIPANT: ....

SIGNATURE ....DATE ....

SIGNATURE OF SUPERVISOR: ....

DATE:……………………………………..

[and, if applicable]

SIGNATURE OF STUDENT RESEARCHER:...

DATE:..............................…………

<u>Directions</u>

The purpose of this questionnaire is to find out your opinions about the learning environment of the extended practicum experienced by the ACU student you mentored in 2002. This form of the questionnaire assesses your opinion about what this environment was *actually like.* Indicate your opinion about each questionnaire statement by writing SA, A, N, D or SD on the response sheet.

SA - if you **strongly agree** that it describes what this experience is actually like

A - if you **agree** that it describes what this experience is actually like

N - if you **neither** agree that it describes what this experience is actually like **nor** disagree

D - If you **disagree** that it describes what this experience is actually like

SD - if you **strongly disagree** that it describes what this experience is actually like

		Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
1.	I support my student teacher	1	2	3	4	5
2.	Members of the administration team support my student teacher	1	2	3	4	5
3.	The other teachers in the school support student teachers	1	2	3	4	5
4.	Student teachers support each other in this school	1	2	3	4	5
5.	Being in this school makes my student teacher feel enthusiastic about teaching	1	2	3	4	5
6.	The pupils in this class work well together	1	2	3	4	5
7.	School regulations for student teachers are vague and ambiguous	1	2	3	4	5
8.	Student teachers are expected to follow set regulations	1	2	3	4	5
8.	The classroom is neat and tidy	1	2	3	4	5
10.	I allow my student teacher to make decisions about lessons	1	2	3	4	5

11.	I expect good lesson planning by my student teacher	1	2	3	4	5

		Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
12.	In this classroom, I expect my student teacher to complete all aspects of planned curriculum	1	2	3	4	5
13.	I am committed to the role of supervising student teachers	1	2	3	4	5
14.	Members of the administration team are committed to having student teachers in the school	1	2	3	4	5
15.	Other teachers in the school go out of their way to help student teachers	1	2	3	4	5
16.	At this school, student teachers help each other with lesson planning	1	2	3	4	5
17.	Being in this classroom makes my student teacher feel enthusiastic about teaching	1	2	3	4	5
18.	The pupils in this class encourage each other	1	2	3	4	5
19.	I communicate clear guidelines to my student teacher	1	2	3	4	5
20.	In this school, there's a strict emphasis on all teachers following policies and regulations	1	2	3	4	5
21.	The classroom provides an attractive learning setting	1	2	3	4	5
22.	I do not encourage my student teacher to think independently about curriculum planning and delivery	1	2	3	4	5
23.	Task completion is important in this classroom	1	2	3	4	5
24.	There is a lot of work pressure in this school	1	2	3	4	5
25.	I go out of my way to help student teachers	1	2	3	4	5
26.	Members of the administration team go out of their way to help student teachers	1	2	3	4	5
27.	Other teachers in the school enjoy working with student teachers	1	2	3	4	5
28.	Student teachers at this school give each other constructive criticism	1	2	3	4	5
29.	Student teachers feel keen to prepare stimulating lessons at this school	1	2	3	4	5
30.	The pupils in this classroom criticise each other	1	2	3	4	5
31.	The school administration provides student teachers with clear guidelines for day-to-day activities	1	2	3	4	5
32.	Rules and regulations for all teachers are well enforced	1	2	3	4	5

		Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
33.	The arrangement of the classroom furniture is conducive to positive teaching and learning	1	2	3	4	5
34.	I allow my student teacher freedom in curriculum planning	1	2	3	4	5
35.	The atmosphere in the classroom is casual	1	2	3	4	5
36.	Student teachers have to work hard to complete all of their school-related tasks	1	2	3	4	5

		Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
37.	I encourage my student teacher when she/he has difficulties with lessons	1	2	3	4	5
38.	Members of the administration team expect far too much of student teachers	1	2	3	4	5
39.	Other teachers in the school encourage student teachers when they have difficulties with lessons.	1	2	3	4	5
40.	Student teachers work well with each other in this school	1	2	3	4	5
41.	It is enjoyable being involved in this school	1	2	3	4	5
42.	The pupils would look forward to coming to class	1	2	3	4	5
43.	Policies regarding pupil behaviour are clearly defined for student teachers	1	2	3	4	5
44.	Student teachers are expected to conform to school expectations	1	2	3	4	5
45.	The school buildings and grounds are neat and attractive	1	2	3	4	5
46.	I want my student teacher to teach like me	1	2	3	4	5
47.	I expect my student teacher to be efficient	1	2	3	4	5
48.	There is no time for student teachers to relax	1	2	3	4	5
49.	I share lesson ideas with my student teacher	1	2	3	4	5
50.	The teacher aide/s in this school are supportive of student teachers	1	2	3	4	5
51.	Other teachers in the school criticise student teachers over minor things	1	2	3	4	5
52.	Student teachers share resources with each other.	1	2	3	4	5
53.	Student teachers feel welcome to be involved in this classroom	1	2	3	4	5
54.	The pupils are friendly towards each other in this classroom	1	2	3	4	5
55.	Student teachers know exactly what they are supposed to be doing in the school	1	2	3	4	5

