PRACTITIONER EXPERIENCE OF A DEVELOPING PROFESSIONAL LEARNING COMMUNITY

Submitted by

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STATEMENT OF ORIGINAL AUTHORSHIP

The work contained in this thesis has not been previously submitted to meet requirements for an award at this or any other higher education institution.

To the best of my knowledge and belief, the thesis contains no material previously published or written by another person except where due reference is made.

All research procedures reported in this thesis received the approval of the University Ethics Committee

Signed:_____

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This thesis is dedicated to my parents,

Sylvia and Peter Hawkes,

who sparked my love of learning,

encouraged my passion for teaching,

and have inspired me with their modelling of life-long learning.

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ABSTRACT

Australian policy contexts are promoting school transformation through teacher learning and the development of schools as professional learning communities. However, Australian practitioners have very limited contextualised research to guide their efforts in response to these policies. The researcher's involvement in a school revitalisation process provided the impetus for this research study that investigates the practitioner experience of a developing professional learning community at RI College (pseudonym for a large independent girls' school in Brisbane). This study endeavours to gain a more informed and sophisticated understanding of developing a professional learning community with the intention of 'living' this vision of RI College as a professional learning community. Praxis-oriented research questions focus on the practitioner conceptualisation of their school as a developing professional community and their experience of supporting/hindering strategies and structures. The study gives voice to this practitioner experience through the emerging participatory/co-operative research paradigm, an epistemology of participative inquiry, a research methodology of co-operative inquiry and mixed methods data collection strategies. Incorporating ten practitioner inquiries over two years, recursive cycles of action/reflection engaged practitioners as co-researchers in the collaborative reflective processes of a professional learning community while generating knowledge about the conceptualisation and supporting/hindering influences on its development. The outcomes of these first-person and second-person inquiries, together with a researcher devised online survey of teachers, were both informative and transformative in nature and led to the development of the researcher's theoretical perspectives in response to the study's research questions. As outcomes of co-operative inquiry, these theoretical perspectives inform the researcher's future actions and offer insights into existing propositional knowledge in the field. Engagement in this practitioner inquiry research has had significant transformative outcomes for the co-researchers and has demonstrated the power of collaborative inquiry in promoting collective and individual professional learning and personal growth.

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Chapter 1 Introduction

1.1 BACKGROUND

This research study investigates the development of a professional learning community at RI College[1], a large independent girls' school in Brisbane. The impetus for this research was the commitment within RI College to school revitalisation. During 2005, RI College embarked on a comprehensive review process with the intention of determining its strategic directions into the future and supporting school revitalisation. This process culminated in the publication of a five-year strategic plan in which the school was described as one which "continues to evolve and respond to a rapidly changing world" (RI College, 2005b, p. 1). At RI College, the commitment to revitalisation was described by the school principal as continuing "to review and reflect on the ways in which we support and challenge our students to strive for excellence in all areas of endeavour" (RI College, 2005a, p. 1).

During the implementation stage of the strategic plan, aspects of the school's professional culture emerged as challenges to school revitalisation. In particular, the implementation of the strategic plan required a higher level of teacher collaboration than had occurred in the past. While both formal and informal efforts were made to promote this collaboration, anecdotal evidence suggested that this collaboration was occurring with varying degrees of success. It seemed that teachers valued such collaboration differently. Moreover, further challenges to collaboration arose from school expansion in 2006-2007 with the opening of the middle school within the college and students in years 5-7 being enrolled for the first time since 1979. This growth into middle schooling brought primary teachers from a range of backgrounds and experiences into what was a traditional secondary school culture. These middle school teachers valued working collaboratively while, at the same time, were faced with adjusting to a large school with a departmental structure and more hierarchal forms of organisation. The teachers in years 8 to 12 were similarly challenged by middle school teachers who had different ways of working professionally.

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[1] 'RI College' is a pseudonym for the name of the actual school. In order to ensure the anonymity of the College, texts written by the school will be authored 'RI College'.

From 2005 onwards, there were further challenges to the school's professional culture as the strategic planning caused innovation and the provision of new infrastructure to be a priority. Technological innovations such as interactive whiteboards and school-wide wireless connectivity were introduced and there was an expectation that teachers would maximise the learning potential of connected classroom learning environments. The increase in these information and communication technology facilities was complemented by an online learning management system as well as a large school building program. In many ways the educational developments at the school were considered to be 'cutting edge' and various teacher groups were engaged in research partnerships with university and government agencies. This situation was reflected in one of the school strategic objectives – to "ensure all curricula and teaching are research based and reflect best practice pedagogy…realised through a collaborative, team approach" (RI College, 2005b, pp. 6, 12).

In this context of innovation, professional learning was also accorded a high priority by the school leadership. Here it was recognised that the previous professional development practices were no longer effective and a staff committee for professional learning was established to investigate a new professional learning model for the school. This committee developed a draft model of professional learning based on the premise of the school as a professional learning community and emphasising the processes of inquiry and reflective practice. This draft was presented to the school leadership team late in 2005 and provoked considerable reflection and discussion in terms of how the college would support the ongoing implementation of the school strategic plan and meet the emerging challenges of collaboration and professional learning.

The researcher, in the role of Deputy Principal – Studies and member of the school leadership team, was expected to play a major leadership role in the implementation of the strategic plan and school revitalisation program. This leadership role involved the identification of annual curriculum outcomes and professional learning priorities, as well as leading academic Heads of Department in the preparation, implementation and evaluation of annual departmental action plans. Specific responsibilities also included the provision of supporting organisational structures and working with the Heads of Department to promote teacher professional learning through individual goal setting, reflective practice and engagement in appropriate professional learning activities.

At this time, the researcher was particularly challenged by the scholarly literature that identified an effective professional learning community as one which:

> …has the capacity to promote and sustain the learning of…professionals in the school community with the collective purpose of enhancing…[student] learning. (Bolam, McMahon, Stoll, Thomas, Wallace & et al., 2005, p. 145)

As deputy principal, with specific oversight for curriculum and student learning, the researcher questioned the level of teaching staff engagement in learning as professionals "with the collective purpose of enhancing…[student] learning". In this respect, the researcher recognised that there were specific issues emerging around teacher professional dialogue and reflective practice; as well as skills in, and attitudes towards, collaborative analysis of student work. The question of how to support Heads of Department in responding to these issues focused the researcher's attention on the development of the school as a professional learning community as a means of promoting school revitalisation and student learning.

1.2 THE POLICY CONTEXT

It is not surprising that the concern for school revitalisation and student learning had implicitly focused attention on the development of a professional learning community. The concept of the school as a professional learning community was gaining support within the Australian wider educational context as professional learning community was linked to teacher learning, curriculum innovation and school revitalisation. However, there also seemed to be considerable diversity in the understanding of the concept of professional learning community and little by way of clear direction in respect to how the professional learning community might be developed.

In 2005, a comprehensive Australian federal government report into teaching linked teacher learning and school transformation and identified the need for a new innovative culture:

> *Australia's Teachers: Australia's Future* makes a strong case for the development of a culture of curriculum innovation and school transformation to underpin Australia as a 'knowledge based, learning society'. The broad agenda arising from this is consistent with the arguments mounted in *Teachers for the 21st Century.* The evidence suggests that there is a continuing imperative for national investment to develop higher-order teacher and school leader skills and understanding if Australian schooling is to achieve a culture of curriculum innovation and school transformation. (Department of Education Science and Training, 2005)

The concern for teacher professional learning is also evident in the published web-based statements and strategies of the different Australian state educational authorities as shown in the website summary provided in Table 1.1.

TABLE 1.1

AUSTRALIAN EDUCATION AUTHORITY PROFESSIONAL LEARNING COMMUNITY STATEMENTS AND STRATEGIES

State Education Authority	Statement	Strategy
Queensland Department of Education and the Arts http://education.qld.gov.au/public_media/report s/curriculum-framework/qsrls/html/keyf_plc.html	The development of professional learning communities is linked to "greater use of productive classroom pedagogies."	Incorporated into the *Curriculum Framework* for government schools.
Northern Territory Department of Employment, Education and Training http://www.betterschools.nt.gov.au/supporting_ territory_teachers/professional_learning_comm unities.shtml	Professional Learning Communities project focuses on providing opportunities for teachers "to develop, trial and share models of best practice."	Identified priority areas within and between schools – annual funding grants – 12 PLCs with 204 educators, 8 PLCs with evidence-based practice (2008).
Victoria Department of Employment, Education and Training http://www.education.vic.gov.au/about/direction s/blueprint1/es/communities.htm	Learning communities described in terms of culture of teacher collaborative work, professional development and professional relationships both within and beyond the school.	Development supported through a set of "flagship strategies" which guide schools to "think about their performance" in *Blueprint* for government schools. Principles of professional learning highlight collaborative inquiry.
New South Wales Department of Employment, Education and Training https://www.det.nsw.edu.au/policies/staff/prof_l earn/prof_learn_pol/pd04_17_prof_learn.pdf	No professional learning community identification. School development is linked to professional development and "ultimately" student outcomes.	"The implementation of professional learning should use strategies that connect theory to practice and encourage collegial discourse, critical reflection and constructive feedback."
South Australia Department of Education and Children's Services http://www.learningtolearn.sa.edu.au/cor e_learning/pages/default/tfel/	"Professional Learning Communities (PLC) have recently been identified as the most successful learning strategies for learners and teachers."	Promoted to District and school leaders in a variety of workshops, professional reading and conferences particularly in early years literacy project and "Phase IV" schools.
Western Australia Department of Education and Training http://www.det.wa.edu.au/professionallearning/	Only identified in context of professional learning which promotes "a workforce that values and pursues professional learning."	Various professional learning programs accessible to staff and promoted as enhancing "organizational performance".
Tasmania Department of Education http://www.education.tas.gov.au/?a=98884	No professional learning community identification. School improvement "depends on inspired teaching and excellent school leadership."	Every school must have its own plan for improvement as part of *The Student at the Centre – Supporting Improving Schools* .
Australian Capital Territory Department of Education and Training http://www.det.act.gov.au/publications_and_pol icies/publications_a-z/school_excellence_initiative/professional_lea rning_communities Note: All URLs correct as at 01/06/08	Defines professional learning communities in terms of 'excellent schools' in which staff "continuously seek and share learning and then act on what they learn. The outcomes enhances their effectiveness as professionals so that students benefit."	Provides teacher access to range of resources including U.S. SEDL links as part of *School Excellence Initiative.* Teachers and leaders encouraged to implement evidence-based practices (2007).

Whilst the term 'professional learning community' is explicitly used in documents released by three state education departments, all states identify some form of teacher professional development in a 'learning' context. In describing the professional learning community, these documents refer to vague characteristics such as teacher "collegial discourse" (New South Wales) and "inspired teaching" (Tasmania), while others use definitions from the research literature (South Australia). These descriptions also imply that improved student learning is an outcome of teacher professional learning. However, just how teacher learning opportunities might directly affect student learning is not identified. Typically, the strategies identified as developing a professional learning community are part of some program of school improvement for government schools. Occasionally there is a description of a professional learning community as part of a curriculum innovation such as the *Early Years Literacy* projects in South Australia. However, these strategies are predominantly information-giving, mainly in terms of professional reading, links to professional sites such as the Southwest Educational Development Laboratory in the United States, and/or descriptions of professional learning opportunities. As such, the strategies largely function as general guides to school development with limited evidence of direct facilitation or intervention at state or region/district level. The exception is the funding of particular professional learning projects such as the *Professional Learning Communities* project of the Northern Territory.

In Queensland, policy-makers have also linked the professional learning community with teacher learning, innovation and school revitalisation. The Queensland School Reform Longitudinal Study (QSRLS) undertaken from 1997 to 2001 recommended that schools "be encouraged to create and support teacher professional learning communities inside schools" and suggested the need for "focused systemic support for the re-professionalisation of teachers and the creation of teacher professional learning communities inside schools" (Queensland Department of Education and the Arts, 2001). Following this recommendation, Education Queensland supported the professional learning of productive pedagogies in trial schools implementing *New Basics* approaches to school revitalisation. The *New Basics* trials concluded that "increasing support for the development and sustenance of teacher professional learning communities is surely a vital move" (Ailwood & Follers, 2002). However, there was no Queensland-wide implementation of the *New Basics;* instead, a second program, the *IDEAS* program (University of Southern Queensland, 2006) was offered to Queensland schools. This is a four-semester school revitalisation program implemented in Education Queensland schools in partnership with the Leadership Research Institute Team, University of Southern Queensland.

This program involves many professional learning community concepts (Andrews & Lewis, 2002). However, the number of schools that have taken up this initiative on a school- wide basis remains relatively small.

Extending the web search to the Catholic education sector also revealed considerable diversity in understanding of the concept of professional learning community and little by way of clear direction in respect to how the professional learning community might be developed. The terms 'learning community' or 'professional learning community' were most frequently encountered in descriptions of professional learning opportunities for teachers in specific curriculum innovation programs such as the Queensland Catholic Education Commission Digital Literacy for the 21st Century project where participants are encouraged to "share their learnings with colleagues" (Queensland Catholic Education Commission, 2006). There is some facilitation of this process through the particular professional learning activity but it is not articulated how this might contribute to any one school's development as a professional learning community. While the website of the Queensland Catholic Education Office is informative in respect to many aspects of Catholic education, it does not provide specific information or strategies relating to professional learning communities. This situation is also reflected in the information on the Brisbane Catholic Education website, which links professional learning to building "an enhanced learning organisation at all levels", but does not give specific information in relation to the development of schools as professional learning communities (Brisbane Catholic Education, 2008).

Finally, the formation of the Queensland College of Teachers in 2006 led to the development of the *Professional Standards for Teachers*. This document outlines many characteristics associated with professional learning communities such as committing to reflective practice, contributing to learning communities, and active involvement in school-based professional teams (Queensland College of Teachers, 2006). Evidence of continuing professional development relating to these standards for teacher registration renewal is not required until the end of 2010 so it remains to be seen if these standards will effectively promote professional learning community concepts in Queensland schools.

This overview of the policy context reveals that while the term professional learning community is contained in a number of federal and state documents and on education sector websites, there is a distinct lack of specific examples to guide the practitioner and very limited reference, or even weblinks, to examples elsewhere. This situation suggests that, at this stage, the concept of

professional learning community is largely rhetoric rather than reality within the Australian school context.

1.3 PRIOR RESEARCH

To compound the problem, the research literature also suggests considerable diversity in the understanding of the concept of professional learning community and, again, there is little by way of clear direction in respect to how the professional learning community might be developed. Informed by Senge's (1990) learning organisation concept, and in the context of school improvement and educational change, the research literature records the emergence of the concept of the professional learning community in education (DuFour & Eaker, 1998; Hord, 1997; Louis & Kruse, 1995; Newmann & Wehlage, 1995). Typically this research identifies 'improving' or 'successful' school renewal in North American public schooling contexts and distils common features, which invariably emphasise changing the way teachers learn and work, in order to improve student learning:

> The most successful schools…find ways to channel staff and student efforts toward a clear, commonly shared purpose for student learning. They create opportunities for teachers to collaborate and help one another. Teachers in these schools take collective -- not just individual -- responsibility for student learning, and for constantly improving their teaching practices. (Newmann & Wehlage, 1995, Section 3)

This research identifies a range of conceptualisations of the school as a professional learning community and various dimensions, attributes and characteristics are identified (Eaker, DuFour, & DuFour, 2002b; Hipp & Huffman, 2003; Hord, 2004; Senge, 2000). While this body of research clearly identifies the interdependence of professional learning community characteristics as "a *new approach* to improvement" requiring the reculturing of schools (Eaker, DuFour, & DuFour, 2002a; Fullan, 2005; Huffman & Hipp, 2003), it does so in the contexts of North American public schooling, particularly elementary (primary) school settings (Strahan, 2003). Where the research does focus on the development of schools as professional learning communities, the emphasis is on the role of external facilitation (Hollins, McIntyre, DeBose, Hollins, & Towner, 2004) and external system mandates (Couture, 2003). In addition, North American studies of school reform in secondary contexts most commonly involve urban low-performing schools (in terms of student achievement) according to national or state accountability programs, particularly those under *No Child Left Behind* federal legislation (Cranston, 2005). Given these research foci, it can be argued that this North American research

around school reform and professional learning communities has limited applicability to the different educational settings of Australia, especially those in non-government sectors.

It is also evident that within educational research the concept of professional learning community is a relatively recent phenomenon within non-North American contexts. A British comprehensive review of professional learning community literature (Bolam et al., 2005) questions the applicability of the North American studies in a different cultural context. In the extensive research which was subsequently conducted in the United Kingdom context these British researchers conclude:

> Context and setting are crucial to any understanding of how these [professional learning community] characteristics and processes play out in practice. (p. 148)

This United Kingdom review also suggests that not only is there little research in a non-North American context but that "many of the studies [existing literature outside U.K.] have not got into fine enough detail about professional learning communities in practice" (p. 27).

Instead of providing the "fine detail" in respect to school practice, research literature relating to the development of professional learning communities is secondary to literature on teacher leadership (Beaty & Pankake, 2003), principal leadership (Moller, 2003; Riedlinger, 2004) and collective responsibility (Fleming & Thompson, 2004). In addition, this literature provides few details in respect to whole school strategies for developing a professional learning community (Morrissey, 2000). At best, research provides some insight into the development of particular characteristics of a professional learning community such as collaborative reflective practice (Dunne, Nave, & Lewis, 2000), and reducing teacher isolation through teacher inquiry learning (Cochran-Smith & Lytle, 1999). Practitioner research into developing the professional learning community is limited to some studies of principal leadership (Drago-Severson & Pinto, 2006; Zepeda, 2000).

Finally, there appears to be only three Australian studies, focusing on the concept of professional learning communities in education (Andrews & Lewis, 2002; Cavanagh & Dellar, 2001b; Silins & Mulford, 2002) and none of these provides the fine detail of professional learning communities in practice. These Australian studies are empirical studies set in school improvement and secondary school contexts. Of the two studies set in single schools, one study records the development of a professional learning community as a small group of teachers participates in a school revitalisation process in a secondary school in rural Queensland (Andrews & Lewis, 2002); while the other investigates perceptions of school culture among

staff, students and parents using three different questionnaires in a senior high school in Western Australia (Cavanagh & Dellar, 2001b). The third study, the *Leadership for Organisational Learning and Student Outcomes (LOLSO)* project, reports on an extensive four year project in 96 South Australian and Tasmanian secondary schools. Using model building and path analysis, this study establishes a relationship between leadership, organisational learning and student outcomes (Silins & Mulford, 2002). Similar to the British research, the published Australian research is only just beginning to include empirical studies which investigate the concept of schools as professional learning communities and has not, as yet, focused on the processes of developing schools as professional learning communities.

Thus, this review of prior research reveals that researchers have not adequately addressed the concern expressed by Morrissey (2000) that, despite the existence of numerous studies relating to aspects of a professional learning community, "little has been written to guide schools toward professional learning community development" (p. 11). The context-based research required to understand how the professional learning community process 'plays out in practice' is lacking in terms of Australian contexts, while the type of research undertaken so far in other contexts has given insufficient attention to the part which may be played by the practitioner in developing professional learning communities.

1.4   THE RESEARCH PROBLEM AND PURPOSE

As a result of this exploration of the policy context and review of prior research, the researcher came to appreciate the problematic nature of developing RI College as a professional learning community. Within RI College there was considerable support for this development. However, in the traditional "balkanized" (Hargreaves & Macmillan, 1992) secondary school culture, the professional learning community represents a significant educational change; institutionalising this change had proved to be challenging. As deputy principal, the researcher suspected that much needed to be done in respect to developing RI College as a professional learning community and was concerned about how she could contribute to this development.

At the same time, various education-employing authorities within Australia identify the leadership and development of a professional learning community as a significant enabling factor in future school revitalisation. While policy directions are being set, there seems to be no common understanding between these authorities, and the systems and schools they direct, about what constitutes a professional learning community; nor is there any clear direction or guidance

to schools about how a professional learning community could be developed. Unfortunately, the emerging Australian research provides limited insight into the creation of professional learning communities, particularly in non-government school contexts. Research into the concept of schools as professional learning communities is heavily contextualised in North American studies and does not provide a theoretical framework which can be readily applied in an Australian context.

Thus policy statements and the research literature offered little guidance to support the development of the professional learning community at RI College. Consequently, the purpose of this study was identified in terms of gaining a more informed and sophisticated understanding of the school as a developing professional learning community with the intention of 'living' this vision of RI college as a professional learning community. Beyond this immediate purpose it was also accepted that this research study might contribute to the wider educational community by providing the fine detail of the professional learning community in practice, particularly within an Australian context.

1.5   RESEARCH QUESTIONS

Within this study, the research questions emerged following a comprehensive review of literature relevant to understanding the professional learning community. In particular, this review traced the emergence of the professional learning community and identified the different ways in which it is conceptualised. This review also explored the challenges of developing the school as a professional learning community and identifies research relating to how the professional learning community might be developed. Finally, this review considered how the development of the professional learning community is being influenced by external and internal contexts.

This review of the literature found that, for over the past 20 years, there have been significant developments in respect to the concept of *professional learning community*. Consequently, this concept has been characterised in "endless ways" (Hord & Sommers, 2008) with "shades of interpretation in different contexts" (Stoll, Bolam, McMahon, Wallace, & Thomas, 2006b). For example, researchers (Bolam et al., 2005; DuFour, 2004; Hord, 2004) in the U.S. and U.K. provide various conceptualisations of the professional learning community. However, this review of the literature found that the different conceptualisations of a professional learning community provided little guidance to the practitioner attempting to develop their school as a

professional learning community. The most promising approaches appear to be the British research definition of a professional learning community which emphasises enabling processes and practitioner involvement in sharing the learning vision and working collaboratively. In this definition Stoll and her colleagues (2006a) defined the professional learning community as:

> ...an inclusive group of people, motivated by a shared learning vision, who support and work with each other, finding ways, inside and outside their immediate community, to enquire on their practice and together learn new and better approaches that will enhance all pupils' learning. (Stoll et al., 2006a, p. 1)

The definition is in line with a "social architecture" (Toole & Louis, 2002, p. 249) approach that identifies the underpinning central idea of a professional learning community as what helps to shape both teachers' attitudes and practice, and which is manifest in the day to day work lives of teachers. Through drawing attention to the teacher norms and interactions which influence teacher learning, teacher practice and student learning, this 'social architecture' approach offers the practitioner a lens through which the development of a professional learning community can be viewed. Using this social architecture approach, the researcher identified a conceptual framework which recognised four essential attributes of the professional learning community in which each of these attributes comprised a defining dimension with an enabling process:

- a community culture in which a shared purpose and values are nurtured by a supportive staff culture;
- a focus on student learning in which improving that learning is sustained through capacity-building leadership and the processes which this leadership promotes;
- teacher professional learning in which the emphasis is on shared professional practice supported through collaborative inquiry work practices; and
- teacher professional practice in which there is engagement in collective instructional decision-making informed by individual reflective practice.

In this way, the professional learning community was conceptualised in terms of a generic definition and a set of essential attributes. However, most recently, research (Bolam et al., 2005; Hargreaves, 2008; Louis, 2008) has highlighted the influence of both external and internal contextual issues on the development of the school as a professional learning community. Consequently, researchers (Hord & Sommers, 2008; Toole & Louis, 2002) point to the need to develop context-specific understandings of the professional learning community. It seems the time is right for local school communities to "unpack the metaphor" of professional learning community and develop their own process and development model (Hord, 2004). The generic

definition of the professional learning community and the set of attributes provide some understanding; but without the fine detail in respect to context-specific models and processes, developing a school, such as RI College, as a professional learning community would remain problematic.

This understanding of the importance of context-specific models and processes in support of the development of the professional learning community is consistent with the 'meaning hypothesis' advanced by Fullan in his seminal work *The new meaning of educational change* (1991, 2001a). Here, Fullan (1991) argues that "if reforms are to be successful, individuals and groups must find meaning concerning what should change as well as *how* to go about it" (p. xi). Developing this thought in a later edition of this title, Fullan (2001a) focuses on the importance of 'meaning-making' for practitioners:

> Perhaps the most important conclusion…is the realization that finding moral and intellectual meaning is not just to make teachers feel better. It is fundamentally related to whether teachers are likely to find the considerable energy required to transform the status quo. Meaning fuels motivation; know-how feeds on itself to fuel on-going problem-solving. Their opposites – confusion, overload, and a low sense of efficacy – deplete energy at the very time when it is sorely needed. (p.48)

Thus, this literature review clearly established the importance of understanding the practitioners' experience of the school as a professional learning community, and of selecting approaches in the development of the school as a professional learning community that are most appropriate for their own context. In this understanding the researcher identified two initial research questions:

1. How do practitioners conceptualise their school as a developing professional learning community?

2. What strategies and structures do practitioners experience as supporting or hindering the development of their school as a professional learning community?

In the course of this study, a third research question emerged from the practitioner engagement in response to these two questions. Here, it was recognised that the wider practitioner experience of the school as a professional learning community was not being adequately addressed within the research process, and this recognition resulted in a further research question being added to the research study:

3. Can a theoretically based and context-specific instrument be devised to assess practitioner experience of their school as a professional learning community?

These three research questions focused on how practitioners at RI College conceptualised and experienced their school as a developing professional learning community, and suggested the need for a research methodology which was able to generate and 'listen' to these practitioner voices.

1.6   THE DESIGN OF THE STUDY

Recognising these research questions, this study was situated within an emergent research paradigm within pragmatic constructivism, namely, the "participatory/cooperative paradigm" (Guba & Lincoln, 2005, p. 192).   As with other research paradigms, this participatory/cooperative paradigm offers its own ontology, epistemology and methodology. From an ontological perspective, the participatory/cooperative paradigm recognises a "[p]articipative reality – subjective-objective reality, cocreated by mind and given cosmos" (p. 195).   Thus this research paradigm assumes that a professional learning community is a socially constructed, complex, dynamic and organic entity; research using the participatory paradigm focused attention on both the concept and its wider and deeper experiential context (Heron & Reason, 1997).   Moreover, this research paradigm recognises the pragmatic link between theory and praxis and gives priority to an extended epistemology in which a collective praxis-oriented knowing could develop out of communities of practice (Greenwood & Levin, 2005).   Here, the emphasis is on a "[c]ritical subjectivity in participatory transaction with cosmos; extended epistemology of experiential, propositional, and practical knowing; cocreated findings" (Guba & Lincoln, 2005, p. 195).   Thus, the research methodology is framed as "[p]olitical participation in collaborative action inquiry; primacy of the practical; use of language grounded in shared experiential context" (p. 195).

In line with the participatory/cooperative research paradigm, "cooperative inquiry" (Reason, 2003, p. 211) was selected as an appropriate methodology for this study.   As a participative/collaborative form of inquiry, cooperative inquiry is a form of action research that relies on "the emergence of a self-aware, critical community of inquiry nested within a community of practice" (p. 211). Cycling through phases of action and reflection, co-operative inquiry involves research with people who become co-researchers in the collaborative endeavour and contributors to the production of co-generated knowledge (Heron, 1996; Reason, 2003). Here co-researchers engage in shared reflection, all the time trying to make sense of experience, as they become:

> …deeply engaged with the human condition, living and choosing with awareness. Each one uses the full range of her or his sensibilities as a composite instrument of inquiry, as a group they interweave creative discussion with concerted action and openness to experience. (Heron, 1996, p.37)

As a collaborative form of inquiry, co-operative inquiry recognises the shared experiential context and allows for the collective praxis-oriented knowing to emerge in the co-generative knowledge process (Reason, 1999). The creation of new knowledge from participatory/co-operative inquiry involves three interdependent fields of knowledge – practitioner (what participants know), publicly available (what is known) and new (what is created together through collaborative work) (Jackson & Horne, 2004). This co-created new knowledge informs future practice for the practitioner and may add to what is known in terms of research.

Within this study there were two cycles of co-operative inquiry over a two-year period as the researcher explored with a group of teachers in the school how to nurture and sustain their school as professional learning community, using the practitioner inquiry processes embraced in the school's professional learning model. There were four teachers as co-researchers in the first co-operative inquiry cycle and six in the following year in the second co-operative inquiry cycle. In the two cycles of co-operative inquiry the co-researchers engaged in recursive cycles of four phases of action and reflection and engaged in first- and second-person research/practice (Reason & Torbet, 2001). A total of ten individual practitioner inquiries were undertaken by the co-researchers who also worked on collaborative inquiry together in their co-operative cycle. During the first co-operative inquiry cycle there was recognition that, although involving many teachers across the school, the practitioner inquiries of the co-researchers were not capturing the wider teacher experience of the school as a professional learning community; and so the researcher undertook to devise and administer a survey instrument which might capture that experience. This particular inquiry took place simultaneously with the second co-operative learning cycle.

Data collection strategies for the purposes of this research study comprised written and visual artefacts from each of the cycles, surveys of teachers, and semi-structured and focus group interviews with the co-researchers. The focus of these strategies was to collect evidence of the knowledge generation within each of the phases of the co-operative inquiry cycles. The outcomes of the co-operative cycles of inquiry and the researcher-devised survey of teachers were both informative and transformative in nature. The findings from the analysis of data for these cycles and the survey led to the development of the researcher's theoretical perspectives in

response to the study's research questions. As theoretical perspectives they have informed the researcher's actions in her role within RI College and continue to assist her in fulfilling her responsibilities in the areas of school revitalisation.

1.7   SIGNIFICANCE OF STUDY

As discussed above, this study was significant with respect to the success of the school revitalisation process at RI College. However, beyond this local concern, the significance of professional learning communities in sustaining school reform is becoming increasingly evident in the research and practitioner literature (Bolam et al., 2005; DuFour, Eaker, & DuFour, 2005; Hargreaves & Fink, 2006; Schmoker, 2006; York-Barr, Sommers, Ghere, & Montie, 2006). Researchers recognise that "we will benefit greatly from further study in how to disseminate, clarify, and refine the learning community model" (Schmoker, 2004a, p. 88). However, the research also acknowledges that current conceptualisations lack robustness and extended applicability; while dissemination of the professional learning community model is restricted by a lack of knowledge of successful strategies (Joyce, 2004). There is a significant Australian federal government focus on 'school transformation', while at the same time various state educational authorities are promoting the development of (professional) learning communities. A school in this Australian school improvement context that wishes to develop as a professional learning community has very limited contextualised research on which to base its efforts.

The comprehensive investigation of current understandings of professional learning communities presented in Hord (2004) identified the research imperative of:

> ...an intensive well-controlled pattern of research and measurement of professional learning communities...[to] illuminate the experiences of PLCs in a greater variety of schools, and to raise the cumulative worth of these qualitative studies through the infusion of more abundant data". (p. 4)

The research study contributes to this research imperative, albeit in a small way, by exploring the practitioner experience of the development of the professional learning community and the attendant supporting/hindering influences on this development. This research presents theoretical perspectives drawn from the experience of practitioners engaged in developing their school as a professional learning community in the context of school revitalisation. While this experience is inevitably context-specific, development and discussion of these perspectives offers potential insights into how a professional learning community may be conceptualised and how it may develop. Here, the intention is to provide the "fine enough detail" (Bolam et al.,

2005, p. 27) in respect to the professional learning community in practice in order to close the research-to-practice gap.

The practitioner focus of this study also meets the literature demand for school-based studies by school leaders and practitioners "working on their advanced degrees" to investigate and document their practices in creating professional learning communities (Hord & Sommers, 2008, p. 66). This study's methodology of co-operative inquiry engaged practitioners in the collaborative reflective processes of a professional learning community while generating knowledge about how to develop that community. The practical knowledge generated by the co-researchers has already informed actions at RI College and is likely to continue to do so. Engagement in this practitioner inquiry research has had significant transformative outcomes for the co-researchers and has demonstrated the power of collaborative inquiry in promoting collective and individual professional learning and personal growth.

One of the challenges of co-operative inquiry is to create the conditions for third-person research/practice which extends the knowledge generation process to others not engaged in the first- or second-person research/practice. This involves creating conditions so that the dialogue can continue. Reason (2001) reminds the action research practitioner that:

> …your first-and second-person inquiry will in many ways be fruitless unless at least in modest ways you are able to influence the wider third-person community to explore the issues that have engaged you. (¶1, final section)

The significance of this study may well lie in the dialogue that it prompts "in some modest way" among colleagues, other practitioners and researchers.

1.8   STRUCTURE OF THE THESIS

One of the challenges of research within the participatory/cooperative inquiry paradigm is to resolve the tension between capturing the lived experience of the research and the crisis of representation involved in this research paradigm when writing for an academic audience (Marshall & Reason, 1998).   The researcher has endeavoured to resolve the experience/representation tension through a careful and detailed account of the knowledge generation process. As such this writing also represents the researcher's attempt to create conditions for prompting the dialogue of third person inquiry. Thus the research design and subsequent knowledge generation processes of recursive cycles of co-operative inquiry have framed the structure of the thesis which is represented diagrammatically in Figure 1.1.

FIGURE 1.1
KNOWLEDGE GENERATION PROCESS AND STRUCTURE OF THESIS
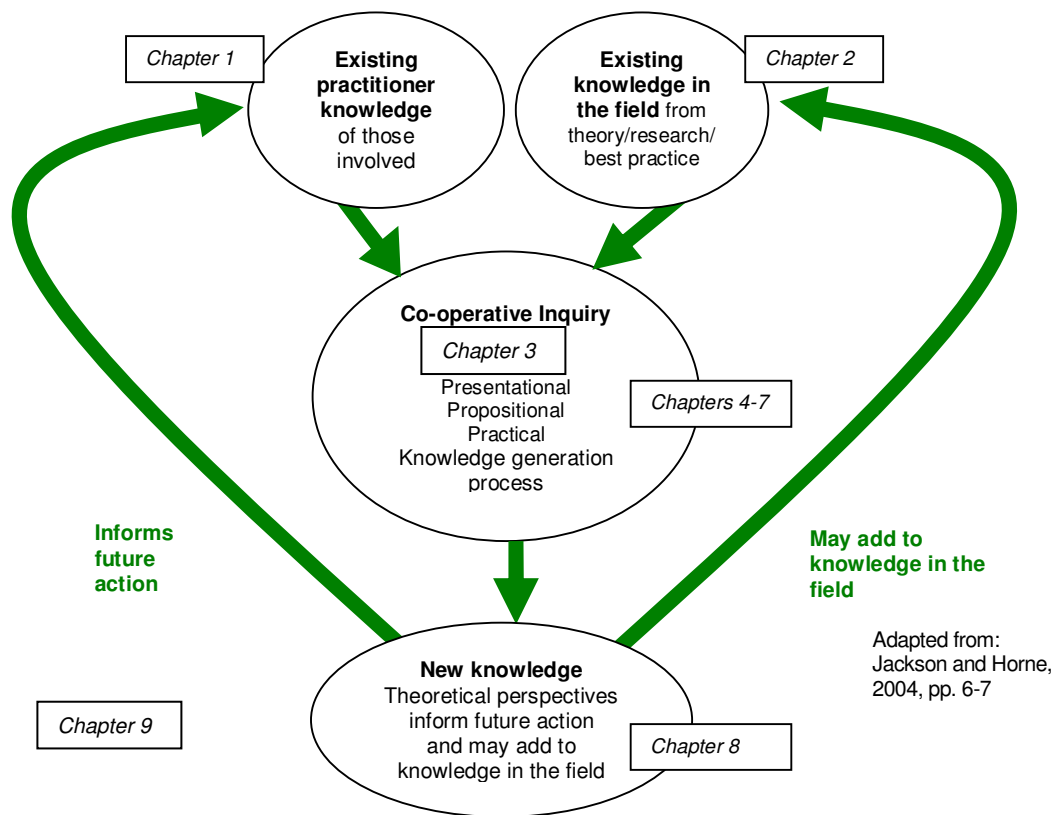
Following this introductory chapter, which outlines existing practitioner knowledge with respect to the research context and problem, Chapter 2 reviews the literature relating to professional learning communities. Here, the research and practitioner literature identifies how the concept of a professional learning community has emerged, various ways in which school as professional learning community has been conceptualised, and the challenges involved in the development of a professional learning community – as well as the influence of different contexts on that development. In so doing, the literature review identifies existing knowledge in the field in relation to professional learning communities.

Chapter 3 details the design of this study and its theoretical underpinnings. A rationale for this study is provided as the chapter explains and justifies the design and methodological choices within the selected theoretical framework of the participatory/co-operative research paradigm, its extended epistemology and the methodology of co-operative inquiry cycles. Data collection

strategies that are commensurate with this theoretical framework and the research context of practitioner inquiry are identified and an evaluation of the research design is presented.

The intention in Chapters 4 and 7 is to chronicle the knowledge generation process of the two cycles of co-operative inquiry. Presented in the form of individual pen-portraits and the narrative of the co-researchers these chapters record the action and reflection phases of each of the co-operative inquiry cycles. Experiential, presentational, propositional and practical knowledge is presented in the analysis of these phases. The first co-operative cycle is presented in Chapter 4 and the larger second co-operative cycle is presented in Chapter 7. It is anticipated that the detailed manner in which this experience is written in these two chapters will present touchstones for the practitioner reader of this work that will resonate with their own experiences.

An outcome of the knowledge generation process of the co-operative inquiry cycle was an understanding that the practitioner inquiries of the cycle were not capturing the wider practitioner experience of the school as a developing professional learning community. Consequently, the researcher devised an instrument to assess this wider practitioner experience (see Research Question 3) and the instrument development, validation and administration occurred concurrently with the second co-operative inquiry cycle. The development and validation of this instrument is reported in Chapter 5. The results of the administration of this Teacher Experience of a Professional Learning Community (TEPLC) survey are analysed and reported in Chapter 6.

The co-created 'new' knowledge generated in the co-operative inquiry cycles and through the administration of the TEPLC survey is integrated into the researcher's theoretical perspectives which are developed and discussed in Chapter 8. Six theoretical perspectives are offered in response to the research questions and each of these is examined in the light of the research literature. This examination required revisiting and extending the original literature review. As outcomes of co-operative inquiry, these theoretical perspectives should inform the researcher's future actions and offer insights into existing propositional knowledge in the field. The final chapter presents a synthesis of the knowledge generated in the research. Implications for the researcher and her school are presented. Limitations of the research are acknowledged and recommendations made for future research.

Chapter 2 Literature Review

2.1   INTRODUCTION

As identified in the previous chapter, it was the pragmatic concern for school revitalisation and student learning that focused the researcher's attention on the development of her school as a professional learning community. In identifying this focus, the researcher was aware that the idea of the school as a professional learning community had gained support within the wider educational community. An examination of the policy context supported the concern for teacher professional learning but also revealed considerable diversity in respect to the conceptualisation of the school as a professional learning community and explanation of how the professional learning community is developed. In addition, the researcher soon found that there was limited support in the research literature for school-based practitioners seeking to develop this professional learning community, particularly within an Australian context.

This overview of the wider policy context and prior research highlights the significant gap between the rhetoric and the reality of developing the school as a professional learning community. Consequently, the purpose of this study was to gain a more informed and sophisticated understanding of the school as a developing professional learning community with the intention of 'living' this vision of RI college as a professional learning community. With this research purpose in mind, the researcher looked to the literature in order to identify the specific research questions that would guide the design of this study. It was also intended that this review of the literature would provide a point of reference for the discussion of the findings of the research.

2.2   LITERATURE CONCEPTUAL FRAMEWORK

This review of the literature is guided by a conceptual framework (see Figure 2.1) that situates the development of the professional learning community within key theoretical developments relating to school improvement and organisational learning. Here, the conceptualisation of 'professional learning community' is recognised as a relatively recent phenomenon within the literature with the term being used for the first time in the early 1990s (DuFour & Eaker, 1998; Hord, 1997; Kruse, Louis, & Bryk, 1995; Newmann & Wehlage, 1995).

This interest in the professional learning community has its antecedents in research around educational change and organisational learning. Over time, three interdependent themes – the learning organisation, the school as learning community and the teacher as professional – coalesced into the concept of school as a professional learning community. In exploring this concept of the professional learning community, researchers have sought to identify the characteristics of the professional learning community that lead to improvement in student learning. In short, this research effort has identified a number of different conceptualisations of the professional learning community, each with its own structural, organisational and cultural characteristics. The different contexts and purposes of school improvement within schooling systems and schools mean that the concept of professional learning community is being embraced with different emphases. The literature recognises varying degrees of success in transforming schools into professional learning communities. This has led researchers to focus on how the development of a professional learning community progresses and how it may be inhibited or facilitated by particular contextual factors.

FIGURE 2.1
LITERATURE CONCEPTUAL FRAMEWORK
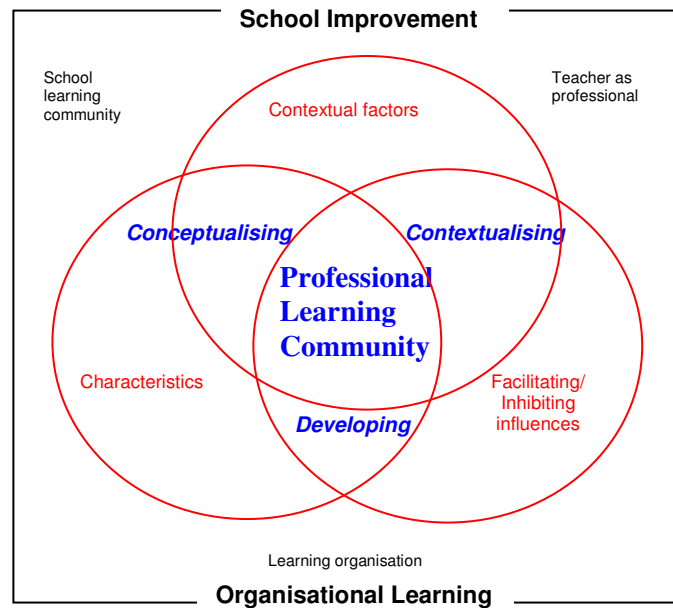
The focus areas emerging from this literature form the conceptual organisers of this review and comprise the following sections of this chapter:

Section 2.3 traces the emergence of the professional learning community;

Section 2.4 identifies the different ways in which the professional learning community is being conceptualised;

Section 2.5   presents the research relating to how professional learning communities are being developed; and

Section 2.6   considers how the professional learning community is being contextualised. The final section (Section 2.7) summarises the themes emerging from the literature and identifies how these learnings inform the research questions, and the subsequent design of this study.

2.3   EMERGENCE OF THE PROFESSIONAL LEARNING COMMUNITY CONCEPT

Over the past 20 years, there have been significant theoretical developments in organisational theory and educational theorists have refined school improvement processes. Consequently, scholarly writing has highlighted three interdependent themes: the learning organisation, the school learning community, and the teacher as professional. Over time, these themes have coalesced into the concept of professional learning community. In selectively drawing from this literature for the purpose of this review, key research findings and landmark studies that have informed the development of the professional learning community literature will be identified.

2.3.1   The learning organisation

The failure of many large-scale school reform initiatives in North American and British contexts, in the 1980s and 1990s, prompted close research attention to 'successful', 'effective' and 'improving' schools. Consequently, researchers (Rosenholtz, 1989) focused on the internal processes within schools that supported change and improved student achievement.   Within this research effort, British researchers identified the criteria for improving schools as professional empowerment, collegiality and a focus on life-long learning among teachers (Gray et al., 1999; Stoll & Fink, 1996). Professional leadership, purposeful teaching and teacher learning emerge as key factors in effective schools (MacBeath & Mortimore, 2001; Sammons, Hillman, & Mortimore, 1997). Researchers in the U.S. identified shared vision (Louis & Miles, 1990), and a 'strong' school culture characterised by collaborative teacher interaction and reflective dialogue as critical features of high achieving schools (Barth, 1990; Sarason, 1996). Finally, Australian research representative of this focus identifies distributed and teacher leadership (Smyth, 1999), teachers as active learners and a co-operative school organisational culture (McGaw, Piper, Banks, & Evans, 1992) as characteristics of an effective school.

These recommendations in support of school improvement can be traced back to Senge's work *The fifth discipline: The art and practice of the learning organization* (1990), arguably

presenting one of the most influential shifts in perspective on organisational change. In this work, Senge advances the learning organisation in support of organisational change. The "learning organisation" is one:

> …where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together. (p. 3)

Senge also contends that organisations learn "only through individuals who learn" (p. 139) and this concept has been widely embraced within various school reform movements. Following this seminal work, studies of schools in a range of contexts, identified various aspects of school structures and cultures, and teacher learning and behaviours within them, which impact on notions of school improvement as organisational learning (Leithwood, Leonard, & Sharat, 1998; Marks & Louis, 1999; Sarason, 1996). The focus in all these studies was firmly on teacher learning and, significantly, student learning is recognised as being enhanced through teacher learning which comes 'first' (J. W. Little, 1997).

This understanding of the importance of teacher learning focused researchers' attention on the organisational environment that supported such learning. The U.S. school research and development organisation, The National Study of School Evaluation (NSSE)[2], synthesized much of this research in high-performing schools and released *Indicators of Quality* in 1998. In the rubric produced for schools to evaluate the quality of their work, the exemplary indicator of "Culture of continuous improvement and learning" encapsulated many of the cultural and structural aspects of schools as learning organisations identified in this area of research (National Study of School Evaluation, 1998). By 2004, this organisation advised that research was clearly indicating that schools wanting to improve student learning should address "developing a learning community" as a core task (National Study of School Evaluation, 2004).

2.3.2   The school learning community

Into the new century, the research focus moved from learning organisation to *learning community*. At this point, the concept of internal capacity as a key indicator of school performance was highlighted (Hopkins, Harris, & Jackson, 1997) and theories of constructed learning informed understandings of community and teacher learning (Lambert, 1998; Stoll,

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[2] The National Study of School Evaluation is the non-profit educational research and development arm of regional school accreditation commissions in the U.S. It researches key questions about schools and their improvement and provides that data to affiliated schools and educational authorities.

1999). "Internal capacity" is considered to be "the power to engage in and sustain continuous learning of teachers and the school itself for the purpose of enhancing student learning" (Stoll, MacBeath, Smith, & Robertson, 2001, p. 171). Building this internal capacity is fostered through the authentic relationships of culture building – long-term support for one another, challenging one another to improve, questioning perceptions and learning together (Barth, 1990; Lambert, 1998). Within this understanding of the learning community, learning is framed as "individual or collective reconstructions" of knowledge "coalescing around consensus" (Guba & Lincoln, 2005, p.194). The thrust of this learning community research identifies the norms of collaboration and collegiality – of working together, learning together.

At this point, a new understanding of school leadership emerged as shared, participative leadership structures were recognised as fostering greater collective responsibility for student learning (Hord, 2004; Katzenmeyer & Moller, 2001). Here, the literature associates shared participative leadership with "the group (including non-administrative members)" and sources of influence as "interpersonal communication" (Leithwood, Jantzi, & Steinbach, 1999, p. 18). This shared, participative leadership was evident in increased participative decision-making across all aspects of the school for all stakeholders and the outcomes of this approach to leadership were identified in terms of increased capacity of the organisation "to respond productively to internal and external demands for change" as well as "more democratic decision making" (p. 18). In support of these claims, Australian studies identify the leadership density of a school as a critical factor in the development of capacity for organisational learning (Johnston & Caldwell, 2001) and there was evidence of the power of teacher leaders in facilitating communities of learning among their peers (Crowther, Kaagen, Ferguson, & Hann, 2002). Thus, shared participative leadership is recognised as an essential feature of 'best practice' in school change initiatives, and this leadership is strongly linked to the concept of teacher as learner with school team-based opportunities for inquiry and reflection (Cuttance, 2001).

In this way, the learning community is characterised by norms of collegiality and teacher learning as well as shared, participative leadership. These norms come together in recommendations around "engaging in school-based inquiry" within a learning community (Sergiovanni, 1994, p. 145). Early learning community research describes this 'new' organisation of teacher work as a "professional community" (Louis & Marks, 1998, p. 539) where teachers and administrators work together in reflective practice cultures with an undeviating focus on student learning. Research in the U.S., U.K. and Australia confirms that a

focus on continuous inquiry and improvement by the professionals in the school is a distinguishing feature of high-performing schools (Groundwater-Smith & Hunter, 2000; Hord, 1997; Joyce, Calhoun, & Hopkins, 1999). Thus, the professional learning community is associated with forms of school-based inquiry that involve "deep collaborative discussions about the key questions that are associated with learning" (Eaker et al., 2002b, p. 19). This form of professional learning challenges traditional forms of teacher professional development characterised by externally imposed activities often unrelated to teacher work contexts and rarely leading to sustained change in practice (King, 2002). In summary, inquiry into professional practice based at the school level by school personnel is what distinguishes the learning community as a professional community.

2.3.3 The teacher as professional

Changes in teacher work expectations and organisation over the last twenty years have reshaped the professional identity of teachers within both a policy and practice context. These changes emanated from the broad reform and restructuring movement that swept through the public sector, including public education, in the 1980s and 1990s. This reform movement characterised by decentralisation and devolution provided new opportunities for teachers to be involved in school decision-making (O'Donoghue & Dimmock, 1998), to accept distributed forms of leadership (Bauer & Bogotch, 2006), and for more collegial structures where principals have "the opportunity to develop a unique teaching learning community for their school" (Sachs, 1997, p. 267). The role of the teacher as a professional in these decentralised contexts is described as one where "teachers participate in decision making, have a shared sense of purpose, engage in collaborative work, and accept joint responsibility for the outcomes of their work" (Lambert, 1998, p.11). The organisation of teacher work in this way was shown to have a significant influence on the establishment of professional communities (Scribner, Cockrell, Cockrell, & Valentine, 1999).

Although professionalism was recognised as evolving "within active, learning communities of teachers" (Talbert & McLaughlin, 1994, p. 123), as changes in school structures have occurred, issues of teacher professionalism have emerged in the research literature of the U.S., U.K., Australia and New Zealand (Fitzgerald & Gunter, 2006; Goodson & Hargreaves, 1996; O'Brien & Down, 2002; Sachs, 2003; Talbert & McLaughlin, 1994). Among other things, this body of literature identifies that "there is no singular version of what constitutes professionalism or teaching as a profession" (Sachs, 2001, p.150). Some academic writers (e.g. Hargreaves, 2000;

Hargreaves & Goodson, 1996) have developed typologies of teacher professionalism and identified different phases of teacher professionalism. However, more recently the notion of a transformative professional identity, the activist professional, has emerged. This type of professionalism is described in terms of a commitment to five core values: learning, participation, collaboration, co-operation and activism (Sachs, 2003, p33-35).

Further research in the U.K. and New Zealand suggests that teacher professional identity is shaped by school-based teacher inquiry and an understanding of teacher roles as leaders of learning "influencing and working with others in highly collaborative and supportive environments" in ways that deeply influence their practice (Fitzgerald & Gunter, 2006, p. 46). In addition, the literature reports that when teacher learning is an outcome of the collective inquiry endeavour of professionals then it is more likely that change in practice will occur. This development of a community of professional practice is recognised as "the single most important way to improve a school" (Sergiovanni, 2000, p. 139). As a consequence, researchers have been investigating how schools organise themselves to promote teacher community and professional learning, and have reported their findings using a range of terms from "collegiality" and "collaboration" to "discourse communities", "schools that learn" and "professional learning communities", with the last emerging most strongly from the collected literature (Louis, 2006).

2.3.4   Professional Learning Community

Within the parent literature around organisational theory and school improvement, ideas about the learning organisation, the school as learning community, and the teacher as professional have coalesced into the concept of school as professional learning community. The term 'professional learning community' has come to be used in many ways in the literature, and although there is no agreed definition (Hord, 1997), all incorporate notions of teacher learning in a form of collaborative culture with an inquiry focus on student learning. In this sense, a professional learning community is recognised as a form of school culture that is crucial to the improvement of student learning in a relationship of "circular causality" (Toole & Louis, 2002, p. 254). To support such claims, extensive research suggests that low performing schools can increase student achievement when staff and the school are organised as a professional learning community (Hord, 2004). While acknowledging the ability of a professional learning community to improve student learning, Fullan (2000) sounds a cautionary note and highlights the importance of the processes of teacher empowerment and participation in the professional learning community:

> …the development of a professional community must become the key driver of improvement…School improvement will never occur on a wide scale until the majority of teachers become contributors to and beneficiaries of the professional learning community. (p. 582)

Australian researchers, Silins and Mulford (2002), express this process succinctly as: "what teachers do in the classroom reflects their own involvement and engagement with the school as a learning organisation" (p. 444). The nature of teacher engagement in professional learning is thus a critical influence on the improvement of student learning in a school identified as a professional learning community. In short, current research identifies the importance of teachers working collaboratively in school-based inquiry into practice in school contexts of continuous improvement from within and promotes the conceptualisation of school as a professional learning community.

2.4 CONCEPTUALISING A PROFESSIONAL LEARNING COMMUNITY

The literature notes that the concept of professional learning community has been characterised in "endless ways" (Hord & Sommers, 2008, p. 8) with "shades of interpretation in different contexts" (Stoll et al., 2006b, p. 222). Moreover, within the literature, there are different views on the precise membership of the professional learning community (Hord & Hirsh, 2008; Stoll et al., 2006a). Thus the research literature advances different conceptualisations of the professional learning community. Three of these conceptualisations are outlined below.

2.4.1 Conceptualisation 1 – Hord's five dimensions

In the U.S. the extensive Southwest Educational Development Laboratory (SEDL) research culminated in the identification of five interdependent dimensions of a professional learning community which have been articulated by Hord (1997, 2004) as:

- *Shared vision and values* in which an undeviating, commitment to student learning is consistently articulated and referenced by the school staff and exist as norms of behaviour;

- *Collective learning and application of learning* among staff that is reflective of practice, inquiry-based, shared and evident at all levels within the school;

- *Supportive conditions* of both human capacities and the physical conditions and structures that enable staff to regularly come together in ways that encourage and sustain a collegial atmosphere;

- *Shared personal practice* where a review of a teacher's practice by colleagues is the norm through peer mentoring, mutual respect and understanding in a formalised and supported structure of an appropriate learning environment for teachers; and

- *Supporting and shared leadership* in which collegial and facilitative participation is invited and evidenced by the principal as lead learner, distributive leadership/teacher leadership and shared decision-making.

Extensive subsequent research studies have used these five dimensions to investigate professional learning communities in the U.S. and Canada, and they have been widely adapted as an organising framework for many systemic school improvement initiatives, such as those in the Canadian province of Alberta (Alberta Education Commission for Learning, 2003).

2.4.2   Conceptualisation 2 – DuFour and colleagues' three big ideas and six characteristics

Originating in the practitioner experience of the school principal leadership contexts of Richard and Rebecca DuFour, another conceptualisation has also been developed in the U.S. This conceptualisation identifies three 'big ideas' which represent the essential nature of a professional community - ensuring students learn, a culture of collaboration, and a focus on results (DuFour & Eaker, 1998). Six characteristics which enliven these ideas are identified in this conceptualisation. These characteristics share similar constructs to Hord's five dimensions with the exception of the leadership dimension and have a more specific, in practice, focus:

- *Shared mission, vision and values* that focus on the learning of all students and are developed as a collective set of beliefs from which goals and guiding principles are drawn and to which all are committed;

- *Collaborative teams* of staff who share a common purpose and work interdependently towards it and value learning from each other;

- *Collective inquiry* that identifies and strives for best practice through critical reflection on evidence of student learning;

- *Action orientation and experimentation* in which there is an openness to experimentation and where professional learning occurs in action which strives to improve student learning;

- *Continuous improvement* as the focus of collective endeavour that is characterised by a willingness to continually challenge the status quo and revise actions; and

- *Results orientation* in which all actions are evaluated on the basis of careful analysis of student results. (DuFour, 2004; DuFour & Eaker, 1998; Hord, 2004)

Subsequent to this identification, DuFour and associates have undertaken further research, and synthesised existing research, in an endeavour to explicate strategies which facilitate the development of each of these characteristics in a range of contexts. Many of these strategies have been endorsed by various educational organisations across the U.S. (DuFour et al., 2005). However, these characteristics and strategies are frequently context-specific to the North American public schooling system – particularly those relating to the school district context, the specific nature of the results orientation, the creation of shared values in public schools, and strategies of site-based management (DuFour, DuFour, Eaker, & Many, 2006). Nevertheless, this model does serve to emphasise the day to day work of the practitioner in collaborative contexts and it is possible to recognise in some of the school scenarios provided in their practitioner handbook, *Learning by Doing* (DuFour et al., 2006), relatively familiar Australian school situations. Most other published studies of professional learning communities have used one of these two U.S. conceptualisations or a variant of one of them (e.g. Huffman & Hipp, 2003; Siguróardottir, 2005).