56.	Members of the school administrative team ensure that student teachers are 'doing the right thing'	1	2	3	4	5
57.	Staffroom facilities are pleasant	1	2	3	4	5
58.	I encourage my student teacher to use initiative	1	2	3	4	5
59.	The classroom is a work-orientated place	1	2	3	4	5
60.	Student teachers can take it easy and still get the work done	1	2	3	4	5
61.	I encourage my student teacher to try out new ideas	1	2	3	4	5
62.	Members of the administration team are welcoming to student teachers	1	2	3	4	5
63.	Other teachers in the school expect far too much of student teachers	1	2	3	4	5
64.	Student teachers in this school stay distant from each other	1	2	3	4	5

		Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
65.	Student teachers feel willing to be involved as a staff member at this school	1	2	3	4	5
66.	The pupils in this class would not look forward to coming into the class	1	2	3	4	5
67.	All members of the school staff know exactly what is expected of them	1	2	3	4	5
68.	Teacher aide/s expect student teachers to follow school expectations of staff	1	2	3	4	5
69.	Teachers have enough space to work when they are not teaching	1	2	3	4	5
70.	My student teacher functions independently of me	1	2	3	4	5
71.	Teachers pay a lot of attention to getting work done	1	2	3	4	5
72.	Student teachers always have deadlines to meet	1	2	3	4	5

End of Questionnaire

Thank you for participating in this research

APPENDIX M

STUDENT TEACHER EFFICACY INSTRUMENT SCALES

SCALES FOR STUDENT TEACHER EFFCIACY INSTRUMENT

PROFESSIONAL BEHAVIOUR EFFICACY

1. I feel confident to participate in staff meetings.
2. I am at ease working with school administrators.
3. I feel comfortable in school environments.
4. I enjoy being a member of a school community.
5. I am able to work in a collegial manner with other members of the teaching profession.
6. I am able to communicate with the parents of the children I teach.

FORMAL CURRICULUM PLANNING EFFICACY

1. I have a comprehensive knowledge for teaching in the key learning areas.
2. I am able to plan units of work across the key learning areas.
3. I have a sound knowledge of the concepts underpinning the key learning areas.
4. I am able to plan and implement assessment and evaluation procedures.
5. I feel confident to report on student learning to parents/guardians
6. I am aware of processes for organizing and managing classroom layout, procedures and routines.

FORMAL CURRICULUM DELIVERY EFFICACY

1. I am able to deliver lessons that are creative and motivate learners to engage in lessons.
2. I am able to create a positive, supportive learning environment for pupils.
3. I am able to use assertive discipline techniques to maintain a safe, harmonious learning environment for all members of a class.
4. I am able to implement lessons that meet the needs of diverse learners.
5. I am satisfied that I have developed my own style of teaching.
6. I feel confident that I am able to facilitate learners to demonstrate core learning outcomes across the key learning areas.

APPENDIX N

FINAL INSTRUMENTATION FOR STUDY
INCLUDING STUDENT TEACHER EFFICACY INSTRUMENT

Survey on the Learning Environment of Extended Practicum

Dear Student

As part of my PhD study, I am conducting research on perceptions that students have of their field experience learning environment. You have been chosen as part of a sample of students invited to respond to this questionnaire which takes about 10-15 minutes to complete.

Participation is entirely voluntary and you may withdraw at any time without giving a reason. This research is NOT being conducted for Australian Catholic University, your school or your teachers and your responses are anonymous. It has nothing to do with your university results. All information will be treated confidentially. When all of the data is combined, a research report will be written.

This research is being conducted with the approval of the Human Research Ethics Committee of the Australian Catholic University. Any questions regarding this research can be directed to me or my supervisor at the address shown below.

Return of the completed survey is taken as evidence of informed consent.