2.4.3   Conceptualisation 3 – *eplc* project's eight characteristics and four processes

The context-specific nature of most of the available professional learning community research was recognised by a recent U.K. research report (Bolam et al., 2005). This research also recognises the variable nature of much of the U.S. research (other than those mentioned above) in terms of its empirical rigour and so questioned the value of its application to "improve practice and policy" in a different context (p. 5). This U.K. research entitled the *eplc* project[3] is an extensive, rigorous, three-year investigation into creating and sustaining effective professional learning communities involving schools at all levels in England. Its significance lies in its attempt to identify not only how professional learning communities might be created but also how they might develop and be sustained. The project findings confirmed the existence of Hord's five dimensions but extended these to form eight key characteristics and four processes which they identify as specifically promoting and sustaining professional learning communities.

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[3] The full title of the project was *Creating and Sustaining Effective Professional Learning Communities* but it is consistently referred to as the *eplc* project in the literature of this time. The *eplc* project was set up in the U.K. to investigate "how feasible and useful the idea of a professional learning community (PLC) was and what practical lessons could be learned from experience here [U.K.] and elsewhere" and was undertaken over a 34 month period from 2002 to 2004 (Bolam et al., 2005, p. 145).

The key characteristics are: shared values and vision; collective responsibility for pupils' learning; collaboration focused on learning; individual and collective professional learning; reflective professional enquiry; openness, networks and partnerships; inclusive membership; and mutual trust, respect and support. Processes that support the development of each of these characteristics are identified as: optimising resources and structures; promoting individual and collective learning; specifically promoting and sustaining the professional learning community; and leadership and management (Bolam et al., 2005).

While the *eplc* project confirms Hord's five dimensions, it also elaborates them in subtle but significant ways. For example, *individual* is added to collective learning, shared personal practice is replaced by *reflective professional enquiry*, supportive conditions are separated into different characteristics and processes, and leadership responsibilities are also extended into two processes. These changes and some of the additions are what might be considered contextual, cultural or structural characteristics – such as school interactions with the wider educational community identified as *openness, networks and partnerships*. Significantly, the project extends the notion of professional community to include support staff, governors or school council members who, with teachers, are "one large community of staff" (Stoll et al., 2006a). At the same time, despite the widespread research at all levels of schooling, the *eplc* project concluded that "the idea of a PLC, still less the terminology, is not yet familiar or widely used", although those in school leadership "embraced it readily as a term that captured the essence of what they were trying to do" (Bolam et al., 2005, pp. 150, 155).

The extensive nature of the *eplc* project resulted in the identification by the researchers of three ways to determine the effectiveness of a professional learning community. Not only do they identify impact on student learning but also on student social development. To this is added the potential for developing leadership capacity and the critical staff culture criterion of a positive impact on staff morale. The final criterion is that the characteristics and processes are embedded in school life so that they are part of "the way we do things". This structure and way of working is encompassed in the definition of a professional learning community which has emerged from the *eplc* research where professional learning community is defined as:

> ...an inclusive group of people, motivated by a shared learning vision, who support and work with each other, finding ways, inside and outside their immediate community, to enquire on their practice and together learn new and better approaches that will enhance all pupils' learning. (Stoll et al., 2006a, p. 1)

This landmark research represents current knowledge in the field with respect to the conceptualisation of schools as professional learning communities and, in particular, highlights the contribution of enabling processes which create and sustain them.

2.4.4   The professional learning community as "social architecture"

The conceptualisation of professional learning communities identified in the recent U.K. research clearly portrays a professional learning community as multi-dimensional with interdependent structural, operational and relational attributes which encompass both teacher and student learning. This conceptual complexity is problematic for practitioners wanting to develop their school as a professional learning community. Recognising this problem, Toole and Louis (2002, p. 249) identify the underpinning central idea of a professional learning community as "the existence of a social architecture to school organizations that helps to shape both teachers' attitudes and practice" and which is manifest in the day to day work lives of teachers. Through drawing attention to the teacher norms and interactions that influence teacher learning, teacher practice and student learning, this 'social architecture' idea offers the practitioner a lens through which the development of a professional learning community can be viewed. Using this social architecture approach, and drawing on a further review of the literature, a broad conceptual framework of four essential attributes of a professional learning community can be identified as outlined in the following sections.

A community culture in which a shared purpose and values are nurtured by a supportive staff culture

The one area which all researchers agree is a central and defining dimension of a professional learning community is variously described as the shared vision (or mission or purpose) and shared values. Accordingly, the existence of a shared purpose and values "separates" a learning community from an ordinary school (DuFour & Eaker, 1998). This shared purpose and values represents the lens through which a school views and directs its efforts to improve student learning, and is the "collective commitment to guiding principles that articulate what the people in the school believe and what they seek to create…and are embedded in the hearts and minds of people throughout the school" (DuFour & Eaker, 1998, p. 25). In a professional learning community these shared values "lead to binding norms of behaviour that the staff supports" and are evident in the school staff culture (Hord, 1997, p. 2). Within Catholic education in Australia, it can be argued that a school vision or mission statement and explicit values, which are infused in the school culture, would be the norm. An Australian government report of 1998 recognises the significance of this shared purpose:

Australian and international studies indicate that the "academic superiority of Catholic schools" is substantially attributable to the capability of Catholic schools generally to engage in collaborative development around a sense of common purpose. (Gannicott, as cited in Crowther, Hann, & McMaster, 2001, p. 125)

This relationship between generating and sustaining a shared purpose and values, and a supportive staff culture is consistently recognised as a strong tenet in the professional learning community literature (Bolam et al., 2005) where the school leadership is identified as playing a critical role in fostering the collective commitment to the school vision and values (DuFour et al., 2005). A supportive staff culture is expressed in different ways in the research literature but all emphasise relationships among teachers of mutual care, trust and respect such that without this culture it is "impossible" to build a professional learning community (Hipp & Huffman, 2003). Clearly, collegial relationships based in mutual respect and trust need to exist for a school purpose and values to be 'shared' such that it is the lived experience of the school staff, and for the school to be identified as a professional learning community. In this sense a supportive staff culture can be considered the nurturing process of professional learning community when viewed through the 'social architecture' lens.

A focus on student learning in which improving that learning is sustained through capacity-building leadership and the processes that this leadership promotes

Ensuring that students learn and that the professional focus is on learning rather than teaching is the "core principle" (Bolam et al., 2005), the "big idea" (DuFour, 2004), "the foremost concern" (Hord, 2004) of a professional learning community. Inextricably linked to a shared purpose and values, this focus on improving student learning is identified in the literature as a collective responsibility of the professionals in the school. This focus, with its high expectations of learning for all students, determines school priorities in the allocation of physical and human resources, time, and professional energy (Hord & Sommers, 2008). Sustaining the focus on improving student learning is identified in the research as the key role of leadership and a crucial strategic process in terms of decision-making (Bolam et al., 2005; Hipp & Huffman, 2003). The leadership of the school principal is a critical defining feature of a professional learning community (Hord & Sommers, 2008) with the principal seen as the lead learner within this community (DuFour, Eaker & DuFour, 2005). However, leadership that is "stretched over the school" is recognised as one of the key influences on the effective functioning of a school as a professional learning community (Hargreaves & Fink, 2006).

There is no one pattern of leadership identified in the research, rather this leadership is clearly identified as transformational and capacity-building - creating the conditions for genuine shared

and positively distributed leadership to flourish; building the cultural and collegial norms that support leadership of learning; and facilitating the processes which enable teachers to meet and learn together (Hord, 2004; Joyce, 2004). As capacity-building leadership, this leadership represents the three distinctive dimensions recognised by Australian research as contributing to successful school reform and involving both people and processes – leadership as focused action, leadership as culture-building and leadership as organisation-wide processes of learning (Crowther et al., 2001).

Teacher professional learning in which the emphasis is on shared professional practice supported through collaborative inquiry work practices

Arguably the most profound change which the concept of professional learning community advocates is the change in how teacher professional learning is understood and engaged in at the school level. An emphasis on collective learning is the distinguishing feature of the professional community and is also likely to be the last to be developed since it generally requires a significant paradigm shift in how teachers and schools approach professional learning (Hord & Sommers, 2008). Through challenging the traditional isolationist norms of teaching and requiring high levels of mutual trust, collective learning represents the deprivatisation of teacher practice. This collective learning embodies joint knowledge creation and involves practices such as "peers helping peers", regular visiting of each other's classrooms for observation and feedback, peer mentoring and coaching, and other formal and informal shared practice activities (DuFour, DuFour, Eaker, & Many, 2006; Hord, 2004).

As joint knowledge creation, teacher professional learning in a professional learning community is the outcome of collaborative inquiry work practices which focus on "the action implications of what is known together" (Louis, 2008, p. 52). This active and participatory collaborative inquiry is identified in research on teacher learning communities where groups of teachers:

> ..demonstrably reserve time to identify and examine problems of practice; they elaborate those problems in ways that open up new considerations and possibilities; they readily disclose their uncertainties and dilemmas and invite comment and advice from others; and artefacts of classroom practice (student work, lesson plans, and the like) are made accessible. In all these ways, the groups display dispositions, norms, and habits conducive to teacher learning and the improvement of teaching practice. (J. W. Little, 2003, p. 938)

This type of school-wide teacher collaboration, based in trusting collegial relationships, recognises the influence of social context on adult learning and knowledge creation. Thus, engagement in collaborative inquiry into practice is the essential condition that supports the school as a professional community, and is recognised as a significant distinguishing feature

between schools that are identified as professional learning communities and those that are not (King, 2002; Kruse et al., 1995; Mitchell & Sackney, 2000).

Teacher professional practice in which there is engagement in collective instructional decision-making informed by individual reflective practice

Professional learning communities represent a "change of habit and expectations" (Hord & Sommers, 2008, p. 84) for teachers and all the conceptualisations of a professional learning community acknowledge the critical nature of this change to a culture of continuous improvement (Stoll et al., 2006b). Instructional decision-making based in the collective analysis of student achievement data, and the application of teacher professional learning from reflective dialogue and inquiry, is the key to promoting this culture of continuous improvement (R. DuFour et al., 2006; Hord, 2004). Nevertheless, how this collective instructional decision-making affects what happens in the classroom depends on individual teacher characteristics, the individual teacher's competence and their ability to transfer collective learning to their classroom context (King & Newmann, 2001; Shulman & Shulman, 2004; Toole & Louis, 2002).

The individual teacher's orientation to change influences their engagement in inquiry into practice, and determines the effectiveness of the professional learning community in improving student learning (Hall & Hord, 2006; Stoll et al., 2006b). Meeting the individual professional learning needs of the teacher and promoting the individual reflective practice of the teacher is thus a significant enabling process in the conceptualisation of a professional learning community. In this way, individual reflective practice is the change agent of professional learning communities. Regardless of the level of development of a professional community Louis (2008) reminds the practitioner researcher that "most daily innovation and improvement in classroom practices (and consequently student learning) will come from individual reflection and adjustments" (p. 47).

2.4.5 Summary

This section commenced with the assertion that the concept of professional learning community is able to be characterised in "endless ways" (Hord & Hirsh, 2008). However, the various conceptualisations of the professional learning community provided by researchers (Bolam et al., 2005; DuFour, 2004; Hord, 2004), in the U.S. and U.K. offer little guidance to the practitioner attempting to develop their school as a professional learning community. The most promising approaches appear to be the British *eplc* definition of a professional learning community that emphasises practitioner involvement in sharing the learning vision and working

collaboratively (Stoll et al., 2006a), and the "social architecture" (Toole & Louis, 2002) approach that builds on this notion and offers a broad conceptual framework through which the practitioner can approach the development of a professional learning community. The conceptual framework identified using this approach recognises four essential attributes of the professional learning community with each attribute linked to an enabling process. Together these attributes and enabling processes highlight the importance of shared purpose and values and a focus on improving student learning – as well as teacher professional learning and practice. However, the value of this generic understanding is limited. While this 'social architecture' conceptual framework brings some clarity to the conceptualisation of a professional learning, community it does not provide the fine detail of how professional learning communities may be developed in specific contexts that require different "shades of interpretation" (Stoll et al., 2006b).

2.5   DEVELOPING THE PROFESSIONAL LEARNING COMMUNITY

As discussed above, the most recent research has highlighted the difficulty of identifying strategies to promote individual school development that take into account the different contexts and many facets of the complex social reality of school life. However, some general conclusions about facilitating/inhibiting factors in the development of professional learning communities can be identified. In particular, the scholarly literature identifies a number of challenges with respect to the development of a school as a professional learning community. These challenges focus on fostering a supportive school leadership, promoting collaborative teacher norms, establishing appropriate school structures, and engaging the practitioners. It is also argued that inhibiting/supporting factors may vary in their influence as the school moves through various stages of development with respect to living the vision of the professional learning community.

2.5.1   The challenge of fostering supportive school leadership

Studies in social capital theory and school leadership suggest that professional learning communities will develop where the norms exercised through school leadership and any systemic controls are consistent with the norms of a professional learning community (Coleman, 2005; Halverson, 2003). The particular nature of school leadership, especially principal leadership, is a significant component in the evolution of a professional learning community. Here, it is argued that those with positional power (e.g. the school principal) can create the conditions for a sustained focus on vision and values, and facilitate supportive structures for the development of a school's learning orientation (Senge, 2000). In short, this involves being

''tight'' on establishing a clear priority on a focused purpose of the "big ideas" of a professional learning community, and "loose" on providing teachers with sufficient autonomy to achieve these big ideas (DuFour & DuFour, 2003). The processes that leaders need to concern themselves with are identified as focusing on learning processes; making the best of human and social resources; managing structural resources; and interacting with and drawing on external agents (Stoll et al., 2006b). In this respect, leading the development of a professional learning community requires leadership capabilities with respect to "changing the context, helping create new settings conducive to learning and sharing that learning" (Fullan, 2002, p. 411).

However, the literature also notes that fostering supportive school leadership that promotes professional learning communities is challenging for a number of reasons. An extensive survey of school-based administrators in the U.S. suggests that there are well-developed notions of the type of leadership required to create and sustain professional learning communities; but, either these leaders are unwilling to support the level of change required in school structures and cultures, or are unable to gain the resources, structures and expectations needed from their administering authorities (Leonard & Leonard, 2005). Changing school structures so that leadership is relational and focused on learning is a considerable challenge as it involves the development of leadership skills in facilitation, interaction and communication (Fitzgerald & Gunter, 2006; Scribner, Sawyer, Watson, & Myers, 2007). A lack of depth in these identified leadership skills has led to schools that are seemingly flourishing as professional learning communities unable to continue doing so when key personnel leave (Berger, Boles, & Troen, 2005). In moving from traditional power and authority structures, particularly in systemic schools, Kouzes and Posner (2002) warn that "delegating power and responsibility can become a way of dumping too much on others when they're not fully prepared to handle it" (p. 396). It is not surprising that some case study research has shown that shared leadership is not always welcomed and can be time consuming in an increasingly public accountability climate (Riedlinger, 2004). Thus, the literature clearly identifies both cultural and structural barriers to increasing sharing of leadership and learning among teachers.

2.5.2 The challenge of promoting collaborative teacher norms

Creating and sustaining schools as professional learning communities has been recognised in the scholarly and practitioner literature as a long-term re-culturing process (Huffman & Hipp, 2003; Mitchell & Sackney, 2000) in which norms of collaboration are established in a culture of inquiry (Fullan, 2007; Hord & Sommers, 2008). This emphasis on re-culturing and inquiry as a

way of professional being is informed by research understandings that the "greatest impact' on supporting and sustaining professional learning communities is "shaping the school *culture*" (Louis, 2008, p. 48). However, the significant assumptions about teachers and teaching (Toole & Louis, 2002) involved in the change to more collaborative ways of working has been identified as an "almost impossible task" due to the physical and psychological isolation of teachers created by traditional school structures and cultures (Sarason, 1996). Recognising that these assumptions challenge prevailing norms, it has been suggested that the "first walls to be breached" in developing professional learning communities are those that exist in the minds of the people (Mitchell & Sackney, 2000).

Professional learning communities require operating norms of trust and respect, socialisation, openness to improvement as well as access to expertise and supportive leadership (Kruse et al., 1995). Moreover, research suggests that establishing the comfort and skill level of teachers to engage in collaborative activities takes time and persistence (J. W. Little, Gearhart, Curry, & Kafka, 2003; Supovitz & Christman, 2003). Where collaboration is being developed in a previous climate of individualism, as in many secondary schools, then it takes even more time (Louis & Kruse, 1995). In this respect, promoting the deprivatisation of practice is recognised as a significant challenge, as is addressing misguided notions that requiring teachers to work more collaboratively and participate in collegial review of their practice is somehow a slight on their professionalism, particularly in secondary schools (Kruse et al., 1995; Schmoker, 2006). The sustained support and expectations of collaboration from their wider school educational authorities are also required if "habitual teacher collaborative practice" (L. Leonard & P. Leonard, 2003) is to be achieved.

While departments in secondary school have been recognised as the appropriate site of collaborative critical reflection on practice (Cooper, Ponder, Merritt, & Matthews, 2005), it is also argued that the prevailing conditions of departmentalisation and cultural norms of secondary schools actually limit their capacity for the type of collaborative activity which characterises a professional learning community (Bolam et al., 2005; M. W. McLaughlin & Talbert, 2006). Thus, the existence of departmental subcultures may well inhibit rather than foster the development of a shared supportive culture focused on improvement in student learning (Louis & Marks, 1998; Westheimer, 1999; Wise, 2000). Clearly, secondary schools face considerable challenges in promoting the collaborative culture and establishing the collaborative norms of a professional learning community.

2.5.3 The challenge of establishing supportive school structures and organisation

Professional learning communities are recognised as being "a balance between organizational structure and productive, substantive use of that organization and time" (Morrissey, 2000, p. 52). In this respect, one of the greatest challenges is to improve the capacity of the school to support collaborative teacher practices in the "small, instructionally focused teacher teams" which are the "basic unit of professional learning communities" (Schmoker, 2006, p. 107). Prerequisites for supporting these collaborative teacher teams have been identified as: embedding time for collaboration in the school day and year, making the purpose explicit, supporting the skill acquisition for working collaboratively, and teacher acceptance of their responsibility to work as professional colleagues (DuFour & Eaker, 1998). However, typical school scheduling, teacher grouping practices and physical structures are all recognised as major barriers to providing these prerequisite conditions, especially in secondary schools (Grossman, Wineburg, & Woolworth, 2001).

Here, research consistently shows that secondary schools are different from the less organisationally complex primary schools in their capacity to develop as professional learning communities. For example, Queensland research identifies this differential capacity of the secondary school to support the development of teacher professional community as an outcome of a "mismatch with organizational structures, curriculum and more fundamental issues" (Ainley, 2004, p. 74). Among these fundamental issues are the differences in the work lives of secondary teachers which may vary within one school in terms of the size of classes, number of teaching subjects, expectations of technological expertise and external controls linked to phase of schooling; all of which effectively undermine "their sense of common ground and shared enterprise, and inhibit collaboration" (Talbert & McLaughlin, 2002, p. 330).

Moreover, research records that an inadequate understanding of collaboration has led to structures and organisational practices which have effectively undermined the concept of collective responsibility for student learning and have failed to impact on professional practice (DuFour, 2003; J. W. Little, 1990; Supovitz & Christman, 2003). Supporting this argument are research findings that demonstrate that administrative structures of 'contrived collegiality', which force teachers to meet and plan together, may be unproductive (Bolam et al., 2005; Fullan, 1993); may reinforce a status quo of ineffective practices which "perpetuate false assumptions that stagnate organizations" (Achinstein, 2002, p. 450); or may focus on data which

do not provide the critical evidence that informs teachers about their practice (Hattie, 2005). The challenge for the school developing as a professional learning community is to identify those structures and organisational strategies which will most adequately facilitate the collaborative processes which effectively focus on improving student learning.

2.5.4 The challenge of engaging the practitioners

The concept of a professional learning community challenges traditional notions about teacher learning and teacher work practices. Research has clearly recognised that the cultural shift required to develop schools as professional learning communities is a long-term undertaking and suggests that the "most logical and effective way to begin developing a professional learning community is to bring the professionals together to learn" (Morrissey, 2000, p. 40). At the same time, principles of adult learning assert that adults support what they have participated in creating and are more responsive in situations where they can actively direct the learning (Cordingley, Bell, Thomason, & Firth, 2005; York-Barr et al., 2006). It has been suggested that the complexity and uncertainty inherent in engaging practitioners in learning through inquiry, as well as learning from inquiry, are also its strength since this type of collaborative inquiry (or practitioner-oriented research) effectively connects theory and research (Emihovich & Battaglia, 2000) and ultimately changes classroom practice. However, for such collaborative inquiries to effectively improve learning requires the conduct of practitioner inquiry on a school-wide basis (York-Barr et al., 2006) so that the school becomes a "research engaged" school (Ebbutt, 2002). Recognising that professional learning communities "can't be forced; they can only be facilitated and fed" (Hargreaves & Fink, 2006, p. 129), researchers suggest that this facilitation is achieved through reflective action-oriented strategies which become embedded in school structures rather than in strategic plans (Schmoker, 2006).

While it is argued by a large body of research that establishing an inquiry culture with a practitioner action-orientation is essential to developing a professional learning community (Eaker et al., 2002a), building this inquiry culture with its empowered learning focus is a complex and demanding task requiring thoughtful, systematic and sustainable strategies at both a school and system level (Collinson, Cook, & Conley, 2006; Reid, 2004). Research has recognised the complexity and paradoxical nature of engaging the practitioners in school-wide teacher inquiry into practice in both U.S. (Berger et al., 2005) and Australian contexts (Ewing, 2002; Groundwater-Smith & Hunter, 2000). Embedding reflective practice into professional learning community culture is difficult even at a small school level (King, 2002) and particularly

within some educational policy and whole school contexts (Groundwater-Smith & Dodds, 2004). At the same time, an extensive body of school change literature highlights the importance of processes which empower the professionals to find meaning in change in their own contexts (Fullan, 2001a). The challenge for the practitioner seeking to develop an empowering form of a professional learning community is to identify the processes which effectively engage the practitioners in finding meaning in the identification of "what should change as well as how to go about it" (Fullan, 1991, p. xi).

2.5.5   The challenge of the professional learning community 'journey'

There is increasing recognition that professional learning communities are evolutionary and exist along a developmental continuum (Morrissey, 2000); however, much of the research into changes in professional learning communities over time is at "a relatively early stage internationally" (Bolam et al., 2005, p. 9). Researchers have recognised the need to develop some means by which to compare schools to enable further research into facilitating and inhibiting factors to be identified; a range of diagnostic screening/filtering tools providing formative data have been devised and tested in U.S. and Canadian contexts (Cowley & Meehan, 2001; Hord, 1996). Some of these tools endeavour to identify the particular phase of professional learning community development (R. DuFour et al., 2006; Olivier, Hipp, & Huffman, 2003). However, many of the tools developed to date vary considerably in their quality; identifying a survey appropriate to Australian school contexts remains problematic. Recent research suggests while 'stages of development' is a useful investigative tool, an approach which develops "a profile of the key attributes and processes" of a professional learning community would be a more useful practitioner and research tool (Bolam et al., 2005, p. 151).

The danger in conceptualising the development of professional learning communities as a series of stages is that education authorities and schools can view this development as a set of linear steps to be undertaken in a program of implementation. It is suggested that such actions will inevitably encounter resistance at the school level as just another fad or as another innovation among many. This phenomenon is described by Hord and Sommers (2008, p. 6) as "an overdose of the TTSP hormone" (This Too shall Pass). Similarly, while not intended as a prescriptive text, without careful contextualisation in their use, practitioner texts such as *Learning by Doing: A Handbook for Professional Learning Communities at Work* (R. DuFour et al., 2006) can easily be perceived as the one-size-fits-all approach. Louis (2006, p. 11) argues

that practitioners using texts such as these can often fail to "grasp the sea change that is required to deepen trust and to create the intellectual ferment that is required" in developing professional learning communities. In this respect, it has recently been argued that there is no dissemination strategy for professional learning communities which would ensure that schools actually reflect its purpose and process, and so "replicating successful efforts in new settings is difficult and tricky work" (Joyce, 2004, p. 82).

2.5.6   Summary

This section has identified that there are considerable challenges, particularly for secondary schools, in developing as a professional learning community. Although a professional learning community is recognised as a complex metaphor for the provision of "a structure for schools to continuously improve by building staff capacity for learning and change" (Hord, 2004, p. 14), the research also clearly reveals that there are inherent challenges in identifying this structure since it is necessarily a school-specific activity (Bolam et al., 2005) requiring critical reflection on the existing school context with respect to key processes. Significantly, despite a relatively extensive body of research into schools as professional learning communities, the fact that schools exhibiting these attributes have only recently emerged means that the body of research that investigates how practitioners are involved, both collectively and individually, in creating and supporting these communities is less developed. For practitioners interested in meeting the challenges of developing their school as a professional learning community, the research literature suggests that each school's journey will be different, as facilitating/hindering strategies and structures are largely context dependent. Thus, responding to these challenges requires an in-depth understanding of both the external and internal contextual issues which need to be addressed in the development of the school as a professional learning community.

2.6   CONTEXTUALISING A PROFESSIONAL LEARNING COMMUNITY

As a structure and way of working, effective professional learning communities have the "capacity to promote and sustain the learning of all professionals in the school community with the collective purpose of enhancing pupil learning" (Bolam et al., 2005, p. 145). However, the scholarly literature also records that the motivation and purpose for the intentional development of schools as professional learning communities have varied in different schooling contexts. It is argued that unless research also considers the contextual conditions in which the school leadership and teachers are situated, there will only be "limited insight and understanding of

what occurs inside and across schools" (Sirontnik, as cited in Cranston, 2005, p. 2) with respect to how professional learning communities develop.

In a recent comprehensive review of schools identifying themselves as professional learning communities, Hargreaves (2008) recognised seven different forms that have emerged in different contexts, four of which he claims represent distortions of containment and control, and three that comprise communities of empowerment. Whether a professional learning community is one of distortion or empowerment is largely dependent on how the context promotes and shapes teacher professional identity. In this context, the teacher professionalism literature notes that within the wider educational reform and government policy environments there is a number of paradoxes with respect to teacher professionalism:

> First, is that the call for teacher professionalism related to a revisioning of occupational identity, is occurring at a time when there is evidence that teachers are being deskilled and their work is intensified. Second, is that while it is acknowledged that rethinking classroom practice is exceptionally demanding, fewer resources are being allocated to teacher learning. Third, the teaching profession is being exhorted to be autonomous while at the same time it is under increasing pressure from politicians and the community to be more accountable and to maintain standards. (Sachs, 2001, p. 150)

The identification of different forms of professional learning community and the recognition of managerial and empowering discourses on teacher professional identity serve to highlight the influence of context on the development of a school as a professional learning community. The extensive *eplc* research recognises this overwhelming influence of context in the argument that developing a professional learning community is necessarily a school specific activity since "the practical implications for developing a professional learning community can only be understood and worked out in the specific conditions, such as phase, size, history and location, of particular settings" (Bolam et al., 2005, p. 148). It is evident that this school context is influenced by the wider educational context of system reform/change as well as the particular school practitioner role/action contexts within the school. This section explores what the literature reports about how professional learning communities are influenced in their development by these external and internal contexts.

2.6.1 The influence of system reform/change contexts

The success of transforming schools as professional learning communities depends a great deal on how the mandating or sponsoring authority conceptualises and supports the schools involved, particularly in terms of teacher professional life (O'Brien & Down, 2002). The distortions of

professional learning communities identified by Hargreaves (2008) generally arise as a response to, or consequence of, external influences such as imposed regimes of leadership power and authority, and direct and interventionist supervision by government or educational authorities (Fullan, 2007). Data-driven public reporting on standardised tests can reduce the trust and openness needed for critical reflection on practice as highly structured teacher collaborative inquiry becomes directed to particular outcomes (Groundwater-Smith & Dodds, 2004; Hargreaves, 2008; Louis, 2008). These imposed regimes mandate not only expectations but processes; consequently, the professionals no longer have the autonomy to 'be' the type of professional envisaged in the conceptualisation of professional learning community (O'Brien & Down, 2002).

System and school implementation strategies inevitably influence school culture and "can either strengthen or fracture professional communities" (Toole & Louis, 2002) and be particularly damaging where the tensions produced by imposed agendas undermine the professional learning community principles in practice at the local level. For example, in educational contexts with an increasingly competitive ethos and standardised measures of teacher and school performance, the resulting teacher performance measures inevitably promote a "cult of individualism" (Sachs, 2001, p. 156) which undermines collaborative ways of working. In recent times the climate of increasing public accountability produces a tension for school principals and administrators between building and nurturing collegial and collaborative relationships and fulfilling systemic evaluation and supervision requirements (Ingvarson, 2002); between promoting genuine internal reflective activity for school improvement and meeting external school improvement 'measures' and accountability requirements (Plowright, 2007). Whether these tensions are resolved or not depends on the degree of mismatch between the imposed and internal agendas as well as the nature of the school professional culture.

Recognising these tensions, researchers identify two "competing discourses" of "managerial" professionalism and "democratic" professionalism which are shaping teacher professional identity (Sachs, 2001, pp. 149-153) within system reform/change contexts. Managerial professionalism situates teachers within an accountability context of hierarchical organisations and structures where they are responsible for "delivering efficiency and effectiveness" (Fitzgerald & Gunter, 2006, p. 46), and where the school principal and distributed leadership structures become instruments of accountability (Cranston, 2005; Louis, 2008). In this managerial context, professional learning communities exhibit the distorted characteristics of

containment and control identified by Hargreaves (2008). Conversely, in policy and practice contexts characterised by democratic professionalism, there are "clear emancipatory aims" in which there is an "open flow of ideas" as well as "faith in the individual and collective capacity of people to create possibilities for resolving problems" (Sachs, 2001, p. 157). In these contexts the school leadership, including teacher leadership, can be more "productive, purposeful and pedagogic" (Fitzgerald & Gunter, 2006, p. 45).

Teachers situated within the democratic discourse are said to develop an "activist identity" which supports collaborative cultures and the development of communities of practice in which there is a strong focus on professional learning (Fitzgerald & Gunter, 2006; Sachs, 2001, 2003). Their sense of responsible professional autonomy empowers these teachers to deal with the tensions between imposed educational agendas and their internal school level perspectives of how best to improve their students' learning (Groundwater-Smith & Dodds, 2004; M. W. McLaughlin & Talbert, 2006). It is in these professional activist contexts that professional learning communities develop as the empowered forms identified by Hargreaves (2008).

2.6.2   The influence of practitioner role/action contexts

Professional learning communities are in many ways paradoxical. Although based in a shared purpose and values, and collaborative professional dialogue, they rely totally on individual practice in the classroom to achieve that purpose. Developing professional learning communities requires collaborative relationships based in trust, but this development also requires challenging traditional cultures and deeply held norms. One of the concerns of re-creating or transforming schools as professional learning communities is that in endeavouring to counteract isolationist norms the individual needs of the professional may be ignored (Louis, 2008). Studies have suggested that higher levels of teacher efficacy are promoted by a balance between individual professional learning needs met in autonomous settings and those that derive from meaningful collaborative professional learning experiences (Somech, 2005). In this regard, a crucial role of school authorities and especially school principals, is to balance the conditions for individual professional autonomy with the collective responsibility for student learning developed in collaborative contexts as they create a supportive context for the development of a school as a professional learning community (Scribner, Hager, & Warne, 2002).

In their emphasis on both collective and individual reflective practice, professional learning communities create a tension for the practitioner between their role/action as a professional community member and their role/action as the individual professional. These tensions are

often experienced and resolved in different ways as the professional learning community develops and are in many ways contingent upon the overall school context. Within the larger tension of a focus on professionalism and a focus on community, Louis (2008) contends that there are inherent tensions that need to be resolved for schools to develop as a professional learning community relating to the nature of collaborative teacher groups engaged in critical reflection on practice and the role of the practitioner in these. Focusing on teacher collaborative work in community, Hargreaves (2002) identifies further tensions inherent within personal and professional relationships which may either support or limit future individual action within the collaborative work in teacher community. He argues that researchers and schools need to reduce this tension by learning how to "create more active professional trust in schools" and learning how to "avoid the corrosive effects of betrayal" (p. 405). Recognising and working effectively with the tension between the "I" of professionalism and the "we" of community is consequently identified as a key leadership skill. In this regard, the teacher role of activist professional recognised in democratic discourse contexts by Sachs (2000) offers a 'new' form of teacher professionalism in which the practitioner is empowered to be both the professional community member and the individual professional.

In the professional learning community, one of the greatest practitioner role/action tensions arises from the embedding of teacher professional learning in the school context and the focus on using this learning to formulate action both collectively and individually. Studies of schools where the embedded action approach has involved research and action with practitioner inquiry strategies suggest that it is fraught with tension and paradox, particularly with respect to practitioner roles/actions in practitioner inquiry. In particular, the practitioner inquiry will change teaching practices profoundly but will confirm what teachers already know; practitioner inquiry needs to be embedded in school culture, despite being contrary to most existing school cultures (Berger et al., 2005). When professional learning communities are understood as communities of knowledge creators and sharers (Fullan, 2002) then reconciling these practitioner role and action tensions becomes an issue of practitioner generative learning (Hargreaves, 2008). For example, in what Hargreaves (2008) identifies as "living and learning" communities, the members "deliberate intelligently about what kinds of learning count as achievement, and courageously question, challenge, and subvert imposed prescriptions that diminish that learning" (p. 188). Such communities are characterised by professionally empowering cultures that support the teacher activist professional identity and the use of a range of strategies and structures to deeply embed the generative learning of teachers.

2.6.3   Summary

Clearly, both external contexts of systems reform/change as well as internal contexts of practitioner role/action tensions are influential in the way in which a professional learning community develops.   The examination of the research relating to professional learning communities in contexts of system reform/change draws attention to the need for congruence between the shared purpose and values of the professional learning community and those of the system to which it is connected. With respect to internal school contexts, the exploration of the tensions of practitioner role/action contexts highlights the need to adopt development strategies that will empower the practitioner to develop their professional identity as both the professional community member and the individual professional.

2.7   CONCLUSION

This review explored literature relating to the phenomenon of the professional learning community.   In particular, this review traced the emergence of the professional learning community and identified the different ways in which the professional learning community is conceptualised within the literature, explored the challenges of developing professional learning communities and considered how the professional learning community is being influenced by external and internal contexts.

The review of the literature identified an extensive research effort in the U.S. and the U.K. that has different conceptualisations of the professional learning community (Bolam et al., 2005; DuFour et al., 2005; Hord, 1997, 2004). However, this review of the literature also found that the different conceptualisations of a professional learning community provided little guidance to the practitioner attempting to develop their school as a professional learning community. The most promising approaches appear to be the British *eplc* definition of a professional learning community that emphasises enabling processes and practitioner involvement in sharing the learning vision and working collaboratively (Stoll et al., 2006a), and the 'social architecture' approach that identifies the underpinning central idea of a professional learning community as what helps to shape both teachers' attitudes and practice and which is manifest in the day to day work lives of teachers (Toole & Louis, 2002). The conceptual framework of essential attributes developed from this 'social architecture' approach does not provide the fine detail required to guide the practitioner in the development of their school as a professional learning community.

An examination of the limited studies into developing a professional learning community available in the literature revealed significant challenges for this development, particularly for secondary schools in the area of collaborative teacher norms. Other challenges identified in the emerging research base were those of fostering supportive leadership qualities and structures, establishing appropriate organisational structures and practices, engaging the practitioners in inquiry into practice, and negotiating the professional learning community 'journey'. These challenges highlight the significant influence of context in developing a professional learning community and the need for any development efforts to have an in-depth understanding of the contextual issues that need to be addressed. The influence of external and internal contexts, such as system/reform change and practitioner role tensions, on how professional learning communities develop demonstrates that, despite strong support for professional learning communities, efforts to promote these are likely to remain "mired in contextual aberrations" (Leonard, 2002). It seems that professional learning communities can develop as communities of containment and control or communities of empowerment (Hargreaves, 2008; Sachs, 2001; Stoll et al., 2006b). Consequently, the scholarly literature emphasised that understanding the significant aberrations of their own context is critical for those engaged in developing a school as a professional learning community.

In summary, the literature review identified two critical understandings required of those involved in developing a school as a professional learning community – how to engage the practitioners in this process and how to respond to the nuances of context in the development process which influence expectations and priorities, and ultimately the extent to which an empowering form of professional learning community is developed. Beyond this understanding, the literature also reminds practitioners that developing a school as a professional learning community is inevitably about change at the school level (Hargreaves, 2008; M. W. McLaughlin & Talbert, 2006; Sachs, 2000). In some contexts, especially secondary schools, the collaborative culture and deprivatisation of practice of professional learning communities represent a deep level of change which has been "one of the most intractable aspects" in bringing about the continuous improvement culture needed (Fullan, 2007, p. 38). As a way forward in contexts of educational change, Fullan (1991) argues that "if reforms are to be successful, individuals and groups must find meaning concerning what *should* change as well as *how* to go about it" (p. xi). Developing this thought, Fullan (2001a) focuses on the importance of meaning-making for practitioners:

> Perhaps the most important conclusion…is the realization that finding moral and intellectual meaning is not just to make teachers feel better. It is fundamentally related to whether teachers are likely to find the considerable energy required to transform the status quo. Meaning fuels motivation; know-how feeds on itself to fuel on-going problem-solving. Their opposites – confusion, overload, and a low sense of efficacy – deplete energy at the very time when it is sorely needed. (p.48)

This 'meaning hypothesis' alerts researchers to the importance of understanding the teachers' experience of the school as a professional learning community and, together with the understandings developed from the literature review, serves to focus the research problem and questions.

The researcher's context of school revitalisation was one in which cultural and structural changes were occurring, where a collaborative team approach was being adopted, and a professional learning model emphasising the processes of inquiry and reflective practice was being implemented. Although largely unrecognised as such, the school was developing as a professional learning community as teachers focused on improving student learning and began to work together in different ways which represented the essential attributes of a professional learning community. Since the particular conceptualisation of a professional learning community clearly influences how it is developed, there needs to be a focus on identifying the particular conceptualisation of professional learning community being developed by the practitioners in their own context. In the context of her own school. which has prompted this study, the first research question emerged for the researcher as:

> *How do practitioners conceptualise their school as a developing professional learning community?*

This question seeks to understand how the practitioners conceptualise their school as a developing learning community. How do they understand the nature and purpose of their school as a developing professional learning community? What should change, and how, if the school is to develop as a professional learning community?

Recognising the contextual nature of the existing research, this review identified four essential attributes of a professional learning community which are summarised in a conceptual framework that represents the 'social architecture' supporting the development of a professional learning community. The fact that schools exhibiting this social architecture have only recently emerged means that the body of research, which investigates how these communities are created and supported, is less developed. In this regard, the literature review established the importance of practitioners selecting approaches in the development of their school as a professional

learning community which are most appropriate for their own context, while at the same time seeking to avoid those approaches which might distort or undermine their endeavour to engage as a whole school in this development. Thus, for the research purpose of gaining a more informed and sophisticated understanding of the school as a developing professional learning community with the intention of 'living' this vision of RI college as a professional learning community, the practitioner experience of facilitating/hindering influences needs to be identified; the second research question becomes:

> *What strategies and structures do practitioners experience as supporting or hindering the development of their school as a professional learning community?*

This second research question seeks to uncover the complexity of professional learning community development within the researcher's context and to identify the practitioner voice in this process thereby providing some guidance for how the vision of a professional learning community might be lived in an Australian context. This research question acknowledges that, in an educational change context, those involved often find meaning in the change experience only through actually trying something for themselves (Fullan, 2001a). Investigating this research question requires a process that captures the practitioner voice in the experience of developing their school as professional learning community in a way that allows them to be the ones who identify supporting and hindering influences. As this research study progressed, the practitioner voices of those involved in the study suggested that the wider practitioner experience of a developing professional development community was not being adequately captured and so a third research question was identified as:

> *Can a theoretically based and context-specific instrument be devised to assess practitioner experience of their school as a professional learning community?*

This third question recognises the influence of the whole school professional culture on the ability of a school to develop as a professional learning community. This question thus emphasises that 'unpacking' the metaphor of developing a professional learning community in a school revitalisation context requires an understanding of the wider practitioner experience if this study is to achieve the purpose of an informed and sophisticated understanding of that process.

In conclusion, at this stage the research – with respect to how professional learning communities evolve – is still tentative, partly due to the various ways in which they are conceptualised in different contexts; although, knowledge of change theory together with in-depth contextual understanding is recognised in the literature as invaluable in the development process. There is a recognition among researchers that they are still limited in the guidance they can provide to

practitioners in how to create professional learning communities in different contexts which has led to the conclusion that this is "an area that is ripe for both additional research and for listening to teacher and school leader voices from the field" (Toole & Louis, 2002, p. 274).

Thus, this study's research questions focus on how practitioners at RI College conceptualise and experience their school as a developing professional learning community and suggest the need for a research methodology that is able to generate and 'listen' to these practitioner voices in a context of school revitalisation. The next section situates this practitioner-based research within an appropriate theoretical framework and reports the selection of the research methodology and design of the research.

Chapter 3 Design of Research

3.1   INTRODUCTION

The previous chapter presented a review of the literature and consequently identified how the concept of a professional learning community has emerged, the various ways in which school as professional learning community has been conceptualised, and the challenges involved in the development of a professional learning community, as well as the influence of different contexts on that development. As planned, this review of the literature allowed the researcher to identify three research questions:

> How do practitioners conceptualise their school as a developing professional learning community?

> What strategies and structures do practitioners experience as supporting or hindering the development of their school as a professional learning community?

> Can a theoretically based and context-specific instrument be devised to assess practitioner experience of their school as a professional learning community?

Subsequently, these research questions were used to guide the design of this study. It was accepted that design of research and the selection of a research methodology should be based on "an informed understanding of the suitability of that method for that particular research" (Burns, 1997, p.294), and so this design and methodology selection is dependent on the research questions asked which, in turn, are dependent on their context (Nelson et al., as cited in Denzin & Lincoln, 2005, p. 4). In turn, this research question context determines what research methods are available to the researcher and, consequently, what the researcher can accomplish in that context (Denzin & Lincoln, 2005). Thus, the study's design and methodological choices are guided by the understandings about the development of professional learning communities generated in the literature review and are focused by the practitioner context of this study's purpose and research questions. The purpose of this chapter is to explain and justify the design and methodological choices within the selected theoretical framework. This chapter comprises:

> Section 3.2 which sites the research in the selected interpretive research paradigm;

> Sections 3.3, 3.4, 3.5 and 3.6 which explain and justify the epistemology, methodology and data collection strategies of the theoretical framework; and

> Sections 3.7 and 3.8 which consider issues of credibility, validity and ethical concerns.

The chapter concludes with an overview of the research design and inquiry process in relation to the study's research questions (see Section 3.9).

3.2   THEORETICAL FRAMEWORK

A research theoretical framework represents a paradigm of beliefs that guides the researcher's action. In differentiating between competing paradigms of inquiry Guba and Lincoln (1994) identified three questions which are useful in selecting an appropriate research paradigm. These questions have been summarised as:

> The ontological question - What is the form and nature of reality and, therefore, what is there that can be known about it?
>
> The epistemological question – What is the relationship between the knower or would-be knower and what can be known?
>
> The methodological question – How can the inquirer…go about finding out whatever he or she believes can be known about? (Heron & Reason, 1997, p. 276)

Likened to a net, the research paradigm represents the researcher's epistemological, ontological and methodological premises while at the same time making demands on the researcher in terms of question and interpretive stance (Denzin & Lincoln, 2005). The selection of a research paradigm for this study follows the guidance offered by Crotty (1998) who maintains that this selection must "be based on the 'goodness of fit' or appropriateness to the subject of the inquiry" (p. 10), while at the same time acknowledging that any selected paradigm may have "some 'blind spots' which could well be addressed by another approach" (p. 10). In respect to this study, the literature identifies the inherently contextual nature of a professional learning community and the appropriateness of research which generates teacher and school leader voices in the field of the development process (Toole & Louis, 2002). At the same time, current scholarly understandings of educational change call for research which generates this practitioner voice through active engagement in a meaning-making process (Fullan, 2001a, 2007). Not only is this meaning-making process advocated as the starting point in the development of a professional learning community (York-Barr et al., 2006), but it is also identified as a research methodology that has the potential to develop a "lived theory" that "builds organisational capacity for improvement" through interpreting the "wisdom of local knowledge" (Durrant & Holden, 2006, p. 111).

Given these considerations, this study was situated within the research paradigm of pragmatic constructivism and the emerging research paradigm of participatory inquiry. Thus positioned,

this study is situated within the landscape of post-modern paradigms of social scientific inquiry with a theoretical framework that views "action on research results as a meaningful and important outcome of inquiry processes" (Guba & Lincoln, 2005, p. 201). Within this social scientific inquiry landscape there has been considerable change over the last two decades with a "blurring of genres" such that "emergent paradigms" and "new-paradigm inquirers" are now being acknowledged (Candy, 1989). The possibility of commensurable paradigms is being recognised, and blending elements of paradigms "so that one is engaging in research that represents the best of both worlds" is cautiously advocated by Guba & Lincoln (2005) who suggest that constructivism and the emerging paradigms of participatory inquiry "fit comfortably together" (p. 201).

As a research paradigm, constructivism:

> …assumes a relativist ontology (there are multiple realities), a subjectivist epistemology (knower and respondent co-create understandings), and a naturalistic (in the natural world) set of methodological procedures. (Denzin & Lincoln, 2005, p. 21)

Turning to the ontological question, the constructivist research paradigm assumes that reality is socially constructed, dynamic and complex with multiple constructions and interpretations of that reality (Guba & Lincoln, 2005; Robson, 2002). Moreover, a constructivist approach to research allows for these multiple meanings to emerge through focusing research inquiry endeavours on understanding the phenomena of interest from the perspective of the participants (Crotty, 1998; Guba & Lincoln, 1994; Miles & Huberman, 1994). In this way, the participants become co-creators of reality "illuminating that which is little known or hidden from view" in the research process (Heck & Hallinger, 1999, p. 147).

Both the strength and the criticism of the constructivist paradigm is the inductive generation of a pattern of meaning from these multiple meanings and the methods used to generate these (Burbules, 2000; Creswell, 2003; Phillips, 2000). Taking a pragmatic stance Burbules (2000) suggests that, rather than continuing to debate the relative merits of different inductive methodologies, constructivist researchers should focus on the research problem using multiple approaches to derive knowledge. Hence, a pragmatic constructivist approach to the research study acknowledges that meaning derives from experience as well as cognitive activity and that the practical aims of the research should inform the research design (Creswell, 2003; Patton, 2002; L. T. Reynolds & Herman-Kinney, 2003).

Developing this pragmatic constructivist approach Heron and Reason (1997) propose a participatory world view:

> …based on a subjective-objective ontology; an extended epistemology of experiential, presentational, propositional, and practical ways of knowing; a methodology based on cooperative relations between coresearchers; and an axiology that affirms the primary value of practical knowing in the service of human flourishing. (p. 274)

This study's focus on generating knowledge within the community of practice, through research which has a transformative role in the experience of the participants, reflects this participatory world view. Consequently, the research context calls for a theoretical framework which blends elements of both pragmatic constructivist and participatory inquiry paradigms in the research design. As such, this study is representative of the type of research problem characteristic of the "new-inquiry paradigm" which seeks to connect research and practice through the active engagement of participants with the research process (Badley, 2003). This emergent paradigm has recently been identified as the "participatory/cooperative paradigm" (Guba & Lincoln, 2005), which recognises a "[p]articipative reality – subjective-objective reality, cocreated by mind and given cosmos" (p. 195). This ontological perspective situates any conceptual context within a wider and deeper experiential context as it assumes that:

> …knowers can only be knowers when known by other knowers…[and] presupposes mutual participative awareness…presupposes participation, through meeting and dialogue in a culture of shared…language, shared values, norms, and beliefs… presupposes tacit mutual experiential knowing...and experiential shared meanings. (Heron & Reason, 1997, pp. 280, 283)

In this sense, the participatory/co-operative paradigm offers a theoretical framework for this study that recognises that 'professional learning community' is a socially constructed, complex, dynamic and organic entity; thereby focusing research attention on both the concept and its wider and deeper experiential context. As with other research paradigms, the participatory/co-operative paradigm, adopted as the theoretical framework for this study, offers not only its own ontology but also an epistemology and methodology which are explored further in the following sections. This exploration draws heavily on key scholars who have explicated this "new-inquiry paradigm" in research since the mid-1990s, particularly Heron and Reason and their colleagues (Heron, 1996; Heron & Reason, 1997; Reason, 1999, 2003; Reason & Bradbury, 2006; Reason & Torbet, 2001). The study's theoretical framework, with an overview of the elements of the research design, is outlined in Table 3.1.

TABLE 3.1

OVERVIEW OF THEORETICAL FRAMEWORK

Research paradigm	Pragmatic constructivism – participatory/co-operative paradigm
Epistemology	Participative Inquiry
Methodology	Co-operative Inquiry
Data collection strategies	Mixed methods approach

3.3   EXTENDED EPISTEMOLOGY OF PARTICIPATIVE INQUIRY

The epistemological question for the research paradigm asks, "What is the relationship between the knower or would-be knower and what can be known?" (Heron & Reason, 1997, p. 276) In this respect, the participatory/cooperative paradigm recognises the pragmatic link between theory and praxis and gives priority to an extended epistemology in which collective praxis-oriented knowing develops within communities of practice (Greenwood & Levin, 2005; Guba & Lincoln, 2005). Rooted in an understanding of the human person as truth in human activity, the extended epistemology embraces "a science of persons" (Reason, 2003, p. 205) which legitimates the experience and action of those involved in inquiry within their own life-contexts. Thus, the "science of persons" acknowledges that humans and communities co-create their world in the experience and action of their inquiry thereby linking knowing and action through four different but interdependent ways of knowing.

This extended epistemology of four ways of knowing is articulated by Heron and Reason (1997) as: "experiential", "presentational", "propositional" and "practical" knowing (pp. 280-283). Experiential knowing occurs in the perception, empathy and resonance of face-to-face encounters with people/places/things. Presentational knowing emerges from experiential knowing and expresses meaning and significance in different expressive forms. Propositional knowing is knowing in conceptual terms and being able to express this conceptual understanding in statements and theories that articulate experiential knowing and are carried by presentational forms. Practical knowing is knowing how to do something and fulfils the three prior forms of knowing through "bringing them to fruition in purposive deeds" (p. 283). This extended epistemology accords primacy to action by arguing that the action of practical knowing both consummates and is grounded in the prior forms of knowing thereby empowering the knowers

to more fully understand their situations and how to act in them effectively (Reason & Torbet, 2001).

Described as a "robust paradigm of research with people" participative inquiry is "a living process of coming to know" (Reason, 1998, p. 263) in which the relationship between knower and known is typified as both informative and transformative (Heron & Reason, 2006). Informative relationships are present when the outcomes of inquiry are primarily propositional knowledge with the knower developing skills in the development of that knowledge. Transformative relationships occur when practical knowing emerges from the other forms of knowing and results in the knower changing and acting to bring about situational changes and personal transformation. In most participative inquiries the informative relationship precedes the transformative relationship (p149). Thus, the outcome of participative inquiry as collective praxis-oriented knowing has a distinct moral purpose which Heron and Reason (1997, p.287) typify as "human flourishing" – a human fulfilment which is expressed in "knowing how to choose and act – hierarchically, cooperatively, autonomously" (p. 287). This knowledge of 'knowing how to act' gives congruence to both individual and collective knowing generated in the research context (Greenwood & Levin, 2005) as it places the "experience and practice of human persons – both individually and in relationship…at the centre of inquiry" (Reason & Torbet, 2001). It is this conceptualisation of transformative praxis-oriented knowing which underlies the research study's purpose of gaining a more informed and sophisticated understanding of RI College as a developing professional learning community with the intention of "living" this vision.

3.4   METHODOLOGY OF CO-OPERATIVE INQUIRY

The methodological question for the research paradigm asks, "How can the inquirer…go about finding out whatever he or she believes can be known about?" (Heron & Reason, 1997, p. 276) In this respect, through adopting the participatory/co-operative paradigm the researcher is challenged to recognise the inherent conscious and unconscious research perspectives of "the researcher-as-interpretive-bricoleur" and to undertake research that is both socially meaningful and socially responsible through the precedence it gives to the collective knowing of *phronesis* (Greenwood & Levin, 2005). Identified by Greenwood and Levin (2005) as the outcome of action research, this collective knowing is generated in a research context which privileges collaborative arenas for knowledge development through:

> …the creation of new space for collaborative reflection, the contrast and integration of many kinds of knowledge systems, the linking of the general and the particular through action and analysis, and the collaborative design of both the goals and the actions aimed at achieving them. (p. 51)

With respect to action research in general, Reason (2001) identifies three strategies of inquiry which value the development of praxis-oriented knowing but have different emphases concerning the collaborative arenas for the development of that knowing. First-person research practice engages the researcher in research of their own life/work context preferably with the support of colleagues; second-person research practice occurs when colleagues inquire together into issues of mutual concern such as improving their professional practice; and third-person research practice attempts to create a wider community of inquiry through engaging those "who cannot be known to each other face to face" (p. 190). Although Reason and Bradbury (2006) argue that all three strategies need to be integrated for research of this nature to be compelling and enduring, they identify second-person research practice, in the form of co-operative inquiry, as being particularly relevant to the "development of communities of inquiry and learning organizations" (p. xxvi). Starting with interpersonal dialogue, co-operative inquiry values both the collaborative research context and the generation of collective knowing of the participatory/cooperative paradigm. In this sense, co-operative inquiry resonated with the study context of a developing professional learning community and the practitioner orientation of the study research questions, and led to further investigation of this methodology by the researcher.

As a research methodology, co-operative inquiry draws on participative inquiry's extended epistemology of the four ways of knowing through recursive cycles of action and reflection in order to inform understandings of the particular inquiry context and to transform practice within it (Reason, 1999). It ascribes co-researcher roles to those who participate in collaborative inquiry through research of their own experience and action in an area of practical concern and importance to themselves. As co-researchers, the participants generate ideas, design and manage their inquiry and identify the outcomes and implications of their experience, all while being the co-subjects as they participate in the research activity itself (Reason, 2002). Such an approach meets the practitioner orientation of the study's research questions through a methodology that is able to give voice to the practitioner conceptualisation and experience of a developing professional learning community. Through four phases of action and reflection, co-operative inquiry engages the co-researchers in the co-generation of knowledge with particular forms of knowing characteristic of each stage. These phases have been variously described but the more

recent understandings of each phase are identified in Table 3.2 (Reason, 2001, 2002, 2003; Reason & Bradbury, 2006).