In the event that you have any complaint about the way you have been treated during this study, or a query that the researcher has not been able to satisfy, you may write to:

The Chair
Human Research Ethics Committee
C/- Office of Research
Australian Catholic University
PO Box 247
EVERTON PARK QLD 4053
Telephone: 3855 7294
Fax: 3855 7328

Any complaint will be treated in confidence, investigated fully and the participant informed of the outcome.

Yours sincerely

Mrs Joy Kennedy
School of Education
Australian Catholic University
PO Box 247
EVERTON PARK QLD 4053
Telephone: 3855 7156

Please turn the page to start the questionnaire

<u>Directions</u>

The purpose of this questionnaire is to find out your opinions about the learning environment you would prefer for teaching practice. This form of the questionnaire assesses your opinion about what this environment would *actually be like*. Indicate your opinion about each questionnaire statement by circling your chosen response.

SA - if you **strongly agree** that it describes what this experience is actually like

A - if you **agree** that it describes what this experience is actually like

N - if you **neither** agree that it describes what this experience is actually like **nor** disagree

D - If you **disagree** that it describes what this experience is actually like

SD - if you **strongly disagree** that it describes what this experience is actually like

Please circle:

Your gender: Male   Female

Your age: 20-25   26-30   31-35   36-40   over 40

Type of school where Extended Practicum was completed:

Catholic   Lutheran   Anglican   State   Christian

Please circle either SA, A, NA or D, D, SD for your response to the following statements:

		Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
1.	The supervising teacher supports you	1	2	3	4	5
2.	Members of the administration team support you	1	2	3	4	5
3.	The other teachers in the school support you	1	2	3	4	5
4.	Student teachers support each other in this school	1	2	3	4	5
5.	Being in this school makes you feel enthusiastic about teaching	1	2	3	4	5
6.	The pupils in this class work well together	1	2	3	4	5
7.	School regulations for student teachers are vague and ambiguous	1	2	3	4	5

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8.	Student teachers are expected to follow set regulations	1	2	3	4	5
9.	The classroom is neat and tidy	1	2	3	4	5
10.	The teacher allows you to make decisions about lessons	1	2	3	4	5
11.	The supervising teacher expects good lesson planning	1	2	3	4	5

		Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
12.	You feel very pressured in this classroom to complete all aspects of planned curriculum	1	2	3	4	5
13.	The supervising teacher is committed to his/her role of supervising student teachers	1	2	3	4	5
14.	Members of the administration team are committed to having student teachers in the school	1	2	3	4	5
15.	Other teachers in the school go out of their way to help student teachers	1	2	3	4	5
16.	At this school, student teachers help each other with lesson planning	1	2	3	4	5
17.	Being in this classroom makes you feel enthusiastic about teaching	1	2	3	4	5
18.	The pupils in this class encourage each other	1	2	3	4	5
19.	The supervising teacher communicates clear guidelines for student teachers	1	2	3	4	5
20.	In this school, there's a strict emphasis on all teachers following policies and regulations	1	2	3	4	5
21.	The classroom provides an attractive learning setting	1	2	3	4	5
22.	There is no encouragement of independent thought about curriculum planning and delivery	1	2	3	4	5
23.	Task completion is important in this classroom	1	2	3	4	5
24.	There is a lot of work pressure in this school	1	2	3	4	5
25.	The supervising teacher goes out of his/her way to help student teachers	1	2	3	4	5
26.	Members of the administration team go out of their way to help student teachers	1	2	3	4	5
27.	Other teachers in the school enjoy working with student teachers	1	2	3	4	5
28.	Student teachers at this school give each other constructive criticism	1	2	3	4	5
29.	You feel keen to prepare stimulating lessons at this school	1	2	3	4	5
30.	The pupils in this classroom criticise each other	1	2	3	4	5

31.	The school administration provides student teachers with clear guidelines for day-to-day activities	1	2	3	4	5
32.	Rules and regulations for all teachers are well enforced	1	2	3	4	5
33.	The arrangement of the classroom furniture is conducive to positive teaching and learning	1	2	3	4	5
34.	The teacher does not allow any freedom in curriculum planning	1	2	3	4	5
35.	The atmosphere in the classroom is casual	1	2	3	4	5
36.	Student teachers have to work hard to complete all of their school-related tasks	1	2	3	4	5

		Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
37.	The supervising teacher encourages you when you have difficulties with lessons	1	2	3	4	5
38.	Members of the administration team expect far too much of student teachers	1	2	3	4	5
39.	Other teachers in the school encourage you when you have difficulties with lessons.	1	2	3	4	5
40.	Student teachers work well with each other in this school	1	2	3	4	5
41.	It is enjoyable being involved in this school	1	2	3	4	5
42.	The pupils would look forward to coming to class	1	2	3	4	5
43.	Policies regarding pupil behaviour are clearly defined for student teachers	1	2	3	4	5
44.	Student teachers are expected to conform to school expectations	1	2	3	4	5
45.	The school buildings and grounds are neat and attractive	1	2	3	4	5
46.	The teacher wants you to be a clone of him/her self	1	2	3	4	5
47.	The student teacher is expected to be efficient	1	2	3	4	5
48.	There is no time for student teachers to relax	1	2	3	4	5
49.	The supervising teacher shares lesson ideas	1	2	3	4	5
50.	The teacher aide/s in this school are supportive of student teachers	1	2	3	4	5
51.	Other teachers in the school criticise you over minor things	1	2	3	4	5
52.	Student teachers share resources with each other.	1	2	3	4	5
53.	You feel welcome in this classroom	1	2	3	4	5
54.	The pupils are friendly towards each other in this classroom	1	2	3	4	5
55.	Student teachers know exactly what they are supposed to be doing in the school	1	2	3	4	5
56.	Members of the school administrative team ensure that student teachers are 'doing the right thing'	1	2	3	4	5

No.	Statement	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
57.	Staffroom facilities are pleasant	1	2	3	4	5
58.	The supervising teacher encourages student teachers to use their initiative	1	2	3	4	5
59.	The classroom is a work-orientated place	1	2	3	4	5
60.	Student teachers can take it easy and still get the work done	1	2	3	4	5
61.	The supervising teacher encourages you to try out new ideas	1	2	3	4	5
62.	Members of the administration team are welcoming to student teachers	1	2	3	4	5
63.	Other teachers in the school expect far too much of student teachers	1	2	3	4	5
64.	Student teachers in this school stay distant from each other	1	2	3	4	5

No.	Statement	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
65.	You feel willing to be involved as a staff member at this school	1	2	3	4	5
66.	The pupils in this class would not look forward to coming into the class	1	2	3	4	5
67.	All members of the school staff know exactly what is expected of them	1	2	3	4	5
68.	Teacher aide/s expect student teachers to follow school expectations of staff	1	2	3	4	5
69.	Teachers have enough space to work when they are not teaching	1	2	3	4	5
70.	Student teachers function independently of supervising teachers	1	2	3	4	5
71.	Teachers pay a lot of attention to getting work done	1	2	3	4	5
72.	Student teachers always have deadlines to meet	1	2	3	4	5

No.	Statement	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
73.	I feel confident to participate in staff meetings.	1	2	3	4	5
74.	I have a comprehensive knowledge for teaching in the key learning areas.	1	2	3	4	5
75.	I am able to deliver lessons that are creative and motivate learners to engage in lessons.	1	2	3	4	5
76.	I am at ease working with school administrators.	1	2	3	4	5
77.	I am able to plan units of work across the key learning areas.	1	2	3	4	5
78.	I am able to create a positive, supportive learning environment for pupils.	1	2	3	4	5
79.	I feel comfortable in school environments	1	2	3	4	5
80.	I have a sound knowledge of the concepts underpinning the key learning areas.	1	2	3	4	5
81.	I am able to use assertive discipline techniques to maintain a safer, harmonious learning environment for all members of a class.	1	2	3	4	5
82.	I enjoy being a member of a school community.	1	2	3	4	5

83.	I am able to plan and implement assessment and evaluation procedures.	1	2	3	4	5
84.	I am able to implement lessons that meet the needs of diverse learners.	1	2	3	4	5
85.	I am able to work in a collegial manner with other members of the teaching profession.	1	2	3	4	5
86.	I feel confident to report on student learning to parents/guardians	1	2	3	4	5
87.	I am satisfied that I have developed my own style of teaching	1	2	3	4	5
88.	I am able to communicate with the parents of the children I teach.	1	2	3	4	5
89.	I am aware of processes for organizing and managing classroom layout, procedures and routines.	1	2	3	4	5
90.	I feel confident that I am able to facilitate learners to demonstrate core learning outcomes across the key learning areas.	1	2	3	4	5

End of Questionnaire

To understand links between your perceptions of the Extended Practicum and the results you were awarded for the experience, would you indicate the ratings you achieved.

Ratings on Extended Practicum Report   **Possible Ratings**

Planning   ☐   E   **Excellent**
                                                 G   **Good**
                                                 S   **Sound**
Interacting   ☐   N   **Needs Improvement**
                                                 U   **Unsatisfactory**

Please state the name of the teacher who supervised you for the 2002 extended practicum.

Thank you for participating in this research