TABLE 3.2
PHASES OF CO-OPERATIVE INQUIRY

Inquiry phase	Inquiry activity	Form of knowing
Initiating/ group formation	• Facilitator usually invites group members • Proposal to initiate activity appeals to potential members	• frequently 'birthed' in experiential knowing
Phase I Reflection	Co-researchers: • agree on issues to explore and identify inquiry focus • develop questions/propositions for investigation • plan method to explore through practical experience • devise procedures for data collection of that experience	• primarily propositional knowing • some presentational knowing as group members articulate focus of inquiry
Phase II Action	Co-researchers: • commence inquiry in their own life and work • observe and record their experience • may observe and record others	• primarily practical knowing
Phase III Action	Co-researchers: • become fully engaged with their action and experience • develop new understandings of their experience	• mainly experiential knowing • some expressed as presentational knowing
Phase IV Reflection	Co-researchers: • reassemble to share their practical and experiential knowing and consider the outcomes and implications of their inquiry • make recommendations for future cycles of inquiry - ideally balance convergent and divergent focus areas for the inquiry • develop theoretical perspectives to inform their work in the next action phase	• may develop or reframe propositional knowing • mainly propositional knowing • some practical knowing in actions taken to next cycle → repeat the cycling

The highly contextual nature of co-operative inquiry means that each inquiry cycle group may be different, there may be mini-cycles within larger cycles and some phases may be emphasised more than others. The number of cycles varies and their time frame can range from a short workshop to more than a year (Reason, 1999). Co-operative inquiry is completed "when the initial questions are fully answered in practice, and when there is a new congruence between the four kinds of knowing" (Reason, 2003, p. 210). Proponents of co-operative inquiry argue that the knowledge generated through the recursive cycling of the phases will be more valid and useful if the level of congruence between the four ways of knowing is such that:

> …knowing is grounded in our experience, expressed through our stories and images, understood through ideas which make sense to us and expressed in worthwhile action in our lives. (Reason, 1999, p. 211)

Accepting this conceptualisation of the knowledge generation process as pertinent to the research study context, the researcher sought out a co-operative inquiry research design which would value that process in a school context. While many of the examples given within the co-operative inquiry literature relate to social science and adult learning arenas, there are few that relate directly to school contexts. However, the three fields of knowledge used in the recent Networked Learning Communities program in the U.K. (Earl et al., 2006) presented a possible design framework as it emphasised the creation of new knowledge from collaborative inquiry among teachers across many school clusters. This large-scale program focused on professional learning and changed professional practice through collaborative practitioner inquiry, and developed a model of learning that recognised the importance of the social construction of learning and the role of the inquiry process in applying learning in practice (Jackson & Horne, 2004; C. McLaughlin & Black-Hawkins, 2005). As an analytical tool, this model of learning represented the knowledge creation process as occurring in the relationship between the knowledge of the practitioner (what participants know), knowledge that is publicly available (what is known), and new knowledge (what is created through collaborative work) (see Figure 3.1).

FIGURE 3.1
NETWORKED LEARNING COMMUNITIES - THREE FIELDS OF KNOWLEDGE

Three Fields of Knowledge

What We Know
The knowledge of those involved.
What practitioners know

What Is Known
The knowledge from theory, research and best practice

New Knowledge
The new knowledge that we can create together
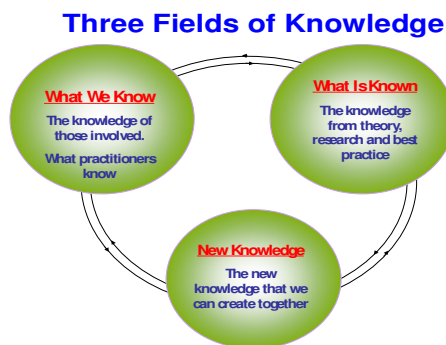
Source:
C. McLaughlin & Black-Hawkins, 2005, p. 11

The mutually informing relationship between the three fields of knowledge represented by the two-way circular arrows emphasises how the sources of knowledge are generated and used in collaborative inquiry; thus providing a useful framework for this research study. The researcher recognised that in adopting co-operative inquiry as the research methodology for this study the knowledge generation process would occur on two inextricably linked levels – within the co-

operative learning cycles by the co-researchers and in the context of the overall research by the researcher. Applying the three fields of knowledge and co-operative inquiry methodology to the current research, a multi-level knowledge generation framework emerged as shown in Figure 3.2.

FIGURE 3.2
RESEARCH DESIGN – KNOWLEDGE GENERATION PROCESS
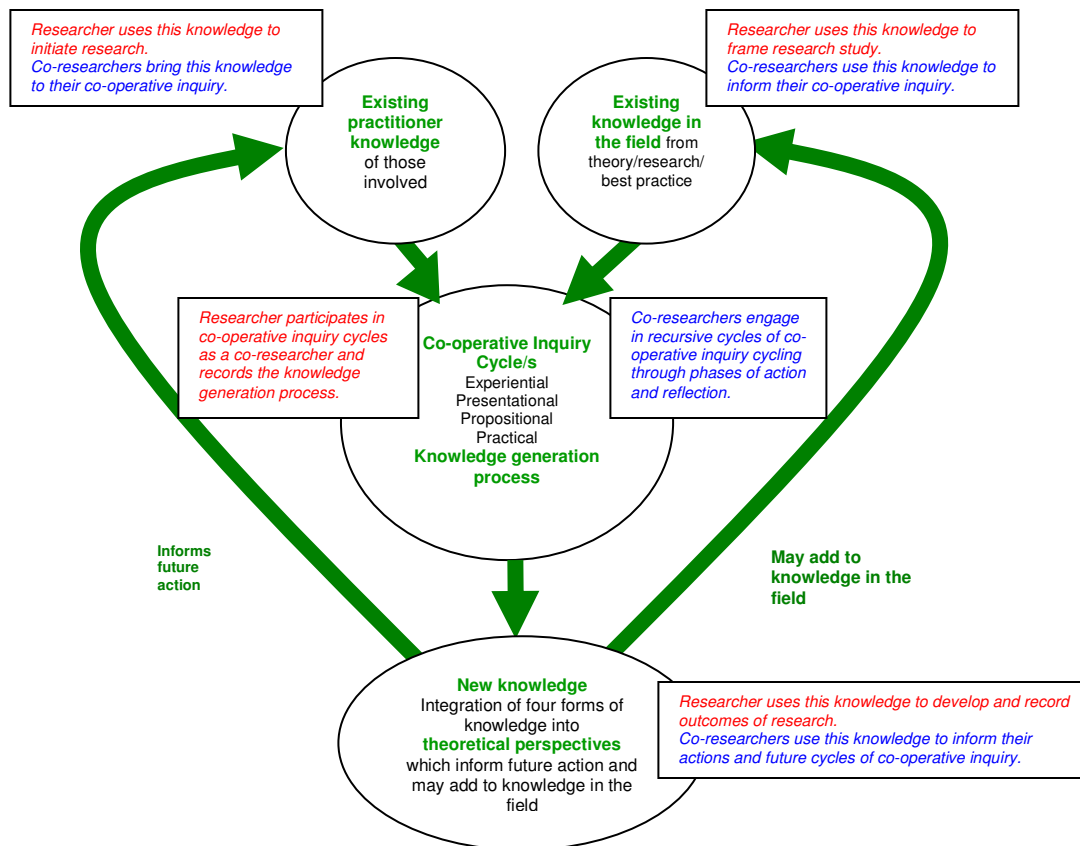
Adapted from:
C. McLaughlin & Black Hawkins, 2005, p. 11

In this research design, the *existing practitioner knowledge* is identified as the practical and propositional knowledge that the research participants bring to the collaborative inquiry as co-researchers and which derive from experiential knowledge. As such, it is instrumental in the reflection of Phase 1 in the co-operative inquiry cycles and also represents the experiential knowledge that the researcher brings to the study in the initiation of this research. The *existing knowledge in the field* is the publicly available knowledge as the propositional knowledge that co-researchers can draw on from the research and practitioner literature. As such it informs the inquiry within their work contexts in the reflection and action phases of the co-operative learning cycles. It also represents the literature that has informed the researcher and from which the

research questions have emerged. *'New' knowledge* informs future action and is the outcome of the knowledge generation process of engagement in the co-operative inquiry cycles by the co-researchers within their own work contexts, both individually and collectively. This co-created new knowledge thus informs future practice for the practitioner and may add to what is known in terms of research. It also represents the theoretical perspectives drawn from the co-generated knowledge of the co-operative learning cycles by the researcher that form the outcomes of this research study.

The adoption of a co-operative inquiry methodology for this study and the articulation of the knowledge generation process provided the framework for the research design. Within that framework, further methodological decisions were required with respect to how the co-operative inquiry cycles would operate, who would be involved, how the knowledge generation process would be recorded, and how the data about the knowledge itself would be collected. These details are reported in the next sections.

3.5   CO-OPERATIVE INQUIRY CYCLES – STRUCTURE AND PARTICIPANTS

There are many forms of co-operative inquiry which may be differentiated according to the nature of initiation, role of the initiator/s, kinds of practitioners, collaborative arena/s of the actions phase/s and nature of the inquiry culture (Heron & Reason, 2006). Inquiries may also vary in the extent to which they have closed or open boundaries according to whether the focus of the inquiries is solely within the group of co-researchers (closed) or whether the co-researchers interact with others as part of their action or reflection phases (open). It is also possible that both open and closed boundaries may be present in different phases of a co-operative inquiry cycle. In participating in co-operative inquiry within their own school context, the co-researchers are also identified as practitioner researchers. A practitioner researcher is:

> …someone who holds down a job in some particular area and is, at the same time, involved in carrying out systematic enquiry which is of relevance to the job…the carrying out of the enquiry is in addition to the individual's normal full-time responsibilities. (Robson, 2002, p. 534)

Since the research questions seek to identify practitioner conceptualisations and experiences of their school as a developing professional community then the form of the co-operative cycles selected for the research study needed to involve the practitioners both individually as a professional, and also collectively as part of the professional learning community. Given this

situation, the study's co-operative inquiry cycles were envisaged as having both closed and open boundaries, with volunteer teachers at RI College invited to participate as the core group of co-researchers. As co-researchers these participants would then undertake individual and collective inquiries and would seek relevant opportunities to seek feedback and involvement from the wider group of practitioners[4].

In the decision to use co-operative inquiry as the methodology for the research study, the researcher recognised that it placed her in the dual role of researcher and co-researcher with other practitioners at RI College. This dual role was considered particularly appropriate in the context of researching a developing professional learning community, which the literature review characterised as inherently collaborative (see Section 2.4). One way of creating cultures for collaborative inquiry has been identified in research as leaders becoming participant learners contributing to the collective understanding which emerges (Emihovich & Battaglia, 2000). The co-researcher model of co-operative inquiry enabled the researcher to achieve the purpose of this study by participating with other practitioners in collaborative based practitioner inquiry of their developing professional learning community. In this sense, the researcher also became an "inside researcher" both privileged and challenged by being a participant member of this developing community (Edwards, 1999). Engagement in co-operative inquiry cycles also meant that, not only was the control of the research process shared, but also the inquiry posture of the researcher changed as the co-operative inquiry cycles were experienced. The researcher is the initiator of the research study and as such played the role of facilitator in the initiation of the co-operative inquiry cycles and the formation of the groups. Within the co-operative inquiry cycles the researcher is also a co-researcher who, together with the other co-researchers, "uses the full range of her…sensibilities as a composite instrument of inquiry…as they interweave creative discussion with concerted action and openness to experience" (Heron, 1996, p. 37). However, this dual research role also placed demands and restrictions on the researcher in terms of the collection of data and the ethical conduct of the study, and was an inevitable limitation of the research (see Sections 3.8).

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[4] This wider group of practitioners was involved in various ways in the individual practitioner inquiries of the co-researchers as part of the sphere of influence of those inquiries and not directly as participants in this research study. However, as an outcome of the first co-operative inquiry cycle, the research study was expanded to include the development, validation and administration of a researcher-devised survey and this is incorporated into the second cycle of co-operative inquiry where the 56 respondents to this survey are also considered participants in terms of this research study (see Chapter 6).

By its very nature, co-operative inquiry is reflexive and responsive as it involves "the emergence of a self-aware, critical community of inquiry nested within a community of practice" (Reason, 2003, p. 211). Thus, prior structuring of the co-operative inquiry cycles in terms of the co-researcher groups, their activities or the timeframes was not part of the original research design for this study. The initiation of the inquiries, the establishment of the co-researcher group and their inquiry focus, the engagement of the co-researchers in the action and reflection phases, as well as the timing of these activities, is recorded in detail in the chapters that report the two cycles of co-operative inquiry (see chapters 4 to 7) and are summarised in Table 3.3. Within the two co-operative inquiry cycles, each of the co-researchers participated in the collective inquiry identified by the group and also completed their own individual inquiry as part of the overall inquiry cycle. In their individual inquiries, the co-researchers involved the wider group of practitioners at the school in a variety of ways in the action/reflection phases of their inquiries and this indirect involvement of others in the research study is also recorded in the summary in Table 3.3.

TABLE 3.3

CO-OPERATIVE INQUIRY CYCLES - SUMMARY OF STRUCTURE/PARTICIPANTS

Co-operative cycle and inquiry focus area	Participants	Total indirect involvement of others	Time frame
Co-operative inquiry Cycle 1 *How can a collaborative culture be nurtured and sustained at the school?*	4 co-researchers (including researcher)	48 in four individual inquiries (action/reflection phases)	18 weeks June to mid-October 2006
Co-operative inquiry Cycle 2 *How can we work within our particular school environment to develop a greater sense of community in ways which will enhance the educational outcomes for students?*	6 co-researchers (including researcher) 56 as respondents to the researcher devised survey	58 in six individual inquiries (action/reflection phases) 25 in other schools (survey field testing)	24 weeks May to October 2007

3.6   DATA COLLECTION STRATEGIES, ANALYSIS AND INTERPRETATION PROCEDURES

It is recognised that the data collection strategies and subsequent analysis and interpretation procedures selected for a research design reflect the collective demands of the particular research questions, the research context and the selected inquiry method (Brannen, 2005; Merriam, 1998). As a form of action research, co-operative inquiry is a mixed method research strategy (Greenwood & Levin, 2007) and as such has the potential to generate insightful understandings

of phenomena (Caracelli & Greene, 1997; Miles & Huberman, 1994) while being particularly applicable to studies of learning communities (Cavanagh & Dellar, 2001b). However, engaging in co-operative inquiry as a methodology for academic research purposes presents the researcher with a data collection, presentation and analysis dilemma as there is a "considerable challenge in communicating and abstracting results in a way that others who did not participate…will understand" (Greenwood & Levin, 2005, p. 54). Effective communication of this context-specific knowledge to others for the third-person audience is a complex and problematic process. Moreover, Reason (2003) warns the co-operative inquiry researcher to distinguish between what is the map of co-operative inquiry (its representation in data, interpretation and writing) and its territory (the *knowing* in experience and practice). It is important to recognise that the *knowing*, the meaning-making, occurs "*in* the process of the inquiry, in the cycles of action and reflection, in the dialogue of the inquiry group" (p. 229). At the same time, Reason recognises that the co-operative inquirer may want to write for themselves, for the inquiry group and for an outside audience in order to "create frameworks of understanding and communicate what it is we think we have discovered" (p. 229). In co-operative inquiry the praxis-oriented knowing emerging from the active struggle of knowing how to act in real-world contexts is inevitably highly contextual. Consequently, Greenwood and Levin (2007) suggest that a range of social science techniques may be used to collect data as long as they are contextually appropriate within the collaborative research process.

3.6.1 Data collection

In this understanding of contextual appropriateness, and in the spirit of creating and communicating a framework of understanding, the researcher looked to sources of data that would evolve from within the knowledge generation process of the co-operative inquiry cycles, and to strategies for gathering this data that would represent the *knowing* but not influence its generation. The reflexive and responsive nature of the co-operative inquiry cycles meant that some of these data sources were not necessarily known prior to the commencement of these cycles but became evident as the co-researchers engaged in the action/reflection stages of each cycle. In order to ensure that the gathering of data did not influence the knowledge generation process of the co-operative inquiry cycles then the data for the purposes of this research study were not collected until the completion of the second inquiry cycle. The data sources and data collection strategies are summarised in Table 3.4.

TABLE 3.4
DATA COLLECTION STRATEGIES - SUMMARY

Data source	Data collected
Artefacts for each co-operative inquiry cycle and the individual inquiries within them	Documents produced within that time: • meeting notes (researcher) • preliminary inquiry proposals (individual and collective) • research logs and journals (limited) • quantitative data generated within the inquiries (small group surveys as well as wider practitioner survey developed by the researcher – see Chapters 5 and 6) • co-researcher reports (three of these were as reports submitted to universities as semester credit units) Presentations to various forums (mainly as powerpoints): • within individual inquiries (relevant practitioner groups) • internal to the school (heads of department and leadership team) • external to the school (university and catholic school authorities)
Interview transcripts (recorded, transcribed and checked by participants)	Semi-structured interviews: • 5 co-researchers • 3 brief follow-up interviews See Appendix I for interview questions
Focus group transcripts (recorded, transcribed and checked by participants)	Two groups of co-researchers See Appendix H for focus group questions

These data sources provide "thick data" (Patton, 2002, p. 436) and represent the three layers of complexity common to practitioner research (Campbell, 2004):

- the actual events of each of the inquiries and the co-researchers' group within the co-operative inquiry cycles as recorded in the artefacts of the time such as meeting notes, survey responses;

- the accounts of those given by the co-researchers and the researcher as recorded in reports and presentations; and

- the subsequent interpretation of the accounts of these events by the co-researchers in the semi-structured interviews and focus group discussions.

3.6.2   Data analysis and interpretation procedures

Data analysis is the bringing of order to data in the search for meaning using creative insight and disciplined study (Patton, 2002). With respect to co-operative inquiry this involves integrating the data from the first-person research practice of the individual inquiries and the second-person

research practice of the co-operative inquiry cycles to construct the deeper story of the research narrative for the third-person audience in response to the research questions (Reason, 2001). Although the data are collected primarily at the conclusion of the second co-operative inquiry cycle, the analysis of that data followed the iterative and dynamic process outlined by scholars such as Merriam (1998) as each data set was considered and absorbed into the deeper story of the research. Consequently, the research narrative that emerges from this process may be considered created rather than revealed (Walford, 2001).

The set of artefact data of written texts and similar physical products are considered mute research evidence (Hodder, 2003) since their usefulness depends entirely on the researcher's perspective (Merriam, 1998). Although these documents and presentations represent the researcher and co-researcher perceptions of various parts of their individual and collective inquiries, it is only in the interpretation placed upon them by the researcher that they are ascribed meaning in the context of this research study. The responses to the survey instrument devised in response to Research Question 3 required extensive statistical analysis and this process is reported in Chapters 5 and 6. This comprehensive set of documents and presentations were written for different audiences and at different times, some during the course of the co-operative inquiry cycles and some at the conclusion of these. As such, they all existed naturally in the context of the co-operative inquiry cycles and are necessarily grounded in their real world context (Merriam, 1998). However, although this would seem to present a measure of objectivity with respect to the research study, it is important to recognise that the researcher is not divorced from the data set in that she contributed to the preliminary inquiry proposals and presentations. A stance of critical subjectivity is thus required in this analysis process so that there is an acceptance and awareness of this researcher perspective in the communication of the analysis (Reason, 1998) and as the research narrative is constructed.

The set of semi-structured interview transcript data represents situated understandings that have been gathered in an interactional context in response to the interview questions posed by the researcher and allowed the researcher to "enter into the other person's perspective…to gather their stories" (Patton, 2002, p. 341). These interviews provided an opportunity for the co-researchers to reflect on their knowledge generation process and key activities within their individual inquiries. The semi-structured nature of these interviews enabled the researcher to probe relevant responses and emerging issues (Merriam, 1998). Similarly, the focus group interviews with the groups of co-researchers encouraged reflection on their work together in the

co-operative inquiry cycle. The co-researchers had trusting relationships and an established rapport, and the prompt questions elicited rich transcript data as the co-researchers explored their perspectives. In both interview situations, the researcher was careful not to impose her own perspectives or engage in the reflective process in order to minimise the influence of the researcher on the data collection (Fontana & Frey, 2003). Analysis of the interview data was enhanced by the use of software which allowed systematic arranging and rearranging of the data in the process of developing "comparisons, contrasts and insights" (Burns, 1997, p. 338).

In the integration of the multiple data sets, the researcher sought to identify the different forms of knowing and the knowledge generation process of the co-researchers as they engaged in the recursive phases of action and reflection and to present this in an authentic, meaningful and accessible way with respect to the research questions. The procedure adopted was that of pen-portraits of the inquiries in the co-operative inquiry cycles. Such narrative, practice-probing representations of data have been identified by Campbell (2004) and other practitioner researchers as particularly useful in practitioner research where the data being reported relates to practices or events in the practitioner's institution (Cochran-Smith & Lytle, 2004). Pen-portraits for each of the inquiry projects and the co-researchers' group for each year were constructed from the data and are presented in Chapters 4 and 7. Through the first-person research practice of their own individual inquiries and the second-person research practice within the co-operative inquiry cycles, the co-researchers have integrated the four forms of knowing (experiential, presentational, propositional and practical) into what Reason (2001) identifies as the "theoretical perspectives" that will inform their future actions. Drawing on the data analysis from the individual and co-operative inquiries the researcher subjected these to a further level of analysis to consciously identify her own theoretical perspectives in response to the study's research questions (see Chapter 8). Tables 3.5A and 3.5B demonstrate this data analysis and interpretation procedure using examples from one of the theoretical perspectives.

TABLE 3.5A
EXAMPLE OF DEVELOPMENT PROCESS OF THEORETICAL PERSPECTIVES

RESEARCH QUESTION 2:
What strategies and structures do practitioners experience as supporting or hindering the development of their school as a professional learning community?

EXAMPLES OF COLLECTED DATA FROM ARTEFACTS AND INTERVIEWS		
DATA SOURCES: CO-OPERATIVE INQUIRY CYCLES – PEN-PORTRAITS AND TEPLC SURVEY		
NURTURING AND SUSTAINING A COLLABORATIVE CULTURE	BUILDING COMMUNITY – MAKING COLLEGIAL RELATIONSHIPS WORK	TEPLC SURVEY RESULTS

Far too much time is spent on talking about trivial points rather than actually having time to develop work that can actually enhance what we are doing in the classroom
 	
  Some [teachers in meetings] just run their own agendas and the squeaky wheel gets oiled.
 	
Inevitably the informal meetings that occur on a daily basis are more crucial for the ongoing support, pastoral care and updating of colleagues regarding teaching and learning issues, especially in a department [Creative Arts] where we are very individual and very busy.
 	
  Teachers do communicate with one another verbally, on a daily basis, sharing ideas, resources, etc. This is always supplemented by electronic means…To impose an additional layer to this…seems excessive.
    (Meeting survey comments, anon)
	…I put out an idea of the way I wanted to work. Of course time got in the way and I wanted staff to visit each other's classes on four occasions…and not all staff were able to do those four visits and I started to get a little worried…that the project was not running exactly as planned but I think I addressed that…I had to…not be so fixed…. (Katrina)
	
	  …it was difficult to put time in…at the time that it needed to happen…having the block time to meet together, certainly having the time set aside, was a positive. Certainly in just a very practical way it was time away from the distractions of the everyday routine in a quiet environment where we had the opportunity to have that uninterrupted time and that was very valuable. (Caroline)
	
	The people…were very supportive both emotionally and also intellectually, of what we were doing and I think that's really important because some people, including myself, were going to drop out…I didn't have the time in the middle of the year to do it but I was encouraged to stay on and I'm pleased that I did and I'm pleased with what I did…(Janet)
		Though time is seen to be given for collaborative work – it just doesn't seem to happen. The school is very busy and though some teachers would like to work more collaboratively most times it seems to be ad hoc.
		(middle management, SOSE)
		
		44. There is in-school time for working together with colleagues on joint planning and development. (2.9)
		
		  …the issue of time, it might be at first a little disappointing to see that people have not rated that one particularly high but I think it is acknowledging that time is always an issue…there are structures in place that have…definitely improved opportunities for time for people to work together but I think it's more of a question [of], there is never enough to do what you want to do and it's a matter of prioritising…time is always going to be an issue. (Caroline)
		
		But in fact there isn't [enough time], it's just honest. There isn't. (Janet)
		
		It comes down doesn't it to how people interpret that non-contact time. (Carmel)

INTEGRATED INTO KNOWLEDGE GENERATION SUMMARIES – TABLES 4.3, 7.2, 7.3		

Table 4.3	CYCLE 1 CO-OPERATIVE INQUIRY – KNOWLEDGE GENERATION SUMMARY NURTURING AND SUSTAINING A COLLABORATIVE CULTURE	
Focus area	Phases II and III Practical and propositional knowing	Phase IV Propositional knowing
Meeting structures and scheduling	Providing time for collaboration does not necessarily mean collaboration occurs. *[1e]*	The opportunity to meet in supported, regular, flexible and extended time assists in the motivation of inquiry group members and enhances their ability to work collaboratively. *[1l]* Realistic time frames for inquiry enable more effective involvement of teachers. *[1m]* Significant professional learning occurs in the preparation of inquiry reports for presentations to a variety of forums. *[1n]*

Table 7.2	CYCLE 2 CO-OPERATIVE INQUIRY – KNOWLEDGE GENERATION SUMMARY BUILDING COMMUNITY – MAKING COLLEGIAL RELATIONSHIPS WORK	
Focus area	Phases II and III Practical and propositional knowing	Phase IV Propositional knowing
Being responsive and effective	Inquiry experience can be positive for teachers when it responds to a need that is collectively recognised, is directly related to their individual practice, requires only a short-term commitment and focuses on student work. *[2g]* Established relationships of professional trust are important in engaging effectively in critical reflection on practice. *[2h]*	Competing demands and the difficulties of finding time to meet for action and reflection are challenges to the engagement in inquiry into practice. *[2r]* Commitment to a shared purpose and the relationships and trust built up within a group enable them to support each other and meet these challenges. *[2s]*

Table 7.3	CO-RESEARCHER REFLECTION ON TEPLC SURVEY RESULTS – SUMMARY REFRAMING OF PROPOSITIONAL KNOWLEDGE	
Area of knowledge	Reframed propositional knowledge	
Relationship between time and collaboration	Time is both a structural and cultural barrier to extending collaborative activity among teachers. *[3f]*	
Different perceptions of time	There are different perceptions among teachers on how non-contact time should be used. *[3g]*	

Note: only extracts from relevant tables of knowledge generation are included to identify the nature of the theoretical perspective procedure

THEORETICAL PERSPECTIVE 5

Providing embedded, flexible and extended time supports engagement in collaborative inquiry.

The provision and effective use of collaborative inquiry meeting time is hindered by cultural and structural barriers, particularly within the secondary school context *[3f]*. The provision of time most effectively supports collaborative inquiry when it is embedded, flexible and extended over a realistic time frame *[1l,1m]*. Overcoming personal barriers to engagement in collaborative inquiry requires managing competing demands for time so that such inquiry does not become an 'add on'; and seeking to understand the different perceptions about the use of non-contact time that exist among teachers *[2r,3g]*. The provision of time to meet together in teacher groups is a critical supportive structure in the development of teacher groups as collaborative inquiry learning teams and requires clear agreed expectations for the use of collaborative inquiry time to ensure that genuine collaboration and professional learning occurs *[1l,1e]*.

3.7 CREDIBILITY AND VALIDITY

The new paradigm researcher is particularly challenged by the questions of credibility and validity as conventional social science criteria of these are problematic and lack meaning in the context of the participatory world view of the participatory/co-operative interpretive paradigm (Bradbury & Reason, 2006; Greenwood & Levin, 2005; Guba & Lincoln, 2005). Proponents of action research methodologies within this interpretive paradigm, such as co-operative inquiry, recognise that in privileging praxis and valuing theory only in so far as it illuminates a thorough understanding of the social structures of the research context then they need "to redefine criteria for judging the quality of the inquiry process" (Greenwood & Levin, 2007, p. 18). Bradbury and Reason (2006) draw attention to what they describe as "choice-points" in the inquiry process, that influence the quality of action research in terms of credibility and validity. They identify these as quality in relational praxis and as reflexive-practical outcome; quality through conceptual-theoretical integrity, extending the ways of knowing and methodological appropriateness; quality as engaging in significant work; and quality in generating emergent inquiry towards enduring consequence (pp. 346-349). While some of these indicators of quality can be incorporated into the research design at the outset by the researcher, others emerge in the reflexive and responsive nature of the research in progress and in this way are effectively controlled by the group of co-researchers rather than the researcher per se.

Within the research context of the co-operative inquiry cycles, the engagement in recursive cycles of reflection and action address the quality issues of relational praxis and reflexive-practical outcome and are evidenced in the propositional and practical knowing generated in these cycles. In this sense, the co-generated contextual knowledge is considered valid if it generates "warrants for action" (Greenwood & Levin, 2005, p. 54). The Phase IV reflections of the co-researchers' group provided an opportunity for the co-researchers to ask the pragmatic questions about the value of their work in terms of outcome and practice with respect to both cycles, and to particularly allow for the first cycle of co-operative inquiry to inform the nature of the second cycle. In this way, the criteria for judging credibility and validity in the co-operative inquiry derive from "community consensus of what is 'real', what is useful, and what has meaning (especially meaning for action and further steps)" (Guba & Lincoln, 2005, p. 197). However, judgements of value are not necessarily a straightforward issue (Bradbury & Reason, 2006) and in the co-operative inquiry process of collaboratively examining their own experience the question can be asked: "Isn't it true that people can fool themselves about their experience?" (Heron & Reason, 2006, p. 149) It is argued that this question can be addressed by the development of critical subjectivity among the co-researchers in a co-operative inquiry group who by

engaging in the recursive cycles of action and reflection together develop "their attention to look at themselves" through skills such as being present and open, bracketing and reframing, radical practice and congruence, non-attachment and meta-intentionality, and emotional competence (Reason, 2003, p. 225). Identifying the level of critical subjectivity developed among the co-researchers is revealed, albeit indirectly, in the reflections not only in their own reports and presentations but in the interview and focus group transcript data. Thus, ensuring that multiple sources of data were collected assisted in the determination of quality with respect to confirming issues of relational praxis and reflexive-practical outcomes.

While questions of worth may be asked within the conduct of the co-operative inquiries, the overall research study must also question the value and 'worthwhileness' of the work. Bradbury and Reason (2006, p. 345) suggest that this can be determined by asking the questions of deep significance and enduring consequence. To fulfil these criteria of quality the research must be "well-grounded in the everyday concerns of people" and will be evidenced by the nature of the inquiry questions, in terms of depth of significance, which the co-researchers ask of themselves within their co-operative inquiries, but also by the depth of the questions that the researcher asks of the inquiry process itself in terms of the capacity to generate "enduring consequence" (Bradbury & Reason, 2006, p. 348). In this respect, the research design emphasis on the integration of knowledge generated in the first- and second-person research practice of the co-operative inquiry into the theoretical perspectives presented to the third-person audience represent an attempt to generate enduring consequence beyond the researcher's context. This required that the researcher provides a comprehensive understanding of the contextual conditions under which these perspectives were generated such that the reader can identify the touchstones with their own contexts (Greenwood & Levin, 2005, p. 55). Thus, the research narrative of this study needed to clearly identify the knowledge generation process and its contextual conditions to assist in the determination of credibility and validity by the third-person audience.

Ensuring that the quality of knowing generated in co-operative inquiry through conceptual-theoretical integrity, extending the ways of knowing and methodological appropriateness is also an important research design consideration of quality. Heron and Reason (2006) suggest that a range of validity procedures need to be structured into the inquiry process to ensure this quality of knowing and avoid the "distortion of uncritical subjectivity" (p. 150). These relate particularly to the phases of action and reflection and include ensuring that the inquiry goes through these phases a number of times, that the inquiry focus is considered through both convergent and divergent inquiries, that the collaboration of the co-researchers is authentic with no voices dominating or being silenced, that the group is willing to challenge consensus collusion and that the group adopts a process for managing distress (pp. 150-

151). This study's design process has endeavoured to provide the structure of research cycling, convergent and divergent inquiries and authentic collaboration as evidenced in the conduct of the co-operative inquiry cycles reported in Chapters 4 and 7. However the most important criterion for identifying the validity of the knowing generated in co-operative inquiry is to ensure that there is congruence between the four ways of knowing (Heron & Reason, 2006). Meeting this validity criterion required that the research narrative clearly identifies this congruence between experiential, presentational, propositional and practical knowing.

3.8   ETHICAL CONSIDERATIONS

Co-operative inquiry is research *with* people, occurs in a real-world context and by its very nature requires relational praxis among the co-researchers (Reason & Bradbury, 2006). The dual roles of researcher and co-researcher and the context of research within the researcher's own school where she holds positional authority has ethical implications for the conduct of this research. Issues of the researcher-participant relationship, the potential for inadvertent researcher bias, positions of power and vulnerability, consent and access, confidentiality and anonymity needed to be addressed (Fehring, 2002). All required ethical clearances were obtained from the Australian Catholic University Research Projects Ethics Committee (see Appendix J). Ethical issues which may have arisen from researcher/participant relationship and positions of power and vulnerability were addressed by informed consent techniques for the co-researchers and anonymity for the respondents in the online survey (see Appendices E and K). Within the co-researcher group, agreed protocols for concealing individuals/settings were developed to ensure sensitivity to privacy, confidentiality/anonymity and respect of co-researchers.

The investigation of a professional learning community inevitably involves interpreting the social and cultural constructions of the co-researchers and being aware of the researcher impacts on these. It is research of conceptualisations of lived experience and there is a recognition that co-operative inquiry of this type is likely to "evoke anxiety with its lack of structure, excitement with its open-endedness, and uncertainty with its unpredictability regarding specifically desired outcomes" (McArdle, 2002). In these situations the integrity of the researcher is an overriding issue (Fehring, 2002) as the formation and on-going research of the co-operative inquiry groups represented a potential changed relationship between the researcher and the co-researchers. As volunteers, it is likely that they felt comfortable working closely with the researcher but the possible effects of their perceptions of the researcher in the co-operative inquiries and in the collection of interview and focus group data can neither be identified nor ignored (Miles & Huberman, 1994).

3.9 OVERVIEW OF THE RESEARCH DESIGN

Three research questions focused the design for this study

1. How do practitioners conceptualise their school as a developing professional learning community?

2. What strategies and structures do practitioners experience as supporting or hindering the development of their school as a professional learning community?

3. Can a theoretically based and context-specific instrument be devised to assess practitioner experience of their school as a professional learning community?

The research design adopted the emergent participatory/cooperative research paradigm and a methodology of co-operative inquiry with recursive cycles of action/reflection. An overview of the research design in relation to the research questions is presented in Table 3.6.

TABLE 3.6
OVERVIEW OF RESEARCH PROCESS

Research Question	Inquiry process and participants	Sources of data and data collection strategies	Timing
Research Questions 1 and 2	Co-operative inquiry Cycle 1 4 co-researchers	Artefacts – documents and presentations Semi-structured interviews Focus group interviews	Conducted June to mid-October 2006 Data collected December 2007
Research Question 3 and 2	Design, validation and administration of survey instrument 56 respondents	Published surveys Document analysis Field testing Online survey completion	Developed November 2006 to July 2007 Field tested August 2007 Administered November 2007
Research Questions 1, 2 and 3	Co-operative inquiry Cycle 2 6 co-researchers	Artefacts – documents and presentations Semi-structured interviews Focus group interviews Survey data	Conducted May to October 2007 Data collected December 2007

The next chapter presents the conduct of the first cycle of co-operative inquiry, presents and analyses the data collected from this cycle and reports the knowledge generation process.

Chapter 4 Cycle 1

Co-operative inquiry

4.1   INTRODUCTION

The research design described in the previous chapter adopts a methodology of co-operative inquiry with recursive cycles of action and reflection.   This chapter reports the conduct of the first cycle of co-operative inquiry and seeks to present and analyse the data derived from this cycle in response to the study's Research Questions 1 and 2:

1.   How do practitioners conceptualise their school as a developing professional learning community?

2.   What strategies and structures do practitioners experience as supporting or hindering the development of their school as a professional learning community?

This first co-operative inquiry cycle comprised an action/reflection cycle of four phases drawing on the extended epistemology identified by Reason (1999). Each action and reflection phase followed the characteristic inquiry activities and generation of different forms of knowing (see Table 3.2) cycling through both action and reflection, as outlined below:

Phase I   *Reflection* – identification of the group and individual focus areas and questions – primarily propositional knowing with some elements of presentational knowing;

Phase II   *Action* – initiation of individual practitioner inquiries – observation and recording – primarily practical knowing;

Phase III   *Action and reflection* – immersion in individual practitioner inquiries – deepening of experience, understandings elaborated and developed – mainly experiential knowing, some presentational knowing, some emergence of propositional knowing; and

Phase IV   *Reflection* – consideration of group focus area and questions in the light of shared experience – emphasis on propositional knowing with some elements of presentational knowing, outcome of individual and collective practical knowing to inform future action and next co-operative inquiry cycle.

Within this first cycle, Phase I follows the initiation and establishment of an inquiry group of co-researchers. During *Phase I* these co-researchers met to identify collective and individual focus areas and questions resulting in the naming of four separate participative inquiries. Each of the practitioner

inquiries initiated in Phase II was identified as a 'project' by the teacher initiating and leading it. *Phase II* involved initial reflective practice within each of the participative inquiry projects and included observation and recording resulting in tentative practical knowing. *Phase III* involved full immersion in the action experience but this was interspersed with reflection times when they met as the group of co-researchers to share their action experience and their emerging understandings with each other. This provided an opportunity for the experiential knowing of the action to be enriched as the experience was expressed in presentational form (Reason, 2003). As the group reflected on their action experiences propositional knowing was generated. In *Phase IV* the co-researchers met to review their learning during Phases I-III. In the light of their initial focus areas and questions they also reflected on the implications of their learning for future practice, including further cycles of co-operative inquiry.

This chapter explores how the researcher and co-researchers engaged in this first cycle of co-operative inquiry and records the generation and co-generation of knowledge in this meaning-making research process. Here, the data sources include artefacts generated by all the individual practitioner inquiries and the co-researchers' group, as well as transcripts from interviews and focus groups of the co-researchers. These data sources provide "thick data" (Patton, 2002, p. 436) for this first cycle of co-operative inquiry and were used to create the cycle's narratives. Thus, the data represent the three layers of complexity common to practitioner research – the actual events, the accounts of these events, and the interpretations of those events by the co-researchers and the researcher. As identified in the research design (see Section 3.6.2), an authentic, meaningful and accessible way of presenting this type of practitioner inquiry is through pen-portraits. These pen-portraits record the experiential, propositional, presentational and practical knowledge generated in the individual practitioner inquiries and represent a first-level data analysis. For the Phase IV data presentation the researcher constructed the narrative using the pen-portrait focus areas/questions to interpret the co-researchers' reflection on their shared experience as revealed in the semi-structured interviews and focus group discussions. In this way, the Phase IV presentation represents a second-level data analysis. The data presentation and analysis for this first cycle of co-operative inquiry are displayed in this chapter in five sections:

Section 4.2 identifies the initiation and establishment of the group of teachers as co-researchers in the cycle;

Section 4.3 reports the Phase I reflection of the identification of the group and individual focus areas and questions;

Section 4.4 presents the actions and reflections of Phases II and III of the cycle with the pen-portraits of each of the practitioner inquiries;

Section 4.5 reports the Phase IV reflection of the co-researchers with respect to the experience of Cycle 1; and

Section 4.6 outlines the outcomes of this first co-operative inquiry cycle.

A summary of the knowledge generated in this first cycle of co-operative inquiry is presented in the chapter summary in Section 4.7.

4.2   INITIATION AND ESTABLISHMENT OF GROUP OF CO-RESEARCHERS

Initiation of an inquiry group for a co-operative inquiry cycle may occur at the invitation of an initiating facilitator and needs "to appeal" to the experience of potential co-researchers (Reason, 2002, p. 172). Often it is experiential knowing that piques the curiosity and prompts this appeal (Reason, 2002) but any proposed inquiry will not proceed unless it is of major importance to the participants (Greenwood & Levin, 2007). In the context of RI College it would be fair to say that 'the time was right' for the researcher, as deputy principal, to initiate this first cycle of co-operative inquiry. As discussed in Chapter 1, RI College had identified the need for school revitalisation in support of student learning. A strategic planning process had been established and in the course of implementing this strategic plan, a committee of teachers was established to develop a professional learning model. The model that they had drafted to this time was based in the premise of the school as a professional learning community and emphasised processes of inquiry and reflective practice.

As deputy principal, with specific oversight for curriculum and student learning, the researcher recognised that there were specific issues around teacher professional dialogue and reflective practice; as well as skills in, and attitudes towards, collaborative analysis of student work. These developments provided the researcher with a context of both relevance and appeal to the potential co-researchers at RI College.

Consequently, in term 2 of 2006 the researcher invited teachers at RI College to participate in a cycle of co-operative inquiry. Following this invitation, there was sufficient interest among teachers at RI College to initiate the first cycle of co-operative inquiry with the researcher as facilitator and the participating teachers as co-researchers.

Cycle 1 of co-operative inquiry started with the invitation and establishment of the inquiry group. In order to form the inquiry group, the researcher, in consultation with the chairperson of the teacher committee, that had drafted the professional learning model, and the school principal, invited interested teachers from among those who had been involved in the development and discussion of the

draft model. Three teachers accepted this invitation to join with the researcher in this co-operative inquiry. These teachers each had different roles in the school and came from different academic areas[5]:

- Carmel - chairperson of the teacher committee that developed the professional learning model, teacher years 8-12
- Bernadette - curriculum co-ordinator for the newly established middle school (opened 2006 with years 5 and 6), class teacher year 5, core and connected curriculum;
- Leonie - head of department, teacher years 8-12 and also middle school; and
- Shirley - deputy principal, teacher years 8-12, researcher.

It was fortuitous that their respective family commitments, transport arrangements and timetables allowed for a common time for the co-researchers to meet which did not impact upon their teaching commitments and they agreed to meet for extended periods of at least two to three hours on a regular basis every two to three weeks during the research cycle. The researcher, in her role as deputy principal, facilitated these meetings through the provision of breakfast, supervision for pastoral home group time and the occasional class, as well as technology support. More importantly, each teacher was engaged in some form of post-graduate work which meant that they had ready access (through their universities) to research literature, but also that they shared an experience of being involved in research and had developed some skills in this area.

At the end of their first meeting at school, the group also identified a common moral purpose. The researcher recorded this in her research journal as:

> …decided at the end we were stark raving mad…all doing post-grad studies…all working mega hours with high levels of responsibility and yet taking something else on as well. Why? – passionate, committed, area of interest, see relevance to our work… what impressed most was a shared <u>passion</u> for learning of students through learning of teachers… (01/06/06)

The next section records how this group established the focus of their practitioner inquiries which were undertaken over an 18 week period from this first meeting in June to mid-October in 2006.

4.3   PHASE I REFLECTION – IDENTIFICATION OF COLLECTIVE AND INDIVIDUAL FOCUS AREAS

The group of four teachers began the reflection 'journey' of Phase I of the co-operative inquiry cycle by attending a lecture by a visiting academic who outlined the need in Australian education for a

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[5] Pseudonyms for all participants, other than the researcher, have been adopted for the purpose of this research.

system-wide culture of inquiry and research.[6] Over the next few weeks, individuals within the group reflected on the issues raised in this lecture and the influence of this was evident when they came together for the first time to identify a focus for their collective and individual inquiries.

Reflecting on this phase, it seems that experience was most influential in determining the focus for their collective and individual inquiries. For example, Leonie cited the relative 'newness' to the school of each member as influential in identifying this focus:

> All being relatively new (four years down to 6 months) to the school, it was decidedly obvious when we all had noted a similar "key point of interest", that being the development of collaboration and 'learning' amongst the staff in general, that a team project to address this issue would work well.

The experience of the different roles that each member had in the school had focused their attention in some way on this aspect of academic staff working collaboratively. This was brought into sharp focus for Bernadette who identified the different responses of the year 5 and 6 teams of class teachers as she worked with them on facilitating the development of the middle years curriculum. Unlike the year 6 team she identified a growing and "burning issue" of conflict among the year 5 teachers:

> Anxiety and stress levels increased, emotions ran high as stakeholders fought for their territory…[and yet]…We worked on regardless of the discomfort we felt, determined to make the program work for the students.

Curriculum design was also the source of some teacher anxiety for a small group of same subject teachers who had voluntarily come together to design more effective learning and teaching activities that would engage students in a particular strand of the new subject syllabus. Carmel was trying to support this group of teachers who were endeavouring to achieve this within what she identified as "the day-to-day realities of school life" (Carmel preliminary report). These day-to-day realities were the source of concern for the researcher. Attempts to facilitate meetings between teachers to engage in curriculum planning and design, as requested by Heads of Department, were becoming increasingly difficult for the researcher as teachers clearly varied in the value they placed on such collaborative work:

> Tensions began to emerge between those who valued the professional learning and support of the team meetings and those who saw them as a burden and unnecessary. Teachers who had not had to work closely together before were now doing so and a few interpersonal conflict situations arose…

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[6] Lecture based on an Occasional Paper written for the South Australian Department of Education and Children's Services (Reid, 2004).

Reflection about teacher attitudes to professional learning, as well as her role as Head of Department with respect to professional learning, led Leonie to conclude that there was a lack of collaboration and teacher learning apparent within the Department:

> …I felt that I was still viewed as the generator of ideas, and the director of activities which may or may not have been relevant to staff and/or necessarily utilising their talents in the best possible ways. I also questioned whether members of the Department were…actually learning, growing and achieving out of their everyday practices as a team or as individuals.

In subsequent meetings over the next few weeks, the group explored these reflections as they accessed relevant research literature and prepared summaries of these to share with each other. One key research finding focused their discussion and directed their inquiries for the year. The group recorded this in their draft plan (14/06/06) as:

> …the road towards increased collaboration amongst teachers…can be a long, arduous and tortuous journey…it can also be a vehicle for positive change and development (Bezzina & Testa, 2005, p. 141).
>
> We would like to make it less arduous, less long and less tortuous!

The group operationalised this sentiment into an overarching question for their inquiry which reflected their emerging conceptualisation of a developing professional learning community:

> How might a collaborative culture be nurtured and sustained at the school?'

In discussing this question, the co-researchers explored what a 'collaborative culture' was and 'what it might it look like' at the school. As they worked towards finalising their inquiry plan, the group recognised their different contexts and how these were influencing their way of engaging with the literature. Leonie identified this as the inquiry lens:

> …each of the members of the project had a slightly different frame (or context – ie. curriculum, pedagogy or structures *emphasis* and/or personal, school, system or society *lens*) for our issues…

Recognition of the value of these lenses led the group to conceptualise their inquiries as four interdependent practitioner inquiries which they identified as 'projects' and which reflected what they had identified from their literature review and discussion as the conditions for creating a collaborative culture - skills, dispositions/attitudes, structures and environment (as relationships and dialogue). Each of the four teachers then took responsibility for working with practitioners in their area. The individual inquiry questions they pursued in their work with practitioners were framed around the conditions for creating a collaborative culture that they had identified together and comprised Phases II and III of the co-operative cycle (see Table 4.1).

TABLE 4.1

INDIVIDUAL PRACTITIONER INQUIRIES CYCLE 1

SUMMARY OF FOCUS AREAS AND PARTICIPANTS

Inquiry Question: How might a collaborative culture be nurtured and sustained at the school?

Focus area	Project research question	Leader: participants
Project 1: The influence of dispositions and attitudes on collaborative learning teams – team formation and development	How can the year 5 collaborative learning team become more accepting of their personal differences, harnessing them to enhance the quality of student learning outcomes?	Bernadette: Year 5 class teachers (N=3), mandated group
Project 2: The development of collaborative work skills in teams - 'core' skills for effective collaboration	What, how and when are the skills for collaborative team work developed and nurtured so that teams can work effectively?	Leonie: subject department teachers Years 5 to 12 (N=10), mandated group
Project 3: The forms of facilitation and management which enhance or act as barriers to group engagement – facilitating collaborative practices	How are staff collaborative teams managed and facilitated in ways that promote staff and student learning?	Carmel: Year 9 subject teachers (N=4), voluntary group
Project 4: The opportunities available for collaborative work and their effectiveness – meeting structures and scheduling	How are school structures enabling the development of collaborative practices which promote student and teacher learning?	Shirley: Whole school teaching staff, voluntary and anonymous respondents (N=31)

As co-researchers in the co-operative inquiry cycle, these four teachers also identified a further inquiry question acknowledging that, in their engagement within the group, they were attempting to create a professional learning community in microcosm:

> The project team will also reflect on how we have worked collaboratively in this research…Could this be a part of the project? Valuing the professional dialogue? This is what generates the shared vision and ownership which is a 'luxury' in school life!

Thus, the co-researchers also committed to reconvening as a group for the purpose of not only sharing their professional learning within each of the four practitioner inquiries, but also with respect to this further inquiry question.

4.4   PHASES II AND III – ACTION AND REFLECTION – PRACTITIONER INQUIRIES

Each of the co-researchers led practitioner inquiries with a different focus within the overall co-operative inquiry cycle for 2006, which asked the question: *How can a collaborative culture be nurtured and sustained at the school?* The engagement of the co-researchers in determining how to

act in their respective contexts, to address their identified individual focus question, generated practical knowing. The first-person[7] action of the individual practitioner inquiry projects is reported in the pen-portrait narratives through the articulations of the co-researcher in the various written, visual and oral sources of data collected for this Cycle 1 inquiry. As they deepened into the experience of their own project, experiential knowing was generated and presented in the reflective stories shared with the other co-researchers.

While the practitioner inquiries were pursued individually the meetings of the co-researchers provided a forum for discussion of informing research, methodology, individual project progress and the development of understandings with respect to the overall inquiry question. This second-person research practice of shared reflection within the overall co-operative inquiry led to emerging propositional knowledge from the inquiry context. These professional dialogues enabled the surfacing of a growing awareness and disquiet that, collectively and individually, they were considering only their own limited experience of the school in their own academic areas (past and present). This prompted the recognition that they needed some way of gathering school-wide teacher perspectives of current structures and opportunities for collaboration. The group then constructed a meeting survey that would gather these perspectives as a voluntary online survey. Data from this meeting survey (*N*=31) were then used, as relevant, to inform each of the inquiries and are reported in the individual practitioner inquiries. Thus data from both individual and collective sources are recorded in the pen-portraits of these individual practitioner inquiries which follow.

4.4.1   Project 1: The influence of dispositions and attitudes on collaborative learning teams

The opening of the middle school (years 5 and 6 in 2006) brought together six primary school teachers from a range of backgrounds and experiences into a significantly different school culture (see Section 1.1). In general, these teachers valued working collaboratively but were now faced with implementing new and changing Queensland syllabuses in a new instructional design framework and within a different school accountability structure.[8]   Bernadette identified the high level of shared purpose among these middle school teachers who met together in three common non-contact periods per week:

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[7] The broad action research strategies of first-, second- and third-person research/practice (Reason & Torbet, 2001) are discussed in chapter 3 (see Section 3.4).
[8] Traditionally, primary schools in Queensland, particularly smaller Catholic schools, have not had a designated leadership position devoted to oversight of curriculum. Most primary schools in Queensland comprise grades Prep to Year 7. There is a number of boys' schools which have Years 4 or 5 to year 12 but this is an uncommon structure for girls' schools.

> Teachers worked long hours, also meeting outside the allotted times to create a common understanding of a program that would enrich students' understanding and use of enquiry and reflection.

However, Bernadette observed that when she worked with the group of three year 6 teachers there was an acceptance of her role (as curriculum co-ordinator for the middle school) in facilitating program development but there was a clash of roles evident as she worked with the year 5 teachers:

> As a Year 5 teacher, I noticed that there were some issues around ownership of the process when working with the other year 5 teachers…conflict was a growing issue.

This conflict was not necessarily the outcome of different personalities. Frequently when members of the year 5 team drew on their knowledge, experience and values it led them to not always agreeing with another member of the group but they all viewed this disagreement with some concern:

> The group was seeing this [disagreement when drawing on their knowledge, experience and values] as being conflict – and viewing it as a non collaborative trait.

Different expectations about leadership were also clearly evident. The other year 5 teachers were expecting Bernadette to work as one of the team in the model of primary school year level teams. Bernadette, however, also had a directional role in terms of ensuring that the school instructional model was appropriately implemented in these new curriculum programs. She had experience and understandings in this area, that the other year 5 teachers did not possess, and faced the dilemma of being one of the team but also being responsible for the team's work. In discussion with the other co-researchers, Bernadette recognised this situation as a clash of staff cultures between the more 'level' primary school way of working and the more 'hierarchical' secondary school culture. The context of conflict and her leadership dilemma prompted Bernadette to research how she could help the group of Year 5 teachers to develop as a 'learning' team in which there was respect for the knowledge and experience of all members. This research into team formation, and the positive role that conflict could play in improved functioning of a team, led Bernadette to identify a critical issue for the team, "What strategies would allow us [year 5 teachers] to move beyond and see conflict in a new light?"

Drawing on research, Bernadette identified two things that were at stake for the team: the goal of quality curriculum design, and the relationships between each other. Further research (Achinstein, 2002) helped her to understand that the best opportunity to accomplish the goal and maintain relationships within the group was through a confronting, rather than forcing, strategy. Accordingly, Bernadette took her concerns and research findings to the other year 5 teachers:

> The patterning and algebra strand in the new mathematics syllabus was a point of contention. Instead of continuing to become stressed by the uncertainty, the group confronted the issue agreeing to use…positive listening behaviours…acknowledging, paraphrasing, reflecting, clarifying, elaborating, summarising…This gave each member a common way to communicate their understanding.

In reflection with the co-researchers' group, Bernadette identified the stages that she and the year 5 teachers had experienced to this point as the typical "storming" and "norming" stages of team development identified in the research literature (Richardson, 2005; Tuckman & Jensen, 1977).[9] Following this critical event in team development Bernadette focused her inquiry on tracking the year 5 team's progress as they engaged in the instructional design for this strand of the Mathematics syllabus. As they used their agreed behaviours and discussed the issue of how to develop the curriculum in this area of mathematics, they developed a common collaborative process for identifying problems in their work and searching for solutions. Bernadette distinguished between merely working together in a collaborative manner and working together in a collaborative manner in such a way that the participants were learning. It was this search for solutions that she identified as demonstrating that they had become a collaborative <u>learning</u> team when "they exercised listening skills to determine a learning pathway". Bernadette identified significant changes in attitude for herself and the group:

> After the confrontation, the air was cleared, people were given space to recover and realize that it wasn't about personalities but a need to share the load…My attitude change markedly. The other 2 participants began to see the value of working to complete the task and valuing the contribution made by others.

While the team was obviously progressing as a learning team their willingness to trust and take risks was still slow to develop. Their shared practice clearly had limits as they were not willing to video tape each other's lessons. However, they were happy to tape a teacher educator modelling lessons with their classes and to then engage in discussion about the pedagogical skills and approaches to improving student learning in this pre-algebra aspect of the mathematics curriculum. The results of the overall project group's meeting survey were an effective reflection tool as they agreed that:

> Teachers within the Year 5 collaborative learning team now consider…[themselves in the role of]…contributor of ideas, contributor to the discussion, participant to the discussion, provider of resources and recorder…[and that] the focus of their meeting is consistently relevant and useful…

In a focus group discussion the teachers talked about the changes that had occurred in their ways of working together and their meeting over the last two terms. The importance of identifying strategies that could bring about change in group dimensions and sharing those with the team was recognised as

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[9] Each practitioner inquiry generated a list of relevant research literature as part of the process. These lists are not reproduced in this study. Key references only are included in the pen-portraits.

contributing to the nurturing and sustaining of collaborative learning at the school. The value of the reflection afforded by the focus group discussion led Bernadette to conclude that it would also be important to take time in the future to be explicit about their learning journey. Bernadette summarised her own learning from the inquiry as, "Conflict can be a tool to bring about positive growth, if used correctly".

4.4.2   Project 2: The development of collaborative work skills in teams

Her highly reflective stance with respect to her own practice, particularly as Head of Department, led Leonie to focus on the core skills that teachers need to acquire for the effective operation of subject and year level curriculum teams:

> Personally, it is my third year as a newly appointed HOD within the school and I wanted to reflect on what had worked well and set goals for the future of my Department – particularly in the area of staff learning…

She was concerned by what she perceived to be a non-collaborative culture among staff who were very diverse in their experience. Leonie recognised that the past experience of many of her Department's teachers meant that they "had not been exposed to 'collaborative' practices (e.g. resources kept on own desks, didn't share at meetings etc.)". Of most concern was her belief that this was leading to disengaged students within the Department's subjects. She exhibited considerable concern about how she could support and encourage the professional life of the teachers:

> It was the emphasis on moving away from isolated individuals who worked as 'groups' of staff on a similar year/subject level to developing effective 'collaborative' teams, and the skills required to do so, that I was most interested in…

Extensive research into the development of team skills and roles reinforced for her the understanding that in order to promote team development in her Department she needed not only the trust and respect of the teachers (which she felt was there) but also an awareness of their work preferences and motivations. Leonie reflected, "I think - overall - we can never underestimate the value of having time to 'know' the people we work with".

In discussions with the co-researchers' group Leonie searched for strategies to engage her teachers in developing their collaborative skills in a positive and respectful manner which would be empowering. She experienced frustration that most of the relevant research involved voluntary teams but the "vast majority of [school teams] are determined by virtue of teaching allocation". However, in the literature search she identified several important characteristics and skills of effective team collaboration (Childers & Lowry, 2004; son, 2005) which she incorporated into questions on the meeting survey.

Leonie recognised how having an opportunity to consider the results from the staff meeting survey could function as a 'safe' and reflective prompt for her teachers. To gain initial support for this reflective process she made time available for staff to complete the meeting survey as a 'trial', before it was released for all staff, which gained a positive response because of how she structured it:

> Staff were generally happy to participate as it was during a scheduled meeting time that we filled out the survey. Had it been using their own time – this response may have been different.

In subsequent focus groups (two smaller curriculum teams within the department), Leonie engaged teachers in discussion of the meeting survey results relating to a comparison of the skills teachers thought their curriculum teams displayed and those that had been perceived as in need of development for their teams to be more effective (see Figure 4.1).

FIGURE 4.1
TEACHER MEETING SURVEY
COMPARISON OF TEAM COLLABORATION SKILLS
DEEMED 'COMPETENT' AND 'IN NEED OF DEVELOPMENT'
(N=62)*
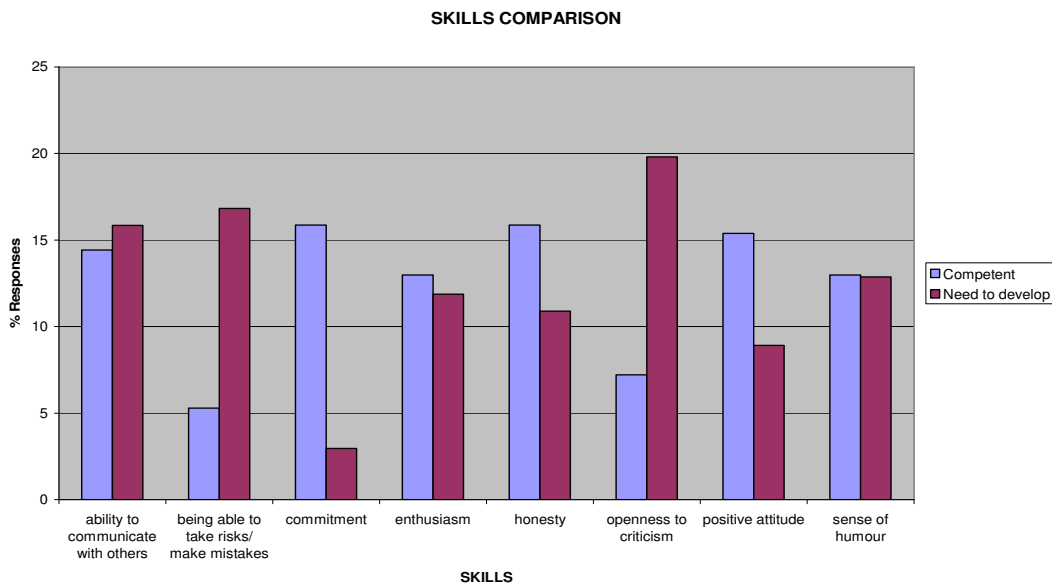
*teachers completed these questions for two of the curriculum teams with which they worked.

In reflecting on what best described their team and what they felt best suited their team needs, the teachers identified that being able to take risks/make mistakes and being open to criticism were easier to develop in the relative 'safety' of smaller groups. This was shown in the teacher comment that Leonie recorded as, 'No time for "switching off" in small teams but got work done efficiently – everyone 'has' to contribute".

Leonie repeated this process with a number of the other meeting survey results relating to team roles, time and meeting goals. Sharing the reflections from these two focus groups with the larger Department group enabled affirmation of some current practices in collaborative activity, generated the identification of a collective learning pathway for the teachers and a sense of ownership of that pathway. Leonie recognised that beginning this process with collective data from the meeting survey provided a comfortable focus for reflection as it was 'once removed' and yet directly related to teaching practice. Through this carefully thought out process in which Leonie identified that "relationships are the key", she had been able to focus teacher attention on how they could work more collaboratively in ways that "would benefit them all". In doing so, she had generated staff motivation to engage in professional learning.

Leonie recognised that her inquiry had begun to push (or pull!) teachers from their comfort zone in which learning was difficult and but there was still a long way to go for this learning:

> The survey and project have proven that our team inquiry has really only just begun its work in relation to collaborative teams and professional learning.

She identified that the process of considering data 'once removed' can assist in the development of reflective skills and can promote professional learning.

4.4.3 Project 3: The facilitation and management of collaborative teams

Working with an entirely voluntary small group of teachers presented Carmel with an opportunity to inquire into the appropriate ways of facilitating and managing this group so that there was effective engagement in collaborative practices. The formation of this group and their recognition of Carmel as their 'facilitator' represented an unusual team situation in that, while they all had a teaching role of the same subject in year 9, their meetings were additional to the formal designated curriculum team meetings. The group clearly had a shared purpose and a high level of commitment meeting every second week after school. Carmel facilitated the meeting through a range of strategies, "…[providing] take-away information, resources and strategies for each meeting so that staff feel supported (something they can apply or use in their practice)".

As the unofficial facilitator and manager of this committed and voluntary group of teachers, engaging in the research became a process of self-awareness for Carmel – she was researching and critiquing her role. Research in this area (Lencioni, 2003; Wenzlaff & Wieseman, 2004) prompted Carmel's observation that as a voluntary group they were "learning in a socially mediated context based in story". By encouraging the sharing of "anecdotes about teaching successes and failures" Carmel was modelling trust and helping the team to develop critical

reflection skills. She identified that this "attention to coaching and reflection" distinguished the group from other teacher groups in the school and was critical to them being a "learning team".

As Carmel progressed with her research she identified a number of personal qualities and behaviours that either enhanced or acted as barriers to collaborative inquiry amongst teachers. Key qualities and behaviours emerged for her, "To encourage trust a facilitator needs to demonstrate vulnerability…A responsive facilitator has to keep a sense of humour!"

In her preliminary report she also recognised that her position as a teacher without any position of responsibility within the school management structure was a "key to meaningful and effective learning" which actually helped to "generate a feeling of ownership and commitment". The voluntary nature of the group and her own leadership style assisted her in guiding the group towards more collaborative approaches. These observations were confirmed by teacher comments:

> I think meetings work better where responsibilities are shared, including deciding what is on the agenda and who leads the meeting…One of the main benefits of meetings should be sharing ideas – there need to be varying structures for this as some people are more outspoken, so there need to be pathways so everyone's views can be shared.

> …with small numbers of teachers…much planning can happen in a less structured way…it is much easier to work in small groups on specific tasks…a HOD does not have to attend or direct all planning meetings.

While Carmel had been sharing resources and discussing "what worked and what didn't" this was not being reciprocated by some in the group. Carmel sensed an increasing reliance on her. Responses to the questions about what teachers would like to see happen more/less often in meetings were affirming but also served to give direction to Carmel in her facilitation of the group as illustrated by the following comments from other teachers:

> Meetings usually achieve their purpose and everything progresses smoothly.

> Meetings focus on the task in hand and we achieve our aims.

> I'd like to see all members of the group more consistently bring ideas and resources to the meeting rather than just absorbing what other people have to offer.

> …more discussion around teaching ideas and collaborative resource development.

Carmel was very aware of the dangers of over-commitment and endeavoured to avoid it with the way she structured the meetings for the group. The group had deliberately chosen a short time period for their meeting (30 minutes) and while this was seen as productive by some teachers there were times when this shorter time was a source of frustration as teachers commented:

> Once we got over the first few meetings teachers seemed to realise that there could be amazing spin offs in just 30 minutes.

> We don't get enough discussion happening where [all] share what they've been doing [in] class nor do we do enough on reflecting…There just isn't enough time to have these sorts of discussions.

Carmel identified that she needed to provide some structure and focus prior to the meetings to allow for a greater level of engagement "by setting individuals manageable tasks (and coaching)" and by building in "mechanisms for reflection". Working towards sharing the facilitation of the meeting became a goal and she identified her priority for following up this inquiry as "to investigate the ways of mentoring facilitators so that the role is shared".

While not intended at the outset of the inquiry, Carmel found that her focus on the facilitation and management of collaborative teams was very much a journey of self-reflection. She recognised that developing a collaborative culture among teachers was a long-term project that required thoughtful and systematic action. In her ability to find humour in even the most difficult of situations, Carmel concluded her project report with the observation: "Wouldn't it be easier if we simply bought a collaborative culture on eBay?" Carmel identified a key outcome of her inquiry as recognising, "Collaboration: it's not the destination – it's the journey."

4.4.4 Project 4: Opportunities available for collaborative work and their effectiveness

As part of her managerial role in the school, Shirley was responsible for timetabling, which included the formal meeting schedule. In trying to meet the demands of the school's move to a more collaborative approach it became increasingly evident that teachers were becoming 'meetinged out' and finding it difficult to balance competing demands. One teacher clearly identified this situation in the following comment:

> The jump in the number of meetings both during school hours to cross mark etc and after school are exhausting and impact on my usually enthusiastic attitude to my work. As I am also heavily involved in extra-curricular activities, I am feeling like reducing my contribution in these areas and this is disappointing as I enjoy this aspect of my job.

Changes to the formal meeting schedule were made and the timetabling of 'common spares' for curriculum teams[10] had been introduced, but Shirley observed that HODs embraced the opportunities for collaborative approaches differently. Practical issues emerged and teacher responses varied. As a result of these observations, Shirley focused her research on investigating

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[10] A 'common spare' is when the timetabling arrangements for secondary school teachers mean that they have the same period free from classes at the same time as others in their subject/year curriculum team, thus allowing them to meet together at that time during the school day. Teachers may belong to as many as 5 different curriculum teams depending on their teaching allocation.

ways in which teacher collaboration was being supported through these timetabled 'opportunities' for collaboration and how the effectiveness of these could be improved.

Research clearly indicated that embedding collaboration opportunities into the routines of school life was critical to fostering a culture of reflective practice (Emihovich & Battaglia, 2000; Fullan, 2001a). This was recognised as a particular challenge for traditionally organised secondary schools (Grossman et al., 2001). Using the meeting survey data Shirley identified a number of key issues for teachers. One of the most surprising findings for her was that, although there had been a concerted effort to 'make time' available for collaborative activity, this did not necessarily guarantee that collaborative activities related to improving student learning, such as sharing approaches to teaching and learning, were actually occurring. Teacher comments were revealing:

> Far too much time is spent on talking about trivial points rather than actually having time to develop work that can actually enhance what we are doing in the classroom.

> Some [teachers in meetings] just run their own agendas and the squeaky wheel gets oiled.

The concern for Shirley was that these comments were clearly not isolated occurrences as demonstrated in further analysis of the meeting survey data. Teachers responding to the meeting survey identified a mismatch between what the stated focus of a meeting was (as per the agenda/notification), what the most time was allocated to, and what their desired focus was for the meeting as shown in the rank order comparison in Table 4.2. This mismatch was particularly evident with respect to administration matters.

TABLE 4.2
TEACHING STAFF MEETING SURVEY
RANK ORDER OF CURRICULUM TEAM MEETING FOCUS, TIME ALLOCATED
AND DESIRED FOCUS
(N=31)

Meeting focus	Stated focus	Focus allocated the most time	Desired focus
Administration matters	**1**	2	**6**
Student work and student progress	3	3	3
Sharing approaches to teaching/learning	4	4	2
Learning new skills	5	5	4
Unit planning and assessment task design	2	**1**	1
External expert	6	6	5

Shirley identified the consequences of this mismatch in comments made by teachers – again, not isolated occurrences. Some teachers did not perceive meetings as "contributing to effective teaching":

> I think there has been meeting overkill…I feel very disheartened consequently my enthusiasm level for another meeting is negative. I think there are others on this staff who feel the same way.

> Meetings…take staff away from the many other duties they need to undertake to be both productive and professional…It's just a job – not a life.

Clearly, this lack of shared purpose generated negativity towards meetings and reduced their professional value for the teachers.

Shirley shared her findings with the co-researchers' group and they confirmed that the meeting survey responses resonated with teacher attitudes that they were observing among participants in their individual practitioner inquiries. For some teachers, meetings in common spares was an issue of value, for others an issue of preferred meeting times, and for others an issue of their implicit understanding of the purpose of spares. Teachers responding to the meeting survey commented:

> …meetings take away time that is a teacher's 'right' to have for individual work.

> The addition of meetings during common spares has eroded preparation time significantly…

Through these comments Shirley identified that using common spares for collaborative work was challenging the traditional individual and isolationist culture of secondary schools identified in the literature (Fullan, 2001b). However, the teacher comments in the meeting survey also revealed that there were differences in teacher perceptions about the value of their curriculum team meetings. Smaller curriculum team meetings were definitely preferred with the recognition that "small focus groups are often more productive". Other teachers clearly had very effective informal networks at the school and saw formal curriculum team meetings as impinging on their own time:

> Teachers do communicate with one another verbally, on a daily basis, sharing ideas, resources, etc. This is always supplemented by electronic means…To impose an additional layer to this…seems excessive.

> It would help if we were physically closer and could have more informal discussions – doesn't have to be a meeting every time.

Teachers in the Middle School expressed strong support for their timetabled meetings noting them as "invaluable". Teachers in the departments of English, SOSE and Science generally valued formal curriculum meeting opportunities more often than those in other departments especially the Arts:

> Inevitably the informal meetings that occur on a daily basis are more crucial for the ongoing support, pastoral care and updating of colleagues regarding teaching and learning issues, especially in a department [Creative Arts] where we are very individual and very busy.

The different teacher responses brought into sharp focus for Shirley that promoting working collaboratively was not so much a matter of structures as of processes and changing what might be quite deep-seated thoughts and perceptions. Shirley summarised her learning from this inquiry as, "Meeting together does not mean that collaboration is occurring. Finding time to meet is only one part of the collaboration puzzle".

4.5   PHASE IV – REFLECTION – CO-RESEARCHERS' GROUP – WORKING COLLABORATIVELY

Within the methodology of co-operative inquiry it is recognised that the quality of inquiry practice lies "in the emergence of a self-aware, critical community of inquiry nested within a community of practice…and healthy human interaction in a face-to-face group" (Reason, 2003, p. 211). During the conduct of the individual practitioner inquiry projects, the co-researchers continued to meet regularly as a group to support each other and to share their professional learning. Unknowingly, this group exemplified many of the principles of Randall and Southgate's model of creative group processes that lead to successful cooperative inquiry group leadership, facilitation and functioning (as cited in Reason, 2003). This section reports data on how the co-researchers engaged in this human process of the creative group model of co-operative inquiry as they reflected on how they worked collaboratively using the focus areas for the individual practitioner inquiries as a framework.

4.5.1   The influence of dispositions and attitudes

With the exception of the researcher, who had worked individually with each of the other co-researchers in her role as deputy principal, the co-researchers had not worked closely with each other before commencing this work together. Getting to know each other and establishing a rapport came through the sharing of story, which was facilitated by meeting regularly in extended blocks of time (see Section 4.2). Early researcher journal entries revealed that the stories were both personal and professional and in formal and informal contexts:

> We started to get to know each other as we shared some personal story time at lunch sitting at the picnic table…it was great to sit and relax off-campus. (23/05/06)

> We talked so easily together as we shared breakfast, even the task of cleaning dishes etc…again it allowed time to share our story…sharing our [professional] story occurred a number of times as we discussed. (01/06/06)

For this group, establishing their shared purpose came relatively easily (see Section 4.3) and their quickly developed rapport was identified as fortuitous and valuable in helping the group work towards their shared purpose. Leonie recorded:

> We were lucky in the fact that we had similar goals, similar work ethic and had an 'unbelievable' rapport with each other…even though our goal projects were slightly different, we were all working for a common cause.

Professional and personal story sharing and being able to quickly identify and commit to their shared purpose assisted the co-researchers' group in working effectively towards their goal.

4.5.2 The development of collaborative work skills

Different skill sets were recognised and used effectively by the group. Bernadette identified a significant teamwork skill which she felt all in the group had learned long ago. She called it "egos left outside". Carmel frequently re-focused discussion by stating "This is what I jotted down…". Leonie identified this mutual recognition of the different abilities each co-researcher brought to the group as critical to the group's effectiveness:

> …we realised early on that we each had some strengths that we were able to share amongst the group (tech skills, researching, ways of working/gathering information and presenting it back).

In their discussions the co-researchers frequently used metaphor and analogy to express concepts and to re-focus their discussion. A key episode was when Bernadette likened nurturing a collaborative culture to "the patient sowing and tending of a cottage garden" in which there were plants of different colours, heights and textures and "where wildflowers were valued for their contribution" and even the weeds contributed to the whole! As presentational knowing, this image prompted extensive discussion of how to value different perspectives in curriculum teams and how to generate a shared purpose towards a 'bigger picture' of teacher learning for improving student learning. This gave direction to the next part of their literature searches for the co-researchers.

As the group continued to meet, sharing and discussing their research, there was a heightened awareness of the extent to which they were demonstrating as a group (or not as the case may be) key skills of collaboration identified in their research. They identified that they were learning in a socially mediated context and had developed implicit norms of collaboration. The researcher recorded that as a group the co-researchers:

> …agreed on the importance of language and willingly spent time looking at the nuance of words and how they spoke in/of our context/our ethos e.g. nurture.

Leonie observed the researcher re-order some of the recording of their discussion on the computer putting the positive observations before the negative ones:

> …we laughed but recognised it [looking for the positive first] as a value…checked ourselves when it came up again – seems to be adopted implicitly as a way of working.

The co-researchers were able to identify and value the different skill sets they each possessed and used these effectively to progress their work. Norms of collaboration developed and were recognised for the shared values they represented.

4.5.3   The facilitation and management of collaborative teams

After the group identified their overall inquiry focus of how a collaborative culture could be nurtured and sustained at the school and began to share their research, they became increasingly aware of how they were facilitating their own collaboration.   A researcher journal entry identified how synergy and energy in their interactions with each other supported their learning:

> …in each of our roles [within the school] we are always 'giving' to others, facilitating, walking beside…[but] this time [co-researchers' group] allowed us to give but more importantly to receive…we generated ideas, piggybacked, summarised/clarified, visualised, spiralled big/narrow, checked progress, wrote and re-ordered, allowed sharing story to progress ideas, revisited…

The researcher was particularly conscious of ensuring that she adopted a co-researcher role within the group taking on the identified stance of "participant learner" (Emihovich & Battaglia, 2000). The researcher journal entry for the first meeting identified this deliberate role stance:

> Feel like I have to lead discussion and be the spokesperson but we will not be a team if I do this – tried to take myself out of that role – others need to share that role…

However, taking the 'participant learner' stance for the researcher proved to be less difficult than anticipated as all the co-researchers readily shared the facilitator role in discussion. It became quickly evident that the co-researchers each brought with them experience as leaders and a developed skill set with respect to team work which facilitated collaboration. By the second meeting the researcher recorded:

> What struck me most was the way we each contributed to and led the discussion…[we] worked without a structure as such but the experience of the four of us meant that there was an implicit understanding of what [we] needed to do and how to progress. All [were] able to say "I think we need to…".

As the practitioner inquiries progressed, however, the co-researchers began to question the extent to which their co-researchers' group might also be different from the individual practitioner groups in the

facilitation and management of their collaborative work. The researcher recorded the group's questioning as:

> …will our commitment and passion get in the way of us seeing things from [the] perspective of others? Recognise that all not like us - so what may work for us may not work for others.

The group also recognised that they had a degree of self-management in their direction not necessarily present in the individual practitioner inquiry groups, particularly those comprising projects 1 and 2 (see Sections 4.4.1 and 4.4.2). Citing research (Hertzog, Pensavalle, & Lemiech, 2000) Leonie recorded in her report that the collegiality evident in the practitioner inquiry groups for both her project and that of Bernadette (projects 1 and 2) was inevitably contrived as their membership was mandated by teaching allocations. This mandated formal membership resulted in an imposed nature of interpersonal interactions. In contrast, Leonie identified the co-researchers' group as being inherently authentic rather than contrived in its collegiality:

> …[the collegiality] experienced through this project has been…authentic…as we have all worked interdependently, without the formal and imposed nature of contrived meetings.

Leonie concluded her report with the statement that, "There is a difference between our team and our...[individual practitioner inquiry] teams." For her the critical difference was that of motivation which derived from professional choice.

Effective facilitation and management of the co-researchers' group was an outcome of the existing skill sets and leadership experience of the co-researchers that enabled them to share responsibility for supporting the group in working collaboratively. The development of an authentic collegiality was facilitated by the voluntary nature of the co-researchers' group.

4.5.4   The opportunities for collaborative work and their effectiveness

The co-researchers' group recognised that the effectiveness of their meetings was enhanced by a number of factors which would not necessarily be present in the meetings of their individual practitioner inquiry groups, particularly for projects 1 and 2. Being able to select a meeting time and schedule to suit themselves (see Section 4.2) meant that they knew they would be able to schedule their other commitments around these times, thus easing workload pressures. The co-researchers were also able to be flexible and responsive to workload demands that arose. At times the scheduled meetings were shortened by agreement or one of the co-researchers left the meeting to attend to other matters; occasionally a meeting was cancelled. At the same time a meeting schedule provided structure to their activities as Bernadette identified:

> Without the regular meetings I would have found it hard, if not impossible to do my section of the project. I was kept on task, my question was focused within the group's investigation and the rich discussion that was generated gave me insights as to my next step in the learning journey. Dare I say…no woman is an island!!!

The co-researchers' collective and individual work was clearly sustained by their shared passion which was a considerable motivating force. This was reinforced by a strong sense of ownership as Bernadette clearly identified:

> All shared the tight timelines – encouraged each other. Oh those late nights and early mornings but we were in there together. We owned it together!! There was no isolation or feeling that we needed to do it because it was a directive.

However, motivation came not only from internal sources but also from external sources. With the support of the school principal their meeting time was embedded in the school day. It was time that the co-researchers 'gave' before their school duties would normally commence and time which the school 'gave' in releasing them from any additional supervision duties that might arise to cover staff absences on that day as well as the occasional home group or class cover. This overt support generated a positive feeling toward their work as they felt that their work was being valued. Leonie reported:

> …Advantage was that I felt very supported and the project had validity. "Success breeds success" is true in that we each were working towards a common goal – whilst furthering/stimulating our learning and it did not seem like "an extra" thing to do.

For Leonie there was the additional motivating factor of the possibility of university course work credit for her practitioner inquiry research in her Masters degree.

One of the most significant factors that promoted the collaborative effectiveness of the co-researchers' group was the fact that when they did meet it was for an extended time of almost 3½ hours. They all recognised that this overcame a number of the difficulties identified by teachers in meeting survey comments with respect to allowing adequate time for discussion. This was obviously not something that could be sustained over a long period of time. The co-researchers' group identified "some tight timelines" as they encountered peak workload times with their teaching duties. However, the timeframe proved to be achievable with the co-researchers coming together in mid-term 2 to plan the inquiries, working with their individual practitioner inquiries in term 3 and then evaluating the inquiries at the start of term 4 and presenting their findings to a range of forums (external university and catholic education forums, and the internal school groups of heads of department and the leadership team).

The opportunity to meet in supported, regular, flexible and extended time assisted in the motivation of the co-researchers' group and enhanced their ability to work collaboratively. The realistic time frame for the practitioner inquiries enabled the co-researchers to effectively involve teachers at the school and to present their findings in appropriate forums.

4.6   OUTCOMES OF CYCLE 1 CO-OPERATIVE INQUIRY

The four co-researchers had undertaken individual practitioner inquiries that investigated influences affecting the nature and effectiveness of collaboration in the school. It is clearly evident from the actions and reflections of Phases I to IV presented in the previous sections, that the first co-operative inquiry cycle was both informative and transformative in nature (see Sections 3.3 and 3.4). As informative inquiry the outcomes are primarily presentational and propositional. As transformative inquiry the outcomes are "transformations of personal being, social processes, or of the environment, and the various skills involved" (Heron & Reason, 2006, p. 152) and as such would be evident in the actions and changes in practice of the co-researchers in the school and their particular contexts, as well as for the teachers whom they involved in their individual practitioner inquiry projects.

Consistent with the purpose of the first co-operative inquiry cycle, the co-generated knowledge related to the intentional inquiry focus of promoting the school as a professional learning community. In particular, the inquiry focused on nurturing and sustaining a collaborative culture. The individual practitioner inquiries generated practical and propositional knowledge in Phases II and III of the second cycle of co-operative inquiry, while the collective reflective process of Phase IV generated further practical and propositional knowledge with respect to the experience of the school as a developing professional learning community in this first cycle of inquiry. This knowledge generation is summarised in Table 4.3 and has been coded for ease of discussion in later chapters. The propositional and practical knowing findings summarised in Table 4.3 were used by the co-researchers to inform recommendations for the future and were presented to appropriate forums within the school. In particular, they were used to inform the next cycle of co-operative inquiry.

TABLE 4.3
CYCLE 1 CO-OPERATIVE INQUIRY – KNOWLEDGE GENERATION SUMMARY
NURTURING AND SUSTAINING A COLLABORATIVE CULTURE

Focus area	Phases II and III Practical and propositional knowing	Phase IV Propositional knowing
Team formation and development	In teacher curriculum team formation conflict can be a tool to bring about positive growth, if used correctly. Conflict should not be seen as non-collaborative. *[1a]*	Professional and personal story sharing assists in the generation of shared purpose as it can articulate implicit values and develop inquiry group norms. *[1f]* Shared purpose is required for effective group collaboration. *[1g]*
'Core' skills for effective collaboration	Considering data 'once removed' can assist in the development of reflective skills and promote professional learning. *[1b]* Developing reflective practice and collaboration is a journey. *[1c]*	Effective inquiry requires the identification, valuing and use of different skill sets of group members. [1h] Recognition of the shared values in group norms assists effective group performance. *[1i]*
Facilitating collaborative practices	Collaboration is an on-going process of development which requires thoughtful and systematic action by facilitators. *[1d]*	Effective facilitation and management of an inquiry group enables shared responsibility for supporting the group in working collaboratively. *[1j]* The development of an authentic collegiality is enhanced by voluntary group membership. *[1k]*
Meeting structures and scheduling	Providing time for collaboration does not necessarily mean collaboration occurs. *[1e]*	The opportunity to meet in supported, regular, flexible and extended time assists in the motivation of inquiry group members and enhances their ability to work collaboratively. *[1l]* Realistic time frames for inquiry enable more effective involvement of teachers. *[1m]* Significant professional learning occurs in the preparation of inquiry reports for presentations to a variety of forums. *[1n]*

Co-researcher conclusions:

Shared vision and voluntary participation can make a significant difference in promoting effective collaboration through generating commitment, motivation and ownership. *[1o]*

Practitioner inquiries are a challenging but effective professional leaning activity capable of contributing to the development of the school as a professional learning community through changes in school processes and the co-researchers' practice. *[1p]*

Overall, in their work together as a co-researchers' group, they identified that the way in which they had worked collaboratively was different from how the participants in their individual practitioner inquiries worked. Critical factors were identified as time, their voluntary composition and the nature of the group who shared a passion for their own learning and the learning of teachers. Bernadette observed:

> We wanted to be there!!...We were also given an opportunity to explore, work on our own but still be part of a team with a common goal, and being treated as an equal into the bargain!!! A dream combination.

Reflections on these differences informed the recommendations they made in their presentations to the school heads of department and leadership team. In particular, they recognised that while they had developed their own understanding of the experience of a developing professional learning community they had a very limited understanding of the wider practitioner experience and so recommended that this be explored further for the next co-operative inquiry cycle. Significantly, the co-researchers felt that their experience highlighted the challenge of developing their school as a professional learning community as envisaged in the school professional learning model. They identified this challenge as:

> …the tension between work intensification, the immediate needs of daily practice and the perception of collaborative teams as an add-on to already busy schedules.

The presentations by the co-researchers of the conduct of their individual practitioner inquiries, and their individual and collective findings to the school groups prompted discussion, influenced decision-making for the following year and changed their own professional practice as they were 'transformed' by the 'knowing how to act' they had generated in the co-operative inquiry. For the researcher, the findings influenced her practice with respect to the timetabling of common spares and the formal meeting schedule. The practitioner inquiries prompted reflection on the leadership of teaching and learning at the school and informed decision-making with respect to positions of responsibility. This reflection, together with other considerations, led to the creation of the position of Project Leader for Teaching and Learning, to which Carmel was appointed. The researcher observed through her meetings with heads of department (both collectively and individually) that there was an increased awareness among heads of department of the various influences which nurtured and inhibited effective collaboration in their curriculum team meetings. In their discussions, heads of department and the researcher began to use a common language generated through the presentation of the practitioner inquiries. The co-researchers served as an informal reference group and discussion of their findings informed curriculum decision-making for the following year and the identification of whole school curriculum goals for 2007. Among these goals, facilitating and increasing teacher professional learning was clearly identified as important:

> *Outcome L:* Increase opportunities for staff to engage in professional learning activities and critical reflection of their professional practice…
>
> *Enabling Process 1:* Facilitate collaborative processes to build trust and ownership of the process. (RI College, Whole School Curriculum Outcomes 2007)

As evident in the pen-portraits of the individual practitioner inquiries, each of the co-researchers engaged in critical reflection on their own practice and identified significant professional learning in the process of conducting the individual practitioner inquiries and from the work of the co-

researchers' group. Their personal propositional and practical knowledge created through this co-operative inquiry experience was recognised as significant by each of the co-researchers. In addition, all had learned something about themselves and how they could be more effective in their various leadership roles as exemplified by the following comment from Bernadette. She identified that she had adjusted her way of working with the other middle school teachers:

> I took on the role of mentor…to model collaborative planning…respect has been regained…[I] do not feel guilty when there is conflict…

In the presentation of their findings to various forums the co-researchers reflected that the practitioner inquiry process was challenging but valuable. They reflected that practitioner inquiry:

> …can be a complex process…[and is] not a neat orderly activity…we learned together about something that will be extremely beneficial to the staff in 2007 and beyond.

Engagement in the practitioner inquiries demonstrated the significant difference that shared vision and voluntary participation can make in promoting effective collaboration through generating commitment, motivation and ownership. Practitioner inquiries were identified as a challenging but effective professional learning activity capable of contributing to the development of the school as a professional learning community through changes in school processes and the co-researchers' practice.

4.7   CHAPTER SUMMARY

The co-researchers in the first co-operative inquiry cycle recognised that teacher collaboration is a key characteristic of a professional learning community and had focused their inquiry on how a collaborative culture might be nurtured and sustained at the school. This was explored in both the co-researcher collective practice and the individual practitioner inquiries which focused on:

- team formation and development;
- 'core' skills for effective collaboration;
- facilitating collaborative practices; and
- meeting structures and scheduling.

The practical and propositional knowledge that they generated in Phases II to IV of this cycle were extensive as evident in Table 4.3.

These findings clearly demonstrate that the first cycle of co-operative inquiry generated considerable practical and propositional knowledge. Significantly, this knowledge identifies the importance of

generating a shared purpose and values for teacher groups inquiring into their practice and suggests some strategies to assist in this process, especially professional and personal story telling. The leadership qualities required to engage teacher groups in reflection on practice and the particular leadership skills which are critical to this purpose are brought into sharp focus through these findings. These skills relate to facilitation of the collaborative endeavour and include the ability to use conflict constructively; to recognise and utilise the skill sets of teachers in the group; to develop inquiry group norms; to develop reflective skills through careful selection of activities and student data; and to encourage shared responsibility for group functioning. Of particular significance, are the findings relating to time which suggest that how time is provided for collaborative work impacts on the motivation of group members and the effectiveness of the collaborative activity. The co-researchers concluded that engagement in practitioner inquiries, particularly those that are voluntary, promote collaborative activity and can change school and teacher practice.

During this first co-operative inquiry cycle there was recognition that, although involving many teachers across the school, the practitioner inquiries of the co-researchers were not capturing the wider teacher experience of the school as a professional learning community and the recommendation was made that some method be devised for capturing this experience during the second co-operative inquiry cycle. As a consequence, the researcher undertook to devise and administer a survey instrument which might capture that experience. This particular inquiry took place simultaneously with the second co-operative learning cycle and is reported in the next two chapters.

Chapter 5 Survey instrument:
Development and validation

5.1   INTRODUCTION

In the previous chapter, the co-researchers of co-operative inquiry Cycle 1 recognised, that while they had developed their own understanding of the experience of a developing professional learning community, they still had a very limited understanding of the wider practitioner experience. Moreover, the researcher recognised that the second cycle – planned to follow a similar structure to that of the first – would also not capture the wider teacher experience of their school as a developing professional learning community.   As a consequence, the researcher undertook to devise and administer a survey instrument that might capture the experience; this particular inquiry took place concurrently with the second co-operative learning cycle and informed the Phase IV reflection of the co-researchers in that cycle. Adjustments such as this are an inherent part of the participatory world view and reflexive nature of the participatory/cooperative research paradigm (Heron & Reason, 1997) and represent Denzin and Lincoln's (2005) powerful image of the qualitative researcher as "*Bricoleur* and Quilt Maker" where the product of the interpretive *bricoleur's* labour is described as:

> …a complex, quiltlike bricolage, a reflexive collage or montage – a set of fluid, interconnected images and representations…like a quilt, a performance text, a sequence of representations connecting the parts to the whole (p. 6).

Accordingly, this study's research design was adjusted to include a separate inquiry to include the following Research Question 3:

> Can a theoretically based and context-specific instrument be devised to assess practitioner experience of their school as a professional learning community?

In order to identify the theoretical basis for such an instrument the researcher returned to the literature review of Chapter 2. This review conceptualised a professional learning community as 'social architecture' with a set of four structurally related essential attributes each with a defining dimension and enabling process (see Section 2.4.4).   This theoretical conceptualisation, identified by the researcher in Chapter 2, was thus used as the framework for the development of a context-specific instrument to assess teacher experience of the school as a professional learning community with the resulting instrument to be identified as the TEPLC survey (Teacher Experience of their school as

Professional Learning Community) The eight constructs of defining dimensions and enabling processes of this conceptualisation provided the basis for instrument scale development and items were constructed to reflect the resulting eight scales. In the development of instrument scale items existing instruments were examined but were found to be based in contexts of public schools and North American or European education systems. As such they offered focus areas for instrument items but did not adequately represent the research context of a Queensland Catholic school. Thus, instrument scale items were developed by adapting items from existing instruments and constructing other items to more adequately reflect the research context and the proposed scales.

This process of instrument design and validation closely follows the intuitive rational approach identified as a valid scale construction strategy by Hase and Goldberg (1967) and widely used in instrument design within recent learning environment research (Dorman, 2003; Lang, Wong, & Fraser, 2005; Walker, 2006). This three-stage approach begins with the identification and development of salient scales through a review of relevant literature and stakeholder consultation. Item selection/writing based on an 'intuitive' conceptual understanding of the particular scales is then followed by field testing and subsequent refining of the scales using internal consistency reliability measures (Hase & Goldberg, 1967). This is a multi-stepped approach which has been used effectively to address issues of face, construct and content validity of scales and their items in several studies of learning environments (Fraser, 1998; Jegede, Fraser, & Fisher, 1995). Thus, item-scale identification occurs prior to instrument administration in this approach in which analyses of the refined data set support instrument reliability and validity (Walker & Fraser, 2005).

To meet the context-specific purpose of the instrument design, two criteria were selected to guide the development process. For contextualization the scales and their items needed to meet the following criteria:

- language and item focus consistent with those of Australian education systems – particularly Queensland, and
- school characteristics representative of Catholic school environments.

For effectiveness in its ability to capture teacher experiences of the school as a professional learning community, the instrument format and its administration needed to recognize both the demanding professional life of teachers at the school and their technology rich environment. The use of an online survey has been shown to be an effective tool in obtaining data in a timely and effective manner in such an educational setting (Trinidad, Aldridge, & Fraser, 2005).

This chapter reports the process of the research instrument development and validation using these criteria and the three staged intuitive rational approach. There are five sections reporting this process:

- Section 5.2 identifies the underpinning conceptual framework for the scale development and the development process for salient scales for this study in the context of an Australian Catholic school in the Mercy tradition;

- Section 5.3 details the examination of existing instruments and the selection of instrument format for this study with subsequent item selection and writing;

- Section 5.4 reports on the field testing and the application of validation processes to refine the instrument; and

- Section 5.5 identifies the development of the final form of the instrument in its online format and the validation of the instrument in the main study.

A summary of the development and validation of the instrument is presented in Section 5.6.

5.2   IDENTIFICATION AND DEVELOPMENT OF SALIENT SCALES

The 'social architecture' conceptual framework of the characteristics of a professional learning community developed in the literature review (see Section 2.4.4) provided the basis for scale development. This framework proposed key constructs of a professional learning community in the essential attributes of community culture, student learning, teacher professional learning and teacher professional practice. These key constructs were conceptualised as structurally related defining dimensions with enabling processes:

- a community culture, in which a shared purpose and values are nurtured by a supportive staff culture,

- a focus on student learning, in which improving that learning is sustained through capacity-building leadership and the processes this leadership promotes,

- teacher professional learning, in which the emphasis is on shared professional practice supported through collaborative inquiry work practices, and

- teacher professional practice, in which there is engagement in collective instructional decision-making informed by individual reflective practice.

In order to inform scale development and item selection, these constructs were further explicated with their structural relationship identified. Codes were assigned to each construct in order to facilitate data discussion (see Table 5.1).

TABLE 5.1
INSTRUMENT SCALES SHOWING STRUCTURAL RELATIONSHIPS
(WITH SCALE CODES)

Essential attribute	Defining dimension	Enabling process
Community culture	Shared Purpose and Values *(the lens)* SPV	Supportive Staff Culture *(the nurturer)* SSC
Student learning	Improving Student Learning *(the focus)* ISL	Capacity Building Leadership *(the sustainer)* CBL
Teacher professional learning	Shared Professional Practice *(the critical paradigm shift)* SPP	Collaborative Inquiry Work Practices *(the conditions)* CIW
Teacher professional practice	Collective Instructional Decision Making *(the key)* CID	Individual Reflective Practice *(the change agent)* IRP

The possibility of universal application within the wider context of Australian schools guided the explication of these constructs. In arguing for caution in the application of presumptions of universalism in research literature, Fidler (2001) claims that while concepts may have a universal application their actual occurrence in practice will nevertheless be contextual and situational. While all of these constructs can be readily applied to any school setting, the particular context of a religious institute Catholic school does mean that it is likely that there are distinctive characteristics of this context that need to be captured within the scales for these constructs. Thus, in the development of this instrument and identification of salient scales, the contextual relevance of Catholic and Mercy was sought through document analysis and the perceptions of relevant stakeholders. At the same time, the development process sought, where possible, to exclude any instrument features which might be considered situational and relevant only to RI College.

5.2.1 Catholic context

Documents relating to Catholic schools in general, and to Queensland in particular, were reviewed to identify any contextual characteristics that would need to be captured by the proposed scales. Of the eight proposed scales, it is those relating to community culture that will most reflect the particular contextual characteristics of Catholic schools.

For Catholic schools, the Shared Purpose and Values dimension (SPV) has a particular distinctiveness, which is an expression of both its ecclesial and cultural identity as well as its mission of education (Congregation for Catholic Education, 1998). Catholic schools in Australia do have distinctive characteristics to which they are required to pay careful attention and are widely recognised (National Catholic Education Commission, n.d.). It follows then that not only will this Shared Purpose and Values scale be distinctive, but for Catholic schools it must also take precedence over the other scales. Catholic education must be based in deeply meaningful values and a vision in which there is a recognition of the central and pivotal role of teachers in achieving that purpose (Congregation for Catholic Education, 1998). Other distinctive features of the Catholic school that should be represented in this Shared Purpose and Values scale are identified in The Queensland Bishops Project, which highlights the necessity of renewal processes where the alignment between Christian values and the purposes and practices of the Catholic school are maintained through the development of shared understandings of these values, purpose and practices (Queensland Catholic Education Commission, 2001).

Australian research reports of Catholic schools highlight that the purposeful involvement of school leadership in promoting interpersonal relationships and creating a culture of community is critical in developing and maintaining this Catholic school life and ethos and would need to be evident in the Supportive Staff Culture (SSC) and Capacity Building Leadership (CBL) scales (Belmonte, Cranston, & Limerick, 2006). These two scales also need to reflect a commitment to right relationships and collaborative decision-making processes which must be characteristic of the community of teachers as well as the whole school community in Catholic schools of the twenty-first century (Queensland Catholic Education Commission, 2001). The report of *A Framework for Leadership in Qld Catholic Schools* (Spry, 2004) also outlines characteristics of these two scales in the articulation of its underpinning conceptual framework based in Catholic social doctrine, post-industrial leadership and leadership development. These characteristics include a particular view of leadership formation and the development of a culture of shared leadership, the linking of leadership capability with formal and informal learning, as well as particular ways of working with, and for, community.

Elements of the teacher professional learning and practice scales are suggested by the expectation that teachers in Queensland Catholic schools will be reflective practitioners who model life-long learning, network with their colleagues and engage collaboratively in projects of learning and teaching (Queensland Catholic Education Commission, 2001).

It is evident from this analysis of relevant Catholic school documents that three of the proposed scales (Shared Purpose and Vision, Supportive Staff Culture and Capacity Building Leadership) need to capture the following contextual characteristics:

- deeply meaningful values and vision identifying distinctive Catholic purpose,
- on-going renewal processes that facilitate the alignment of these particular values and practice,
- the centrality of teachers in achieving the distinctive Catholic purpose,
- building up of leaders in a commitment to collaborative decision-making thatdemonstrates these particular values,
- leadership promotion of interpersonal relationships in community building that reflect these particular values, and
- the expectation of Catholic school teachers as learners engaging in reflective practice.

5.2.2   Mercy context

Catholic school identity for religious institute schools is recognised as an expression of their particular charism informed by the on-going engagement with the vision of their founder (Congregation for Catholic Education, 1998). The identity of RI College is thus formed by the charism of the religious institute (Order of the Sisters of Mercy) and the vision of its foundress, Catherine McAuley, which continue to shape and inform the school's development. As such, the context of being a Catholic school in the Mercy tradition is a characteristic which needs to be considered in the development of instrument scales. Documents sourced from the Sisters of Mercy were used in order to gain the perceptions of this key stakeholder.

A commitment to community building is among the root values of Mercy education and is identified as sharing a common vision for a community in which there is a "genuine opportunity for participation and collaboration" (M. Reynolds & McGuiness, 2006, p. 10). The root value of dedication to excellence is represented in Mercy schools as a commitment to quality teaching and learning in which there is a particular vision of a Mercy educator:

> In Catherine's spirit the Mercy educator is open to new perspectives, new questions, and even new answers to old questions. Our schools and classrooms are places where both teachers and students welcome questions that keep them open to inquiry, dialogue and wonder…Catherine's spirit lives on when we are open to pioneering new initiatives in our schools, when we broaden our perspectives by learning about the practises [sic] and experiences of others…when we take ongoing care to ensure that our professional and personal competencies are continually updated and enhanced to make us the very best persons and practitioners we can be (M. Reynolds & McGuiness, 2006, pp. 8-9).

Clearly there are expectations of teacher professional learning and professional practice implied by this description of the Mercy educator that are relevant to each of the scales for these constructs:

- professional dialogue as an integral part of teacher professional practice,
- professional learning that focuses on the experience and practices of others, and
- inquiry based teacher reflective practices.

Schools in the Mercy tradition are challenged to steward Mercy values and to reflect these in the quality of relationships within their practices as well as their structures and curriculum (Mercy Secondary Education Incorporated, 1998). Updating of both school structures and staff skills in response to evolving needs, through reflection and review, should be at the heart of practice in a Mercy school (M. Reynolds & McGuiness, 2006).

The reflection on Mercy school culture as a collaborative "work in progress" is identified by Schneider (2006) as valuable in enhancing the distinctive mission integrity of a Catholic school in the Mercy tradition. Sr Annette Schneider has developed a Mercy school culture audit using: Church documents relating to Catholic schools, biblical expressions of mercy, the life and writings of Catherine McAuley, contemporary approaches to Mercy education, and the research literature on school culture. Working with Australian Mercy schools, she has proposed twenty-two observable aspects of school life that a school can use to critique its lived reality against core Mercy values.

The components of Schneider's Mercy school culture audit were mapped against the professional learning community constructs to identify any characteristics or emphases that needed to be captured in the instrument scales (see Appendix A). Predictably these distinctive cultural components clustered in the constructs of Shared Purpose and Values (SPV) and Supportive Staff Culture (SSC) with a small number also in the Capacity Building Leadership (CBL). While there were also a number identified as relating to Improving Student Learning (ISL), their relevance to this construct is indirect, relating more to the nature of learning experiences than a specific focus on Improving Student Learning. This initial mapping was presented to two groups of senior Mercy secondary educators in workshops at the 9th biennial conference of the Australian Mercy Secondary Education Association in August 2007. The discussion with the 56 workshop participants confirmed this mapping and also revealed that while some of these components are clearly an aspect of a construct (such as #2 *There is a clear mission statement describing the vision and core values*), others are more an outcome of the effective operation of the construct (such as #3 *The school provides a positive learning environment which affirms holistic education and encourages creative teaching and learning*).

Schneider claims that the Mercy culture audit is a useful tool which can be adapted to different Mercy school contexts (Schneider, 2006) and as such the components suggest particular emphases of the Mercy context to be captured in the instrument:

- clear mission statement describing the vision and core values of a Mercy school (#2);

- school-based policies and procedures that reflect the Mercy school's core values (#20);

- staff culture characterised by clear communication and positive relationships, reflecting compassionate concern for people and where all are respected and made welcome (#1, #8, #12);

- the celebration of achievements of staff members (#22);

- leadership which is life-enhancing and empowering (#7); and

- decision-making as a shared responsibility in a spirit of collaboration (#9).

While it is possible to identify school culture as situational rather than contextual the reality that it defines gives support and identity to the social organisation and can be considered a framework for occupational learning (Stoll, 2000). Thus the value of the Mercy cultural audit is the perspective that it gives with respect to the core values that define this social organisation – the Mercy school.

5.2.3   Salient scales

The conceptual framework drawn from the literature review proposed key constructs of a professional learning community as structurally related dimensions with enabling processes.   These eight constructs were identified as eight scales to be considered in this first stage of developing the context-specific instrument for this study (see Table 5.1). The analysis of documents relevant to the religious institute Catholic school context did not suggest the need for additional scales to those proposed in the framework. However, this analysis did reveal particular emphases that need to be captured in the scales for each of the instrument constructs if they are to adequately represent this context (identified as dot points in Sections 5.2.1 and 5.4.2). These emphases relate especially to the scales for Shared Purpose and Values (SPV) and Supportive Staff Culture (SPV) with some minor emphases for each of the other scales.

5.3   ITEM SELECTION AND WRITING

This stage in the intuitive rational approach to instrument design involves the writing of items conceptually linked to the salient scales identified in the previous stage. Indicators for each of the proposed constructs were drawn from the literature (see Appendix B). Following the identification of

these indicators for each of the scales, the writing for the instrument being developed required a number of steps. The first of these considered the type of instrument and scale item to be used. Existing instruments were then examined and various items adapted for use in this instrument according to the criteria set, particularly that of item language and focus consistent with those of Australian (and Queensland) education systems. Lastly, items were constructed to more adequately reflect the research context and the proposed scales as identified in the previous stage. As each item was written it was allocated to one of the eight scales for the instrument.

5.3.1   Selection of instrument type

A review of existing instruments was undertaken in order to identify the most appropriate format for the research instrument. This review identified that the contextual base in the USA or UK educational systems meant that the use of language and focus was often inappropriate for this Australian research context. Format and response types varied and a match was sought between the purpose of the instrument and the format/rating type.

Format

Existing instruments take different forms largely reflecting the purpose of the instrument and the educational context in which it is used.   The main features of the available instruments are summarised in Appendix C. The majority of the published instruments originate in the United States and have been used as part of an education district's school improvement program (e.g. Capistrano Unified School District, 2005) or by individual schools as a prompt to school reflection, again usually within the context of a district's school improvement initiative (such as schools using the survey from Mid-continent Research for Education and Learning, 2004). Many of the instruments available are adaptations of the professional learning community stage identification type of questionnaire developed by DuFour et al. (2006) and Eaker et al. (2002b); or, alternatively, they are based in the professional learning community research of Kruse et al. (1995). A different focus was evident in the extensive research based questionnaire designed for the *eplc* project in the UK (Bolam et al., 2005). This research endeavoured to identify the nature and development of effective professional learning communities in the UK context and tried to identify change within the previous two years in terms of the proportion of staff identified as demonstrating the particular professional learning community characteristics.

Published instruments invariably use some form of statement about a characteristic of a professional learning community organised in dimension type scales (Hord, 1996) or as some form of reflection checklist such as a web-based resource (National School Reform Faculty, n.d.).   At the time of

completing this research it appears that the only existing instrument which has been subjected to extensive statistical testing and assessment of its psychometric properties is the *School Professional Staff as a Learning Community* developed by Hord (1996b) and assessed through the Appalachia Educational Laboratory and other researchers (Cowley & Meehan, 2001; Meehan, Orletsky, & Sattes, 1997). This instrument was designed to specifically identify the degree to which a school staff had implemented the identified components of a professional learning community (Southwest Educational Development Laboratory, 2001). In recent years the Hord instrument has been adapted by Olivier, Hipp and Huffman (cited in Hipp & Huffman, 2002) and field testing undertaken to ensure its applicability with respect to the assessment of school-level practice with intended participants not only from the school but also from the parent and the wider community.

Thus, most of these instruments have been designed to be used with school communities that have adopted some formal program of 'becoming' a professional learning community as a school improvement initiative that has been largely externally driven. The nature of the questions and the response type reflect this context and all contain some context-embedded language such as 'district', 'building' or 'faculty' (U.S. instruments) or context-based process descriptions such as 'use LEA advisers/support staff for professional learning' (U.K. instrument).

None of the existing instruments match the purpose of this research but those that endeavour to collect teacher perceptions or opinions about their school as a professional learning community (rather than 'stage' in the development of a 'program') use a statement/rating format. This type of format lends itself to research about proposed scales as the statements can be categorised according to those scales. In this format, the scale items can be administered in mixed order to avoid potential participant pattern effects that can occur when items for the same scale are clustered together. While some questionnaires, such as the *eplc*, have a common stem (*Teachers in this school…*), a format with statements that describe school, teacher and 'self' characteristics was thought to more readily represent the nature of each of the proposed scales where some have aspects relating to the school (SPV), teachers in general (SSC) or individuals (IRP) .

Rating type

In gathering opinion or attitude data, a Likert-type scale has been the most common response scale used within the social sciences; however, there has been considerable debate about the optimum number of response categories to enable discrimination between the items (Cox, 1980; Jacoby & Matell, 1971) and the issue has been declared as still unresolved (Preston & Colman, 2000). Research has also been inconclusive in identifying the effect of the number of response categories on

measures of internal consistency reliability such as the Cronbach α, although fewer response categories has the potential to "lose information on individual differences and lower the reliability estimates" (Weng, 2004, p. 959).

Using a statement prompt for response allows for either frequency or agreement ratings to be used. Existing instruments using these ratings have generally used a four- or five-point scale with frequency from *not at all* to *to a great extent* or agreement from *strongly agree* to *strongly disagree*. Where a four-point scale has been used then no neutral response category has been given. While it has been shown that a four-category response scale may yield less reliable, valid and discriminating scores than a higher number of categories, it has also been recognised by researchers that category choice needs to be relevant to the respondent context (Preston & Colman, 2000). There were eight scales proposed for this instrument and it is likely that these would generate a large number of items. Thus, it was deemed important to select the number of categories that would encourage participant response without frustration, particularly in the time-pressured environment of teaching in the second semester of a school year. As such, the decision was made to use only four categories without a neutral choice.

It is recognised that the use of an uneven number of rating categories allows for a neutral position to be adopted and is encouraged in scale design where such a position can be considered legitimate (Cox, 1980). Such legitimacy may be claimed for responses to opinions on issues; but, where the response is seeking a rating on an experience then it can be argued that a neutral response is not relevant. Given that the research instrument is seeking teacher experience of their school as professional learning community then a neutral response of *don't know* or *not sure* is meaningless. This means that all the item statements must be carefully worded so that they describe experiences that the teacher can be reasonably likely to have encountered. Thus the forced choice of a rating of *strongly disagree, disagree, agree, strongly agree* was determined to be appropriate for the research instrument. This follows the approach used by Olivier, Hipp and Huffman for their *Professional Learning Community Assessment* (cited in Hipp & Huffman, 2003).

5.3.2   Item selection and writing

The theoretical conceptualisation of structurally related key constructs is the framework for the instrument scales. Since these constructs arise from the literature review it is possible to identify elements of these in existing instrument scales, particularly Shared Purpose and Vision and those relating to collaborative teacher practices and collective responsibility. Most items selected from existing instruments required some form of modification. In general those relating to teacher practice

were more readily adapted to the research context, while those relating to community culture required writing. Existing instruments did not use negatively worded statements and so the adapted items and those written for this instrument were also positively worded.

The existing instrument scale items identified variously as shared sense of purpose (Mid-continent Research for Education and Learning, 2004), shared norms and values (National School Reform Faculty, n.d.) and shared values (Eaker et al., 2002b) were rarely appropriate to the research context. While items from these instruments use the terms vision, mission and values they do so in a very different sense from how they are understood within Catholic schools. Vision is used more in the sense of a school plan or educational program implementation often driven by the Principal or educational district, while values related more to philosophical understandings of curriculum (Hipp & Huffman, 2002) than the relationship values of a Christian community.

Items from these instruments were adapted for the Catholic and Mercy contexts identified in Sections 5.2.1 and 5.2.2 and others were constructed to reflect these contexts. This writing was informed by the work of Grace (2002), Rittner (1999), Schneider (2006) and Stevens (2006) with respect to the Mercy and Catholic context. Since most of these items were largely constructed by the researcher it was important to test for consistency of interpretation among those who knew and understood the Catholic and Mercy contexts. When these items were presented to the identified key stakeholder group of workshop participants at the MSEA conference, responses indicated that they were expressed in ways which would be readily understood by teachers in Catholic schools. For example when presented with the item statement: *Our school values are evident in our mission statement*, one participant responded that: "We all know what that means!"

It is recognised that the validity of intuitive-rational scales is largely based in the subjective opinions of the researcher and other experts in the field (Dorman & d'Arbon, 2003) and so continued reference to the literature was used to inform the selection and the writing of the scale items and to build up the conceptual understanding of the proposed scales. While this process led to over 150 items being generated these were reduced to 81 as the items that best represented the many facets were identified for applicability within each proposed scale and for conceptual distinctiveness between the scales. Each of these items was subjected to a context, grammar and content check prior to scale allocation. Particular care was taken to ensure that the statements contained one clear description (avoiding the use of 'and' where possible). The 81 items were then allocated to the eight scales for trials of the instrument which, for the purposes of this research, was named the *Teacher Experience of a*

Professional Learning Community (TEPLC) questionnaire. Descriptions of the scales with sample items are given in Table 5.2.

TABLE 5.2
DESCRIPTIVE INFORMATION FOR TEPLC INSTRUMENT SCALES

Scale	Description	Sample item
Shared Purpose and Values SPV	A high level of collective and individual teacher commitment to a common agreed purpose consistent with the school's values (as relevant to its context)	Teachers at this school share my beliefs about the central mission of the school
Supportive Staff Culture SSC	Supportive and nurturing relationships among teachers and leaders which facilitate a collaborative collegial culture committed to common agreed purpose	Positive caring relationships exist among teachers and leaders
Improving Student Learning ISL	Collective responsibility for Improving Student Learning with high expectations of learning for all students	Improving learning for all students is an important focus of our curriculum team meetings
Capacity Building Leadership CBL	Capacity-building leadership that facilitates the development of a collaborative inquiry culture focused on improving student learning	Leadership of teaching and learning is promoted and nurtured among teachers
Shared Professional Practice SPP	Collective responsibility for promoting and supporting each other's and own learning through shared practice	Teachers regularly share successful practices with each other
Collective Inquiry Work Practices CIW	Continuous engagement of teachers in collaborative inquiry into student learning and teaching practice	I value regular opportunities to discuss student learning with other teachers
Collective Instructional Decision Making CID	Instructional decision-making based on collective and systematic analysis of student learning outcomes	Teachers in this school systematically analyse student achievement data
Individual Reflective Practice IRP	Individual engagement in inquiry into practice which informs future practice	I regularly seek out research that can inform my practice

5.4   FIELD TESTING AND REFINEMENT OF INSTRUMENT

In accordance with the intuitive-rational approach to instrument design, the item scale allocation occurred prior to field testing of the instrument. A three-stage process was adopted for this part of the validation phase of instrument development with consultation prior to the trial, administration of the trial and refining of the instrument following feedback from the trial.

5.4.1 Scale/item consultation

The scales and items were presented to the two workshops of senior leaders in Australian Mercy secondary schools (MSEA conference, Brisbane, August 2007) for review and some minor wording changes made as a result of this discussion. This discussion with inter-state educators was a valuable process since it identified some context-based interpretation issues of terms and led to the inclusion in the trial instrument instructions of explanations for the terms 'curriculum team' and 'cross-marking' to assist teacher interpretation of the instrument statements.

5.4.2 Trial data

Two schools with the same context (Catholic school in the Mercy tradition, single-sex, metropolitan) were selected for the field testing of the instrument. While the final administration of the instrument was to be administered online it was not possible to trial this type of administration and so a paper format was developed. In order to reduce potential response set (scale pattern responses) the items for the scales were ungrouped and added to the instrument cyclically (i.e. instrument item 1 from scale 1, followed by item 1 from scale 2 and so on).

Since both of the trial schools were interstate (NSW and Victoria) all of the scale items were subjected to further scrutiny with respect to any context-based terms and the explanation of terms were adjusted after discussion with the two school principals. Comments were also sought from participants with respect to the format and nature of the trial questionnaire. Participation in the trial was voluntary and anonymous with 25 teachers responding to the 50 invitations to participate (14 from one school and 11 from the other). While this trial sample was small, it represented, across the two schools, a range of respondents with respect to the teacher characteristics for the trial of age group, total years of service at the school and total years of service as a teacher (all schools).

The primary purpose of the instrument trial was to test the construct validity of the proposed scales. Thus, the trial sample data was checked for both internal consistency reliability (Cronbach α) and discriminant validity (the extent to which scales assess distinct constructs) of the scales. Mean score correlation (the average of the correlation of each scale with the remaining scales) was used as a convenient index for discriminant validity. Since the proposed construct framework identifies a theoretical relationship between the dimension and its enabling process (as paired scales) the data was also checked for scale overlap (interscale Pearson correlation coefficient).

The internal consistency reliability of the scales varied from 0.83 for the Shared Purpose and Values scale to 0.57 for the Collaborative Inquiry Work Practices scale (see Table 5.3). There was little variation in the scales for the per item mean or standard deviation. However, the mean scale correlations were relatively high (from $r=0.47$ to $r=0.60$) indicating an unsatisfactory degree of overlap between the non-paired scales. It is recognised that the literature identifies the dimensions of a professional learning community as being "deeply intertwined, having impact on, and impacting, each other" (Morrissey, 2000, p. 30) and so, inevitably, there will be a degree of overlap expected between the instrument scales.

TABLE 5.3
DESCRIPTIVE STATISTICS FOR TRIAL FORM OF TEPLC
(*N*=25 participants in 2 schools)

Scale	Number of items	Cronbach Alpha	Mean scale correlation	Per item mean	Per item standard deviation
Shared Purpose and Values	10	0.83	0.47	2.98	0.58
Supportive Staff Culture	11	0.80	0.56	2.92	0.72
Improving Student Learning	10	0.73	0.60	2.81	0.71
Capacity Building Leadership	10	0.64	0.59	2.79	0.71
Shared Professional Practice	10	0.68	0.56	2.65	0.72
Collaborative Inquiry Work Practices	10	0.57	0.61	2.75	0.72
Collective Instructional Decision Making	10	0.66	0.51	2.56	0.64
Individual Reflective Practice	10	0.64	0.55	2.78	0.69

Nevertheless, since the instrument is attempting to identify what may be considered conceptually distinct constructs (community culture, student learning, teacher professional learning and teacher professional practice) the inter-scale correlations for paired scales should be higher than those of non-paired scales. The inter-scale correlations shown in Table 5.4 identified that the Shared Purpose and Values and the Supportive Staff Culture scales demonstrated the highest correlation with each other as proposed in the construct framework. However, this was not the case for the remaining three pairs of scales where correlations with other than the relevant scale pair were highest. The trial data revealed the need for some refinement of the instrument.

TABLE 5.4
INTER-SCALE CORRELATION FOR TRIAL FORM OF TEPLC
(*N*=25 participants in 2 schools)

Scale	SPV	SSC	ISL	CBL	SPP	CIW	CID	IRP
Shared Purpose and Values (SPV)	1.00	0.79**	0.59**	0.51**	0.30	0.44*	0.26	0.43*
Supportive Staff Culture (SSC)		1.00	0.69**	0.54**	0.61**	0.54**	0.34	0.40
Improving Student Learning (ISL)			1.00	0.58**	0.62**	0.70**	0.44*	0.55**
Capacity Building Leadership (CBL)				1.00	0.54**	0.63**	0.66**	0.69**
Shared Professional Practice (SPP)					1.00	0.70**	0.56**	0.58**
Collaborative Inquiry Work Practices (CIWP)						1.00	0.68**	0.59**
Collective Instructional Decision Making (CID)							1.00	0.60**
Individual Reflective Practice (IRP)								1.00

*$p < .05$ **$p < .01$

5.4.3   Refining the TEPLC

The feedback from trial participants indicated that the number of items in each scale needed to be reduced. Consistent with the intuitive rational approach, only those items with high internal consistency reliability were retained in the refining of the instrument (Walker & Fraser, 2005). Statistics for each item were examined to identify those items contributing least to the internal consistency reliability of the scale. These items were then checked for their content and a decision made to delete or re-word (see Appendix D for deleted items). Eight items were identified for each of the scales in a refined version of the instrument. Internal consistency, discriminant validity and correlational data were then computed using the trial data (see Tables 5.5 and 5.6). This refinement produced a relatively limited improvement in the psychometric properties of the instrument with overall small changes in the levels of internal consistency reliability and discriminant validity for the scales but a similar correlation pattern overall.

A comparison of the values in Table 5.3 and Table 5.5 shows that the internal consistency reliability Cronbach α decreased for Shared Purpose and Values and Improving student Learning by 0.1; increased by between 0.2 and 0.4 for Supportive Staff Culture, Collaborative Inquiry Work Practices, Collective Instructional Decision Making and Individual Reflective Practice; with the largest gains

being shown for Capacity Building Leadership (0.64 to 0.72) and Shared Professional Practice (0.68 to 0.75). The discriminant validity assessed by the mean scale correlations improved marginally with the largest change from 0.56 to 0.48 for Supportive Staff Culture and the smallest change from 0.60 to 0.58 for Improving Student Learning. However, as evident in Table 5.5, the mean scale correlation values (ranging from $r=0.43$ to $r=0.58$) show there is still a considerable degree of overlap between the scales.

TABLE 5.5
DESCRIPTIVE STATISTICS FOR REFINED FORM OF TEPLC
(*N*=25 participants in 2 schools)

Scale	Number of items	Cronbach Alpha	Mean scale correlation	Per item mean	Per item standard deviation
Shared Purpose and Values	8	0.82	0.43	3.02	0.57
Supportive Staff Culture	8	0.83	0.48	2.98	0.74
Improving Student Learning	8	0.74	0.58	2.79	0.76
Capacity Building Leadership	8	0.72	0.55	2.74	0.71
Shared Professional Practice	8	0.75	0.45	2.64	0.71
Collaborative Inquiry Work Practices	8	0.59	0.57	2.74	0.71
Collective Instructional Decision Making	8	0.68	0.45	2.57	0.63
Individual Reflective Practice	8	0.68	0.48	2.80	0.69

The inter-scale correlations for the refined form recorded in Table 5.6 show a similar pattern to those for the trial form in Table 5.4; the highest inter-scale correlation in both forms being the paired scale of Shared Purpose and Values with 0.79 in the trial and 0.76 in the refined format. Data for the other paired scales was again inconclusive although the paired-scale correlation of Shared Professional Practice and Collaborative Inquiry Work Practices decreased from 0.70 to 0.58. Even though the level of significance improved for a number of the inter-scale correlations this was not necessarily considered an improvement given the small sample size of the trial.

TABLE 5.6
INTER-SCALE CORRELATION FOR REFINED FORM OF TEPLC

(*N*=25 participants in 2 schools)

Scale	SPV	SSC	ISL	CBL	SPP	CIW	CID	IRP
Shared Purpose and Values (SPV)	1.00	0.76[**]	0.74[**]	0.44[**]	0.14	0.46[*]	0.15	0.34
Supportive Staff Culture (SSC)		1.00	0.67[**]	0.45[*]	0.56[**]	0.49[*]	0.21	0.24
Improving Student Learning (ISL)			1.00	0.59[**]	0.46[*]	0.71[**]	0.38	0.53[**]
Capacity Building Leadership (CBL)				1.00	0.42[*]	0.59[**]	0.65[**]	0.70[**]
Shared Professional Practice (SPP)					1.00	0.58[**]	0.56[**]	0.43[*]
Collaborative Inquiry Work Practices (CIW)						1.00	0.64[**]	0.52[**]
Collective Instructional Decision Making (CID)							1.00	0.58[**]
Individual Reflective Practice (IRP)								1.00

* $p < .05$ ** $p < .01$

The wording of all items was carefully reviewed in the light of feedback from the trial participants and the above validation. One of the issues identified by the trial participants was the different interpretations possible for the words 'regularly' and 'effective' and so those items containing these words were reviewed for their clarity and applicability in terms of capturing the teacher experience of these characteristics of a professional learning community. On review, some items were deleted since they were deemed not necessarily relevant to the particular experience being described in the statement, such as in item 57 where 'Regularly reviewing…' was changed to 'Reviewing…'. Other items were not changed if the statement context did not warrant it in terms of describing the teacher experience, such as 'Teachers regularly share their practices with each other'. What is important in capturing the teacher experience of this characteristic of a professional learning community is that shared practice occurs with some level of perceived regularity; whether the respondent interprets this as fortnightly or monthly or some other time period is not relevant to the purpose of this questionnaire. However, it is recognised that the frequency may well be relevant in the identification of a mature or effective professional leaning community as in the *eplc* research in the U.K. (Bolam et al., 2005).

All other items were also carefully examined for any improvements in wording that would add to clarity and applicability and this resulted in changes to a number of items, such as 'I change my practice in the light of student evaluation' to 'I change my practice in the light of student feedback on

their learning experiences'. This process resulted in 64 items with eight items assigned to each of the eight scales.

5.5   MAIN STUDY VALIDATION DATA

The TEPLC instrument was formed through the trial and refinement development and validation process described in Section 4.4. The final form of the TEPLC comprised eight items each for eight scales making a 64-item questionnaire. The decision was made to retain the scales as proposed as there was no clear evidence in the trial or refined format measures that scales should be deleted or combined. The format was adapted for online administration and additional teacher characteristic items were added.

5.5.1   Online format

The literature review did not reveal any professional learning community instruments that were administered online. This type of instrument administration is relatively recent in educational research although computer-based psychological measures have certainly increased in recent times. In their meta-analysis of the effects of computerised testing on various psychological tests, Dwight and Feigielson (2000) concluded that the small effect sizes that they found in their study demonstrated equivalence between computer-administered measures and other more conventional formats. An online format does offer different presentation options not available in paper formats; however, the software platform used by RI College had a limited range of format options. In order to encourage participant response the 64 items were broken into four Sections of 16 with the Questionnaire instructions and Section 1 on the first screen, Sections 2 and 3 on the second screen and Section 4 with the teacher characteristic data on the last screen. While the software had the ability to require a response for each item before submission would be accepted it was decided that this could be discouraging and result in less completed responses. To the same end the questionnaire was set up so that if the respondent wanted to save a partial response and come back later to complete then this would be possible. A radio button type of response format was selected for ease of use for the statement responses and its acceptability as a psychometrically acceptable computer-based tool for gathering this type of interval continuum scale data (Cook, Heath, Thompson, & Thompson, 2001). An example of the screen appearance is given in Figure 5.1 and the final form of the instrument is given in Appendix E.

The teacher characteristic questions were given as drop-down menus (see Figure 5.1) and an open-ended response, with the maximum character set, was also included. Two teacher characteristic

questions were added to this final form of the instrument: respondent role in the school and main teaching area. Tentative findings from the Practitioner Inquiry groups in the qualitative Section of this research (see Chapter 7) were indicating that both role and Department differences may influence the experience of the school as a professional learning community. This was confirmed in recent literature that suggested that administrators and teachers may differ in their conceptualisation and experience of school community (Barnett & Fallon, 2007) and that teaching in different school Departments may also influence the experience of learning community (Busher, 2005; Cavanagh & Dellar, 2001a, 2001b; Stoll, 2000). Respondent role in the context of RI College was identified in terms of teacher (middle school and secondary school) and level of administrative responsibility (middle-management and leadership team). Main teaching area was identified in terms of Key Learning Areas from the Adelaide Declaration (Ministerial Council on Education Employment Training and Youth Affairs, 1999) since they generally corresponded with the RI College department structure with the additions of Religious Education and Middle school (Years 5 to 7). The final format was an online questionnaire with a four-point Likert agreement rating for 64 statements with 5 teacher characteristic questions.

The software also allowed for an open and close date for the questionnaire which every staff member could access from either their school or home computer through the school intranet. Since all participation was voluntary and anonymous a ten-day period of availability was selected to encourage responses. All timetabled teachers (101) at RI College were invited to respond to this final form of the instrument as an online questionnaire; 56 completed it.

FIGURE 5.1
EXAMPLE OF SCREEN APPEARANCE OF FINAL FORM OF INSTRUMENT

	1	2	3	4
I am encouraged by the school leadership to incorporate Mercy values in my class activities.	○	○	○	○
School communication systems promote professional dialogue	○	○	○	○
School leaders keep the school focused on providing high quality learning experiences for all students	○	○	○	○
Teachers are encouraged to participate in mentoring and coaching activities with other teachers	○	○	○	○
I receive constructive feedback about my teaching from other teachers	○	○	○	○
Within my curriculum teams there is mutual accountability for student learning	○	○	○	○
Analysis of student performance data is used to inform our school's professional learning priorities	○	○	○	○
I am encouraged to undertake professional learning	○	○	○	○
The school leadership is explicit about the school's purpose and values	○	○	○	○
Teachers respect the personal competence of other teachers	○	○	○	○
The Principal invites input from teachers into decision-making relating to student learning	○	○	○	○
Teachers are involved in decision-making that affects student learning	○	○	○	○
I have had the opportunity to teach co-operatively with other teachers in this school	○	○	○	○
Teachers engage in collegial networks that support teaching practice	○	○	○	○
Student feedback on their learning experiences is used to inform instructional decision-making	○	○	○	○
I change my teaching practice in the light of feedback from other teachers	○	○	○	○

5

What is your main role in the school?

Choose...
Choose...
Teacher Years 5 to 7
Teacher Years 8-12
Middle managaement
Leadership team

6

...ing area? Please select only one

7

What is your age group?

Choose...

8

What are your total years of service **at this school**?

Choose...

9

What are your total years of service **as a teacher (all schools)**?

Choose...

10

The items in the questionnaire have touched on many aspects of the school as a professional learning community. Please add any comments you r...
experience of the school as a professional learning community:

5.5.2   TEPLC scale validation data

The theoretical framework for the instrument identified four essential attributes of a professional learning community with a dimension and enabling process for each (see Table 5.1). These were conceptualised in the instrument as four paired scales with a total of eight scales (see Table 5.2). The trial and refined formats of the instrument offered support for one of these paired scales but was inconclusive with respect to the others. Changes were made to trial items in an attempt to improve the scale internal consistencies and the validity of the individual scales.

As shown in Table 5.7, internal consistency reliability measures for all scales using Cronbach's alpha coefficient were satisfactory with the highest of 0.83 for Supportive Staff Culture and the lowest 0.63 for Individual Reflective Practice. Five of the eight scales have Cronbach alpha coefficients greater than 0.70 which is deemed acceptable in most Social Science research situations" (Academic Technology Services Statistical Consulting Group, n.d.). All scales had eight items and the item scale measures showed that all items were making strong contributions to the allocated scale's internal consistency. However, the discriminant validity measures (shown in Table 4.7 as mean correlations of a scale with the other seven scales) remained relatively high showing a continued overlap between all scales. This overlap decreased only marginally when the paired scale value was excluded from the mean score correlation (see Table 4.7). Item means and standard deviations for each scale were also calculated. As with the trial and refined forms of the instrument, the highest per item mean was recorded for Shared Purpose and Values and the lowest for Collective Instructional Decision Making (see Tables 5.3 and 5.5)

The inter-scale correlations shown in Table 5.8 all show significance at *p*<.01 level and support three of the paired scales, with the highest correlation for the designated pair scale (see Table 5.1). As with the instrument trial the highest correlation is between the paired scales for community culture (Shared Purpose and Values with Supportive Staff Culture) with a correlation of 0.80. The student learning paired scale of Improving Student Learning and Capacity Building Leadership also had the highest correlation with each other at 0.77. The same pattern was evident for the teacher professional practice paired scales of Shared Professional Learning and Collective Inquiry Work Practices with a correlation of 0.74. It is important to remember that while these three paired scale correlations show a positive and statistically significant correlation this does not necessarily mean that there is a cause and effect relationship between them.

TABLE 5.7
DESCRIPTIVE STATISTICS FOR FINAL FORM OF TEPLC
(*N*=54*)

Scale	Number of items	Cronbach Alpha	Mean scale correlation all other scales	Mean scale correlation excluding scale pair	Per item mean	Per item standard deviation
Shared Purpose and Values	8	0.71	0.59	0.55	3.26	0.54
Supportive Staff Culture	8	0.83	0.59	0.55	3.07	0.61
Improving Student Learning	8	0.74	0.66	0.64	2.99	0.62
Capacity Building Leadership	8	0.71	0.68	0.67	2.93	0.66
Shared Professional Practice	8	0.67	0.61	0.59	2.96	0.66
Collaborative Inquiry Work Practices	8	0.67	0.63	0.61	3.14	0.56
Collective Instructional Decision Making	8	0.73	0.57	0.57	2.90	0.64
Individual Reflective Practice	8	0.63	0.62	0.62	3.01	0.64

Note. * Two completed questionnaires were not useable for all analyses due to a very high proportion of missing responses.

There was limited support in the data in Table 5.8 for the remaining scaled pair of teacher professional practice (Collective Instructional Decision Making and Individual Reflective Practice) as the scales correlated as highly, or higher, with other scales than with each other. Interestingly, Collective Instructional Decision Making correlated most highly with Improving Student Learning (0.73) and Individual Reflective Practice with Capacity Building Leadership (0.69) suggesting that the items on these scales may be more closely linked to these student learning scales than identifying a separate teacher professional practice attribute of a professional learning community. Similarly, there is also a high level of correlation between the Shared Purpose and Values scale and the Capacity Building Leadership scale.

Overall, the pattern of the inter-scale correlations shown in Table 5.8 does lend some support to the conceptual distinctiveness of the paired scales for community culture, student learning and teacher professional learning but this is lacking for the paired scales for teacher professional practice. Both the small sample size of the trial and the final administration do not allow for principal component analysis such as factor analysis. This procedure has been effectively used with other research using the intuitive-rational approach to instrument design and could potentially identify more distinctive

scales than the a priori approach used in this study (Dorman & d'Arbon, 2003; Walker & Fraser, 2005).

TABLE 5.8
INTER-SCALE CORRELATION FOR FINAL FORM OF TEPLC
(*N*=54)

Scale	SPV	SSC	ISL	CBL	SPP	CIW	CID	IRP
Shared Purpose and Values (SPV)	1.00	0.80**	0.58**	0.72**	0.52**	0.51**	0.40**	0.59**
Supportive Staff Culture (SSC)		1.00	0.61**	0.65**	0.49**	0.54**	0.43**	0.58**
Improving Student Learning (ISL)			1.00	0.77**	0.69**	0.63**	0.73**	0.60**
Capacity Building Leadership (CBL)				1.00	0.62**	0.69**	0.62**	0.69**
Shared Professional Practice (SPP)					1.00	0.74**	0.60**	0.59**
Collaborative Inquiry Work Practices (CIW)						1.00	0.61**	0.68**
Collective Instructional Decision Making (CID)							1.00	0.59**
Individual Reflective Practice (IRP)								1.00

* $p < .05$ ** $p < .01$ *Note.* Correlations for conceptually paired scales are bolded

5.6   CHAPTER SUMMARY

The main purpose of the instrument design process was to identify if a theoretically constructed and context-specific instrument could be developed, that would identify teacher experience of their school as a professional learning community (Research Question 3). A detailed account of the process of instrument design using the intuitive rational approach has been given in this chapter. Eight scales were derived from four paired constructs (defining dimension and enabling process) drawn from the research literature (see Section 5.2). Indicators for each of these constructs were identified (see Appendix B) and existing instruments checked for their applicability to the research contexts of this study. Existing instruments, particularly *School Professional Staff as a Learning community* (Hord, 1996), *Creating Effective Professional Learning Communities* (Bolam et al., 2005) and *Professional Learning Community Assessment* (Hipp & Huffman, 2003) were examined and various items adapted and others written to represent the context of a Catholic school in the Mercy tradition (see Sections 5.2.1 and 5.1.2). A consultation and review process allocated items to the proposed scales for a trial of the instrument in two schools in a similar context (see Section 5.3). The trial measures for internal consistency reliability, discriminant validity and scale overlap gave strong support for one of the paired constructs (Shared Purpose and Values/Supportive Staff Culture) but only partial support to the

remaining scale constructs (see Section 5.4.2). Feedback from the trial and further examination of the items resulted in a refined form of the instrument but this produced little improvement in the psychometric properties of the instrument (see Section 5.4.3). Since the trial sample was small and the trial data measures did not provide conclusive evidence for changes to the proposed scales, the eight scales were retained for the final administration of the instrument. The scale items were subjected to further review, two new teacher characteristic questions were added and the final format constructed for online administration of 64 items and 5 teacher characteristic questions. An open-ended response was included at the end of the questionnaire to collect teacher comments about their experience of the school as a professional learning community.

Data from the administration of the instrument in its final form at RI College (N=54) were used to identify the extent of the validity of TEPLC instrument. Internal consistency reliability (Cronbach α), discriminant validity (mean score correlations) and scale overlap (Pearson correlation coefficients) measures and other descriptive tests were computed (see Section 5.5.2). Inter-scale correlations supported the conceptualisation of the paired scales for the essential attributes of a professional learning community identified as community culture (Shared Purpose and Values/Supportive Staff Culture), student learning (Improving Student Learning/Capacity Building Leadership) and teacher professional learning (Shared Professional Practice/Collaborative Inquiry Work Practices) but was inconclusive for the essential attribute of teacher professional practice (Collective Instructional Decision Making/Individual Reflective Practice). Of significance is the support for the specifically developed context based community culture scales of Shared Vision and Values and Supportive Staff Culture. The data did not support the teacher professional practice paired scale while overlap between the scales indicated a lack of distinctiveness between the scale pairs. The conceptual framework developed in the intuitive-rational approach to instrument design was partially supported by the response data from RI College and served to highlight the interdependent nature of professional learning community characteristics as identified in the literature. The TEPLC instrument was designed to capture the teacher experience of their school as a professional learning community and builds upon and extends the previous instrumentation to the application within an Australian context. This teacher experience data from the online administration of the final form of the instrument were also analysed in response to Research Question 3 and are reported in the next chapter.

Chapter 6 Survey instrument:

Results of administration

6.1   INTRODUCTION

An intuitive rational approach to the design of an instrument to measure teacher experience of their school as a professional learning community was reported in the previous chapter.   Descriptive statistical data from the administration of this instrument in its final form gave qualified support to the conceptual framework underpinning the instrument design (see Section 5.5.2). This chapter reports the results of teacher responses to the instrument at RI College. All timetabled teachers (101) in the school were invited to respond to the online questionnaire with 56 completing it. Teacher responses were analysed to determine the extent to which they demonstrated variations according to teacher characteristics and identified characteristics of a professional learning community.

Inferential tests were used to identify the extent to which the teacher experien

ce identified through the instrument varied according to teacher characteristics.   This analysis comprised a multivariate analysis (MANOVA) with the eight scales as the independent variables and the five teacher characteristics as the dependent variables. Further analysis included individual analysis of variance (univariate F) tests for each scale and the independent variables as well as the graphing of scale mean scores for the dependent variables with the calculation of effect size where relevant. Effect size was calculated using Cohen's d - the difference in group means per unit standard deviation for the full sample (Cohen, 1977).

Data from the analysis of items both within and between the scales were used to determine the extent to which teachers identified particular characteristics of a professional learning community. This data comprised item means and item mean spread for the scales and also individual item analysis by teacher and professional learning community characteristic where relevant. Responses to an open-ended question at the end of the questionnaire in which teachers were invited to comment on their experience of the school as a professional learning community were also analysed in terms of their contribution to each of the research questions relating to instrument design (Research Question 3), as well as informing the research for Research Questions 1 and 2 with respect to how teachers

conceptualise their school as a developing professional learning community and the strategies supporting or hindering strategies/structures. Of the total number of respondents to the questionnaire 26 elected to provide written comments to this open-ended question.

The results in this chapter are reported in the following sections:

- Section 6.2 identifies the differences in TEPLC scores according to teacher characteristics;

- Section 6.3 provides results of detailed item analyses according to identified characteristics of a professional learning community; and

- Section 6.4 reports data from the open-ended question which informs understandings of a professional learning community from the perspective of teachers.

The key findings from the data analyses are presented in the chapter conclusion (see Section 6.5) as propositional knowledge with respect to the second cycle of co-operative inquiry.

6.2   DIFFERENCES IN TEPLC SCORES ACCORDING TO TEACHER CHARACTERISTICS

In order to identify the extent to which teacher responses to the questionnaire varied according to teacher characteristics a multivariant analysis was completed (MANOVA). This test (Wilks' Lambda) used the TEPLC scales as the independent variables and the five teacher characteristics as dependent (or grouping) variables. The teacher characteristic data were collected from drop-down menus in the questionnaire after the 64 item statements and comprised role, main teaching area, age group, years teaching at the school and total years teaching. Only two of the five teacher characteristics tested as statistically significant with respect to the TEPLC scales. These were role ($p<0.05$) and age ($p<0.01$). The data for these scales were analysed further with univariate F tests for these two dependent variables of role and age being interpreted. The results of this analysis are reported separately for age and role in the next two sub-sections.

None of the other teacher characteristics tested as significant on the multivariate tests. It is recognised that the small sample size makes it difficult to obtain statistical significance for these inferential multivariate tests, and also that effect size interpretation can be problematic in terms of making any causal inferences (Coe, 2002). Bearing this in mind, some interesting patterns were revealed by the descriptive statistics (mean scale scores and effect sizes) for the remaining scales and these are reported in the remaining sub-Sections.

6.2.1 Role

For the teacher characteristic of role the univariate *F* tests produced only three scales with a significance of $p<0.10$. This more relaxed significance value of $p<0.10$ was used given the small sample size. These tests showed that role differed significantly on the three TEPLC scales of Improving Student Learning [$F(3,50)=2.66$], Capacity Building Leadership [$F(3,50)=2.46$] and Collective Instructional Decision Making [$F(3,50)=2.57$]. Further effect sizes were calculated (see Table 6.1) to investigate these differences.

TABLE 6.1
EFFECT SIZES (d) FOR COMPARISONS OF ROLE FOR TEPLC SCALES
($N=54$)

Scale	Group Comparisons					
	1 with 2	1 with 3	1 with 4	2 with 3	2 with 4	3 with 4
Shared Purpose and Values	0.04	0.01	1.30	0.04	1.26	1.22
Supportive Staff Culture	0.41	0.68	0.66	0.27	1.08	1.34
Improving Student Learning [*]	0.69	1.29	0.11	0.60	0.57	1.18
Capacity Building Leadership [*]	0.78	1.10	0.24	0.32	1.02	1.34
Shared Professional Practice	0.89	1.15	0.86	0.27	0.02	0.29
Collaborative Inquiry Work Practices	0.73	0.95	0.33	0.22	0.41	0.63
Collective Instructional Decision Making [*]	0.65	0.72	0.73	0.06	1.38	1.44
Individual Reflective Practice	0.16	0.25	0.47	0.09	0.63	0.72

*$p<0.10$

Note. 1 = Teacher Years 5 to 7   2 = Teacher Years 8 to 12   3 = Middle-management   4 = Leadership team

The three significant scales on the univariate *F* tests showed large effect sizes. For Improving Student Learning the effect sizes were quite large for the comparison of middle-management with teacher years 5 to 7 (1.29) and with leadership team (1.18). Similar large effect sizes were evident for the Capacity Building Leadership scale with the comparison of middle-management with teacher years 5 to 7 (1.10) and with leadership team (1.34), and also for the comparison of leadership team with teacher years 8 to 12 (1.02). For Collective Instructional Decision Making the effect sizes were very large for the comparison of leadership team with middle-management (1.44) and teacher years 8-12 (1.38). Effect sizes of this magnitude suggest that there is a non-overlap of between 65.3% (for

d=1.3) and 70.7% (for d=1.5) in the distributions of these role scale scores with respect to this TEPLC scale of Collective Instructional Decision Making (Ender, 2003).

Mean scale scores for role and all TEPLC scales are graphed in Figure 6.1 and these indicate that the leadership team and teachers in years 5 to 7 described Improving Student Learning, Capacity Building Leadership and Collaborative Instructional Decision Making more favourably than the other leadership role of middle-management and the teachers in years 8 to 12. With the exception of Shared Professional Practice there is a clear difference between the two leadership roles of leadership team and middle management. Middle-management had the lowest ratings over all the scales except Shared Purpose and Values which is an unexpected finding that will be discussed further in Chapter 8. It should be noted here that those holding middle-management positions (pastoral and academic co-ordinators) would teach in years 8 to 12 and the questionnaire did not distinguish between academic and pastoral co-ordinators.

FIGURE 6.1
MEAN SCORES FOR TEACHER CHARACTERISTIC OF SCHOOL ROLE
FOR TEPLC SCALES
(N=54)

Mean score for Role for TEPLC scales
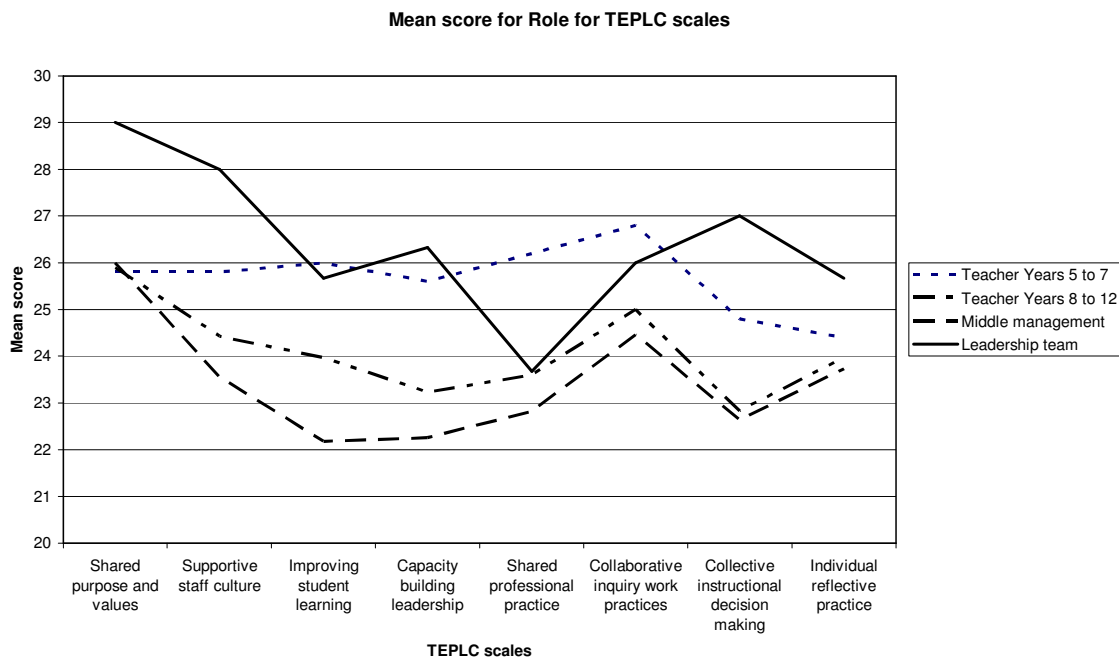
6.2.2 Age

While the dependent age group variable showed the greatest significance on the multivariate analysis ($p<0.01$) the univariate F tests were not significant for any of the TEPLC scales. Of interest, however, is the mean score pattern for age group across a number of the scales as shown in Figure 6.2. The mean scores showed a large variance between the <30 years old respondents and the >50 years old respondents for the scales of Shared Purpose and Values, Supportive Staff Culture and Capacity Building Leadership with large effect sizes of 0.99, 1.05 and 0.96 respectively (see Table 6.2). While not as large a variation, the <30 age group also showed a lower mean score than the other age groups for the scale of Shared Professional Practice. It is evident that the <30 years age group tended to view the community culture and leadership characteristics of a professional learning community less favourably than the >50 years age group. This contrasts with the other scales of Collaborative Inquiry Practices, Collective Instructional Decision Making, Individual Reflective Practice and Improving Student Learning in which there was less variation of scale mean scores suggesting a more consistent view of these experiences of a professional community by the different age groups.

TABLE 6.2
EFFECT SIZES (d) FOR COMPARISONS OF AGE GROUP FOR TEPLC SCALES
(N=54)

Scale	Group Comparisons					
	1 with 2	1 with 3	1 with 4	2 with 3	2 with 4	3 with 4
Shared Purpose and Values	0.57	0.71	0.99	0.14	0.42	0.28
Supportive Staff Culture	0.48	0.55	1.05	0.06	0.57	0.50
Improving Student Learning	0.41	0.21	0.01	0.61	0.42	0.20
Capacity Building Leadership	0.66	0.55	0.96	0.11	0.30	0.41
Shared Professional Practice	0.38	0.89	0.28	0.51	0.09	0.60
Collaborative Inquiry Work Practices	0.08	0.08	0.32	0.00	0.24	0.24
Collective Instructional Decision Making	0.56	0.11	0.13	0.45	0.70	0.25
Individual Reflective Practice	0.45	0.25	0.03	0.20	0.47	0.28

Note. 1 = <30 years   2 = 31-40 years   3 = 41-50 years   4 = >50 years   No scale is significant at $p<0.10$

FIGURE 6.2
MEAN SCORES FOR TEACHER CHARACTERISTIC OF AGE GROUP
FOR TEPLC SCALES
(N=54)

Mean score for Age for TEPLC scales
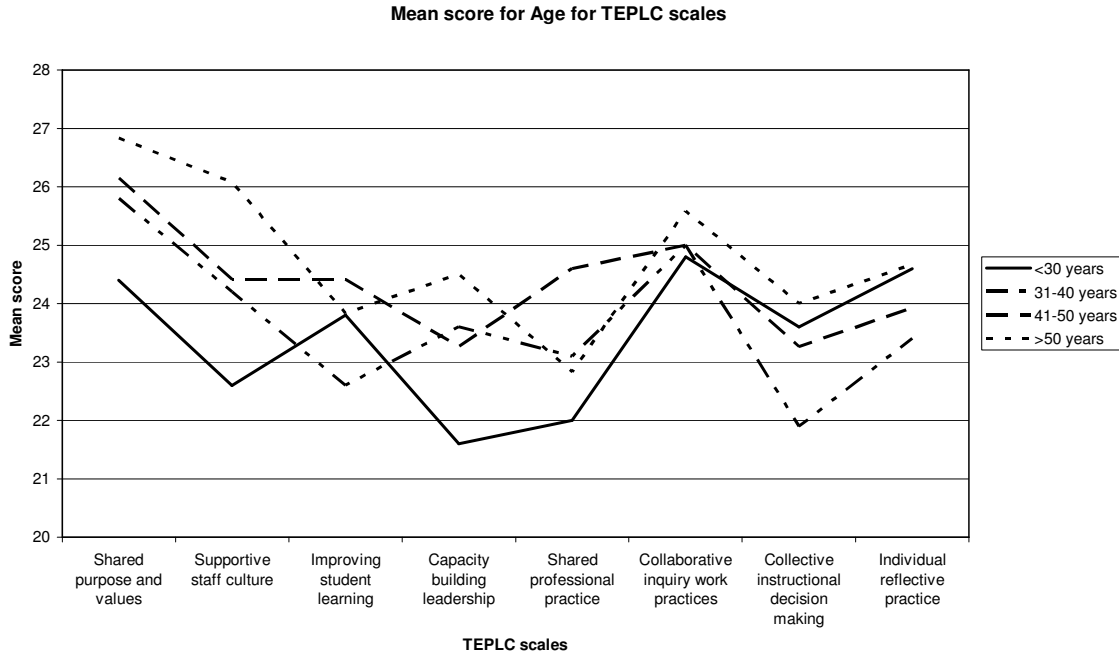
6.2.3 Total years teaching

The mean scores for total years teaching shown in Figure 6.3 revealed a similar pattern of scale mean score differences to that of age group for the TEPLC scales. As with the <30 years age group, the group of less experienced teachers of <5 years total teaching had distinctly lower mean scores than the other groups on the same scales of Shared Purpose and Values, Supportive Staff Culture, Capacity Building Leadership and Shared Professional Practice. The effect sizes on these four scales (see Table 6.3) were moderate to large (ranging from $d = 0.51$ to $d = 0.84$) for each of the comparisons of the <5 years total teaching experience group with the other experience groups, indicating non-overlap of distributions of between approximately 33% and 50%.

FIGURE 6.3
MEAN SCORES FOR TEACHER CHARACTERISTIC OF TOTAL YEARS TEACHING
FOR TEPLC SCALES
(*N*=54)

Mean score for Total years teaching (all schools) for TEPLC scales
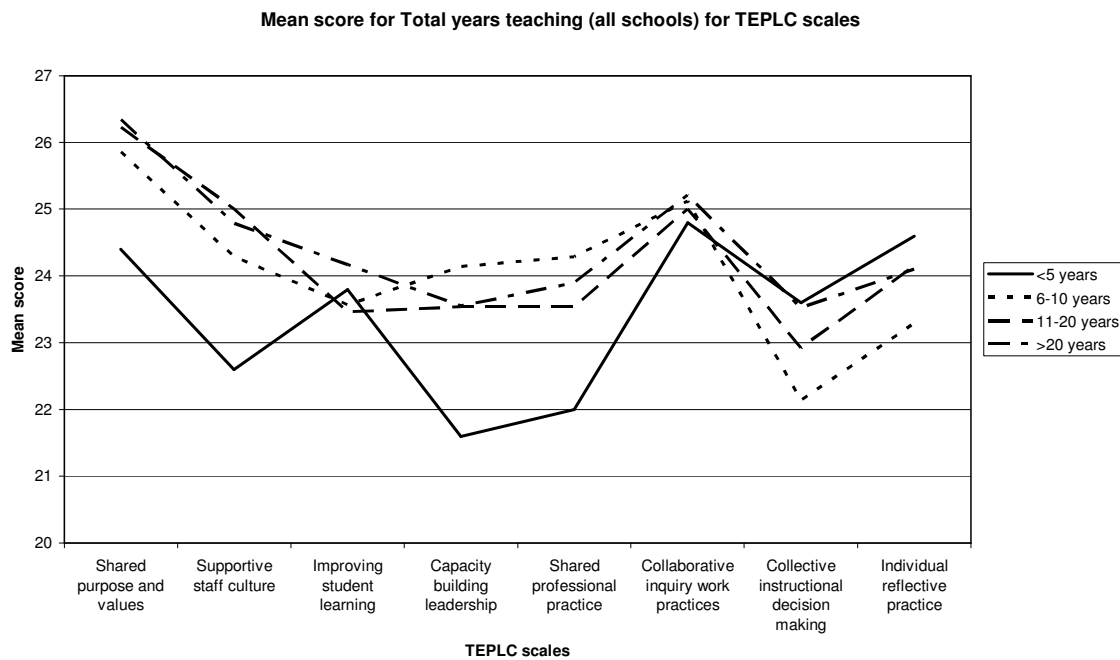
A check of the individual data revealed that all the teachers in the <30 years age group who responded also comprised the complete group of those with the <5 years teaching experience and so the scale mean scores for these two groups shown in Figures 6.2 and 6.3 are almost identical. These younger and less experienced teachers tended to view their experience of the community culture and leadership characteristics of a professional learning community less favourably than the more experienced groups. By contrast, the other groups of teaching experience showed little difference from each other on all scales. Interestingly, all experience groups held similar views on the scale of Collaborative Inquiry Work Practices and there was also little variation among all groups for Improving Student Learning, and Collective Instructional Decision Making thus suggesting a common experience of this characteristic of a professional learning community. It is noteworthy that this less experienced group of teachers did rate Individual Reflective Practice more highly than the other groups although the effect sizes were relatively small.

TABLE 6.3
EFFECT SIZES (d) FOR COMPARISONS OF TOTAL YEARS TEACHING
FOR TEPLC SCALES
(N=54)

Scale	Group Comparisons					
	1 with 2	1 with 3	1 with 4	2 with 3	2 with 4	3 with 4
Shared Purpose and Values	0.59	0.74	0.79	0.15	0.20	0.04
Supportive Staff Culture	0.51	0.73	0.66	0.21	0.15	0.06
Improving Student Learning	0.08	0.11	0.13	0.04	0.20	0.24
Capacity Building Leadership	0.84	0.64	0.64	0.20	0.19	0.00
Shared Professional Practice	0.78	0.53	0.65	0.26	0.13	0.12
Collaborative Inquiry Work Practices	0.13	0.08	0.17	0.05	0.04	0.09
Collective Instructional Decision Making	0.48	0.23	0.03	0.26	0.46	0.20
Individual Reflective Practice	0.49	0.17	0.19	0.32	0.30	0.02

Note. 1 = <5 years   2 = 6-10 years   3 = 11-20 years 4 = >20 years   No scale is significant at p<0.10

6.2.4   Years teaching at the school

In contrast to the results from the teacher characteristics of role, age group and total years teaching, the mean scores for the years teaching at the school (see Figure 6.4), showed only a small variation between those teaching at the school <5 years and those who have been teaching for much longer, although the 11-20 years group consistently responded more positively than the other age groups on all scales. This is particularly evident on the Capacity Building Leadership scale where the mean score for the group of teachers at the school for over 20 years is much lower than the other groups, especially the 11-20 years group (effect size of d = 1.10). However, these results need to be interpreted cautiously given the very high number of respondents in the group of those teaching at the school <5 years (n = 38) of whom only a small proportion were represented by the teachers with <5 years experience (n = 5).

FIGURE 6.4
MEAN SCORES FOR TEACHER CHARACTERISTIC OF YEARS TEACHING
AT THE SCHOOL FOR TEPLC SCALES
(*N*=54)

Mean score for Years teaching at the school for TEPLC scales
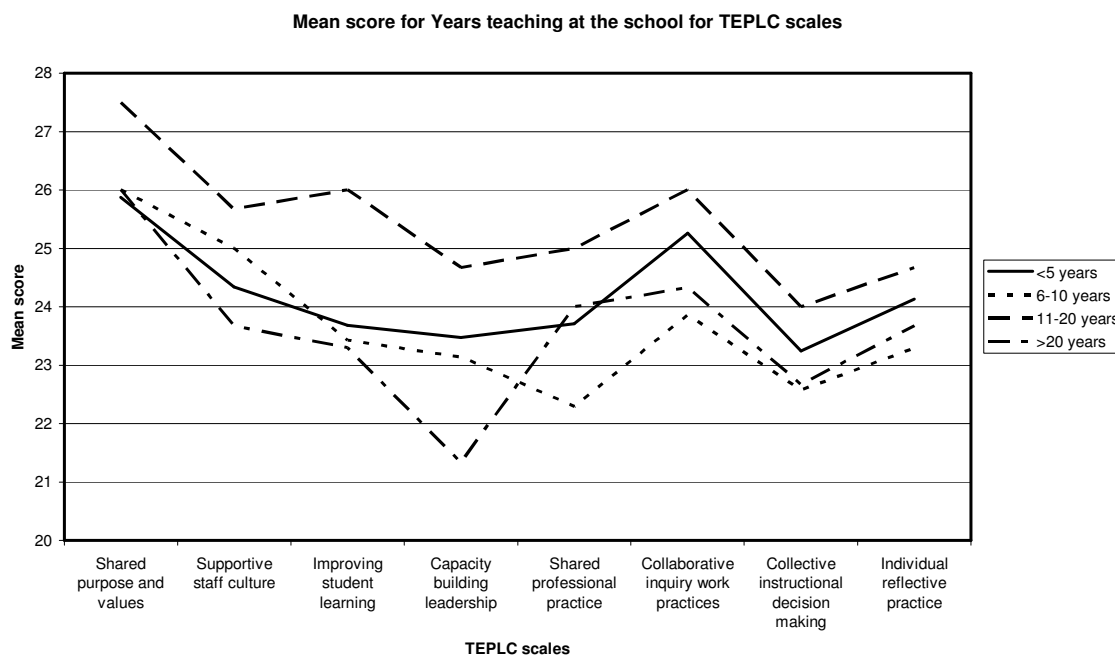
6.2.5   Main teaching area

With respect to the teacher characteristic of main teaching area the original ten groups from the instrument question were collapsed to six groups of 'like' teaching area in an effort to identify differences given the small full-sample size. The graph of scale mean scores for these teaching area groups (see Figure 6.5) showed a distinct difference between the mean scores for the specialist teaching area of the arts and those for the middle school (class teachers of years 5 to 7 taking both core and connected curriculum classes).

It is noteworthy that the pattern of low mean scores for the group for religious education is similar to that for the arts with the additional exception of Supportive Staff Culture. The effect sizes for the comparison of mean scores for the middle school and religious education have large to very large effects for the scales of Capacity Building Leadership, Shared Professional Practice, Collaborative Inquiry Work Practices and Collective Instructional Decision Making (ranging from *d* = 0.84 to *d* = 1.31). In general, respondents who taught the core and connected curriculum in the middle school years of 5 to 7 viewed their experience of the scale identified characteristics of a professional learning community more favourably than those in other teaching areas particularly those in the arts and

religious education. It should be noted that this middle school group is the same group of respondents identified in role as teachers in years 5 to 7.

It is difficult to identify clear differences in the mean scores for the TEPLC scales for the other main teaching areas due to the collapsing of the groups from ten to six. It is possible that this collapsing has masked differences – particularly by combining the groups of mathematics and science which, when the individual data were examined, showed somewhat more favourable responses to many of the scales by the science teachers than the mathematics teachers.

FIGURE 6.5
MEAN SCORES FOR TEACHER CHARACTERISTIC OF MAIN TEACHING AREA
FOR TEPLC SCALES
(*N*=54)

Mean score for Main teaching area for TEPLC scales
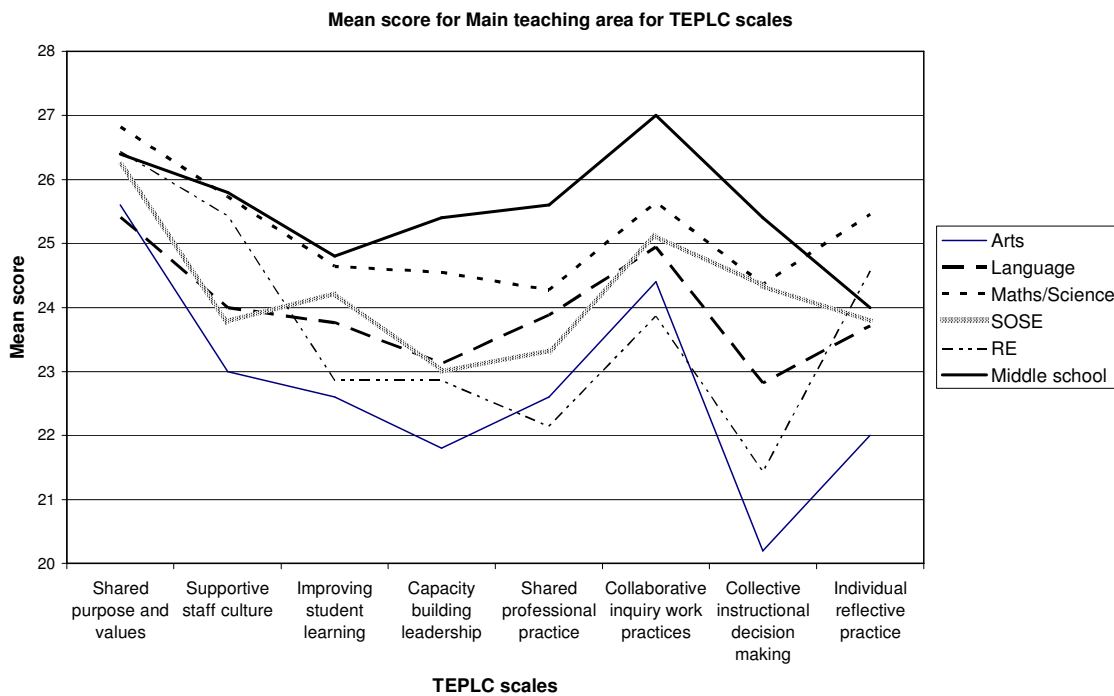
6.2.6 Summary of teacher characteristic differences in TEPLC mean scores

Overall, although statistical significance of difference is limited, there appears to be some variation in response by teacher characteristic across a number of the scales. Notably, Capacity Building Leadership showed mean score differences for all the teaching characteristics. Teachers in middle-management and teachers of years 8 to 12, those who have taught at the school for more than 20 years, those who have less than five years teaching experience, and teachers of religious education and the arts all viewed their experience of this characteristic of a professional learning community less favourably than other teachers. Differences in mean scores were also evident for role, age group and years of teaching experience for the scales of Shared Purpose and Values, Supportive Staff Culture, and Shared Professional Practice. The least variation of mean scores for all the teaching characteristics were recorded for the scales of Collaborative Inquiry Work Practices, Collective Instructional Decision Making, Individual Reflective Practice and Improving Student Learning.

These results were, however, affected by the small sample size and the numbers in each group of teacher characteristic and care needs to be taken in their interpretation. In particular, it is noted that 38 of the 54 respondents had been teaching at the school for less than five years; representing 74% of all those new to the school in this time period. The data reported here considered differences in TEPLC scale mean scores for each of the teacher characteristics. A more detailed analysis of individual items and variations in responses according to identified characteristics of a professional learning community is reported in the next Section.

6.3 DIFFERENCES IN TEPLC SCORES ACCORDING TO IDENTIFIED CHARACTERISTICS OF A PROFESSIONAL LEARNING COMMUNITY

Underpinning the instrument design is a particular conceptualisation of a professional learning community. The characteristics of a professional learning community were conceptualised as four essential attributes each with a paired scale of a dimension with an enabling process (see Table 5.1). Since there was qualified support for only three of these paired scales in the validation of the instrument (see Section 4.5.2), this section analyses not only the scale item mean scores and spread but also considers individual item mean scores, particularly those showing relatively high or low values. All items in each scale were ranked according to their mean (see Appendix F) and then further analysed with respect to any patterns of response, content or teacher characteristic.

6.3.1   TEPLC aggregated responses

Scale item mean scores ranged in value from 3.26 for Shared Purpose and Values to 2.90 for Collective Instructional Decision Making (see Table 6.4). Five of the scales clustered between the values of 2.90 to 3.01, and the two scales of Supportive Staff Culture and Collective Inquiry Work Practices had the slightly higher values of 3.07 and 3.14 respectively. This clustering is possibly indicative of the overlap between scales (see Tables 5.7 and 5.8) rather than any particular response pattern per se. In psychometric tests of this type which use a four point Likert scale (*strongly disagree* 1 to *strongly agree* 4) it is accepted that scale mean scores of >2.5 indicate an aggregated response level in the 'agree' range (Cavanagh & Dellar, 2001b). Thus, as evident in Table 6.4, the scale item mean scores indicated aggregated response levels in the 'agreed' range for all scales. To the extent that these scales represent characteristics of a professional learning community then this response pattern of agreement would indicate that the school is at least a developing professional learning community with some characteristics demonstrating a more developed level.

TABLE 6.4
PER ITEM MEAN AND STANDARD DEVIATION FOR FINAL FORM OF TEPLC
(*N*=54)

Scale	Number of items	Per item mean	Per item standard deviation
Shared Purpose and Values	8	3.26	0.54
Supportive Staff Culture	8	3.07	0.61
Improving Student Learning	8	2.99	0.62
Capacity Building Leadership	8	2.93	0.66
Shared Professional Practice	8	2.96	0.66
Collaborative Inquiry Work Practices	8	3.14	0.56
Collective Instructional Decision Making	8	2.90	0.64
Individual Reflective Practice	8	3.01	0.64

A further measure of central tendency and spread was used to assist in the comparison of scales (see Figure 6.6). This simple distribution of a box plot shows the minimum and maximum item means in a scale, the interquartile range for the scale and the median value. This box plot highlighted the effect of item outliers on the scale mean and confirmed the need for further analysis of individual items, particularly given the level of scale overlap. Those scales with significant item outliers were analysed separately as were the items showing low item means. These are reported in the next Section.

Shared Purpose and Values

The box plot distribution showed a number of interesting contrasts between the scales and prompted the analysis of items identified as outliers, particularly the lowest items (item mean score <2.5). Only one scale (Shared Purpose and Values) showed an item mean spread with a high outlier and this was the highest item mean overall; item 1: *Our school values are evident in our mission statement.* The high item mean score of 3.8 affirms the importance placed on this characteristic of Catholic schools by the questionnaire respondents.

FIGURE 6.6
DISTRIBUTION OF SCALE ITEM MEANS FOR FINAL FORM OF TEPLC
(*N*=54)

Distribution of Scale Item Means
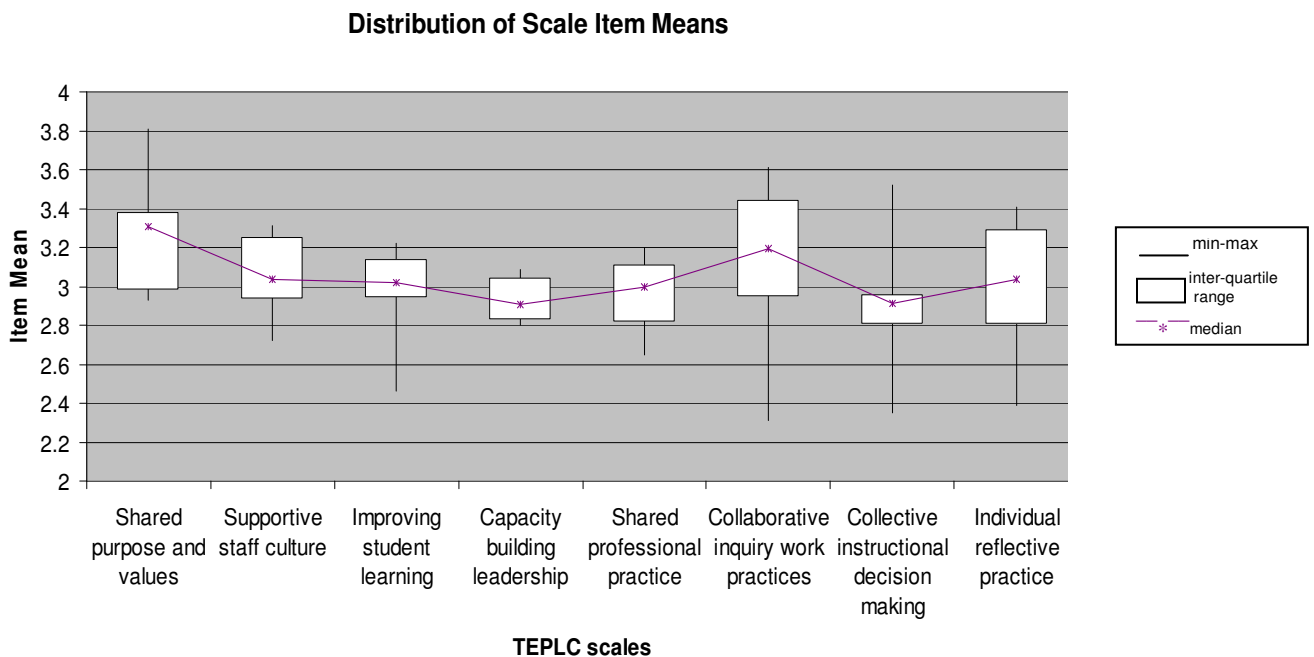
Capacity Building Leadership

The low item mean spread of the Capacity Building Leadership scale contrasted with the high spread of three of the scales relating to teacher learning and practice (Collaborative Inquiry Work Practices, Collective Instructional Decision Making and Individual Reflective Practice). Since Capacity Building Leadership showed the greatest variation in response by teacher characteristic of role, age group and years of teaching experience (see Sections 6.2.1, 6.2.2 and 6.2.3) the items for this scale were examined individually. This scale endeavoured to represent the enabling process of sustaining a focus on improving student learning through capacity-building leadership and the processes that this

leadership promotes (see Appendix F). As such the items covered relatively diverse areas ranging from the nurturing of teaching and learning leadership in various ways (items 12 and 52), supporting processes such as the allocation of time and resources (items 20, 44 and 36), and the provision of supportive structures relating to communication and decision-making (items 4, 28 and 60). While there is a consistent pattern of agreement across all the items, it is evident that the items involving time and resources account for the greatest variation and these largely reflect the differences between the new middle school teachers of years 5 to 7 (opened in 2005) and the more traditional secondary teaching environment of years 8 to 12. For example, all of the teachers in years 5 to 7 responded *strongly agree* to item 44 which related to the allocation of in-school time for collaborative planning. This reflects a reported leadership team decision to give priority in timetabling to this common planning time for year level class teachers particularly in the establishment phase of the middle school. Although item 20 had the highest item mean for the scale, with more than a third of the respondents in the *strongly agree* category, it is the teachers under 30 and those with less than 5 years teaching experience who are represented in the small number in the *disagree* category for this item. This item statement identified a high priority given to resources for professional learning. The lower rating by this younger inexperienced group of teachers may well reflect a difference in their expectation for professional learning resources compared to those with greater teaching experience. While the numbers are small in the disagree categories for all items for this scale, a group of four middle-management teachers are represented in almost all of these items. These response patterns – with respect to teachers in years 5 to 7, less experienced teachers under 30 years of age and those in middle-management roles – will be considered further in the discussion in Chapter 8.

Collaborative Inquiry Work Practices

An examination of the data for the other scales with a high item mean spread revealed some interesting patterns. The scale of Collaborative Inquiry Work Practices contained the second highest item mean across all scales with a rating of 3.6 for item 22: *Working with colleagues to plan student learning is an effective way of improving my practice.* In the construction of the instrument the applicability of this item was discussed at some length as it is possible to argue that this is a teacher belief statement rather than a statement about teacher experience of a professional learning community. The decision was made to retain the item on the basis that such a belief would arise from working collaboratively on inquiry into practice. This would appear to be supported by the equally high rating of 3.5 on the Collaborative Inquiry Work Practices scale for item 6: *Teachers at this school are committed to working together to achieve the best outcomes for our students.*

Collective Instructional Decision Making

The scale of Collective Instructional Decision Making shows a high spread for the item mean scores with both high and low item outliers. Among the highest rating items across all the scales with an item mean of 3.5 is item 7: *I regularly work with colleagues to build shared understandings about standards of student work.* This scale incorporates indicators of instructional decision-making that are based in the systematic analysis of student achievement data and learning experience feedback from students supported by the appropriate skill development of teachers (see Appendix B). Thus responses to item 7 are likely to represent the professional context of the RI College with respect to assessment. As such it is reflective of the Queensland senior school (years 11 and 12) context of school-based assessment which is externally moderated by district panels of teachers, as well as the Catholic school context where Catholic school authorities encourage consistency of teacher judgement practices in other year levels. This would appear to be an example of the particular school system context assisting in promoting an important characteristic of a professional learning community, albeit unintentionally. This Collective Instructional Decision Making scale is distinguished by the high number of items that all fall below an item mean of 3.0. A review of these indicates that all relate to the systematic monitoring of student progress with the purpose of improving student learning. Significantly the item relating to the support of developing teacher skills in data collection, analysis and interpretation (item 47) is among the lowest rated over all scales.

Individual Reflective Practice

Individual reflective practice was conceptualised as the enabling process for Collective Instructional Decision Making in that in order to engage effectively in this collective activity the teacher would need to be reflective in their own practice. The items thus relate to engagement in reflective activities (items 16 and 8), change of practice resulting from reflection (items 24, 32 and 64) and professional growth in practice (items 4, 8, 40, and 56). While there is a similar pattern of item mean score and spread between these paired scales the Individual Reflective Practice responses showed apparent contradictions in the high mean score of 3.4 for item 16: *Self-assessment is an important part of my daily practice*; and the lower mean score of 2.8 for item 32: *Teachers at our school regularly engage in inquiries of the kind 'How do I improve my practice?'* Self-assessment would seem to not include seeking out research to inform practice with an item mean score of 2.9 for the item dealing with this aspect of practice for (item 8).

6.3.2   TEPLC items with low means

Only three items (40, 46 and 47) across all the scales had aggregated response levels in the *disagree* range; one for each of the three scales with high mean spread shown on Figure 6.6. Collaborative Inquiry Work Practices had both the second highest item mean score at 3.6 for item 22: *Working with colleagues to plan student learning is an effective way of improving my practice*; as well as the overall lowest item mean of 2.3 for item 46: *There is a lot of cross-Department/KLA collaboration in this school*. Working with colleagues would thus appear to be department based but no discernible trend with respect to main teaching area could be identified for this low-rated statement. Of some significance, however, is the high proportion of responses from those in middle-management who responded negatively to this statement as well as to the other items with low mean scores of 2.5 or less (see Table 6.5). This contrasted sharply with the low proportion of years 5 to 7 teachers.

TABLE 6.5
COMPARISON OF RESPONSES FOR MIDDLE-MANAGEMENT AND TEACHERS
IN YEARS 5 TO 7 FOR ITEMS WITH MEANS <2.5

Item	Item mean score	Scale	Strongly Disagree or Disagree responses	
			% Middle Management	% Teachers years 5 to 7
46. There is a lot of cross-Department/KLA collaboration in this school.	2.3	CIW	82	20
47. School leaders give priority to developing teacher skills in data collection, analysis and interpretation.	2.4	CID	73	20
40. Effective use is made of pupil-free days for individual professional learning.	2.4	IRP	64	0
35. In our curriculum team meetings we regularly discuss how to respond when a student is not learning.	2.5	ISL	73	40

Although the sample size for the teachers of years 5 to 7 was small ($n = 5$), their response pattern points to a different experience of professional learning community between them and teachers of years 8 to 12. There is a consistent pattern of all teachers in years 5 to 7 responding in the *agree* range on other items which were among the lowest rated (item mean <3.0) in each of the other scales as shown in Table 6.6.

TABLE 6.6

ITEMS WITH MEANS <3.0 WITH AGREE OR STRONGLY AGREE RESPONSES
BY ALL TEACHERS IN YEARS 5 TO 7

Item	Item mean score	Scale
50. School communication systems promote professional dialogue.	2.9	SSC
41. Reviewing our school mission statement is an important part of school planning.	2.9	SPV
29. I discuss particular lessons that were not very successful with other teachers.	2.9	SPP
19. Teachers monitor their progress in achieving goals for improving student learning.	2.9	ISL
23. Making the connection between student achievement and instructional decisions is a focus of our curriculum team meetings.	2.9	CID
31. Analysis of student achievement data is used to critically reflect on teaching practice.	2.9	CID
44. There is in-school time for working together with colleagues on joint planning and development.	2.9	CBL
15. Examining trends in student achievement is a regular part of our curriculum team meetings.	2.8	CID
26. The contributions of teachers to improve student learning are recognised by school leaders.	2.7	SSC
53. I receive constructive feedback about my teaching from other teachers.	2.6	SPP

A review of the content of these items suggests that they are reflective of the different school culture evident in the more primary school environment of the newly established middle school and the processes which have been set up to support this establishment phase. For example, this establishment phase, with teachers coming from different schools and even different schooling systems, required high levels of communication and planning with considerable evaluation and adjustment of courses in response to student achievement data. This situation is reflected in items 15, 19, 23, 31, 44, and 50 (see Table 6.6). Consistent with the multivariate analysis results there were no discernible patterns on low-rated items for any of the other teacher characteristic data.

All items with ratings of less than 2.9 were examined further to identify any common content which might point to scale identification issues (see Appendix G). It is evident that the items fall into two main groups. One group of items describes a range of strategies that are evidence of the systematic monitoring of student progress with the purpose of improving student learning (items 14, 15, 19, 23, 28, 31, 32, 35, 39, 47 and 63). The second group describes a range of strategies that encourage teacher dialogue and inquiry about pedagogy (items 13, 21, 29, 33, 44, 46, 50, 52, and 53). These point to a

possible direction in the further refining of the constructs relating to teacher professional learning and practice and how they are related to the professional learning community focus on improving student learning. The inter-relationship of this first group of items is supported by the relatively high correlation (r=0.73) between the Collective Instructional Decision Making and Improving Student Learning scales; for the second group it is supported by a relatively high correlation between the Shared Professional Practice and Capacity Building Leadership scales (r=0.62). Thus, this analysis of the low-rated scale items suggests areas within the proposed constructs and their scales that can be further developed with a view to making them more distinctive.

As well as identifying direction for future development of the instrument, this analysis of items relating to identified characteristics of a professional learning community has offered support to a number of the key findings from the teacher characteristic analysis of Section 6.2. In particular, the analysis suggests that different groups within the teaching staff view their experience of the school as a professional learning community in different ways. This variation in experience is also highlighted in responses to the open-ended question at the end of the instrument.

6.4 TEPLC RESPONDENT COMMENT DATA

The open-ended response at the end of the questionnaire encouraged participants to communicate any other comments that they might have about their experience of the school as a professional learning community. There were 26 responses to this question varying in length from a few sentences to mini-essays. This question provided an opportunity to listen to the respondents' voices through a close reading of the data with initial coding following accepted qualitative research procedures (de Wet & Erasmus, 2005). This initial coding identified comments relating to the instrument (including comprehensiveness of the item statements), teacher characteristic (particularly those relating to role, age and teaching experience), and characteristics of a professional learning community (as identified by the scales). While not prompted by the question, respondents articulated strategies which hindered and supported the development of the school as a professional learning community from their experience (which is the focus of Research Question 3) and this formed the next level of coding. Findings from this data analysis are outlined below with examples of comments illustrating each.

6.4.1 Comprehensiveness of item statements

Comments identified indicators of the constructs not well represented in the item statements. For example, the indicator of 'provision of shared spaces and time for staff interaction' (see Appendix B) was only partly included in item statements. While time for collaboration was included in different

ways in two items (items 14 and 44), the indicator of shared spaces for interaction was not included. The importance of this shared space was reported by one respondent who identified it as proximity of working spaces to support collaboration:

> Physical environment of staff working areas is not conducive to effective curriculum team collaborative practices i.e. staff may not be located in the same room as their colleagues and when this is the case the structure of their workstations can create a 'tunnel vision'. (teacher years 8-12 250550)

This link between physical proximity and collaboration was also recognised by another respondent who wrote:

> …there is…room for improvement, especially regarding the physical arrangements of staff and the ways in which cooperative planning (could) happen.
> (teacher years 8-12 140250)

This issue of shared space is clearly significant in encouraging collaborative processes and so would be important to include as an item in any future development of the instrument.

Similarly, the indicator of 'performance management strategies of appraisal, induction, mentoring and coaching' was identified in a number of trial items but those mentioning appraisal were deleted due to problems of interpretation in the wider context. Different systems of appraisal with different staff perceptions attached to them were clearly evident in the discussions of the trial instrument. For example, in one context, 'appraisal' was clearly linked to performance reviews and contractual arrangements and was often viewed negatively by staff when linked to accountability and disputed industrial relations issues. Yet in another the purpose was related to individual professional learning with less formal processes which were viewed more positively. At RI College the formal professional learning plan, which is an outcome of the appraisal process, was commented on by one respondent who suggested:

> …improving new teacher and new subject teacher inductions...and…staff could also be further encouraged and guided in developing their own professional learning plans.
> (teacher years 8-12 171222)

This indicator of performance management strategies is clearly problematic in terms of its interpretation; while an item identifying mentoring and coaching (item 52) was included, none identified appraisal or induction per se. Future development of the instrument would need to consider the most appropriate terminology to use to describe these strategies that promote adult learning.

6.4.2 Instrument format

In terms of further comments relating to the format of the instrument itself, one respondent identified the four point Likert scale as a frustration but nevertheless positive:

Ps: The lack of a neutral choice was annoying…but it did stop me from sitting on the
fence.   (teacher years 8-12 140250)

This sentiment was also expressed personally to the researcher by two other respondents who each
identified the four-point scale response as a challenge but one which prompted a more considered
reflection.

6.4.3   Different experience identified by different groups of teachers

Data analysis from the previous sections identified that the teachers in the middle school (years 5 to 7)
viewed their experience of the school as a professional learning community differently from teachers
in years 8 to 12 (see Sections 6.2.1, 6.2.5 and 6.3.1.). This was supported by comments which not
only identified the group of middle school teachers as a professional learning community but which
also offered an explanation for this development:

> Weekly collaborative planning sessions are fundamental to the success of the Middle
> School. These teachers are a true professional learning community, having time to
> support one another and share on a professional level on a whole range of issues.
> (middle school teacher 100925)

> Many of the aspects covered in this questionnaire are very relevant to the Middle School
> because of our recent set up. We are lucky enough to have lots of planning time together
> and we're small enough to have effective professional relationships within our teaching
> community.   (middle school teacher 120130)

There was a clear recognition that the smaller size of the middle school staff (9 class teachers plus
teacher librarian and learning support/enrichment teacher) meant that supporting structures such as
time for weekly planning could be implemented and so collaborative inquiry promoted.

Comments also shed some light on the nature of the different view of younger less experienced
teachers with respect to the more cultural characteristics of the school as a professional learning
community identified in the data analysis (see Sections 6.2.2, 6.2.3 and 6.3.1.), particularly with
respect to their experience of capacity-building leadership. One of these teachers reported:

> The school provides very limited opportunities for beginning teachers (within their first
> five years of teaching) to demonstrate their professional skills at a leadership level…This
> is very different to current non-teaching industry practice where leadership opportunities
> are available to early-career employees, based on their merits and competence rather than
> their number of years in the profession.

What comprises capacity-building leadership is questioned with the traditional perception that
leadership appointments should be made to those with more teaching experience being challenged.
Not only did this younger group of teachers articulate their expectations with respect to leadership
opportunities but they also identified their expectations of how and when they worked with

colleagues. Beginning teachers wanted greater recognition and valuing of their professional knowledge, skills and experience as well as more in-school time allocated to collaborate with lesson planning and engage in critical reflection:

> Without such equal recognition of diversified knowledge, skills and experience among all staff members, professional learning communities are limited in their ability to effectively operate in order to provide the best learning opportunities for all students.
>
> (beginning teacher years 8-12 190951)

Only three teachers in middle-management roles wrote comments about their experience but analysis of these could not be distinguished from those with other roles in any way. As with other teachers, they did identify barriers and supporting strategies to the development of a professional learning community.

6.4.4   Barriers to the development of a professional learning community

The most common comment by respondents related in some way to time with these comments accounting for 50% of all responses. All of these time-related responses were examined for any commonalities among teacher characteristics. Significantly, the comments were predominantly negative with the only positive comments made by middle school teachers. While many of the negative responses come from teachers in the English or SOSE areas it should be noted that teachers from these areas comprised the majority of those who responded to the open-ended question. As with the overall response for the questionnaire, those teachers who had been at the school less than five years were disproportionably represented (77% of all comment responses).

Two items in the questionnaire referred to time as promoting collaborative inquiry work practices which improve student learning (item 14) and as an indicator of capacity-building leadership capacity through the provision of in-school time for working with colleagues (item 44); both of which had item mean scores of 2.9. The value of working collaboratively in terms of improving student learning and professional learning was recognised by teachers but they identified time as the largest barrier to achieving this critical characteristic of a professional learning community. This is clearly evident in the comment from one teacher:

> Time constraints at departmental meetings or common spares can often result in individuals going away to work alone on the big things like work programmes and unit design…If we work on our own, we don't get to hear of other possibilities and therefore we don't get to expose our students to different learning experiences…It would be a great time saver if we could collaboratively pool ideas that have worked well in class.
>
> (teacher years 8-12, LOTE)

Lack of adequate in-school time was identified as inhibiting professional learning and discouraging collaboration. This was perceived as arising from decisions not to grant time, insufficient time being allocated or allocated time not being used effectively as shown by the following comments:

> Provision of time and resources for meaningful professional learning is denied regularly.
>
> (teacher years 8-12, SOSE)

> There appears to be very little in-school time allocated to curriculum teams in order to collaborate with lesson planning and engage in critical reflection.
>
> (teacher years 8-12, English)

> I don't think there is enough time to engage in good quality professional learning…most of this has to be done in our own time. (teacher years 8-12, the Arts)

> …there is not always time to be involved in as much professional learning as one would like. One ends up prioritising things. (teacher years 8-12, Mathematics)

Explanations for this lack of adequate school time involved a range of external and internal school factors. The externally moderated but school-based assessment system which characterises senior schooling in Queensland is identified by one respondent as taking time away from other collaborative inquiry:

> In the senior school all available time is taken in setting and marking assessment – there is no time to consider what we are teaching or how we might teach it. I think this needs to be reconsidered and somehow, quality time allocated. (teacher years 8-12, Science)

Internal factors include timetabling constraints, which are identified as inhibiting shared professional practice, but more frequently school 'busyness' was considered influential in limiting available time. Engaging in this 'busyness', which was not articulated, appeared to be given priority over collaborative work and to affect the motivation to work collaboratively as shown in the following comments:

> Though time is seen to be given for collaborative work – it just doesn't seem to happen. The school is very busy and though some teachers would like to work more collaboratively most times it seems to be ad hoc. (middle management, SOSE)

> Teaching is a "giving" occupation; during the course of our extremely busy terms …there is often inadequate time for reflection and renewal…I constantly feel like I am chasing my tail and there is never time to take a breath. (teacher years 8-12, Science)

> It feels like a constant, pressured race without enough time to truly do our job well or engage in professional learning. (teacher years 8-12, the Arts)

> While the community is very professional and stimulating we are sometimes too busy to connect with other teachers and discuss professional matters…there are many 'meetings' we never get around to. (teacher years 8-12, Religious Education)

Other comments offered insights into some of the low-rated items from the questionnaire. Among the low-rated items was a group identified as describing a range of strategies which are evidence of the

systematic monitoring of student progress with the purpose of improving student learning (see Section 5.3.1.6). The lack of appropriate skill development to engage effectively in these strategies is highlighted by one respondent:

> I think there is a willingness on the part of the staff to be part of a professional learning community but there needs to be continued support in the area of skill development to make this vision a reality. (teacher years 8-12, English)

The other group of low-rated items related to a range of strategies encouraging teacher dialogue and inquiry about pedagogy. Comments highlighted a potential barrier of secondary school culture. For example, item 53 – with an item mean score of 2.6 – referred to receiving constructive feedback about their teaching by other teachers. This is not a common model in secondary schools in which classrooms are generally less 'open' with higher levels of privatisation and isolation of practice. One respondent offered the following explanation:

> …many teaching staff do not want you to be in their classrooms. Unsure why –maybe fear that they will be criticised for their practice. (teacher years 8-12, SOSE)

The different school culture experience, with respect to collaborative work practices of teachers in years 5 to 7 compared to those in years 8 to 12, was perceived as a barrier to further developing the school as a professional learning community by one middle school teacher:

> I would like to see some of these Middle School practices [working collaboratively with common planing time] extended more broadly to the Secondary Staff. This involves a 'culture change' but I think it is necessary in order to move forward as a whole school community. (middle school teacher)

Another middle school teacher identified the need for stronger links between the middle school and the rest of the school so that a "unified team" developed.

6.4.5   Strategies supporting the development of a professional learning community

Supportive strategies were less represented among the comments. Not surprisingly those strategies identified by teachers as supporting the development of a professional learning community reflect the different experience described by middle school teachers. Weekly in-school meetings were identified as providing time for professional sharing and mutual support with the suggestion that practices such as these be "extended more broadly to the Secondary Staff".

There was an emphasis on assisting the development of a professional learning community through greater staff sharing of professional learning gained from within the school and to supporting team development:

> We could still improve our professional learning community by using the knowledge base of our existing staff…Often our peers are the best method of improving our professional outlook. (middle management, SOSE)

> There are areas that would be good to focus on, time allowing, in the area of team collaboration in individual teaching teams…It would be good to be able to have more time factored in for professional development, so that team collaboration and review processes could be even more effective and helpful in developing strategies and units of work. (teacher years 8-12, SOSE)

There were a number of positive comments which identified the shared sense of purpose as "worthwhile", "commendable" and engendering a strong sense of community. These types of respondent comments supported the high ratings for items within the scales of Shared Purpose and Values and Supportive Staff Culture. Thus, the open-ended data confirmed many of the findings of the previous analysis with respect to how teachers describe the nature of their school as a professional learning community.

6.5 CHAPTER SUMMARY

The TEPLC instrument was designed to capture the teacher experience of their school as a professional learning community. Data from the online administration of the final form of the instrument were analysed in response to Research Questions 3 as well as providing some information relevant for Research Questions 1 and 2. A range of descriptive and inferential statistical tests were applied to the response data which comprised a sample of 54 teachers at RI College.

Analyses of the teacher characteristic data, scale item data and open-ended response data do not provide strong statistical evidence for variation in the practitioner experience of the school as a developing professional learning community. However, there is some confirmation within the data that teacher characteristics of age, role, experience and teaching area may well influence how teachers experience a developing professional learning community. It can be argued that there are patterns emerging from these analyses that suggest that the TEPLC scales fall into two groups with respect to teacher characteristics. What might be considered the more cultural and relational scales of Shared Purpose and Values, Supportive Staff Culture, Capacity Building Leadership and Shared Professional Practice form one group in which there are some variations for role, age group and teaching experience. Items in these scales collectively describe the school culture which "defines reality for those within the social organisation, gives them support and identity and creates a framework for occupational learning" (Stoll, 2000, p. 9). The other group could be considered the more functional and organisational scales of Collaborative Inquiry Work Practices, Collective Instructional Decision

Making, Individual Reflective Practice and Improving Student Learning. This latter group showed far less variation among all groups of teacher characteristics. However, the small sample size of 54 and the small number of respondents in some of the teacher characteristic groups suggest the need for caution in the interpretation of the TEPLC data presented in this chapter. The key knowledge with respect to teacher experience of RI College as a professional learning community which can be drawn from the analysis of the TEPLC data is presented in Table 6.7 and will be explored further in the discussion in Chapter 8. The findings have been coded for ease of discussion in later chapters.

TABLE 6.7
ADMINISTRATION OF TEPLC – KNOWLEDGE GENERATION
TEACHER EXPERIENCE OF THE SCHOOL AS A PROFESSIONAL LEARNING
COMMUNITY

Characteristics of a professional learning community*	Teacher characteristics*
Cultural and relational attributes of the school are experienced differently by different teacher age groups, roles and levels of experience. *[4a]*	Older more experienced teachers view experience of the cultural elements of the school more positively than younger, less experienced teachers. *[4i]*
The experience of functional and organisational school attributes shows less variation than the more cultural elements. *[4b]*	Middle-management and secondary teachers experience the professional learning community less positively than leadership team and middle school teachers. *[4j]*
There is strong positive agreement about school-wide shared vision and values among teachers with the leadership team viewing this most positively. *[4c]*	There is a high level of agreement among all age groups and years of teaching experience with respect to a focus on improving student learning and engagement in collaborative inquiry work practices. *[4k]*
There is variation in teacher experience of indicators of capacity-building leadership. *[4d]*	Younger and less experienced teachers have different expectations about leadership opportunities. *[4l]*
Overall, teachers do not agree that they experience strategies which systematically monitor student progress. This includes a perceived lack of priority in the development of teacher skills in data collection, analysis and interpretation. *[4e]*	Younger and less experienced teachers have different expectations about how they work with colleagues. *[4m]*
Overall, teachers do not agree that they experience strategies that encourage teacher dialogue about pedagogy. *[4f]*	Possible variations in the experience of professional learning community between departments may be identified. *[4n]*
Teachers identify that a lack of in-school time to meet inhibits professional learning and discourages collaboration. School 'busyness' and assessment accountability demands are perceived as competing demands on time. *[4g]*	Middle school teachers value regular collaborative inquiry work practices and sharing of professional learning. *[4o]*
Overall, teachers agree that they value working with colleagues with respect to planning and discussion of student learning. *[4h]*	** There is no implied order or relationship between the columns in this listing.*

All analyses pointed to the need to further refine the TEPLC instrument, as data from the item analysis identified the areas of scale overlap for the teacher professional practice scales with the other paired scales. Responses from the open-ended data (see Section 6.4) highlighted indicators of a professional learning community not adequately represented in the instrument; comments relating to the four-point scale supported its use as prompting more considered reflection responses in this kind of survey.

The impetus for the development of this instrument was an outcome of the first cycle of co-operative inquiry; as such, the development and administration of the online instrument at RI College occurred simultaneously with the second cycle of co-operative inquiry. The quantitative data and the open-ended responses from the instrument analysed in this chapter inform the discussion of the findings from the two cycles of co-operative inquiry (see Sections 8.4 and 8.5). However, some of the results from this survey also informed the extended reflection in the second cycle of inquiry (see Section 7.7). The presentation and analysis of data for this second cycle of inquiry are reported in the next chapter.

Chapter 7 Cycle 2

Co-operative Inquiry

7.1   INTRODUCTION

The previous two chapters have reported the development, validation and results of a theoretically based and contextually specific instrument to assess the practitioner experience of their school as a professional learning community. The impetus for this instrument development came from the Cycle 1 co-operative inquiry reported in Chapter 4. Concurrent with this instrument development and validation process a second cycle of co-operative inquiry was undertaken. This chapter reports the conduct of this second cycle of co-operative inquiry and seeks to present and analyse the data derived from this cycle in response to the study's Research Questions 1 and 2:

> 1.   How do practitioners conceptualise their school as a developing professional learning community?
>
> 2.   What strategies and structures do practitioners experience as supporting or hindering the development of their school as a professional learning community?

This second cycle was undertaken on the recommendation of the four teachers who had comprised the co-researchers for the first cycle of co-operative inquiry. These four teachers who participated in Cycle 1, and led the practitioner inquiry projects in 2006, did so with the intention of promoting the development of the school as a professional learning community. There was a strong feeling among these co-researchers that although they had learned a great deal from this experience it would be beneficial to engage others in a similar experience as an appropriate way to continue the process of developing the school as a professional learning community. Another cycle of co-operative inquiry with individual practitioner inquiry projects would also provide further examples of the school professional learning model in action. Leonie summed up this feeling in her report:

> …the Inquiry learning team [the co-researchers' group for cycle 1] felt that this project was a good 'role model' project for future improvement at the school…How do we make inquiry a regular part of the teaching process? And not seen as another "extra on top of" for staff?

Thus, the co-researchers recommended that a second cycle of practitioner inquiry projects be undertaken in 2007 with a view to promoting greater participation among teaching staff and

engagement with the school professional learning model.[11] This recommendation was accepted and planning commenced for a second cycle of co-operative inquiry following a similar format to that of the first cycle.

As with the previous co-operative inquiry cycle, Cycle 2 comprised an action reflection cycle of four phases drawing on the extended epistemology identified by Reason (1999) with Phase I reflection, Phase II action, Phase III action and reflection and Phase IV reflection. These phases were preceded by the initiation and establishment of a group of co-researchers. As with the first cycle, each of the practitioner inquiries was identified as a 'project' by the teacher initiating and leading it. These teachers formed the co-researchers' group for this second cycle. The researcher was a participant in these activities and so took on the role of co-researcher for one of the Cycle 2 individual practitioner inquiry projects.

The data in this chapter present the co-researcher exploration of their understanding of a professional learning community and their experience of strategies and structures that influence this development. Similar data collection, presentation and analysis methods were employed for this second cycle as for the first cycle (see chapter 4). Data were collected for each of the four phases of the inquiry cycle and comprised artefacts for each individual practitioner inquiry project and the co-researchers' group, as well as interview and focus group transcripts of the co-researchers. These sources were used (as the first-level data analysis) to create the pen-portrait narratives of the cycle of co-operative inquiry. As such, they record the experiential, propositional, presentational and practical knowledge created during each phase of the inquiry cycle. For each of the individual practitioner inquiry projects (undertaken in Phases II and III) the data are presented as pen-portrait narratives. The Phase IV data presentation represents a second-level data analysis. In this Phase IV presentation the researcher constructed the narrative from the co-researchers' engagement in reflection on the group focus area and questions in the light of their shared experience. As the second co-operative inquiry cycle concluded the results from the administration of the TEPLC instrument were available, the group of co-researchers thus engaged in an extended reflection as they considered the wider teacher experience of the school as a professional learning community and looked to the third cycle of co-operative inquiry. Thus, these data represent the three layers of complexity common to practitioner research – the actual events, the accounts of these events, and the interpretations of those events by the co-researchers and the researcher.

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[11] The final draft of the professional learning model was presented to the full teaching staff for consultation in March 2007.

This second cycle of co-operative inquiry generated extensive knowledge in these four phases of inquiry. The challenge has been to create a text that has meaning and transparency for the reader and yet records the sense-making sequences of the knowledge generation process that evolved dialectically as the inquiry proceeded (Greenwood & Levin, 2007). A judgement has necessarily been made about which data to include in the narrative; the criterion used was that of ensuring that the knowledge generation process is adequately and accurately presented. Since the scope and number of participants of this second cycle of co-operative inquiry were greater than for the first cycle then the ensuing narrative is longer. The data presentation and analysis for the second cycle of co-operative inquiry are displayed in this chapter in five sections:

Section 7.2 identifies the initiation and establishment of the group of teachers as co-researchers for the cycle;

Section 7.3 reports the Phase I reflection of the cycle with the identification of the group and individual focus areas and questions;

Section 7.4 presents the Phases II and III actions of the cycle with the pen-portraits of each of the practitioner inquiries;

Section 7.5 reports the Phase IV reflection of the co-researchers' group with respect to the experience of Cycle 2;

Section 7.6 outlines the outcomes of the second co-operative inquiry cycle; and

Section 7.7 presents the beyond Cycle 2 reflection of the co-researchers' group with respect to the wider practitioner experience of the school as a professional learning community as identified in the results of the TEPLC instrument (see Chapter 6).

A summary of the knowledge generated in the second cycle of co-operative inquiry stage of the research is presented in the chapter summary in Section 7.8.

7.2 INITIATION AND ESTABLISHMENT OF CYCLE 2 CO-OPERATIVE INQUIRY GROUP

The initiation of the second cycle of inquiry occurred as an outcome of the Phase IV reflection of Cycle 1 and represents the propositional knowing of the first group of co-researchers that an inquiry cycle is not a destination but part of a 'journey' (see section 4.4.3). Within co-operative inquiry it is more usual for the same group of co-researchers to continue to be involved in subsequent inquiry cycles (Reason, 1999). However, the Cycle 1 co-researchers recommended that a second cycle be undertaken in 2007 with a view to promoting greater participation among other teaching staff and engagement with the school professional learning model. The school principal accepted this recommendation and accordingly, the researcher, in her role as deputy principal, engaged in the

initiation and establishment of the group of teachers to be involved in the second cycle of inquiry. The initiation and establishment are reported in the following sections.

7.2.1 Initiation of second cycle of inquiry

Enthusiasm for exploring an idea and existing engagement in research are identified by Reason (1999) as common factors in the initiation of an inquiry group. This proved to be the case for the continuation of the co-operative inquiry into Cycle 2. Commitment to the initiation of this cycle was made not only by the researcher but also by Carmel who demonstrated the initiating energy identified by Reason (2003) as necessary for the "delicate matter" of encouraging group formation such that potential group members would not "feel invaded or put upon by yet another demand on their busy lives" (p. 215). The interest of other practitioners was sparked, particularly among those who were familiar with the work of the first cycle co-researchers, and the initiating of the second cycle commenced during Term 1 of 2007.

7.2.2 Establishment of second group of co-researchers

The researcher, in consultation with the school principal and Carmel, sent a general invitation to heads of department and leadership team members and several teachers who were undertaking curriculum project leader[12] roles for the year. This group of invitees were identified on the basis of the practical knowledge generated from the previous year that had identified the key role played in promoting collaboration by those facilitating and managing curriculum team meetings (see Section 4.5.3). These invitees also had more school-based 'discretionary' time available due to the time release component of their various positions. Carmel and the researcher continued their involvement as co-researchers to provide continuity of experience and the group was expanded to six with the addition of four teachers.

The new co-researchers were:

- Katrina – Head of department, teacher years 8-12;
- Janet – Head of department, teacher years 8-12;
- Cassie – Curriculum project leader, teacher years 8-12;[13]
- Ruth – Head of department, teacher years 8-12; and
- Caroline – Leadership team member, teacher years 8-12.

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[12] The appointment of curriculum project leaders was an initiative of the school begun in 2006 in which one teacher in each core subject department was granted a small amount of weekly time release to undertake a curriculum-based teaching and learning project of priority to that department.

[13] Cassie was appointed to an acting middle-management position during part of 2007 and withdrew from active involvement during most of that time. Her work was taken over by Ruth but Cassie continued an indirect involvement.

The increased number in this group of six volunteer teachers proved problematic in terms of a time to meet that did not impact on their teaching or family commitments. As a consequence, they met less regularly than in the previous year and for a shorter time period of generally 2 hours during the school day. School support for the meetings was again provided by the researcher, in her role as deputy principal, and this comprised 'protecting' the meeting time from additional class supervisions, the provision of covers for classes when necessary, technology support and the provision of morning tea or lunch. In between the less frequent full group meetings, Carmel and the researcher provided support to the other co-researchers in terms of discussion and research assistance. Of the other co-researchers only Katrina and Caroline were undertaking postgraduate study. The next section records how this group established the focus of the Cycle 2 inquiry group and their individual practitioner inquiry projects; undertaken over a 24-week period during terms 2 and 3 with evaluation and presentation in mid-term 4 in 2007.

7.3 PHASE I REFLECTION – IDENTIFICATION OF COLLECTIVE AND INDIVIDUAL FOCUS AREAS

Unlike the first cycle of inquiry, the establishment of the group and individual focus areas and questions was a lengthy process for the group of six teachers who came together to form the co-researchers for Cycle 2. Although all the six teachers had indicated interest in participating in the Cycle 2 inquiry, they began the 'journey' with mixed feelings and a sense of uncertainty on the part of the 'new' teachers to the group. These feelings influenced both the lengthy process, which the group used to identify the focus areas and questions, as well as the nature of their interactions in this process. The significant episodes in this lengthy process of generating a shared purpose and establishing their own group's collaboration norms are reported below.

Of the four 'new' teachers all except Cassie had been part of the previous year's presentation forum and had been involved in discussions about the outcomes, the 'actionable knowledge', from the previous cycle (see Section 4.6). This had generated a desire to be involved in such an inquiry activity, but also an anxiety. Katrina expressed a common feeling among this group:

> I wasn't quite sure where it [Cycle 2 inquiry] was going to head and being involved with the project's always a little bit scary at the beginning I think…In the early stages I wasn't sure of what my involvement would be to what extent…

Carmel recognised that the positive experience of the previous year meant that she was less anxious and more focused from the time the group first met:

> I suppose when I first started, I guess I was thinking and making connections, to what happened last year…I had a sense of where it was going…I could see how going into a

project again would actually build on that so I probably had a clearer sense of possible…pathways that maybe some other people didn't have.

Clarity and a sense of purpose came from re-visiting and discussing the collaboration focus and the outcomes of the group inquiry and individual practitioner projects from the previous year. There was a strong desire to achieve something similar in some way. Caroline linked this to what she termed 'community building':

As we discussed what had already started to happen with previous projects, and thinking of that community building, there was a sense that there was a lot more to be learnt and a lot more to be done and a lot more potential.

As co-researchers the six teachers explored questions prompted by reflections on the previous year's work:

What is the relationship between 'community' and 'collaboration'?

Does one automatically follow the other or must particular ways of working, thinking and speaking be more consciously applied so that a living and learning community is nurtured?

A general understanding emerged of wanting to be part of helping to promote in some way what the group identified as being a living and learning community. In their first meeting they drafted the following purpose:

We want to value and empower teachers, both professionally and personally, with the aim of encouraging participation and engagement in community building – [a] learning and living community.

However, subsequent discussions revealed little shared understanding of what 'community building' meant. As they explored this interest area further the teachers drew on their experiential knowledge expressing it in a variety of presentational forms. Many stories of 'community' experienced in past and present school settings, both positive and negative, were shared and re-visited. It was a lengthy process in which they endeavoured to respect each other's, often diverse, perspectives. Caroline recalled how the group approached this, at times, difficult task:

We had to work through a fair bit of talking first…it took time…listening to each other…bringing in new ideas…broadening the focus…

Carmel identified the underlying theme of these stories as how teachers interacted with each other and how they felt valued both personally and professionally:

…a whole range of ideas were bounced around but we did keep coming back to staff, and how staff feel and that sense of how staff engaged [with each other], how they feel, that sense of worth. Their connection to the place is so important to being good teachers and being good with the students.

With this focus of staff interaction, the group of six teachers explored their emerging conceptualisation of a professional learning community by engaging in a literature search focusing on developing their understandings of community building and how these linked with the previous year's focus on collaboration. As it had worked so well in focusing the individual practitioner inquiry projects in the previous year, the group searched for a pithy research quote to again provide focus for both their collective and individual work. The following quote was selected:

> There is a gap between both the idealization and realization of community at the whole-school level and the messy business of making collegial relationships work on a daily basis, where they will have an impact on student learning (Pomson, 2005).

> We want to try and narrow this gap and decrease the messiness of 'making collegial relationships work'!

The group of six teachers operationalised this quote as:

> How can we work within our particular school environment to develop a greater sense of community in ways which will enhance the educational outcomes for students?

While this process of identifying their research purpose had been a lengthy one, it did provide critical reflection time for each of the six teachers to consider their own contexts and how they might pursue action in their individual practitioner inquiry projects. Thus, unlike Cycle 1, it took considerable time to build up what Randall and Southgate describe as the "exciting interaction between task and people" that characterises the creative co-operative inquiry group (as cited in Reason, 2003, p. 211). In time, the individual inquiry questions the co-researchers pursued in their work with other teachers at the school were framed around the different understandings of community that the co-researchers had identified together in their research and reflection, as well as their own reflection on how these understandings could be applied within their own context (see Table 7.1).

These individual practitioner inquiry projects commenced in term 3 (Phase II) and for the purposes of this study have been designated as project numbers 6 through to 10 in order to distinguish them from the Cycle 1 projects. The teachers became fully immersed in the action in the latter part of term 3 and part of term 4. During this time they also engaged in reflection with the other co-researchers for the purpose of sharing and reflecting on their professional learning within each of the six projects as they progressed (Phase III).

TABLE 7.1

INDIVIDUAL PRACTITIONER INQUIRY PROJECTS CYCLE 2

SUMMARY OF FOCUS AREAS AND PARTICIPANTS

Inquiry Question: How can we work within our particular school environment to develop a greater sense of community in ways which will enhance the educational outcomes for students?

Focus area	Project research question	Leader: participants
Project 5: Community as shared practice – taking risks	How can peer mentoring support staff in engaging in reflective practice?	Katrina: Department teachers Years 8-12 (N=7), mandated
Project 6: Community as professional interaction – prompting the dialogue	How can we use data on teacher job satisfaction as a basis for professional dialogue and to inform future planning?	Janet: Department teachers Years 8 to 12 (N=22), mandated
Project 7: Community as welcome – supporting the learning	How can we effectively support new teachers, and experienced teachers in new contexts, engage in learning?	Carmel: New teachers to the school in 2007 Years 8 to 12 (N=9), voluntary
Project 8: Community as diversity – making the links	How can we work collaboratively towards consistency of best practice that promotes student transfer of learning?	Caroline: Year 12 various subject teachers (N=10), mandated
Project 9: Community as responsiveness – being effective	How can critical reflection on our feedback practices promote effective student reflection on their learning/achievement?	Shirley: Subject teachers Year 11 (N=4), voluntary
Project 10: Community as critical reflection – being open	How can unit evaluations contribute to the development of teacher reflective practice and student self-reflection?	Ruth: Subject teachers Year 8 (N=6), voluntary

7.4 PHASES II AND III – ACTION AND REFLECTION – PRACTITIONER INQUIRIES

Each of the practitioner inquiry projects had a different focus within the overall inquiry for 2007 which asked the question: *How can we work within our particular school environment to develop a greater sense of community in ways which will enhance the educational outcomes for students?* As with Cycle 1, each of the phases of co-operative inquiry led to the generation of knowledge both individually and co-created. The engagement of the co-researchers in determining how to act in their respective contexts to address their identified individual focus question generated practical knowing. Experiential and presentational knowing was generated in the reflective stories shared with the other co-researchers and this led to emerging propositional knowledge from the inquiry context. Again, this is reported in the pen-portrait narratives as articulated by the co-researchers in the various data

sources. Again, it must be remembered that the articulations by each of the co-researchers, as recorded in the various data sources, are necessarily divorced from the experience in time; and are necessarily mediated by the co-researcher, either consciously or unconsciously, and also by the researcher in the composition of the research narrative. In Cycle 2, full group meetings of the co-researchers for the reflections of Phase III were limited due to scheduling constraints; however, co-researchers did meet in small groups with Carmel and the researcher at various times for the purpose of sharing their respective reflective stories. The pen-portrait narratives for each of the individual practitioner inquiries of projects 5 to 10 are presented in the following sections.

7.4.1 Project 5: Community as shared practice – peer mentoring

Recent enrolment in post graduate study had sparked Katrina's reflection on her own practice:

> I started thinking about my own teaching, and after teaching for twelve years or so, you start thinking that some of the things you're doing seem to be like what you did last year, and like the year before that, and the year before that.

She realised that four of the six other teachers in her department had "been at the school for at least twenty years plus, some up to thirty years" and she recognised that as a small department of specialists they had "been used to working a certain way for a very long time". Katrina began searching for ways in which she could affirm that their work was valued and yet still encourage the teachers in their professional learning. A particular incident, in which Katrina was asked how a short-term replacement teacher was going in the classroom, prompted the sudden and uncomfortable realisation that, even though the department's teachers were a small group of specialists, she actually had no knowledge of their classroom practice:

> Although I knew them reasonably well outside the classroom, I really had little notion of their skills and expertise…I really didn't know what was going on inside the classrooms of the staff of my department. I really didn't have a handle on that. In my years of teaching that wasn't something that [had happened], no one [other than pre-service teachers] had ever visited my classroom and I had never visited somebody else's classroom…

The positive experience of observing the replacement teacher's class and the professional learning she identified, led Katrina to investigate peer mentoring as a possible strategy to encourage professional learning in her department:

> It became clearer to me that observation and positive feedback from peers may have a positive impact on the Department as a whole.

Research convinced Katrina of the personal and professional value of peer mentoring and its ability to empower staff (Beatty, 2000; Rhodes & Beneicke, 2002) but there "appeared to be a gap in the

literature regarding peer mentoring amongst entire departments in order to build community". As the co-researchers' group engaged in discussion about their stories of community, Katrina recognised that peer mentoring required more than the connection and ease of interactions which come from the shared personal story of teaching in the same school together for many years. She realised that peer mentoring was a professional 'risk' and she worried that her teachers' long history with the school would mean that they would not be willing to try "this new and different form of professional development".

Katrina recognised that if she was going to take a peer mentoring proposal to the teachers in her department then she would need to have an approach that would encourage the 'risk taking' and promote professional dialogue about observed practice in a 'safe', supportive and trust-building environment. An adaptation of a reciprocal coaching approach appeared suitable (P. F. B. Little, 2005). To provide 'safety', she suggested that the department's teachers (including herself) work in reciprocal pairs. To help build trust, she suggested a first stage emphasis on confidential positive feedback (oral and written) with four observations of a lesson in each other's class over four weeks. To encourage critical reflection on practice, she built in to the process that the observer would identify an element of practice that "was directly applicable to their own class". While she was anxious about how her teachers might react to the proposal she was surprised by the openness with which they considered and responded to the proposal:

> The most difficult part in the early stages…[was] actually inside my own head… How are they going to react to this? And I must say when I put it out there and we talked about it I couldn't believe the reaction… "Yes we can do this, we can give it a go." So I guess a lot of it [my anxiety] came from fear that I would get the, "Oh my goodness! Here we go again – another new thing. Oh, I don't want to be a part of this."

Some teachers expressed their assent more strongly than others and there was some hesitancy in terms of when they might start and how they might proceed, but there was a general response of "willing to give this a go." Katrina considered that the most likely reason for this positive response was that the teachers could see how students could benefit from their actions:

> …I think that when I outlined the benefits of it they thought, "OK, well this is something worthwhile"…they are a very good group of hard-working people…they…really do have the students' interests at heart.

There were practical frustrations as the peer mentoring stages proceeded and Katrina identified that she had to be more flexible in her carefully mapped-out program. She learned to adjust to the circumstances while still keeping to the purpose of the project:

…I put out an idea of the way I wanted to work. Of course time got in the way and I wanted staff to visit each other's classes on four occasions…and not all staff were able to do those four visits and I started to get a little worried…that the project was not running exactly as planned but I think I addressed that…I had to…not be so fixed….

She became increasingly aware that her own responses were disempowering her teachers. While she had structured the program to try and minimise any negativity with respect to 'professional risk', she recognised that she then needed to 'step back' and let the teachers take ownership of the process:

…they [the teachers] were willing to give this a go…it's so easy to be inflexible…I didn't check up in the last [stage of the] project, did you do your two visits? Did you or didn't you? I left that up to them. So I think at the end of the day…this project gave staff the opportunity to see and do, making them active participants in the process.

In their evaluation of the peer mentoring project (survey and interviews) the teachers gave high levels of support to the benefits of the experience for their own professional learning and their work as a department. Katrina reported:

One of the most significant points to emerge from this project was that staff generally found this project worthwhile, that it did encourage teacher collaboration and they felt supported by their colleagues…I learned that…if you are passionate about an area of inquiry others may become willingly involved too.

Katrina also recognised that the existing relationships within the group provided a sound foundation for the reciprocal approach and significantly reduced the teacher level of professional 'risk':

I believe staff were willing to be part of this project as a level of trust was already there. We have worked as a consistent team for four years so I learned that timing for a project such as this is vital. I do not believe the project would have been successful if participants were not at the stage where they were comfortable to open their classroom to colleagues.

While the teachers were 'comfortable' with each other they needed the catalyst of Katrina's mentoring proposal to actually engage in the shared practice of opening their classroom to another teacher. Through building on this existing 'comfortable' foundation, and then through engaging in the peer mentoring project, Katrina believed that her department had moved towards being a different type of community in terms of their professional risk taking and professional dialogue:

…we've gone beyond…you know those round table discussions at your departmental meeting. I think we have taken it [community] to the next level which is really looking within the classroom…I think we are a community…we are working towards a [professional learning community] model…right here in our very small department…

Katrina concluded that trust was the key to encouraging shared practice which builds on existing personal and professional relationships:

…community building and collaboration is, for me, really working with my team of people and trying to build up some trust relationships that long-term could benefit the students.

7.4.2   Project 6: Community as professional interaction – prompting the dialogue

While Katrina had identified the focus of her practitioner inquiry project relatively quickly, Janet took longer to clarify her focus. The stories of different experiences of community shared in the original group discussions of Phase I led Janet to reflect on what differences there might be between her own personal experience of the school and those of others:

> One of the things I was aware of is, in many ways, how well off we are here as a staff. Certainly in terms of things like resources, even timetabling, number of classes we teach, support of the leadership team etc…

Janet's observation was that this perspective was not necessarily shared by other teachers in the school. In discussion with the co-researchers, she identified teacher reactions to their professional environment as a key influence on how they engaged professionally with one another:

> …people's attitudes, how people feel about the place, how people feel about each other, people feeling, I don't know, stressed or whatever…the attitude is really, really, important.

These reflections led Janet to the research on job satisfaction among teachers and the increasing evidence that teacher satisfaction is related to student success; it enhances collegiality, and is influenced by school leadership styles and teacher career stage (Korkmaz, 2007; Woods & Weasmer, 2004). Recognising that teachers in her department were in the full range of teaching career stages and that there was a high proportion (*n*=11) of teachers with leadership responsibilities in other areas (all deputy principals, all middle-management pastoral co-ordinators), Janet felt that there would be value in identifying the levels of job satisfaction among the teachers in her department. She adapted some surveys from her research and asked the department's teachers to complete a voluntary online survey, even though she was still struggling with how to focus her inquiry:

> So…the idea of looking at job satisfaction, I guess the basic idea was so that people might come to an appreciation of what they had, but without any clear idea of what would come out of it…and…what to do with the information from the survey. I hadn't really decided when we did the survey…

There was a very high level of interest generated among the department's teachers and a resulting relatively high response rate to the survey (*n*=18). Significantly, in sharing the results of the survey with the co-researchers' group, Janet recognised the value of how this peer-level discussion prompted their professional dialogue, often through the stories of teacher experience that it generated. This led her to identify a further stage in her practitioner inquiry:

> I had always planned to take it [survey results] to the staff meeting of the RE staff so that we could actually look at it, and I guess…the question I posed was, "How can we use this information, how can we use any of the information that we've got…to inform our future planning?"

Janet summarised the responses from the job satisfaction survey and selected those items where there had been disagreement for presentation at a full Department meeting. She asked teachers (in small groups) to engage in discussion of these selected survey results and provided some prompt questions to assist the reflection. This proved to be an effective method for engaging teachers in this critical reflection on their experience of the school. The presentation of the 'grouped' data of the survey results enabled teachers to share different perspectives in a 'safe' environment particularly in sensitive areas such as decision-making processes. Janet commented:

> People enjoyed it, they enjoyed giving their feedback. We followed it by a general conversation…that was also very much to the point and very purposeful discussion…a real sense of sharing. A real sense of people saying things that they meant…and it wasn't negative…even though people did point out things that they feel could have been improved that would've improved job satisfaction.

Issues that arose from this discussion were identified and ideas to address these suggested in the small groups. In the light of her research, Janet highlighted the following collated small group response as the result of an "interesting discussion about generational perspectives on issues and the teaching profession":

> Age composition of the department (only 1 permanent full time member young) has an effect; experience, maturity, not interested in leadership as either already in a leadership position or not intending to [seek leadership position].

While Janet had structured an opportunity for teachers to discuss the survey results and to critically reflect on their experience, she also wanted a purposeful outcome for the professional dialogue that had been prompted in this way. Through further discussion Janet and her teachers identified priorities for their work together in the following year. Significantly these all focused on increasing opportunities for professional interaction: decision-making practices that would generate greater "owning of change", recognising and using the professional expertise among the teachers for professional learning, and structuring more opportunities for "talking about/professional dialogue that is not tied to tasks". Janet believed that the initial focus on job satisfaction and the process of professional dialogue had heightened teachers' sense of community by raising the awareness of what they collectively valued in their work together:

Well the original aim of doing the thing on job satisfaction was for people to get a positive sense of belonging to this community, of what it does offer, and it certainly did that. I mean there [were] really clear ideas of things that people appreciated like the level of resources, like the support of leadership and [in] general, the time factor…and certainly, as we've seen on several other occasions, the trust of their colleagues and collegiality in a general sense.

Janet's learning from this practitioner inquiry project experience was both personal and professional:

…job satisfaction…[was] a prompt to look at other things that came up…that's the finding…For me as Head of Department it reminded me of the wealth of talent, expertise and good will amongst the [department] staff…The challenge is to translate this into positive student learning outcomes.

In terms of practical and propositional knowledge, a key outcome of her practitioner inquiry project for Janet was realising the powerful link between professional dialogue and professional learning, particularly the importance of prompting that dialogue which was not "talk at meetings" but rather "a whole new way of thinking".

7.4.3   Project 7:   Community as welcome – supporting the learning

For Carmel, identifying a focus for practitioner inquiry project was "a fairly easy one" as it emerged directly from her teaching experience that year, discussion about community in the co-researchers' group, what she identified as a key research article (Emihovich & Battaglia, 2000) and her own university studies "looking at peer mentoring, supervisional support and things like that". Having the opportunity to mentor and team teach with a first-year teacher was a new and professionally rewarding experience for Carmel:

…I'd got far more out of it than she [first year teacher] did I'd have to say. But it was a great opportunity where she was able to join my class for a couple of lessons a week and we did that as a team teaching thing and so that was really good. But the experience then prompted a range of questions…and I guess my interest in when people first come to a community [and] how to welcome them.

However, Carmel was also aware that of the 15 new teachers to the school that year only three were beginning teachers. While there was a formal school induction program at the school, some 'lunch table' discussions with a few of the new experienced teachers (who had come from different school sectors in Queensland, interstate or overseas) highlighted for Carmel that there were many professional issues arising for these new experienced teachers as well. She came to the realisation that:

Both beginning and experienced teachers can be challenged by the demands of learning and managing new or different curriculum knowledge and pedagogies.

Accordingly, she began to explore how the school could support all new teachers in this critical and time-pressured professional learning through "proactive and positive steps that aid teachers in their learning".

Carmel undertook an extensive search of the literature to inform her investigation and identified that this issue was larger than the implementation of appropriate mentoring and induction programs but involved organisational learning as well as adult learning (Collinson & Cook, 2004; Shulman & Shulman, 2004). For her investigation Carmel interviewed nine of the new teachers (mixture of experienced and beginning teachers) and she was amazed by the rich cross-curriculum perspective that this gave her, as between them the new teachers represented almost every academic department as well as the middle school:

> For me it was really good awareness raising to talk to these people…things that I just hadn't been conscious of…it was very beneficial for me…

There was much practical knowledge generated by Carmel's inquiry as she was able to identify very specific ways in which the school could support the curriculum and pedagogical learning of teachers in new school contexts regardless of their level of experience. These ranged from the more formal support process of providing access to resources, such as annotated samples of student work, to more informal, and yet highly valued, structures, such as desk allocations close to experienced staff in their department.

For Carmel one of the most significant outcomes from her inquiry was the difference between the types of interaction which new teachers, particularly experienced teachers, were seeking with their head of department and what they reported as actually happening. Carmel observed that this was a cross-department response and so was likely to represent a school-wide occurrence:

> Teachers tend not to associate HODs with mentors…Structured feedback and reflection with HOD does not seem to occur. Informal comments such as 'you're doing well' do not provide information about ways to improve.

Reflecting that there could be a range of factors influencing this new teacher response, Carmel recommended "a forum to explore these issues with Heads of Department". Significantly, Carmel identified supporting new teachers in their professional learning with building the leadership of teacher learning through structural and non-positional leadership roles. She suggested:

…the possibility of structured mentoring as a leading teacher pathway…exploring options for clarifying the role of mentors and supporting teachers in such a role…encouraging HODs to find ways to support beginning teachers in reflecting on their practice and learning. This may be handled appropriately by a mentor…its [about] supporting teachers who aren't at that middle-management level in working with small groups of people in ways that are mutually supportive and mutually beneficial.

Carmel was excited by these possibilities and was convinced that they offered viable and valuable leadership roles to teachers with respect to promoting reciprocal teacher professional learning which contributed to nurturing a culture of collective learning:

…mentoring and supporting teachers can be a great pathway for experienced competent teachers…[Teacher mentors] don't have to be middle managers… [or] HODs…There are enormous benefits if we can get people on board and we can give that some good support and good structure…There are benefits for the mentor and for the mentee that …might take some burden away from middle-management and from HODs.

Drawing on the experiential knowledge from her new and evolving role as co-researcher for teaching and learning[14], Carmel began to think about ways in which she could be involved in this leadership capacity-building:

…I think I can probably take that [supporting mentors] a little further…probably in my role I've got some scope…to find some ways to support people who are in those roles in some ways of working…So I can see some things coming together in a much more concrete way.

Carmel described her practitioner inquiry project as "trying to conceptualise the problem and the solution to the problem" but recognised the difficulty of presenting her ideas about expanding non-positional leadership of teacher professional learning to others, "in such a way that I'm not communicating or making people feel like this is more work". She reflected:

…how does this [suggested solution of non-positional leadership] not become more work for middle-management or more work for other people? How do we minimise the impact?…the most difficult thing for me, and it might be my personality type as well, has been thinking through that communication issue and how to get people on board and not make something seem threatening or problematical...

Propositional knowledge clearly emerged as Carmel concluded that, despite this identified difficulty, supporting teacher professional learning "when we're welcoming people" is a key time, as it sets the scene for their professional learning at the school and is critical to their long-term teaching effectiveness:

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[14] Although Carmel had been appointed to the position of Project leader for Teaching and Learning that year, this had been conceptualised as providing time release to support her existing significant in-class teacher leadership rather than as a positional middle management role per se. She had retained her desk in the staff room and a teaching load of four classes.

It [the individual practitioner inquiry project] highlighted for me, maybe things that I already knew, but just how important it is that that first experience that somebody has, when they come to a department or when they come to the school, or when they come to teaching, how we welcome them as professionals and as professional learners is so important then to the culture…there are ways of working [at this school] that are a certain way and that are supported and that are encouraging…

In her practitioner inquiry project Carmel linked effective non-positional leadership of teacher learning, from the time of 'welcome' into the school community, with helping to establish both individual and collective teacher professional learning as a "way of being" at the school and she reflected, "…what we do at the start and obviously keep going with – that is so important".

7.4.4   Project 8: Community as diversity – making the links

Working with an intentionally diverse group of teachers each year in part of the curriculum program for year 12 was a "particular challenge" for Caroline. Comprising teachers from different specialist areas the intention had been that each would contribute their skills to this multi-disciplinary Queensland Core Skills Test (QCST)[15] preparation program. Caroline identified the group's diversity as "both a challenge and a strength" and observed that there were "a number of issues that impact on the effectiveness of the team". Caroline's exploration of these issues led her to a different type of inquiry process than those used in the other projects. She began with what was already established with this group of teachers in terms of how they worked together, analysed existing data on student performance on the QCST, engaged in research relating to the issues she identified and then used this new practical knowledge in discussions with the teachers and heads of department "to shape some thinking about how we might move forward as a team".

Some teachers in this year 12 group had elected to be in the group as part of their teaching allocation but the majority had not expressed that preference[16]. Most of the teachers had not worked together before. While Caroline felt it was "fairly easy to identify some common goals" for the group, she observed differences in how teachers responded to meeting those goals:

…people are used to doing things in different ways and, to different degrees, feel some degree of discomfort, or being pushed out of their comfort zone, with some of the things that we're asking them to do…

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[15] The Queensland Core Skills Test is a common statewide test for year 12 students of generic academic skills. It is a high stakes test to the extent that grouped school data is used to scale individual school-based assessment in the process of determining individual student rankings for tertiary entrance.

[16] In identifying their teaching allocation preferences these teachers had not indicated that they did not want to be part of this program rather they did not express a preference to include the program in their teaching allocation for the year.

In general, teachers were uncomfortable in delivering parts of the program which they identified as not being their discipline of teaching:

> Some teachers preferred to maintain a role that was more compatible with their usual teaching practices, and expressed some reluctance about engaging in skills that were perceived to be outside their main area of expertise… There was a recognised shift in their role with mixed levels of satisfaction about this shift, if indeed it did occur.

In the past, the diversity and annual changes in this group of teachers had led Caroline to be fairly directive in terms of the learning activities of the program. The focus for part of the program for the year was to be on the Writing Task[17] component of the QCST where Caroline had identified that students were not necessarily selecting the most appropriate genre for their response to the Writing Task. Only four of the ten teachers in the group were English specialist teachers and there was reluctance among many of the other teachers to engage in teaching activities related to writing. Caroline observed:

> There was generally a more positive response to opportunities for some team teaching, where teachers were able to target particular skill sets, in sessions with different groups of students.

The responsive nature of this QCST preparation program meant that the group of teachers was faced with the challenge of how to encourage students to transfer their learning from their school-based subjects to the unfamiliar contexts of QCST, while at the same time facing the same learning challenge of 'making links'. Caroline observed:

> While most teachers acknowledged the benefits of modelling transfer of learning themselves, many reported that this was a challenge to put into practice.

Caroline completed research into teacher collaboration (Lavié, 2006) as well as into QCST preparation programs (Queensland Studies Authority, 2007). From the research she identified the importance of "creating joint ownership of the task and sharing leadership in such a way that respects the knowledge and experience of the group". The literature also helped her to better understand why there was some degree of reluctance to share ideas about practice among this group of teachers, which she identified as part of a secondary school's "strong norms of professional autonomy and privacy" (Grossman et al., 2001). Propositional and practical knowledge began to form as Caroline used the research understandings to inform her continued work with the program teachers.

Looking for a different way of engaging the teachers in the program, Caroline "conducted focus groups" (rather than 'a planning meeting') among the new and more experienced teachers of the group

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[17] The Writing Task is one of the four sub-sets of the QCST and requires students to respond to stimulus material in genre of their own choosing (except poetry) and does not direct purpose, context or audience.

and explored with them how student performance on the Writing Task could be improved. The analysis of the student performance data prompted surprise and further questioning:

> …many students were choosing to write in the narrative or storytelling genre when it's not necessarily one that the data and assessment samples were telling us that many students have a lot of experience of …particularly in years 11 and 12. So we looked at some strategies that encouraged students to reflect more carefully on how to…work with what they were familiar with and transfer that learning into a particular context.

When those strategies were reviewed together with more performance data, further questions were identified:

> …while students were…shifting a little bit away from the…narrative style, there was a strong preference for the feature article style, and that then raised the question, "Well, what is it about their experience, what we're asking them to reflect on, that's encouraging a significant proportion to focus on a particular genre?"…let's investigate that further…

The questioning and reflection that the group of teachers engaged in prompted their thinking about ways in which the various curriculum subjects could contribute to what they had identified as improving student performance on the Writing Task. Caroline reported:

> …there was general agreement that the necessary skills are situated beyond the realm of just the English curriculum area. Most teachers clearly recognised the need for enhancing communication and writing skills in all areas.

Caroline recognised that the process of analysis of data and discussion of strategies had provided a forum for generating ownership of "the task" and allowed teachers to 'make the links' by drawing on strategies (not necessarily content) from their own area of expertise. Significantly, the data had been non-threatening in that it did not reflect on their personal teaching as such. This had been a positive experience for the teachers and the process was valued by them:

> All agreed there was a need for more dedicated collaborative time for teachers…[in the QCST preparation group] to engage in planning, reflection and review of instructional practices.

Engagement in the practitioner inquiry project had led to practical knowledge not only for the teachers in the program but also for Caroline:

> …I learned a lot, not just about the process of gathering data and using that as providing evidence to shape future directions, but also in the actual things that were learned about the group of students, the group of teachers…

She felt renewed in her leadership of this group by the experience and, together with the group of teachers, she identified specific strategies to enhance the group's effectiveness in the following year. Caroline's propositional knowing from the experience of her practitioner inquiry centred on the use of

data and leadership practices. She recognised that engaging the teachers in collaborative analysis of the student achievement data had shaped goals for the group that were "evidence-based" and had prompted "collaborative practice among a group of teachers that are quite diverse". In particular this highlighted for her, "…the need for further development and facilitation of supportive mechanisms for sharing leadership in teacher teams".

7.4.5   Project 9: Community as responsiveness – being effective

Over a number of years, different forums within the school had considered how to generate more independent learning among students as they progressed through their various years of schooling, and this had become a particular focus of beginning of the year conversations among the year 11 teachers of a compulsory subject. In one such conversation, an experienced teacher new to the school described different approaches to feedback on student assessment she had encountered in different schools. This prompted discussion within the group of five year 11 teachers of the subject about the level and type of feedback provided on student assessment drafts. As one of the teachers in this group, Shirley observed that while students were seeking a lot of very specific feedback of the kind "tell me what I've done wrong and how to fix it", teachers were responding with "we are not meant to be editing the work for the student". Teachers observed that students varied in the extent to which they acted on feedback, and Shirley identified "concern among teachers that students are not responding appropriately to the draft feedback". In discussion with one of the other teachers (also a part-time pre-service teacher educator) about effective forms of feedback, Shirley identified that, particularly for more experienced teachers, "professional learning in this area [of effective feedback] has been limited". Consequently Shirley agreed to undertake research into this area and bring her analysis back to this group of year 11 teachers as her individual practitioner inquiry project.

The research literature clearly demonstrated the significance of feedback in student learning, identified that it had to have a clear instructional focus, confirmed that responses to feedback are indeed variable, and suggested that some feedback types are more effective than others (Hattie & Timperley, 2007; Kluger & DeNisi, 1996). Shirley circulated some of this research to the group of year 11 teachers and it sparked high levels of interest with a request that they meet to discuss and "follow-up in some way". When they met, the types of feedback and their differential effectiveness identified by Hattie and Timperley (2007) resonated with the group and they questioned which types of feedback they were using on the drafts of student assessment work. Teachers decided to gather data from student work and analyse it, but Shirley observed a lack of enthusiasm for gathering data from the work recently submitted by students, particularly by the experienced new teacher. Instead the teachers agreed to use

student work for two assessment tasks from the previous year. A convenient sample of 30 student assessments, including a range of final achievement grades, was selected by the teachers. Shirley facilitated the data analysis of draft feedback comments[18] but all teachers shared in recording feedback types and frequency.

Looking at the range of comments being used by teachers prompted Shirley's interest in student responses to feedback and so she surveyed her class about which comments they found most/least helpful. Shirley observed an enthusiastic and very open response by students to this opportunity. She was surprised by some of the comments from students and they proved to be a rich source of reflection for all the teachers in the group, particularly the following two comments from students:

> Comments in question form i.e. how did this happen? Or Why is this relevant? [helpful]

> …the question type comments i.e. does this make sense? (I think it does as I put it in), could this be said differently? (of course, but what's wrong with the way it is now?" [unhelpful]

The data analysis facilitated reflection and Shirley observed that, just like the other teachers in the group, she "became energised by the discussion". Interestingly, she observed that teachers seemed to feel comfortable in discussing the data which she identified as "removed from current practice" but still relevant. It had been difficult to find in-school time to meet but the group felt that they had achieved a lot in only three meetings over a six-week period. Teacher comments indicated that they valued the opportunity to engage with research and apply it:

> I had begun to resent marking drafts – felt I was now doing twice as much marking and it was making no difference but I can now see how I can improve my feedback so that it does make a difference!

Not only did attitudes change but teachers identified changed practice as well. One teacher commented, "I really thought more carefully about comments for this last assessment". The teachers individually identified strategies that they would adopt for the remaining assessment for the year:

> I tried to be more specific and reduced the ticks and question marks this time but I'm not sure the students like that!

As a group, the teachers also identified what they would like to explore further, both individually and as a group, as a result of the experience but some were reluctant to share their work with other colleagues "until we feel more confident". While the group had worked effectively, and quite excitedly, together in their inquiry into their practice, Shirley recognised some of the significant findings from her research in their reluctance to share. In particular, she identified research in which

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[18] Students were required to submit all draft work with the final submission of the assessment tasks and so these draft comments were available for analysis.

teacher motivation to "disseminate their knowledge" was influenced by "teachers' norms, values and beliefs" (Collinson & Cook, 2004).

In discussion with the other teachers in the co-researchers' group, Shirley's propositional knowledge began to form as she identified a number of key factors in her practitioner inquiry project process that had affected the outcomes. Although initiated by her, the inquiry developed from a concern that the group of teachers had already identified in their practice and "gave them 'safe' feedback on that practice". The key research literature (as meta-analysis presentations) was particularly accessible and informative for all the teachers in the group. Three of the five teachers had taught the particular Year 11 subject together for three years and had established a professional relationship in which they were comfortable in asking for help from each other, "talking about what worked and what didn't work" in their classes, and had developed an understanding of trends in student achievement, albeit all through mainly informal means. Shirley identified that this reflective stance was probably not only influenced by the nature of the teachers concerned (two completing post-graduate degrees and one part-time teacher educator); but also the time that they had spent in collaborative analysis of student work in their cross-marking[19] activities with each other over these three years.

Shirley expressed her propositional knowing as she concluded that teachers reacted positively to the inquiry experience because it "responded to a need that was collectively recognised", was directly related to their individual practice, required "only a short-term commitment" and focused on student work. It highlighted for her the importance of established relationships of professional trust in engaging effectively in critical reflection on practice.

7.4.6   Project 10: Community as critical reflection – being open

Investigating best practice with respect to student evaluation of their learning experiences was the inquiry focus identified by Cassie at the start of this cycle of practitioner inquiry projects. When Ruth took over this inquiry it was very timely with respect to her role as head of department in what she identified as a general lack of openness towards her, and each other, by teachers in the department. The six year 8 teachers in her department were engaged in a vigorous debate about information technology teaching methods for the completion of a current unit:

> …the staff were at a bit of a crossroads or perhaps even loggerheads on what they wanted, the approach they wanted... [for]the particular unit…

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[19] Cross-marking involved the internal moderation of standards of student work against external standards.

This year 8 unit of study was cross-curricular and perceived as demanding by students; the teachers were frustrated and identified the software as 'unforgiving'. Ruth believed that the two different pedagogical approaches being promoted by this group of teachers were not evidence-based:

> …it became increasingly evident…that the staff…weren't necessarily thinking of the student but were thinking more of their own personal style and wanted to reflect that in their approach that they were taking, rather than particularly looking at what our students' needs were.

Reflecting on these personal teacher styles, Ruth observed that the male, less experienced teachers were those favouring "a 'tinkering' and discovery approach" with respect to use of information technology; while it was the female, more experienced teachers who were advocating a "modelling and scaffolding approach". Both groups used anecdotal observations of student learning to support their viewpoint.

In an effort to focus teacher attention on research-based evidence about student learning, Ruth engaged in research about girls' learning in information technology. She used her teacher association networks and also university personnel to help her locate relevant research. She identified some significant findings from this research but found it difficult to engage her teachers in reflection on practice:

> The research [was] quite interesting…girls quite often have a different approach to learning IT…[girls] like to know what the real life value in it is for them when they're doing some learning…I was trying to get this message across to my staff and it was becoming increasingly evident that we had a rift in the department about what would happen and how we would approach it [teaching the rest of the unit]…

Eventually, the teachers agreed that it would be appropriate to "find out from students" which type of learning activities were assisting them most in their learning.

The school had been moving toward a practice of mandated student evaluation of course units and there had been some development of a generic online format. However, the research about student evaluations that Cassie (see Footnote 14) had commenced identified little support for a regime of mandated evaluations or generic evaluations (Katz, Sutherland, & Earl, 2005). Ruth identified further research (Phelps, Ellis, & Hase, 2001) which reminded her of the need to carefully construct evaluation-type questions that would prompt student reflection on learning, and to provide adequate time and support for teacher reflection of the student responses. Although teachers had agreed to a student survey they were initially reluctant to change what had been a generic student unit evaluation used by the department in the past.

Using the research, Ruth discussed with the teachers how they could obtain more useful feedback from the students about teaching approaches with different types of questions. Nevertheless construction of the survey was still problematic for Ruth:

> …my biggest difficulty…[was] trying to then write a survey that… was not going to be threatening to staff…I think the staff were very keen for it not to be just another teacher appraisal or not just another chance for students to have a go or whatever. So it was…quite a challenge to write a survey that was going to give us information that we could use but also…highlight what the students like about a teaching approach – not so much the teacher.

Ruth did not believe that it would be effective use of time to try and write the survey together given some of the conflict within the group of teachers. However, she engaged the staff in the development of the survey by presenting them with drafts to critique. She found this an effective and positive process:

> I think we had about three or four 'goes' at the survey before we were finally happy with it…I think the fact that the staff did have some input they were quite happy then with the final product…they didn't feel as though I had just sort of railroaded them into having this survey...and [they] came to the party in the end. So that was good.

In her assessment of the survey and its results Ruth identified an open student response which enabled the teachers to identify value in the survey "especially about the difficulties experienced by students". The analysis of the student responses prompted focused discussion about pedagogy and provided an evidence base for identifying the relative merit of the different teaching approaches in promoting student learning:

> …that [survey data] helped us to really say…there are differences here. Students are saying that they like this approach where there's a little bit of modelling and there's not so much of, "You try it and do it on your own." So that was valuable…

Ruth recognised that she needed to provide time for teachers to adequately consider the data analysis and how they would use it to inform decisions about this particular cross-curriculum year 8 unit in the future. There was "a lot of discussion" and Ruth identified how these discussions "forced" a process of critically reviewing the courses in other year levels:

> …the discussion is on-going and it has forced us to really have a look at what we're doing rather than just blindly following, "Oh this is what we did last year so we'll do it again"…to consider our options …year 8, year 9, year 10, year 11 and year 12…where we're going and whether we can do more scaffolding at the early stages…

More importantly, Ruth recognised that the lack of openness and conflict that she had previously identified between teachers had been confronted through this inquiry. Although there were still times when there was a lack of openness, there had been some positive development in the ways in which they worked together:

> …I think it's made the staff a little more open too. I think they've accepted that it's OK to talk to me…we can work together…that's been a good learning curve for us…

In her reflection, Ruth expressed surprise that engagement in this "small" inquiry project had led to what she identified as significant gains in how teachers worked together and in their professional learning:

> I just think it's been really a big eye opener - how valuable even such a small thing like a unit evaluation can be to inform your teaching and to inform the practice that we're using and from such a little thing had come such big discussions…I didn't imagine at the outset that it would create quite as much developmental work…in how girls learn and how IT fits into the scheme of things.

Ruth summarised the learning from her individual practitioner inquiry project as, "Teacher reflection [on practice] – collective and individual – may be difficult to prompt but it is worth persevering!"

The propositional knowledge generated by this perseverance was clarified as Ruth concluded that encouraging the use of student unit evaluations was an appropriate means "to inform our teaching approaches" as it would "promote the evidence-based 'robust' debate" which she now viewed as valuable. She also recognised that these student unit evaluations could also provide valuable opportunities for promoting student metacognition if "quality" questions were used.

7.5   PHASE IV - REFLECTION – CO-RESEARCHERS' GROUP – COMMUNITY BUILDING

The pen-portraits of projects 5 to 10 have identified how the co-researchers engaged in their individual practitioner inquiry projects and report their understanding of this experience in the practical and propositional knowledge that emerged from their reflection. These action and action/reflection stages comprised Phases II and III of the co-operative inquiry cycle and were followed by Phase IV in which the co-researchers engaged in reflection about their overall experience of this second cycle.

Their overarching focus in this second cycle had been on community building and developing collegial relationships (see Section 7.3) with their inquiry question for the cycle as: *How can we work within our particular school environment to develop a greater sense of community in ways which will enhance the educational outcomes for students?* Although the Cycle 2 co-researchers did not meet together as frequently as the co-researchers' group for Cycle 1, they had a number of meetings in which they planned how they would present the outcomes of their work, both individual and collective, to various forums. In these meetings they considered their overarching focus and inquiry question in the light of the experiential, propositional and practical knowing that had emerged from

their individual practitioner inquiries. The co-researchers also engaged in a lengthy reflection about their work together during two focus group sessions. This section reports data from the co-researchers' meetings and reflections on how they engaged in community building as a group. The data are presented and analysed using the community building focus areas that were identified in Phase I for the individual practitioner inquiry projects (see Table 7.1). Each focus area is reported in a separate section and the propositional knowledge generated in this Phase IV reflective analysis is reported at the end of each of these sections.

7.5.1   Community as shared practice – taking risks

The co-researchers' group for this second year comprised five teachers who had not previously experienced this type of practitioner inquiry. Most of them had commenced this work with feelings of anxiety and uncertainty (see Section 7.3). In general, for experienced teachers, feelings such as these about their professional practice are new and unsettling.

Janet identified this feeling continuing throughout the co-researchers' work together:

> I wasn't really sure…how it was going to work…probably where I was all year actually. But I was attracted to…the idea of being able to research within the community…which is new to me…you know I've been teaching for many, many years. That idea that you do your own reflection and own research within the school is very new.

This anxiety appeared to also stem from the professional vulnerability generated by the nature and level of sharing in the co-researchers' group. The frank and open discussions about their own practice and the sharing of their personal and professional stories of community (see Section 7.3), particularly in relation to their leadership roles, revealed mistakes as well as achievements. Carmel reflected that being able to share these stories and the "ups and downs" of their individual practitioner inquiry project was a form of risk taking that helped the co-researchers "understand each other better". She lamented that other teachers did not have this type of experience of professional sharing with other colleagues, particularly those in positions of responsibility:

> …other staff don't get the opportunity to hear the way that leaders, as in our managers, speak. Like it is such a caring, and it is such a genuine and supportive way...sometimes you know when you're just in your little cubicle and you're working away and you always think, "They don't listen to this and they don't listen to that". They miss those opportunities to hear these sorts of conversations.

As with the individual projects such as projects 5 and 9 (see Sections 7.4.1 and 7.4.5), the existing relationships within the co-researchers' group contributed to the willingness of the co-researchers to take the risk and share their practice. This practice was not so much the professional practice within

the classroom as in project 5 but the open discussion of the type 'what's working and what isn't' in the individual practitioner inquiry project and particularly feelings about this. Katrina identified this existing working relationship (not as a group but in various other capacities) as particularly significant in contributing to the group's functioning:

> I think the dynamics…made a big difference with this project…we had all generally worked together before…there was an ease there…there was a relationship there already and I think that was helpful.

The sharing of professional practice was also recognised as changing, or contributing to, the building of professional respect among the co-researchers as they encountered each other in a different professional capacity. Janet reflected that the sharing within the co-researchers' group had helped her to come to an appreciation of others in the group:

> …you see what people's skills are. You actually see the skills and…like working with anyone, or getting to know anyone…you see their good points. You see their commitment, things you probably assumed they had but you didn't see it…it's getting to know people…

While 'knowing' each other was identified by the co-researchers as enabling them to share frankly with each other, Ruth highlighted that having a shared professional value also promoted a willingness to take the risk of sharing practice with each other. She identified this value as, "We all want the best for our students."

The co-researchers' group came together and shared in the risk of building their group as a community. Propositional knowledge articulated in their reflection was that their engagement in sharing professional practice had generated professional vulnerability. This vulnerable sharing was facilitated by group members 'knowing' each other, sharing similar professional values and their willingness to be open with each other. In turn, the experience of shared practice helped group members 'know' each other better.

7.5.2   Community as professional interaction – prompting the dialogue

The sharing of personal and professional stories of community clearly prompted professional dialogue within the co-researchers' group at the beginning of their work together (see Section 7.3). However, the co-researchers also recognised that their professional interaction had been continually prompted by individual and collective reflection about the progress of their individual projects.

Questioning and brainstorming together appeared to be significant prompts to effective professional interaction. Katrina observed that a common prompt question was, "I've got this idea, not so sure

about it, what do I do next?" She particularly valued the "pooling of ideas" that occurred and the effectiveness that resulted when "we frequently mapped those ideas down". The response to questions such as this from others in the co-researchers' group was also identified by Caroline as particularly productive:

> People might have had different ideas, different suggestions, but then the brainstorming that happened within the group of various [ideas]…the dynamics within the group really got things moving along.

The productiveness of the professional interaction within the group was clearly enhanced by the ways in which the co-researchers responded to each other's ideas. Carmel identified that it was essential "to feel supported and valued" in this interaction. Caroline reflected that "listening to others" and feeling she was being "listened to" had encouraged her contributions to the group. Katrina identified how she felt that being listened to had contributed to her feeling of collaborative interaction:

> …there was, I suppose, a general working understanding that everyone had something to contribute and had an opportunity to say what they wanted to say…the fact that what you think, that your ideas are taken seriously, and again that what you are trying to do is valued, to me gives me a sense that this [the co-researchers' group] was a collaborative community.

The productiveness of this interaction was facilitated by the reflective nature of the dialogue. Caroline described how this reflective questioning operated:

> ...[from] taking notes and acknowledging that points that had been made were recorded…there was something concrete there that we could all see and share when it came back… "Yes, we've got this summary, what questions does that raise?" or "How do we need to move that on from here?"

This valuing of each other's contribution to their professional discussions was clearly based on that growing sense of professional respect that Janet had identified (see Section 7.5.1) and was enabled by the informal norms adopted by the group.

In reflection on their professional interaction as a group, the co-researchers identified how their professional dialogue had been prompted. As propositional knowledge they recognised that engagement in professional interaction was prompted by reflective dialogue that allowed ideas to surface and be considered by all. This dialogue was facilitated by group norms which created and supported opportunities for all to contribute and was sustained through professional trust among group members.

7.5.3   Community as welcome – supporting the learning

While there were existing working relationships among the co-researchers' group and a certain degree of professional trust, the composition of the group of co-researchers was different in terms of their experience with inquiry processes and research. The co-researchers new to the group identified that, although they had responded to the invitation to participate out of professional interest, they did not feel confident about their skill level. They looked to those with existing knowledge to assist their participation.

Despite being part of the school forum to which the first cycle of co-operative inquiry was presented, Janet acknowledged her lack of understanding of the inquiry process:

> I can't quite remember exactly what it was that attracted me, I think the whole idea of researching something plus having seen a little bit of what you'd [the first cycle of co-operative inquiry] done the year before. But what you'd done the year before was sort of mysterious.

Inevitably those new to the group looked to those who had past experience to help dispel the mystery. Carmel recognised that establishing the group took time and that in both establishing and sustaining the group she and Shirley took on different roles in the co-researchers' group than in the previous year:

> In 2006 we were all new together so there was a shared PL [professional learning] 'journey' – we worked it out as we went along so we basically developed a way of working that suited the group at the time. In 2007, [Shirley] and I had existing knowledge about the journey so our guidance role was more prominent – I guess we tried to 'guide' and 'shape' to create a similar work pattern to that which we knew from the previous year.

The different levels of recent research experience[20] as well as the difficulty of finding common times for the group to meet (see Section 7.2) impacted on the co-researchers' group work pattern, particularly at the beginning. Carmel and Shirley both assisted the other co-researchers in the professional learning that was needed to engage in their practitioner inquiry projects. Carmel described the need for this facilitation role:

> …the lack of recent study experience…seems to have had an impact on the ability of some to tie their inquiry down to a workable focus and to sustain this with research…

Janet identified the significance of being able to engage with relevant research as "one of the factors that make it work" and thus critical to the quality of the co-researchers' discussions as well as the outcome of the individual practitioner inquiry projects. Similarly, Caroline observed:

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[20] Caroline was in the last semester of a Masters degree in educational leadership and Katrina was in the first year of part-time studies in the same degree. Cassie, Ruth and Janet had no recent research experience.

> …what you're getting from the research can be very useful and relevant…really an impetus for us in our own location to investigate, "Well, what parts of that might be replicated here or might contradict that?", and suggests further investigation…the research helped to guide a project. In other ways…the research in some cases did trigger other thinking.

The co-researchers identified the importance of the research assistance provided and recognised that their own professional learning was enhanced when they could see the relevance to the contexts of their own practitioner inquiry projects.

As they reflected on how they engaged in 'welcoming' newcomers to the second cycle of co-operative inquiry the co-researchers identified important propositional knowledge. The ability of the group to achieve their shared purpose was enhanced by supporting the professional learning of those new to the experience of practitioner inquiry.

7.5.4   Community as diversity – making the links

All of the co-researchers acknowledged that establishing the focus of the individual and collective practitioner inquiry project was time-consuming and frustrating. This was partly attributed to the diversity within the group and the implicit group norms they had adopted.

When the group first came together they brought many different perspectives and the discussion was wide ranging. The consideration of so many perspectives took time. Katrina observed:

> …we were a diverse group and there were a number of people who were bringing lots together, bringing to the meeting lots of different ideas and if things got off track along the way it took a little while to get things moving again…

While most of the group focused their initial thoughts on community building in terms of their professional responsibilities and particular formal and informal roles within the school, one of the co-researchers kept bringing the discussion back to the social dimension. It was recognised among others in the co-researchers' group that while this dimension was very relevant to community building it was not something that they felt could be readily investigated through co-operative inquiry given their 'beginner' level of experience with this type of inquiry. Caroline identified the source of her frustration:

> …when very similar concerns or points were being repeated with different anecdotal evidence or stories that supported that point of view, things got a bit repetitive and it was difficult to move on from that….we all felt some frustration with that but we were a little bit unsure about how to…move on…at the same time maintaining collegiality…working on the principle that everyone who had something to say had the opportunity to do that…

The group had adopted an implicit norm of ensuring that all had an opportunity to contribute to the discussion and found it difficult to value the distinctive perspective of one of the co-researchers at the same time as furthering their discussion of possible focus areas for the individual practitioner inquiry projects. Caroline's observation about the implicit norm of the group prompted her to think about other ways the group could have approached their work together at the outset:

> I wonder whether it would be useful without being too structured for a group…to agree at the outset on how the meetings might flow…it might be seen as too structured or too prescriptive…

Carmel recognised that while neither she nor Shirley had set out to 'lead' the co-researchers' group, the effective functioning of the group could have been enhanced by them encouraging greater structure:

> …sometimes you've got to balance that [a less structured approach] out with… "By the end of our session today this is ideally what we want to try and get to; these might be some ways to get it." And let if flow from there…

Despite these difficulties the group valued the diversity within the group for the enhanced understanding of the school that it generated. Caroline identified an important benefit in how the group worked together as a result of this diversity:

> …the fact that there were people from different backgrounds, different experiences - that added to different ways of thinking and looking at things….a lot was achieved in terms of it all coming together so that there was valuable, valuable learning and valuable results that can trigger more learning and more investigation.

Janet believed that the diversity of the group contributed to building a "big picture" understanding of the school:

> …what we have done is actually collaborated from quite diverse, very diverse areas…I felt at the end, that…while there was a variety, they [individual practitioner inquiry projects] were quite nitty-gritty to the working of the school, to how the school is in different ways.

The co-researchers recognised that their professional learning was enhanced by the diversity of experience and focus that the different co-researchers brought to the group; they clarified that, initially, the implicit inclusive norm of the group inhibited timely identification of the inquiry focus. As they reflected on this experience of diversity, propositional knowledge emerged and they identified that being explicit about group norms would support effective collaborative processes in inquiry groups. They also identified that valuing and recognising the different perspectives and ways of working which each person brings to the group contributes to a more comprehensive outcome.

7.5.5   Community as responsiveness – being effective

The co-researchers valued the contributions of each other and being part of the group but experienced difficulties in completing their work together. Individual pressure points emerged. The 'busyness' of the school and the time demands of their different school roles impacted on the time the co-researchers had to engage in their individual practitioner inquiry projects .

There were limited 'common' time opportunities due to timetabling; however, where school events made time 'available', this was 'protected' for the co-researchers to work together. In trying to "find time" with competing priorities Caroline acknowledged the benefits of some extended time being made available:

> …it was difficult to put time in…at the time that it needed to happen…having the block time to meet together, certainly having the time set aside, was a positive. Certainly in just a very practical way it was time away from the distractions of the everyday routine in a quiet environment where we had the opportunity to have that uninterrupted time and that was very valuable.

The co-researchers' supported each other in different ways to negotiate the pressure points they experienced. Janet identified how the support of the other co-researchers assisted her to maintain her commitment to the group's work when she felt under time pressure:

> The people…were very supportive both emotionally and also intellectually, of what we were doing and I think that's really important because some people, including myself, were going to drop out…I didn't have the time in the middle of the year to do it but I was encouraged to stay on and I'm pleased that I did and I'm pleased with what I did…

The on-going support of the co-researchers to each other was identified as an important "catalyst to keep us going" by Caroline who identified the feedback she received from the other co-researchers as very affirming, "reinforcing that we were on the right track". Katrina also believed that the feedback that she received from the other co-researchers was an important motivating influence:

> …when I put that [my ideas] out there, not only did I receive feedback on what…would work well and what didn't but…the feedback was very positive…

Being able to respond to each other's needs as their work together progressed was clearly perceived as an outcome of the composition of the group and their shared purpose. Caroline identified the key factors in the ability of the group to effectively support each other as "the relationships, the trust, an enthusiasm to come together to see this through".

The co-researchers were challenged by competing demands and the difficulties of finding time to meet together and to engage in their individual practitioner inquiry projects. They clearly recognised that

competing demands and time would be continuing challenges for engagement in similar types of co-operative inquiry and individual practitioner inquiries. As propositional knowing they also identified that commitment to a shared purpose and the relationships and trust built up within the group enabled them to support each other and meet these challenges.

7.5.6 Community as critical reflection – being open

In all of their individual practitioner inquiry projects, the co-researchers had endeavoured to engage others in some aspect of critical reflection on practice as they explore how collegial relationships could be fostered in the context of community building. In critical reflection of their work together both during and after the individual practitioner inquiry project concluded, they evaluated both the process they had used in the cycle of co-operative inquiry and also the outcomes of the process. They identified significant areas of practical knowing for them and recognised the importance of being open to what, at times, was different, difficult or uncomfortable as they worked in new ways.

The co-researchers had approached establishing their focus for the practitioner inquiry project in a very broad and open way and difficulty was experienced in narrowing the focus from the wide-ranging discussions. Carmel reflected that identifying the need or area of investigation is a critical stage in the inquiry process. She was particularly candid about the group's inability to "nail a little bit more focus a little earlier on" and identified that a more structured approach to the group's facilitation at that stage by Shirley and herself, as the two co-researchers with "existing knowledge", would have been "helpful". Caroline agreed on the need for structure and suggested that any future inquiries needed to have a group facilitator who:

> …takes on the role of keeping things flowing…to ensure that progress is happening, that it's not getting sidetracked, that the goal is kept in mind…without taking away from the idea of shared leadership…

In their final presentation the group of co-researchers identified that their work together demonstrated "the trust element at work". They identified that they had gained, "…greater connectedness and a strengthening of our relationships built through our discussions".

While recognising the benefits to themselves and to others from their work together, the co-researchers were also realistic about the challenge of involving others in undertaking practitioner inquiry projects. While Janet agreed that she "would like to see more people take up the opportunity", all co-researchers identified the difficulty of "not having people overloaded". At the same time the co-researchers recognised that practitioner inquiry projects could be undertaken at a range of scales and time periods as shown by their six different projects. Both Carmel and Caroline identified the

potential of engagement in practitioner inquiry to foster teacher leadership. Caroline recognised the different ways in which leadership is manifested and saw value in encouraging teachers to be involved in future practitioner inquiry projects:

> Leadership from within the whole school staff comes in many shapes and forms and it's [involvement in practitioner inquiry] a way of recognising and encouraging that and I think that was really good.

As they reflected on their experience the co-researchers struggled with how to convey the meaning of the value of their experience. In presentational knowing they used various images in the final presentation of their practitioner inquiry projects and the second co-operative learning cycle. These images ranged from the slow and careful building of the Eiffel Tower in Katrina's presentation to the overall group presentation image of a group of people enjoying playing in the mud as they engaged in building 'messy' collegial relationships. Metaphor was used to express what the co-researchers felt they had achieved with respect to their understanding of community building and their engagement in practitioner inquiry. Using the phrase "breaking down and building up", Caroline asserted that "the simple fact of people sharing with each other" was beginning to break down the typical secondary school culture of "work in isolation". While there was breaking down there was also building up from this deprivatisation of practice through the learning from each other as a result of the sharing. Janet identified an "exponential benefit", like waves going out across water, from the professional learning in each individual practitioner inquiry project. Carmel identified the multi-disciplinary nature of the co-researchers' group as particularly beneficial in creating a "big picture" understanding of the school.

Engagement in the second co-operative inquiry cycle and their own individual practitioner inquiry projects provided significant professional learning for the co-researchers. In their critical reflection on practice all co-researchers believed that the co-operative inquiry process, involving practitioner inquiry projects, has the potential to foster leadership, promote professional learning of other teachers in the school and contribute to the deprivatisation of practice.

7.6   OUTCOMES OF CYCLE 2 CO-OPERATIVE INQUIRY

As with the first cycle of co-operative inquiry, the second co-operative inquiry cycle was both informative and transformative in nature. Consistent with the purpose of the second co-operative inquiry cycle, the co-generated knowledge related to the intentional inquiry focus of promoting the school as a professional learning community. In particular, the inquiry focused on an exploration of building community through enhancing collegial relationships. Their Inquiry Question was: *How can*

we work within our particular school environment to develop a greater sense of community in ways
which will enhance the educational outcomes for students?

Within Cycle 2, the individual practitioner inquiries generated practical and propositional knowledge in Phases II and III of the second cycle of co-operative inquiry, while the collective reflective process of Phase IV generated further practical and propositional knowledge with respect to promoting the development of the school as a professional learning community in this second cycle of inquiry. This knowledge generation is summarised in Table 7.2 and has been coded for ease of discussion in later chapters.

As evidenced in Table 7.2 considerable knowledge was generated in the process of the second cycle of co-operative inquiry and the co-researchers carefully considered how to present the new knowledge created through their engagement in their individual practitioner inquiry projects and in their work together. In both school and external forums, they presented the outcomes of the practitioner inquiry projects, their recommendations for future action and a general outline of their individual and collective professional learning. Significantly, the co-researchers felt that they had demonstrated the school professional learning model in action and thus had provided examples of a range of types of inquiries, possible focus areas, time periods and scales. Many of the practitioner inquiry projects for both cycles of co-operative inquiry had a "big picture" focus, since the intent had been to engage in activities promoting the development of a professional learning community. However, Carmel identified projects 9 and 10 (see Sections 7.5.6 and 7.5.7), which related directly to individual teacher practice and student outcomes, as demonstrating how the professional learning model could operate for the majority of teachers:

> …it's working with data; it's working with a specific issue that emerged at that time. How will we solve it? We'll go out and we'll research, we'll talk about it and get external data, we'll do some internal stuff as well, we'll make decisions. They're the clearest examples of how that can be relevant and really work, that they don't have to be huge scale and…it's a great example of what you need to make that work…identifying the need or the area of investigations.

She felt the challenge would be "communicating the value of it [practitioner inquiry as professional learning] and how the process worked".

TABLE 7.2
CYCLE 2 CO-OPERATIVE INQUIRY – KNOWLEDGE GENERATION SUMMARY
BUILDING COMMUNITY – MAKING COLLEGIAL RELATIONSHIPS WORK

Focus area	Phases II and III Practical and propositional knowing	Phase IV Propositional knowing
Risk taking of shared practice	Trust is the key to encouraging shared practice which builds on existing personal and professional relationships. *[2a]*	Sharing professional practice generates professional vulnerability, and is facilitated by group members 'knowing' each other, sharing similar professional values and a willingness to be open with each other. *[2k]* In turn, the experience of shared practice helps colleagues to 'know' each other better. *[2l]*
Prompting the dialogue for professional interaction	There is a powerful link between professional dialogue and professional learning. *[2b]* It is important to prompt that dialogue which is not "talk at meetings" but rather "a whole new way of thinking". *[2c]*	The engagement in professional interaction is prompted by reflective dialogue that allows ideas to surface and be considered by all. *[2m]* This dialogue is facilitated by inquiry group norms that create and support opportunities for all to contribute and is sustained through professional trust among group members. *[2n]*
Supporting the learning of those in 'new' contexts	Effective non-positional leadership of teacher learning, from the time of 'welcome' into the school community, can help to establish both individual and collective teacher professional learning as a "way of being" at the school. *[2d]*	The shared purpose of an inquiry group is enhanced by supporting the professional learning of those new to the experience of practitioner inquiry. *[2o]*
Working with diversity	Engaging teachers in collaborative analysis of student achievement data can shape goals that are "evidence based" and can prompt collaborative practice among a group of teachers that are quite diverse. *[2e]* Development and facilitation of supportive mechanisms for sharing leadership in teacher teams can contribute to effective team formation. *[2f]*	Being explicit about group norms supports effective collaborative processes of teacher inquiry groups. *[2p]* Valuing and recognising the different perspectives and ways of working that each person brings to the group contributes to a more comprehensive inquiry outcome. *[2q]*
Being responsive and effective	Inquiry experience can be positive for teachers when it responds to a need that is collectively recognised, is directly related to their individual practice, requires only a short-term commitment and focuses on student work. *[2g]* Established relationships of professional trust are important in engaging effectively in critical reflection on practice. *[2h]*	Competing demands and the difficulties of finding time to meet for action and reflection are challenges to the engagement in inquiry into practice. *[2r]* Commitment to a shared purpose and the relationships and trust built up within a group enable them to support each other and meet these challenges. *[2s]*
Being open to critical reflection	Teacher reflection on practice – collective and individual – is difficult to prompt. *[2i]* Carefully constructed student evaluations of their learning and the learning activities are an effective prompt to teacher critical reflection on practice. *[2j]*	Engagement in practitioner inquiry can prompt significant professional learning. *[2t]*

Co-researcher conclusions:

Community building needs to support, and be supported by, collegial relationships based in trust. *[2u]*

The practitioner inquiry process has the potential to foster leadership, promote professional learning of other teachers in the school and contribute to the deprivatisation of practice. *[2v]*

The transformative outcomes are more difficult to identify given the short time period since Cycle 2 was completed.[21] However, the co-researchers for Cycle 2 made a number of recommendations for action which are currently in progress. At the time of writing, various recommendations were being implemented at the school level and the co-researchers were each engaged in the follow-up actions they had identified in their own contexts. Katrina asserted that the individual practitioner inquiry projects were more than "one-offs" as there were "flow on" effects identified for each project.

The co-researchers made a strong recommendation that the practitioner inquiry project model in cycles of co-operative inquiry that had been developed over these two years be continued with a number of key changes, notably commencing earlier in the school year and encouraging teachers without formal leadership positions to be involved. Through a number of different forums the co-researchers sought to 'spread the word' of the value of practitioner inquiry in the development of the school as a professional learning community, noting that any form of community building needs to support, and be supported by, collegial relationships based on trust.   The practitioner inquiry projects had involved a wide range of teachers across the school in very different ways and Caroline saw this as building community:

> …each project if you like is another step in terms of building up community to be dynamic, to be learning, living that out, learning some more, learning from each other…it's a whole dynamic interaction…very doable…part of an ongoing pattern.

7.7   BEYOND CO-OPERATIVE CYCLE 2 – CO-RESEARCHER REFLECTION ON THE RESULTS OF THE TEPLC SURVEY

While the practitioner inquiry projects of Cycles 1 and 2 had involved many teachers in some way or another across the school, the co-researchers were very conscious that they were 'touching' only a small part of the teacher experience of the school as a professional learning community. This realisation at the end of the first cycle of co-operative inquiry led to the development, validation and administration of the TEPLC instrument by the researcher (see Chapters 5 and 6). The TEPLC instrument consisted of a survey administered after the completion of the individual practitioner inquiry projects when the co-researchers were engaged in the Phase IV reflection process of the second cycle of co-operative inquiry (see Section 7.5). The reflective activity of Phase IV was extended as the co-researchers reflected on some of the survey results that identified the wider teacher

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[21] The writing of this thesis was undertaken immediately after the completion of Cycle 2 at the end of 2007. A third cycle of co-operative inquiry is currently in progress for 2008 based on the outcome recommendations from the second cycle. This third cycle of co-operative inquiry has commenced with Carmel, Katrina and Cassie being joined by three classroom teachers, two of whom had been involved in two of the projects of Cycle 2.

experience of the school as a professional learning community. This reflective activity occurred in the light of the understandings which the co-researchers had developed during Cycle 2 and with a view to informing the possible focus areas for a third cycle of co-operative inquiry.

Of most interest to the co-researchers at this stage was the rank order of item mean scores[22] (see Appendix F) and co-researchers reflected on the extent to which these scores and their patterns affirmed or challenged the knowledge they had created in their co-operative inquiry. In this reflection the co-researchers opened themselves to different perspectives and considered how their own knowledge might be reframed. The following sections present the knowledge generation process of the co-researchers' reflective activity.

7.7.1   High levels of teacher agreement on experience

The co-researchers first focused on those statements that had high levels of teacher agreement with item means of 3.3 or above. They identified a group of items which they interpreted as revealing evidence of valued and relatively widespread collaborative practices:

22.   Working with colleagues to plan student learning is an effective way of improving my practice. (3.6)
6.   Teachers at this school are committed to working together to achieve the best outcomes for our students. (3.5)
7.   I regularly work with colleagues to build shared understandings about standards of student work. (3.5)
38.   I value regular opportunities to discuss student learning with other teachers. (3.4)
42.   I experience professionally supportive relationships with other teachers. (3.3)
58.   Teachers respect the personal competence of other teachers. (3.3)

The co-researchers' practitioner inquiry projects had demonstrated differences between departments and curriculum teams with respect to the extent of existing collaborative processes (see projects 5, 9 and 10; Sections 7.4.1, 7.4.5 and 7.4.6). They questioned whether the ratings on these items were representative of school-wide effective engagement in collaboration. Janet was adamant, "…there are clear differences within departments – and obviously within and between departments".

In the light of their own experience, the co-researchers suggested that the view of collaborative practice revealed by this set of statements was possibly indicative of school structures and strategies that promoted opportunities for collaborative practice as well as the influence of Queensland school-based assessment moderation requirements (see item 7 above). However, they also reflected that these structures and strategies were probably becoming 'institutionalised' at the school and so were a

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[22] Presentation of the complete results analysis was scheduled for the wider community in the following year. The co-researchers considered the TEPLC statements by rank order of item mean. A brief explanation of the calculation and meaning of these item means was given by the researcher prior to this reflection phase.

sound basis for developing the inquiry culture at the heart of a professional learning community. Janet was encouraged "that people really do appreciate their collegiality". Caroline identified the supportive school structures and strategies as:

> I think…the concept of people working in curriculum teams and having very visible times where those meetings occur and I suppose the structure of having subject departments and teachers being encouraged to work collaboratively – always with a focus in improving student learning — has been embraced fairly well.

As they reflected further, the co-researchers linked item 42 (see above) with a distinctive element of the school staff culture that they believed is recognised by those external to the school but had not previously been identified as such. Carmel elaborated on this:

> It [item 42] seems to reflect…that teachers feel confident and professionally supported in their relationships with others…I think that's part of working at a school like this…we have teachers…who have, I guess, chosen to leave other places, I think deliberately, to come to a school like [this school] because of assumptions, perhaps from other people, or the genuine experience of people who are here, about the type of community that you might have here…

In a number of their practitioner inquiries and in their reflection on their own work together the co-researchers had identified the significance of shared purpose and values to collaborative processes and community building at a range of scales. In reflecting on the other statements that had relatively high mean scores, the co-researchers recognised the school-wide strong sense of purpose and shared values in another group of items:

1. Our school values are evident in our mission statement. (3.8)
49. I am encouraged by the school leadership to incorporate Mercy values in my class activities. (3.4)
57. The school leadership is explicit about the school's purpose and values. (3.4)
17. The values of the school are evident in the day to day practices of teachers. (3.3)
25. There is a strong connection between our school mission statement and my daily practice. (3.3)

In their reflection, the co-researchers made links between these two groups of more highly rated items. As they experienced the lengthy Phase I process of establishing the focus of their inquiry (see Section 7.3), the co-researchers had shared community building stories that had implicitly identified some link between the school values and the experience of positive collegial relationships, but they had not made this link explicit in their discussion. Carmel suggested:

> I think you make quite concrete decisions about this being a particular workplace because we do promote…that mission and those values very strongly, and if you're going to come here, this is what you're part of…There's a lot of 'buy into' that and…that's probably evidenced by the retention rate that we have with staff here really.

The nature of these two groups of high-rated items was evidence for Katrina that the school is developing as a professional learning community:

> I guess…that sort of positive feedback from the teachers indicates that maybe we are moving in the right direction to being a professional learning community at this stage, and [we can]…expect bigger and better things on that front.

Carmel supported this perspective suggesting that:

> ...I would say that talk about collaboration and shifting our ways of working has become quite evident…the communication and the talking are more visible ways of working…the support, that structural level as well, is having an impact on what teachers are seeing and how they are working.

These reflections prompted the co-researchers to focus on statements that could be considered further evidence for the transformative nature of their inquiries.   As someone who had experienced both co-operative inquiry cycles, Carmel was particularly interested in the 3.1 rating of item 27: *Improving learning for all students is an important focus of our curriculum team meetings.* She reflected:

> Given the project last year [project 4] and the meeting surveys and how they [meetings] are used…we were getting feedback…about administration matters being the driving force…I am wondering if that [rating of 3.1] suggests that there has been that shift in people's experiences of meetings and obviously they are talking about supporting student learning.

Caroline reflected that statements relating to change in practice were among those in the more agreed range of over 3.0:

> 24.   I change my practice in the light of student feedback on their learning experiences. (3.3)
> 64.   I change my teaching practice in the light of feedback from other teachers. (3.1)

She was interested that the student feedback rated slightly higher than other teacher feedback but also noted that perhaps these ratings are evidence of "willingness to change and develop practice through collaboration and acknowledging feedback". Janet was most surprised at the rating for item 64 and she questioned whether "feedback from other teachers" really was a teacher experience at the school:

> I suppose it depends what you mean by feedback…I don't think we do very much of seeing each other teaching so…how does that feedback come? Does it mean they just like people?...obviously pedagogy and our teaching practice is something that's really important and I think maybe its something we don't do a lot of work on…it's actually one of the areas that's been highlighted by some of my staff as wanting feedback on…

Ruth recognised that there were still departmental differences in this evidence of response to feedback:

> …it encourages me to think that perhaps it [sharing practice] is being gained in other areas so I've got some exemplars I can…[use] for my own department.

The co-researchers identified possible transformative outcomes of the practitioner inquiry projects in their reflection on these higher-rated items. In terms of their propositional knowledge they recognised a clear link between shared purpose and values and developing collaborative practices.

7.7.2   Low levels of teacher agreement on experience

Reflecting on those statements that had lower levels of teacher agreement on experience, the co-researchers noted that there were a lot of items clustered around the 2.9 and 3.0 item mean level. Some of these related to collegial relationships such as the following group:

10.   High levels of trust and respect exist between teachers and leaders. (3.0)
34.   I feel appreciated by school leaders for my contributions. (3.0)
30.   My contributions to our curriculum team meetings are valued by others. (3.0)
13.   Teachers regularly share what they have learned at workshops or conferences. (2.9)

They noted that as a mean these levels of 3.0 and 2.9 could be indicative of an 'evening' effect from different experiences in different departments but, as Caroline commented, these levels were more likely to be indicating that:

> …obviously there's a suggestion that there is room for improvement…that there's still some future growth in that area of trust and respectful relationships and being appreciated…

In terms of thinking about areas for improvement all the co-researchers immediately focused on the item relating to time:

44.   There is in-school time for working together with colleagues on joint planning and development. (2.9)

The co-researchers expressed disappointment that this was not rated more highly. While they were very aware of the efforts made to provide time for collaborative activity, they recognised that this was not only an issue of the effective use of time but also that time is perceived differently:

> …the issue of time, it might be at first a little disappointing to see that people have not rated that one particularly high but I think it is acknowledging that time is always an issue…there are structures in place that have…definitely improved opportunities for time for people to work together but I think it's more of a question [of], there is never enough to do what you want to do and it's a matter of prioritising…time is always going to be an issue. (Caroline)

> But in fact there isn't [enough time], it's just honest. There isn't. (Janet)

> It comes down, doesn't it, to how people interpret that non-contact time. (Carmel)

This reflection confirmed what the co-researchers had come to know from their individual practitioner inquiries: that time was a structural, and to a certain extent cultural, barrier to greater collaborative activity in a secondary school context.

As they considered the lowest-rated items the co-researchers recognised the secondary school structure influence on these items, particularly the lowest rating (2.3) item 46: There is a lot of cross-Department/KLA collaboration in this school. The departmental structure and specialisation of teachers were identified as inhibiting such professional activity. Carmel reflected further that, from her experience in the two cycles of co-operative inquiry, trying to encourage more cross-curricular collaboration could be counter-productive at this stage in the development of the school as a professional learning community:

> I think, well as we've been talking about all day, we're sort of grappling and finding our way through these processes of collaboration and community building and things like that…I think staff are going to feel a little bit more comfortable initially in groups that they know, whether they be year level groups or department groups or whatever…[then later] they're going to be more comfortable in branching out a little more.

While acknowledging this need to work with existing relationships to enhance collaborative activity, the co-researchers also began to recognise how this could actually reinforce the departmental subculture in the secondary school context. Janet identified that in secondary schools "even if you work with two different departments, they're different". In terms of improving student learning the co-researchers clearly recognised the need for teachers to develop their cross-curricular perspective in order to assist students in transferring their learning to different contexts; effectively making the link between their studies. Just as Caroline had observed in her individual practitioner inquiry (project 8, see Section 7.4.3), Ruth also now recognised that secondary school teachers in particular are challenged by this cross-curricular perspective:

> We're asking for transference of knowledge for students but are we making that transference ourselves?…I have a feeling that perhaps we're developing the skills in history to research, we're developing the skills in legal studies…we are not sharing enough or showcasing enough…so that those links are more readily discernible to people…if we're teaching research skills, well let's do it the same way.

These reflections reinforced for the co-researchers the propositional knowledge generated in Cycle 2 with respect to developing collaborative processes in multi-disciplinary or cross-curricular contexts (see Section 7.4.3) where established relationships may not be present among teachers. They recognised that collaborative processes could also be effectively generated by bringing together teachers with similar skills and interests and establishing a shared purpose for their collaborative activity and professional dialogue.

The co-researchers had identified in their individual practitioner inquiries how engagement in analysis of student achievement data could prompt professional dialogue with respect to improving student learning (see Section 7.4.3). However, when they reflected further on the lower-rated items the co-

researchers recognised that the teachers did not perceive that their skills and school structures were supporting this characteristic of a professional learning community. The following items and their lower levels of teacher experience prompted considerable discussion among the co-researchers:

47. School leaders give priority to developing teacher skills in data collection, analysis and interpretation. (2.4)
35. In our curriculum team meetings we regularly discuss how to respond when a student is not learning. (2.5)
28. Communication structures encourage professional dialogue about student learning. (2.8)
31. Analysis of student achievement data is used to critically reflect on teaching practice. (2.9)

Caroline suggested that the wider teacher experience reflected in these statements demonstrates the need for skilled leadership of teacher collaborative activity:

> …in curriculum team meetings there are many competing demands for time…there is some onus on HODs, in particular, to make sure that time…is used effectively…there's reminders here that more needs to happen in some of these directions [items 47, 35, 28, 31] – particularly the professional dialogue and the sharing and collaborative practices that focus on improving student learning and [not] 'administrivia'.

Katrina focused on the general leadership ability of what she identified as "the driving…the facilitating" of collaborative critical reflection on practice. The co-researchers recognised that in establishing the focus of their individual practitioner inquiries they had identified a need to investigate a particular practice (see Section 7.3). As they reflected further on leadership facilitation skills in the light of this group of lower-rated items, they recognised the importance of using student achievement data to prompt this investigative need that could lead to critical reflection on practice and ultimately changed practice. Carmel articulated this re-framing of their knowledge:

> …one of those things that you need to change practices, you need to have a reason, you need to have some evidence…unless you have some of that data and that information there's a hesitancy or resistance to actually change.

Carmel was also realistic about the challenge involved in achieving this focus on student achievement data as she shared her own experience:

> …we want to review our program…I asked a couple of times where we've got data now that goes back four or five years, we should actually go back and look at which of our tasks…are our students performing poorest on and let's ask the question, but I can't get anyone to come to the party!

While the co-researchers had identified the influence of positional and non-positional leadership in facilitating effective collaborative processes, they now identified that leadership needed to focus on developing data-analysis skills and subsequent professional dialogue on student learning as key factors in the development of critical reflection on practice.

7.7.3 Co-researcher reframed knowledge

The co-researchers' reflection on the wider teacher experience of the school (as revealed in the TEPLC survey) both reinforced and extended propositional and practical knowledge they had generated in the second cycle of co-operative inquiry. This led to the reframing of that knowledge which was then brought to the third cycle of co-operative inquiry by the co-researchers who were continuing as co-researchers in that cycle. This re-framed knowledge is summarised in Table 7.3 and has been coded for ease of discussion in later chapters.

TABLE 7.3
CO-RESEARCHER REFLECTION ON TEPLC SURVEY RESULTS – SUMMARY
REFRAMING OF PROPOSITIONAL KNOWLEDGE FROM CYCLE 2

Area of knowledge	Reframed propositional knowledge
Relationship between shared purpose and values, and collaboration	There is a clear link between shared purpose and values and developing collaborative practices. *[3a]*
Effective leadership skills in group formation	Collaborative activity is enhanced by effective leadership that brings together teachers with similar skills and interests. *[3b]* Departmental subcultures may enhance or inhibit collaborative activity. *[3c]*
Effective leadership of professional dialogue	Effective leadership establishes a shared purpose for collaborative activity and professional dialogue. *[3d]*
Effective leadership of teacher skill development	Effective positional or non-positional leadership of critical reflection on practice needs to develop teacher student achievement data analysis skills to prompt the dialogue on improving student learning. *[3e]*
Relationship between time and collaboration	Time is both a structural and cultural barrier to extending collaborative activity among teachers. *[3f]*
Different perceptions of time	There are different perceptions among teachers on how non-contact time should be used. *[3g]*
Outcomes of practitioner inquiry	Practitioner inquiry projects can lead to transformative outcomes in the developing of a professional learning community. *[3h]*

7.8 CHAPTER SUMMARY

This chapter has reported data from the conduct of the second cycle of co-operative inquiry. As with the first cycle the group of teachers who came together as the co-researchers for the second cycle of co-operative inquiry did so with the intention of promoting the development of the school as a professional learning community in the context of the school's proposed professional learning model. The co-researchers in this second cycle selected as the focus of their inquiry the question: *How can we work within our particular school environment to develop a greater sense of community in ways which will enhance the educational outcomes for students?* In individual practitioner inquiries, and in

their work together, they engaged in an exploration of this question in both action and reflection. Each of the individual practitioner inquiries explored a focus area derived from the different understandings of community that the co-researchers had identified together in their research and reflection as well as their own reflection on how these understandings could be applied within their own context (see Table 7.1).

Considerable knowledge was generated in the process of the second cycle of co-operative inquiry and the co-researchers re-framed their propositional knowledge in relation to their inquiry question as they reflected on the results of the administration of the TEPLC survey. The knowledge generation process chronicled in this chapter was identified according to the extended epistemology of Heron and Reason (2006) as experiential, presentational, propositional and practical and summarised in Tables 7.2 and 7.3. This Cycle 2 knowledge, together with the knowledge generated in the first cycle of co-operative inquiry and the administration of the TEPLC instrument, is discussed in the following chapter.

Chapter 8 Development and Discussion: Theoretical Perspectives

8.1   INTRODUCTION

The purpose of this study is to gain a more informed and sophisticated understanding of the school as a developing professional learning community with the intention of 'living' this vision of RI college as a professional learning community. In particular, this study sought to capture the practitioner experience of their school as a developing professional learning community. To this end, the various moments of data collection, analysis and interpretation within this study are guided by three research questions:

1. How do practitioners conceptualise their school as a developing professional learning community?
2. What strategies and structures do practitioners experience as supporting or hindering the development of their school as a professional learning community?
3. Can a theoretically based and context-specific instrument be devised to assess practitioner experience of their school as a professional learning community?

Dialectic encounters in the four phases of action and reflection of each of the co-operative inquiry cycles generated experiential, presentational, propositional and practical knowing for the co-researchers (see Chapters 4 and 7). The analysis of the results of the TEPLC survey revealed perceptions of the experiential knowledge of the wider teacher community[23](see Chapter 6). The extended reflection process of the second cycle of co-operative inquiry generated re-framed knowledge as the co-researchers began to consider the third cycle of co-operative inquiry (see Section 7.7).

As outcomes of recursive cycles of co-operative inquiry this knowledge will be used by the co-researchers (including this researcher) to inform professional practice and any future cycles of co-operative inquiry beyond the boundaries of this study. Through the first-person research practice of

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[23] For the purposes of the discussion in this, and subsequent chapters, the results of the TEPLC survey are considered part of the knowledge generation process of the second cycle of co-operative inquiry. The impetus for the development of the TEPLC instrument was an outcome of the first cycle of co-operative inquiry, the development occurred simultaneously with the second cycle of co-operative inquiry and the co-researchers from this second cycle reflected on the results of the survey to inform the third cycle.

their own practitioner inquiries and the second-person research practice within the co-operative inquiry cycles, the co-researchers have integrated the four forms of knowing (experiential, presentational, propositional and practical) into what Reason (2001) identifies as the "theoretical perspectives" that will inform their future actions. Such transformative action is indeed the ultimate purpose of co-operative inquiry (Reason, 1999) and is significant on both a personal and collective level for the co-researchers. However, for the purposes of this research, only the theoretical perspectives developed by the researcher (as one of the co-researchers) in response to the study's research questions are reported in the following sections. Thus, these theoretical perspectives represent a third-level of data analysis.

In engaging this third-level analysis and developing theoretical perspectives, the researcher recognises that the strength of the participatory/co-operative research paradigm is the pragmatic link it offers between theory and praxis, and the priority it gives to an extended epistemology in which a collective praxis-oriented knowing can develop out of communities of practice (Greenwood & Levin, 2005). One of the continuing challenges of this interpretive paradigm is to ensure that this link between practice and theory is articulated by the particular methodology adopted. In order to create for this study what Greenwood and Levin (2007, p. 110) describe as the "persuasive connectedness between theory and practice" each theoretical perspective, developed from the engagement in the practice of co-operative inquiry, is discussed with close reference to the relevant research literature. Thus the purpose of this chapter is to present the theoretical perspectives developed from the integration of knowledge by the researcher and to discuss these theoretical perspectives in the light of the research literature in response to the study's research questions.

Accordingly, the chapter sections comprise:
- Section 8.2 – presenting the theoretical perspective development process;
- Section 8.3 – developing and discussing the researcher's theoretical perspective in response to Research Question 1 in the light of the research literature;
- Section 8.4 – developing and discussing the researcher's theoretical perspectives in response to Research Question 2 in the light of the research literature;
- Section 8.5 – developing and discussing the researcher's theoretical perspective in response to Research Question 3 in the light of the research literature; and
- Section 8.6 – presenting the chapter summary.

8.2   THEORETICAL PERSPECTIVE DEVELOPMENT PROCESS

Theoretical perspectives inform future actions and are developed through recursive co-operative inquiry from the integration of the four forms of knowing – experiential, presentational, propositional and practical (Reason, 2001). The two cycles of co-operative inquiry reported in this study were both convergent (looking several times at the same issue from different perspectives) and divergent (looking at different but related issues) in nature (Reason, 1999), with a strong relationship between the overall focus areas of the two cycles and among some of the practitioner inquiries but also considerable diversity across the practitioner inquiries. The knowledge generated from this co-operative inquiry process was summarised in Tables 4.3, 6.7, 7.2 and 7.3 and this co-generated knowledge is the source of the researcher's theoretical perspectives with respect to the development of a professional learning community.

The theoretical perspectives presented in response to the study's three research questions embody what Reason (2003) identifies as "frameworks of understanding" which endeavour to communicate what has been "discovered" in co-operative inquiry. The development of these theoretical perspectives is informed by the three fields of knowledge conceptualisation used in the recent Networked Learning Communities (NLC) project in the U.K. (Earl et al., 2006) (see Section 3.6). The collaborative action and practitioner inquiry focus of this NLC project has many parallels with the research undertaken in this study, particularly the emphasis on outcomes of co-generated knowledge and transformation of practice. Through the knowledge generation process of recursive co-operative inquiry cycles, existing practitioner knowledge and existing knowledge in the field have been brought together in the new knowledge of the co-researchers that informs their future actions and may add to knowledge in the field. In this way, the knowledge generation process of this type of action research continues as "a rolling discourse, an ongoing dialectical cycle" (Greenwood & Levin, 2007, p. 102).

In the following sections the researcher's theoretical perspectives are developed from this new knowledge; then discussed in relation to the existing knowledge in the field. Identifying any 'additions' to this existing knowledge in the field requires revisiting and expanding the original literature review and so this extended literature is also presented in the discussion of the theoretical perspectives. It should be noted that some of this extended literature is not drawn from the professional learning community literature as such, but from scholarly writing on school improvement and organisational learning and, within that body of work, research on learning organisation, on school as learning community, and on teachers as professionals. This body of literature is reviewed in Chapter 2.

8.3   RESEARCH QUESTION 1 - How do practitioners conceptualise a developing professional learning community?

As the co-researchers engaged in the action and reflection phases of the two cycles of co-operative inquiry their conceptualisation of a professional learning community was seen to emerge. In the selection of the focus areas of nurturing collaboration and building collegial relationships in Cycle 1 there was an initial awareness that the existing meetings of teacher groups were not necessarily the collaborative inquiry teams envisaged in the school professional learning model.

In the reflection phases of the co-operative inquiries the co-researchers, as practitioners, identified significant differences in how they were 'meeting together' and how they were experiencing, and indeed leading, other teacher groups 'meeting together' (see Sections 4.5 and 7.5). This was most clearly articulated by the co-researchers in the first cycle of co-operative inquiry as they described their co-operative inquiry meetings:

> We were lucky in the fact that we had similar goals, similar work ethic and had an 'unbelievable' rapport with each other…even though our goal projects were slightly different, we were all working for a common cause…[the collegiality] experienced through this project has been…authentic…as we have all worked interdependently, without the formal and imposed nature of contrived meetings. (Leonie)

> We wanted to be there!!...We were also given an opportunity to explore, work on our own but still be part of a team with a common goal, and being treated as an equal into the bargain!!! A dream combination. (Bernadette)

Despite the difficulties in the original establishment of the second co-operative group, the co-researcher meeting experience of collaborative interaction was also recognised:

> …there was, I suppose, a general working understanding that everyone had something to contribute and had an opportunity to say what they wanted to say…the fact that what you think, that your ideas are taken seriously, and again that what you are trying to do is valued, to me gives me a sense that this [the co-researchers' group] was a collaborative community. (Katrina)

As the co-researchers engaged in their own practitioner inquiries and then reflected on their own experience in their co-operative inquiry cycle, they began to look with new 'eyes' at how they met with other teachers. Consequently, each of their practitioner inquiries was to change, in one way or another, how they met with other teachers, or how they understood such teacher meetings. No longer were these 'meetings' but rather they were exciting opportunities for collaborative inquiry and professional learning:

> …we've gone beyond…you know those round table discussions at your departmental meeting. I think we have taken it [community] to the next level which is really looking

within the classroom…I think we are a community…we are working towards a [professional learning community] model…right here in our very small department… (Katrina)

What was beginning to happen at their meetings with teachers was not "talk at meetings" but rather "a whole new way of thinking" (Janet). This whole new way of thinking is encapsulated in the co-researcher conceptualisation of a developing professional learning community. Through the questions that guided the two cycles of co-operative inquiry the co-researchers focused on how teachers might work together in ways that could improve student learning:

How might a collaborative culture be nurtured and sustained at the school? (Cycle 1)

How can we work within our particular school environment to develop a greater sense of community in ways which will enhance the educational outcomes for students? (Cycle 2)

An examination of the extensive knowledge generated by the co-researchers in the co-operative inquiry cycles reveals that 'professional learning community' is conceptualised as *what happens when practitioners meet – collaborative inquiry which is critical reflection on practice to improve student learning.* In addition, 'developing' a professional learning community is conceptualised as *making this happen - creating collaborative inquiry learning teams through generating a shared purpose and values.*

It is important at this time to identify what is not in this conceptualisation of a professional learning community. The co-researchers were not looking for a 'one size fits all' approach in their conceptualisation of collaborative inquiry teams or collaborative inquiry itself. While they recognised that the existing year level/subject curriculum 'teams' provided a basis for collaborative inquiry learning teams to develop, they also recognised the value of cross-curricular teams (see Section 7.5). They acknowledged that, within general principles, there were many ways of undertaking collaborative inquiry as shown by the range of their individual practitioner inquiries. They valued the diversity of their practitioner inquiries and the diversity within the group of co-researchers:

…the fact that there were people from different backgrounds, different experiences - that added to different ways of thinking and looking at things….a lot was achieved in terms of it all coming together so that there was valuable, valuable learning and valuable results that can trigger more learning and more investigation. (Caroline)

…what we have done is actually collaborated from quite diverse, very diverse areas…I felt at the end, that…while there was a variety, they [individual practitioner inquiry projects] were quite nitty-gritty to the working of the school, to how the school is in different ways. (Janet)

The co-researchers of Cycles 1 and 2 thus identified general principles in their practitioner conceptualisation of a professional learning community and these are elaborated by the researcher in

Theoretical Perspective 1 in Figure 8.1. This theoretical perspective draws on the extensive knowledge generated in this research and recorded in Tables 4.3, 6.7, 7.2 and 7.3 as identified by the references in square brackets.

FIGURE 8.1
THEORETICAL PERSPECTIVE 1

<div style="border:1px solid black;">

Developing a professional learning community occurs through creating collaborative inquiry learning teams with a shared purpose and values for engagement in collaborative inquiry.

Generating a shared purpose and values for teacher groups inquiring into their practice supports the development of these teacher groups as collaborative inquiry learning teams *[1g,3a]*. Collaborative inquiry work practices are fostered when teachers with similar skills and interests meet together in meaningful and purposeful inquiry into a collectively recognised need that is directly related to student learning and their teaching practice *[2g,3a]*. In any meeting of teachers, established personal and professional relationships both support and inhibit collaborative critical reflection on practice particularly within the secondary school context *[3c,2s]*. Critical reflection on practice creates a professional vulnerability that is mediated by supporting trusting and respectful relationships *[2h,2k,2a,2u]*. Such relationships enable group members to meet the challenges of their collaborative activity *[2s]*. Personal and professional storytelling is a useful strategy in generating commitment to a shared purpose as it articulates implicit values, assists in the development of group norms and helps group members to 'know' each other better *[1f,2l]*. Effective facilitation skills are required in the group formation process to generate the shared purpose and values of the particular inquiry group *[3d]*.

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This first theoretical perspective (see Figure 8.1) emphasises that, as the site of organisational learning, teacher groups need to be supported in becoming collaborative inquiry learning teams through generating a shared purpose and values for collaborative activity. All definitions of a professional learning community emphasise the collective inquiry and collaborative nature of teacher professional practice and learning within an inquiry culture (Stoll et al., 2006b). This collaborative inquiry culture of a professional learning community represents a way of professional being in which teachers come together to inquire into student learning and their own practice (R. DuFour et al., 2006). Hence, the fundamental building block of a professional learning community is teachers meeting as collaborative inquiry learning teams, building shared knowledge about student learning and their professional practice. In a professional learning community, the professional learning occurs in the context of community where there is a collective responsibility for student learning. Thus, the nature of the professional and cultural norms of a school community influences the ability of the school to generate

a shared purpose and values for collaborative inquiry, which will create and sustain collaborative inquiry learning teams.

The theoretical perspective articulated in this section suggests that, as a school develops as a professional learning community, there needs to be an explicit understanding of the purpose for teacher collaborative inquiry and of the values that will guide teachers in their collaborative activity; at a whole school level, but also, especially, at the individual collective inquiry learning team level. Generating a shared purpose and values in the context of the collective responsibility for student learning is a defining characteristic of a professional learning community (Bolam et al., 2005). Typically, this characteristic is recognised in the research in literature through the evidence of the development of school mission, vision, and shared goals statements (Andrews & Lewis, 2002; R. DuFour et al., 2006). However, the existence of school mission, goals and values statements that have a focus on improving student learning do not necessarily guarantee that this focus will guide all teacher collective endeavour across the school unless supported both structurally and culturally (Leonard & Leonard, 2003; Skytt, 2003). Strong traditional school cultures in secondary schools have been shown to reinforce the isolationist status quo with respect to teaching practice and student learning (Hargreaves & Macmillan, 1992; Talbert & McLaughlin, 2002). Professional interactions focused on conserving existing practices may also be the outcome if a high-performing school begins to develop as a professional learning community (Bryk et al. cited in Bolam et al., 2005).

Thus, not all shared values will necessarily create the collaborative community; it is constitutive values that support the collective endeavour as they "generate a sense of being in this together" (Strike, 1999) and maintain productive collegial relationships (Nias, 2005). While there is recognition that the shared purpose and values need to be embedded into the daily functional and cultural teacher experience of their school as a professional learning community (Annenberg Institute for School Reform, 2003), there is little research on how this might be achieved. The professional learning community research literature clearly articulates the importance of a shared purpose and values in establishing the collaborative culture of collective responsibility at a whole school level but frequently assumes that this will also guide work at the collaborative inquiry team level.

Theoretical Perspective 1 (Figure 8.1) identifies how generating this shared purpose and values for collaborative activity can be enhanced in the context of creating collaborative inquiry learning teams. This means not only changing the task focus of traditional teacher group meetings but also making space for critical reflection by taking time to "collectively evaluate the premises and beliefs that underlie" the work of collaborative inquiry (Servage, Winter 2006-2007, p. 17). Teachers, particularly

in large schools such as RI College, do meet to plan instruction, set common assessment and also moderate standards of student achievement (see Table 4.2). However, the typical secondary school curriculum subject/year level teacher groups are not engaged in the collective inquiry of "sharing and critically interrogating their practice in an ongoing, reflective, collaborative, inclusive, learning-oriented way" (Stoll et al., 2006b, p. 223). Changing the traditional focus of teacher curriculum 'team meetings' so that teachers engage in collective inquiry into their practice and student learning requires a change in mindset and the identification of effective communication for the administration matters that often dominate such meetings as shown in Table 4.2 (R. DuFour et al., 2006; Hollins et al., 2004). Habits of mind that place a lower value on shared work and preferences for the more isolationist models of teacher professional relationships remain a challenge, particularly in secondary schools (Leonard & Leonard, 2003). Such mindsets often have their origin in norms of autonomy and isolation that result in teachers consistently underrating the value of peer practical knowledge, as a professional learning resource, through thinking of their work in terms of 'their' students, rather than in terms of their students and their teaching colleagues (Couture, 2003; Moore & Shaw, 2000). Where such norms predominate, meeting with colleagues to reflect on student learning can be perceived negatively as an unnecessary 'add on' and this situation is likely to generate compliance rather than commitment behaviours in collaborative activities (Leonard & Leonard, 2005). These possible responses to collaborative activity highlight the importance of creating clear expectations about how the time set aside for collaborative activity is to be used, as well as ensuring that scheduling encourages positive participation (Collinson & Cook, 2001). However, it is important that this expectation is not translated into conforming to some narrowly defined expected outcome (Hargreaves, 2008).

To a certain extent the level and nature of collaborative activity present in a developing professional learning community is new, and correspondingly uncomfortable, for many teachers. For teachers to move into the 'new' role of sharing their practice and developing collective responsibility for student learning, trusting relationships need to be developed between teachers, and between teachers and leaders (Fleming & Thompson, 2004). However, the deeply personal nature of trust means that it cannot be viewed as some form of management tool (Bottery, 2003). Hargreaves (1991) warns against the contrived collegiality which arises when interpersonal relations are imposed by the formal structural organisation of teacher groups – where collaboration is consequently regulated in terms of composition, time and place. However, in a developing professional learning community the co-researchers recognised that the year level/subject groups of teachers are those who are planning instruction and should be those reflecting on the student learning from that instruction. The

composition of these year level/subject groups of teachers are inevitably mandated through teacher class allocations. In the RI College structure, a teacher in the middle school of years 5 to 7 will have membership of only one collaborative inquiry team but a teacher in years 8 to 12 may belong to five or even six such teams. Even if teachers have a similar allocation from year to year the composition of these teams is likely to change with staffing changes. Regardless of how long a teacher has worked with a year level/subject group, engaging in 'public' critical reflection on practice, is still a risk-taking exercise for teachers that requires high levels of relational trust characterised by respect, competence, personal regard for others and integrity (Bryk & Schneider, 2002; York-Barr et al., 2006). Where these higher levels of relational trust are lacking then the sharing that occurs rarely goes beyond the superficial (Annenberg Institute for School Reform, 2003; Hargreaves, 2002). While relational trust is recognised as a precondition for developing professional learning communities, it has often been overlooked, with the literature recording few instances of school leaders who have confronted the issue of improving relational trust (Annenberg Institute for School Reform, 2003; Louis, 2008). The theoretical perspective developed in this study suggests that, in the creation of groups of teachers for collaborative inquiry into practice, the fostering of this trust must occur as a particular, and deliberate, part of the group-formation process.

A number of the individual practitioner inquiries within this study demonstrated the effectiveness of building collaborative activity on established personal and professional relationships, or among teachers with similar skills and interests. However, this is not well supported in the research literature where Grossman et al. (2001) observed relational difficulties in creating collaborative community among teachers from two different high school departments who had similar interests and who knew each other. Existing workplace conflicts and tensions, as well as teacher opinions of each other, increased the time for group formation and negatively impacted on the ability of the teacher inquiry group to work collaboratively. The development of trusting and respectful relationships is well recognised as indispensable in promoting teacher commitment to collaborative activity (Park, Henkin, & Egley, 2005); as contributing to the development of teacher leadership in collaborative contexts (Muijs & Harris, 2007); and as the strongest facilitator of professional community (Bryk, Camburn, & Louis, 1999). Collaboration as such is not a 'new' activity for groups of teachers but, particularly in secondary schools, the focus of collaboration traditionally ends at the classroom door and rarely includes reflection on student learning data or instructional methods (R. DuFour et al., 2006; Wells & Feun, 2007). However, research has found that developing such relationships is not easy as existing workplace conflicts and tensions, as well as teacher opinions of each other, increased the time for group formation and negatively impacted on the ability of the teacher group to work collaboratively

(Grossman et al., 2001). In their high school community study, where forming a commitment to collaborative activity became difficult, Grossman et al. (2001), identified that none of the teachers came from departments with a collegial culture, nor were the teachers used to meeting together for anything other than practical tasks. It is evident that, although teachers may work in subject/year level groups to prepare units and assessment, the common task orientation of such meetings means that teachers do not necessarily 'know' each other in trusting relationships.

Generating trusting relationships, in the context of changing the focus of teacher 'meetings' to reflective practice, requires sensitive and finely balanced team formation strategies that provide enough design and structure to establish the purpose of the collaborative activity, while at the same time providing enough support and encouragement for teachers to "feel safe"(York-Barr et al., 2006). Distinguishing between collaboration and collegiality, Gunter (2005) argues that collaboration can be functional and organisational if the purpose of meeting is "to get the job done" whereas collegiality has a communal dimension requiring a level of social interaction and trust which is often "too risky" to put into practice. However, when interaction takes place in supportive contexts then trust is built; as this interaction continues, a self-sustaining trusting cycle emerges (Tschannen-Moran & Hoy, 2000).

As reflected in Theoretical Perspective 1, this study has found that building in time for personal and professional storytelling assists in establishing these trusting relationships, and also assists in generating an explicit understanding of the shared purpose and values that guide the collaborative activity. This is supported by Grossman et al. (2001) where they report that, in establishing the collaborative activity of the teacher group they were studying, the breakthrough came when the personal storytelling of one of the participants – who did not seem to share the group's implicit values – enabled others to better understand his ideas and opinions. Providing opportunities for teacher professional storytelling also allows for diverse teacher ideologies to surface and be considered in the group's activities rather than them being the potential source of negative undercurrents (Abbate-Vaughn, 2005). While the literature suggests that the skills of collegiality can be consciously developed (Hertzog et al., 2000), developing relationships to nurture collaborative inquiry in the busyness and classroom isolation of today's schools remains a considerable challenge (Becker, 2003; Collinson & Cook, 2004). However, the literature also records that the collaborative activity must go beyond 'storytelling' if professional learning is to occur (J. W. Little, 1990). Collaborative inquiry is not about sharing anecdotes. Replacing the casual camaraderie of the staffroom 'story' exchange, with its unpredictable influence on the dissemination of practical knowledge, with more embedded structured opportunities for professional interaction, that focus on reflective practice, can contribute to building the respectful and trusting collegial relationships which allow professional learning to

flourish (Andrews & Lewis, 2002; Strahan, 2003). The process of storytelling not only assists in developing relationships but may also provide the catalyst for knowledge to be co-created in a way that all understand and can 'own' collectively and individually (Mitchell-Williams et al., 2004).

Research Question 1 sought to identify practitioner conceptualisation of their school as a developing professional learning community. As practitioners, the co-researchers conceptualised a developing professional community as one where teacher groups become collaborative inquiry learning teams with a shared purpose and values for engagement in collaborative inquiry. Theoretical Perspective 1, developed from the co-researcher knowledge generation in recursive co-operative inquiries, suggests ways in which the shared purpose and values of collective responsibility for student learning can be generated within individual collaborative inquiry learning teams. The discussion of this theoretical perspective in the light of the research literature confirms the importance of developing trusting and respective relationships for promoting critical reflection on practice and recognises the contribution that personal and professional storytelling can make to promoting collaborative inquiry. While the research literature identifies the critical influence of a school-wide shared purpose and values of collective responsibility for student learning, the theoretical perspective highlights the importance of also generating this shared purpose and values at the level of the individual collaborative inquiry learning teams within the school. Theoretical Perspective 1 places considerable emphasis on the social capital needed to support collaborative inquiry that is not just sharing ideas and planning together, but creating new forms of practical knowledge among teachers. Theoretical Perspective 1 is summarised as:

1. Developing a professional learning community occurs through creating collaborative inquiry learning teams with a shared purpose and values for engagement in collaborative inquiry.

In this conceptualisation process, the co-researchers recognised a number of strategies and structures that could support or hinder the continued development of their school as a professional learning community and these are considered in the next section.

8.4 RESEARCH QUESTION 2 - What strategies and structures do practitioners experience as supporting or hindering the development of their school as a professional learning community?

Since the co-operative inquiry cycles focused on how to support the school's development as a professional learning community, it is the supporting strategies and structures that are most clearly identified in the co-researcher knowledge generation process. For the co-researchers, as practitioners,

the strategies and structures that hinder the development of the school as a professional learning community were not necessarily identified through the direct experience of any hindering influences or 'barriers' in the co-operative inquiry cycles. Some direct experience of a barrier occurred as in the experience of conflict in Project 1 which identified the influence of a lack of relational trust (see Section 4.4.1). More frequently, it was in the reflection phase of establishing the focus area for the practitioner inquiry that potential barriers were identified. Developing strategies to overcome those barriers thus became part of planning for the action phase of the inquiry. For example, in Project 5, identifying processes to overcome privacy norms that inhibit shared professional practice was part of planning for the action phase of that project (see Section 7.4.1). At other times, the hindering strategies and structures were considered in the Phase IV reflection process when the co-researchers considered how the knowledge they had created might inform future actions. For example, at the end of the second co-operative inquiry cycle the co-researchers recognised that not extending the next co-operative inquiry learning cycle to include more non-positional leaders would limit the ability of the co-operative learning cycles to build collegial relations for greater collaborative activity among teachers (see Section 7.6). There is a sense then in which hindering strategies and structures are those that are oppositional to the identified supporting strategies and structures.

While it is possible to recognise in the narratives of the co-operative inquiry cycles both supporting and hindering strategies and structures as identified in these examples, there are four key supporting strategies and structures that can be identified in the extensive knowledge generated by the co-researchers in the recursive co-operative inquiry cycles and recorded in Tables 4.3, 6.7, 7.2 and 7.3. This knowledge clearly focuses on how to support collaborative inquiry and professional learning within the collaborative inquiry learning teams of the co-researcher conceptualisation of a developing professional learning community. The four key supporting strategies and structures for collaborative inquiry relate to leadership, professional dialogue, practitioner inquiry and time. The researcher has integrated this extensive knowledge into four theoretical perspectives that are developed and discussed in the following sections.

8.4.1   Positional and non-positional leadership of collaborative inquiry

The practical and propositional knowledge generated by the co-researchers offers considerable insight into the type of leadership that is required to support the effective functioning of collaborative inquiry learning teams within a professional learning community. Their understanding of the type of leadership skills required to promote the collaborative inquiry of teacher groups again emerged as they reflected on the skills they were each using in their project leaders' meetings and the skills they

identified as being needed to effectively facilitate the practitioner inquiries where they were trying to promote collaborative inquiry and critical reflection on practice. They recognised that supporting positional and non-positional leaders in developing effective facilitation skills is needed to create the conditions that promote collaborative inquiry into practice by teachers. These skills are identified in the researcher's Theoretical Perspective 2 presented in Figure 8.2.

FIGURE 8.2
THEORETICAL PERSPECTIVE 2

Collaborative inquiry is supported by skilled facilitative positional and non-positional leadership

The key strategy in supporting the development of a professional development community is the effective facilitation of teacher groups inquiring into their practice so that they become collaborative inquiry learning teams *[1j]*. Through thoughtful and systematic action, positional and non-positional leadership of these teacher groups generates the conditions that support and sustain effective collaborative activity *[1d]*. This action not only includes generating the shared purpose and values of the group (as in Theoretical Perspective 1) but also establishing explicit, inclusive inquiry norms *[1i,2n,2p,2q]* that allow any conflict to be dealt with constructively *[1a]*. Ensuring commitment and participation in the group's collaborative activity occurs through facilitation that utilises the skill sets of all members *[1h]* and generates mechanisms for sharing leadership responsibility *[1j,2f]*. Effective facilitation of critical reflection on practice requires the ability to prompt the professional dialogue *[2i,3d]* through the development of teacher skills in analysis of student achievement data from a range of sources *[3e]*.

Theoretical Perspective 2 (see Figure 8.2) emphasises the particular leadership skills needed to support teacher collaborative inquiry. This skill emphasis has only recently emerged in the professional learning community literature. Supported and shared leadership was identified very early in the research literature as important in the development of a professional learning community because such development requires the positional leaders' sanction and active involvement (Hord, 1997). However, much of this research reflected North American school contexts with a focus on leadership at the school district level and the school principal's actions in sharing instructional decision-making and providing supportive conditions for this sharing. Developing this thought, recent research has placed an emphasis on the particular leadership skills and the more cultural actions of building mutual trust and respect among teachers and between teachers and administrators (Bolam et al., 2005). In this context, the literature also warns against implementing team and leadership structures which, although they appear to provide ways of working which are "safe and productive", can actually be disempowering if dominated by either implicit or explicit accountability functions (Gunter, 2005). It

is now recognised that the leadership of collaborative activity in a professional learning community is not necessarily about ensuring accountability or giving directions but about creating conditions in which the collaborative endeavour can flourish (Hall & Hord, 2006). As such, this leadership is critical in the development process of a school as a professional learning community, and needs be developed across the entire staff and not left to the positional roles of department heads (Hall & Hord, 2006; Hord & Sommers, 2008).

Since developing a school as a professional learning community is a human enterprise, then making effective use of social resources, through supporting meaningful collaboration among teachers, requires cultivating skilled inquiry-minded leadership at all levels (Fullan, 2001b). Louis (2008) goes so far as to argue that professional learning communities consist of "a set of dynamic relationships embedded in a supportive school culture" and so their development requires "familiarity with, and the ability to apply, an understanding of cultural leadership" (p. 55). Developing the skills of teachers to work with their colleagues so that they *inquire with* their colleagues is recognised as an effective process for promoting professional learning that requires a shift in traditional forms of leadership (Emihovich & Battaglia, 2000; Gunter, 2005; Joyce, 2004). Large-scale studies of professional learning communities have all recognised the significance of teacher leadership in facilitating collaborative activity (Bolam et al., 2005). This type of teacher leadership is identified as an example of distributed leadership involving informal or non-positional leaders (Harris, 2003) which may both promote, and be promoted by, collaborative inquiry groups (Grossman et al., 2001).

Theoretical Perspective 2 developed in this section most closely mirrors the facilitative leadership identified by McLaughlin and Talbert (2006) as essential in nurturing teacher collaboration to improve student learning. They use the term 'community facilitator' to describe a skilled facilitator who creates conditions for teachers to work together; devises with group members the group activities and protocols that promote joint work towards a shared purpose; and engenders the knowledge, skills and tools to support this joint work either from within or outside the group. These skilled facilitators are shown to be effective in a range of empirical studies, playing key roles in the development of teacher learning communities. In particular, McLaughlin and Talbert (2006) give examples of facilitators, in high school contexts, in both positional and non-positional leadership roles, who initiated, modelled, supported and sustained the type of collaborative activity that leads to professional learning and changes in practice. This type of leadership also exemplifies what has been termed "learning leadership", where leaders help to create the supportive and collaborative conditions in which teachers work together to critically reflect on their practice and improve student learning (Fitzgerald & Gunter, 2006). This type of leadership builds interpersonal capacity (Mitchell & Sackney, 2001) but avoids

controlling relationships through team processes and emphasises what Gunter (2005, p.6) identifies as "productive social and socializing relationships" where the leadership is connected "with others in their own and others' learning." Thus, it is possible for such facilitative leadership to be controlling and manipulative unless it also involves developing mechanisms for sharing leadership responsibility (Hargreaves & Fink, 2006). It is this concept of genuinely shared, learning-centred leadership that is encapsulated in Theoretical Perspective 2.

A number of key leadership skills, regardless of school role, are identified in this theoretical perspective and these are supported in the literature. In particular, the development of explicit, inclusive inquiry norms is identified as important in promoting collaborative cultures (R. DuFour et al., 2006). While leaders may believe that they possess these collaboration skills, research has shown that being able to use them skilfully in group situations requires training and conscious effort (Garmston, 2007). Such training can effectively build leadership capacity across the school as the skills of all teachers are valued, developed and celebrated (R. DuFour et al., 2006; Garmiston & Wellman cited in Hord & Sommers, 2008). Ensuring that multiple perspectives have an opportunity to surface in the group's dialogue is identified as a key process in promoting the inquiry stance which promotes dialogue about professional practice (Snow-Gerono, 2005). How these differences are managed within the group dialogue determines the effectiveness of these teacher groups in creating contexts for their professional learning that avoid the dangers of collaborative "group think" (Achinstein, 2002; J. W. Little, 2003). Viewing difference as a "contribution" rather than as "detriment" to professional dialogue can stimulate this professional learning (Wald & Castleberry, 2000). Engagement in what Achinstein (2002) describes as "the dialogue of differences" is both a leadership and participant skill that needs to be nurtured in professional learning communities. Actively seeking out diversity and being willing to learn from divergent views are identified as key influences in sustaining a professional learning community (Kopack Hill as cited in Huffman & Hipp, 2003). Leadership that facilitates this negotiation of difference assists the collaborative inquiry group to develop their shared purpose and values (Andrews & Lewis, 2002) and engage in the difficult conversations that inevitably disrupt the school status quo (Wells & Feun, 2007). One of the key influences in promoting effective collaborative activity is clear communication of leadership expectations that teachers will work in meaningful collaborative ways (Leonard & Leonard, 2003) where difference, debate and disagreement occur in an environment of "grown-up" norms (Hargreaves, 2008). If authentic discourse is to occur then dealing with negativity, conflict or passive resistance can not be the domain of leadership but is a necessary function of the collaborative setting (Servage, Winter 2006-2007). However, research has identified that it is the ability of leaders to

model collaborative dispositions that impacts most on teacher commitment to collective inquiry (Park et al., 2005). Theoretical Perspective 2 envisages a leadership that develops the skills to model these dispositions and is intimately involved with collaborative teacher inquiry.

The theoretical perspective also places emphasis on the ability of leadership to support the professional learning of those teachers 'new' to the collaborative inquiry context. However there are few references to this key leadership skill in the professional learning community literature. McLaughlin and Talbert (2006) identify the inability of leaders to support teachers learning collaborative inquiry processes at different rates as inhibiting a school's development towards a more advanced stage of a professional learning community. Significantly, a report into new teacher retention identified "learning community" schools, with their shared leadership practices and collective responsibility focus, as being able to mentor and support beginning teachers more successfully than traditional "solo practice" schools (Carroll, Fulton, Yoon, & Lee, 2005).

Theoretical Perspective 2 focuses on leadership but does not specifically mention the school principal; yet all the literature on how schools develop as a professional learning community identify the leadership role of the school principal as a critical supportive or hindering influence (Hord & Sommers, 2008). Recent studies of schools that have developed as professional learning communities conclude that the principal's role is vital in driving and continually communicating the school-wide focus on improving student learning; conveying expectations of collaborative teacher work; ensuring supportive conditions of time, space and knowledge; ensuring effective communication; and building trust among teachers (Bolam et al., 2005; Hargreaves & Fink, 2006; M. W. McLaughlin & Talbert, 2006). It is the researcher's viewpoint that this leadership role of the principal did not emerge in the co-operative inquiry cycles that provide the research base for this study because the collaborative leadership style of the RI College principal largely already enacts these supportive practices. This viewpoint is partly supported by the responses to the TEPLC survey (see items 57, 51, 10, 43, 59 in Appendix F) and is discussed further in the recommendations in Chapter 9.

The co-researchers' experience of their school as a developing professional community highlighted for them the key supporting influence of skilled positional and non-positional leadership in creating the conditions for collaborative inquiry into practice. Theoretical Perspective 2, developed from the co-researcher knowledge generation in recursive co-operative inquiries, identifies the positional and non-positional skills needed to effectively facilitate collaborative inquiry learning teams. The discussion of this theoretical perspective in the light of the research literature confirms the shift in traditional forms of leadership needed to promote a school-wide culture of collaborative inquiry.

While the research literature identifies many of the key leadership skills, the theoretical perspective highlights the importance of leadership modelling of collaborative dispositions and intimate involvement in collaborative teacher inquiry, as well as leadership support of professional learning for those 'new' to the collaborative inquiry context. Theoretical Perspective 2 acknowledges that skilled facilitative and distributed leadership is needed to support teacher collaborative inquiry in a developing professional learning community.

8.4.2   Professional dialogue of collaborative inquiry

The co-researchers identified that engaging in professional dialogue can be promoted through the effective facilitation of teacher inquiry into practice. However, in identifying the significance of shared purpose and values in creating collaborative inquiry learning teams, they also realised that the professional dialogue relevant to that purpose needed to be specifically prompted. This purpose relates in some way or another to student learning and critical reflection on practice, and so the co-researchers recognised that professional dialogue about student learning needs to be supported by effective leadership that prompts the dialogue and develops teacher skills in the analysis of student data in a variety of forms.   Supporting collaborative inquiry through prompting this type of professional dialogue is identified in the researcher's Theoretical Perspective 3 presented in Figure 8.3.

FIGURE 8.3
THEORETICAL PERSPECTIVE 3

Collaborative inquiry is supported by prompting professional dialogue using student achievement and evaluation data from a range of sources

Professional learning occurs when collaborative inquiry learning teams engage in critical reflection on practice that is sustained by professional dialogue about student learning *[2b,2c]*. Engagement in professional dialogue is prompted by effective facilitation of collaborative inquiry learning teams that encourage inquiry participation by all members *[2m,2n]* and the development of skills in the production and analysis of student achievement data as well as student evaluations of their learning and the learning activities *[2e,3e]*. For beginning collaborative inquiry learning teams, where professional trusting relationships are being built up and reflective skills are developing, a useful strategy in prompting participation by all in the professional dialogue is to focus on student achievement and learning data 'once removed' *[1b,2i,2j]*.

Theoretical Perspective 3 (see Figure 8.3) builds on the previous perspectives as it emphasises how the leadership of collaborative inquiry learning teams facilitates professional dialogue so that professional learning and change in practice is fostered. The literature supports this perspective in terms of the type

of professional dialogue and the use of data but offers little evidence about how to facilitate such productive practices within collaborative inquiry learning teams (M. W. McLaughlin & Talbert, 2006). As much of the literature is set within the school reform context of U.S. education, there is also recognition that there often needs to be a compelling reason to prompt the dialogue for collaborative activity (M. W. McLaughlin & Talbert, 2006; Morrissey, 2000). There is widespread agreement in the literature that critical reflection on practice and the improvement in student learning, which is the outcome of the professional learning community, do not occur unless the collaborative activity of teachers is focused on the "right issues" (DuFour et al., 2006; Fullan, 2001b).

Modelling, sustaining and conducting those conversations on improving student learning is identified as the critical role of leadership (Hall & Hord, 2006). However, professional dialogue that leads to professional learning and change in practice is more than 'conversation' about students and teaching. Professional learning is not the outcome of teacher collaborative talk but of collaborative *inquiry*. Unless genuine inquiry occurs, the ability of the group to create knowledge, and subsequently act on that knowledge, will be limited (Hord & Hirsh, 2008). This inquiry-based professional learning dialogue is present in collaborative inquiry learning teams where teachers:

> …conduct conversations about students and teaching and learning, identifying related issues and problems...and [teachers] develop in ways that can produce the kinds of changes necessary for increased student learning and school improvement. (Hord, 2004, p. 9)

This professional dialogue differs from the traditional year level or subject meetings in that the professional dialogue is based in a close examination of student achievement and learning data that is considered in the context of professional practice. Thus professional practice is interrogated with collective responses being sought to questions such as who is learning/not learning, what is being learned and why is this occurring (DuFour et al., 2006). The challenge for leadership rests in how to facilitate responses of the type that could be considered evidence-informed practice with engagement in, and with, 'research' during this critical reflection process (Simons, Kushner, Jones, & James, 2003). Within Australian contexts there is recognition of the need to increase skills in using educational research data and interpreting student performance data to support learning, both across systems and among practitioners (Matters, 2006). While trend and base-line student achievement data is becoming increasingly accessible through advances in information technology, fostering teacher skill development in using this data is recognised in this theoretical perspective as a key leadership facilitation skill.

Theoretical Perspective 3 also identifies the difficulty of encouraging teachers in the discussion of 'their' student achievement data and practice, with other teachers, in any type of formal setting. Some

of this difficulty originates, at least in the U.S., in fears about how the data might be used by administrators in performance review or appraisal processes (Wells & Feun, 2007); part also stems from the norms of non-interference and privacy that pervade secondary school cultures (J. W. Little, 1990). Those privacy norms can often create a conversational defensiveness in collaborative inquiry in which "the closer a conversation comes to dealing with the realities of a particular classroom and given teacher, the more evaluative and defensive the conversation becomes" (Schlechty, 2001, p. 142). While there is a sense in which teachers have always engaged in learning from their colleagues, learning in the more public setting of collaborative inquiry is not a common experience. Critical reflection on practice requires a level of sharing that is unfamiliar – and even uncomfortable – for most teachers (Schmoker, 2006). However, the literature records that where data-directed dialogue does become part of the reflective activity it can be supportive and contribute positively to collective efficacy (Strahan, 2003) as well as promote a sense of collegiality (Mason, 2003).

However, the professional dialogue envisaged in this perspective is not confined to teacher 'meetings'. As evident in the practitioner inquiries this dialogue can be prompted in a number of contexts such as peer observation, mentoring, structured professional reading and externally facilitated coaching. While the literature also suggests that this professional dialogue about student learning and teaching practice can be prompted by the school principal asking questions about the student achievement data (Hord & Sommers, 2008), attempts to mandate such dialogue have been reported as largely unsuccessful (M. W. McLaughlin & Talbert, 2006). More success has been reported where leadership has paid attention to establishing "the rationale and expectations for teachers to use particular forms of data, model such use, and structure time for teachers to learn about using data within instructionally relevant collaboration" (Young, 2006, p. 544).

Theoretical Perspective 3 also provides a useful strategy to support the prompting of professional dialogue on student learning, as well as involving all in the inquiry process. This strategy is to begin by using student data that is 'once removed'. Examples of this type of data include those that do not readily identify current teacher classes such as trend data from previous years, aggregated data for the current year, part data such as an assessment criterion for a particular skill, folio data for sample students and so on. The power of such a strategy is confirmed by Hord and Sommers (2008) who suggest using archival data to initiate collaborative reflective activity within an overarching school focus. Strategies like this are not avoiding the issues but are reflecting the previously recognised strategy of taking the time to build up the social capital and skill level of teachers in this type of collaborative inquiry so that it leads to collective responsibility for student learning. It takes time to develop the pre-conditions, particularly the high level of trust, needed for sharing the traditionally

private teacher domain of their instructional practice (LaRocco, 2007; Leo & Cowan, 2000). This trust level needs to be nurtured and sustained in a cultural climate of 'no-blame' but collective responsibility for student learning (York-Barr et al., 2006). This 'once removed' strategy assists in providing the time to build this climate.

In addition, Theoretical Perspective 3 identifies that student data needs to come from a range of sources to adequately prompt the knowledge creation process of collaborative inquiry. The type of data that might be used to prompt professional dialogue is clearly context specific. McLaughlin and Talbert (2006) identify three different types of 'entry' data that initiate the professional dialogue of collaborative inquiry learning teams – assessment data, student work samples and subject discipline data. While the literature suggests that the professional dialogue of collaborative inquiry needs to be framed in terms of the development of common assessment (R. DuFour et al., 2006; Wells & Feun, 2007), this did not arise in the theoretical perspective offered here. Common assessment is an existing school-wide practice at RI College and a current source of dialogue in year level/subject team meetings. Carefully structured student evaluations of their learning was another source of data identified in this study as contributing to critical reflection on practice (see Section 7.4.6). However, there is little reference in the professional learning community literature to this type of data source; although, a current project in the U.K. focuses on nurturing the student voice with respect to classroom experience as a worthwhile means of promoting teacher reflection on practice and professional learning (Wood & Anderson, 2003). The literature does, however, offer a word of caution with respect to the type of data used to prompt teacher reflection – particularly in those contexts with high-stakes testing where student learning may become narrowly defined (Couture, 2003) or where accountability as surveillance, rather than accountability for improvement, is the dominant management mindset (Earl & Fullan, 2003). An overly intensive focus on standardised and high-stakes data can lead to what Hargreaves (2008) describes as the distortion of professional learning community into communities of containment and control where the data and teacher inquiry is controlled and manipulated in such a way that schools become data driven "totalitarian training sects" or "autistic surveillance systems" (pp. 178-183).

The co-researchers' experience of their school as a developing professional community highlighted for them the key supporting strategy of prompting professional dialogue using student achievement and evaluation data in collaborative inquiry learning teams. Theoretical Perspective 3, developed from the co-researcher knowledge generation in recursive co-operative inquiries, identifies that prompting the professional dialogue, which has an intentional focus on student learning, demands leadership skills in a number of areas. The discussion of this theoretical perspective, in the light of the

research literature, confirms that structuring the collaborative activity of collaborative inquiry learning teams, so that it leads to professional learning that changes practice, is a considerable leadership challenge. There is also some confirmation in the literature of the value of initiating this dialogue using 'once removed' data. While the research literature identifies that the professional dialogue of collaborative inquiry must be based in student achievement data in the context of professional practice, the theoretical perspective highlights the importance of developing teacher skills in producing and analysing student data from a range of sources, including student evaluation of their own learning and the learning activities. Theoretical Perspective 3 recognises that the process of critical reflection on practice should lead to professional learning.

8.4.3 Practitioner inquiry for professional learning and leadership capacity-building

The practical and propositional knowledge that was generated in the co-operative learning cycles clearly identified the nature and development of collaborative inquiry learning teams as the 'building block' of a developing professional learning community. The co-researchers did not consider that these teams would be some 'new' structure, nor some 'new' program to be implemented, nor some conformist model of inquiry. Rather, they envisaged that developing collaborative inquiry learning teams would involve enhancing and building on existing teacher groups such as 'moving' the existing curriculum year level/subject 'team' meetings towards more collaborative inquiry ways of working that were supportive of teachers. This was most clearly articulated by the co-researchers of the second co-operative learning cycle who were well placed to reflect on the changes that had begun to occur over two years:

> I think…the concept of people working in curriculum teams and having very visible times where those meetings occur and I suppose the structure of having subject departments and teachers being encouraged to work collaboratively – always with a focus in improving student learning - has been embraced fairly well. (Caroline)

> ...I would say that talk about collaboration and shifting our ways of working has become quite evident…the communication and the talking are more visible ways of working…the support, that structural level as well, is having an impact on what teachers are seeing and how they are working…I am wondering if…there has been that shift in people's experiences of meetings and obviously they are talking about supporting student learning. (Carmel)

Thus, the co-researchers clearly identified the development of collaborative inquiry learning teams as contributing to the school-wide culture of collaborative inquiry that characterised their conceptualisation of a professional learning community. However, they also recognised the considerable challenges to leadership that are presented in changing the ways in which teachers meet, as identified in Theoretical Perspectives 1 to 3. The co-researchers recognised how their engagement

in practitioner inquiry in the co-operative inquiry cycles had led to significant professional learning for themselves and had also changed their practice, particularly their own leadership and participation in different teacher groups within the school. They had developed a deeper understanding of their school culture as it impacted on teacher professional learning and practice, and glimpsed the challenge ahead in developing their school as a professional learning community. They valued the type of practitioner inquiry that they had engaged in during the two cycles of co-operative inquiry and identified the potential of this type of inquiry to build up the leadership skills that could contribute to developing collaborative inquiry learning teams. The characteristics of this type of practitioner inquiry were what had been envisaged in the school professional learning model and was clearly described by Carmel:

> …it's working with data; it's working with a specific issue that emerged at that time. How will we solve it? We'll go out and we'll research, we'll talk about it and get external data, we'll do some internal stuff as well, we'll make decisions. They're the clearest examples of how that can be relevant and really work, that they don't have to be huge scale and…it's a great example of what you need to make that work…identifying the need or the area of investigations.

Engagement in practitioner inquiry of the type they had experienced was identified as a key strategy for professional learning and leadership capacity-building:

> …each project if you like is another step in terms of building up community to be dynamic, to be learning, living that out, learning some more, learning from each other…it's a whole dynamic interaction…very doable…part of an ongoing pattern. (Caroline)

Supporting this professional learning and leadership capacity-building through practitioner inquiry is identified in the researcher's Theoretical Perspective 4 presented in Figure 8.4.

FIGURE 8.4
THEORETICAL PERSPECTIVE 4

Professional learning and leadership capacity-building is supported by engagement in practitioner inquiry

Engagement in practitioner inquiry, which is focused short-term inquiry into practice, provides opportunities for individual and collective professional learning which leads to change in practice *[1p,2t,3h,2v]*. This type of inquiry has the potential to foster leadership as levels of reflective practice and collaboration skills are developed *[1c,2u]*. The professional learning of these inquiry groups is enhanced in the process of presenting inquiry reports *[1n]* and is supported by collegial relationships based in trust *[2u.]*. Voluntary membership enhances authentic collegiality *[1k,1o]*.

Professional learning is at the heart of the professional learning community and Theoretical Perspective 4 (see Figure 8.4) identifies practitioner inquiry of the type undertaken in the co-operative

inquiry cycles as an effective strategy for building leadership capacity and promoting organisational learning. In this theoretical perspective, the type of practitioner inquiry is short-term, focused and reflective inquiry into practice. This inquiry engages with relevant research literature; is set within, and is supported by, a small and diverse group of practitioners; generates knowledge in action and reflection; and shares the knowledge generated in the reflective inquiry process. There is a number of different types of practitioner inquiry represented in the growing body of research evidence suggesting that engagement in practitioner inquiry within a developing professional learning community can lead to change in practice (Andrews & Lewis, 2002; Earl et al., 2006; Louis & Marks, 1998) and improvement in student learning (Hord & Sommers, 2008; M. W. McLaughlin & Talbert, 2006). However, the type of practitioner inquiry envisaged in Theoretical Perspective 4 is similar to what Gunter (2005) describes as generating knowing through research and engaging in "conceptually informed practice". Louis (2008) describes this professional learning process as "knowledge gained by organized search efforts" (p. 51). There is an inherent messiness in this type of reflective practice which York-Barr et al. (2006) identify as the paradox of reflective practice:

> There must be acknowledgement of the uncertainty, ambiguity, and value of practice in the swamp, as well as consideration of the clarity found in "high hard ground" knowledge reported in the research literature. (p. 256)

There is some support in the literature for the type of short-term practitioner inquiry suggested in this theoretical perspective, especially in the early stages of professional learning community development. Wald and Castleberry (2000) suggest that a professional learning community is "nourished" by the energy and forward thinking of groups similar to the practitioner inquiry model suggested in this theoretical perspective. However, Australian experience with practitioner inquiry asserts that longer time periods are necessary for successful practitioner inquiry:

> …teachers need a long and continuous period of time to master practitioner inquiry. Not only does it involve them in developing a new skills base, but also in the formation of new and different attitudes to research. This cannot occur overnight. (Groundwater-Smith & Dodds, 2004, p. 251)

Before accepting this assertion, it should be noted that this Australian finding emerges from some research contexts that were negatively impacted by constrained timeframes from external funding authorities. The experience of the co-operative inquiry cycles in this study suggests that these skills can be built up through groups of practitioners engaged in inquiry in recursive cycles. Involving different practitioners over time and pursuing focus areas that emerge from the reflection on action, this type of practitioner inquiry broadens the school-wide skill base and nurtures leadership of collaborative inquiry in other spheres of influence of these practitioners. Schmoker (2004b) argues that, particularly in the constantly changing environment of today's schools, this type of practitioner

inquiry helps to generate commitment, build trusting relationships and develop the leadership skills needed to support the development of collaborative norms. The professional learning that takes place in context, within the practitioner lived experience, also has the capacity to nurture leadership development (Fullan, 2002). As such, this systematic but short-term engagement in practitioner inquiry assists in creating the conditions and building the leadership capacity for a developing professional learning community. It is important to note that this type of practitioner inquiry only *assists* in creating the conditions – it is not the only source of those conditions.

The literature does recognise that a school may be operating in different stages of development as a professional learning community in different areas of the school, but there is broad consensus that a professional learning community is characterised by a school-wide collaborative inquiry culture among all teachers (Bolam et al., 2005; R. DuFour et al., 2006; Hord & Sommers, 2008; M. W. McLaughlin & Talbert, 2006). What is important is that there are multiple opportunities for collaborative inquiry learning among the professionals at the school. For the school to be a learning *community* there need to be integrative processes that connect and communicate the professional learning within the school (Gunter, 2005). Sustainability requires that these processes become embedded in the professional and cultural life of the school (Louis, 2008).

While building the leadership capacity within the school is an important attribute of a professional learning community, many of the studies cited in the research use an external facilitator to prompt and support the inquiries (eg. Andrews & Lewis, 2002). However, this external facilitation is not mentioned in Theoretical Perspective 4. It is recognised that the research background and access to research literature of many of the co-researchers assisted their engagement in the research process of their practitioner inquiry – extensive external facilitation of their research was not necessary. The type of practitioner inquiry envisaged in this theoretical perspective does not necessarily require such facilitation but it is recognised that external facilitators can bring invaluable perspectives to practitioner inquiry (Ferrance, 2000; Groundwater-Smith & Dodds, 2004) and there would be school contexts where an external facilitator may well be advantageous (Morrissey, 2000), particularly in the novice stage of professional learning communities, as identified by McLaughlin & Talbert (2006). School/university partnerships can support practitioner inquiry but there are considerable challenges in ensuring adequate support for teachers and resolving competing agendas (C. McLaughlin & Black-Hawkins, 2007). This does not mean that external sources to advance professional learning are not sought in the practitioner inquiry of this theoretical perspective, but rather that such assistance is the outcome of the practitioner inquiry recognising the need to access that source of professional learning.

The importance of disseminating the professional learning of engagement in practitioner inquiry to others in the educational community is also identified in Theoretical Perspective 4. The recent research literature supports this perspective recognising that such dissemination is critical to sustaining professional learning communities (Louis, 2008). Disseminating the knowledge created in practitioner inquiry to others can be challenging (C. McLaughlin & Black-Hawkins, 2005) with teachers often hesitant to open their learning to wider scrutiny that may focus on the validity of their work (Annenberg Institute for School Reform, 2003). Teacher confidence in disseminating their own professional learning can be increased by understanding that their 'research' is "situated generalisation" generated in a professional learning process rather than as the more formal conceptualisations of tertiary research (Simons et al., 2003). Presenting their work to others provides an opportunity for those engaged in practitioner inquiry to consolidate their professional learning while at the same time prompting the professional dialogue of others. The adoption among practitioners of norms of knowledge creation and sharing may be considered the key to continuous improvement both in professional learning communities and in the wider educational community (Fullan, 2002; Groundwater-Smith & Dodds, 2004). Gunter (2005) identifies this sharing of professional learning as "living accounts of conceptually informed practice in action" (p. 79) that empowers teachers through a politics of practice:

> We can be enabled by our own knowledge and knowing and can have that challenged and developed through our own work as researching professionals in our own and other settings, and by the work of professional researchers undertaken in universities. (p. 6)

Theoretical Perspective 4 suggests that voluntary participation in practitioner inquiry is a key influence in developing trusting professional relationships that contribute to productive inquiry. Both voluntary and mandated teacher groups participated in the various practitioner inquiries in the two co-operative inquiry cycles but the co-researchers were all voluntary. The research literature provides support for both types of group composition. In voluntary collaborative inquiry groups shared purpose and motivation can be strengthened when practitioners have the ability to select the focus of inquiry (Day & Hadfield, 2004). Self-selected groups with existing trusting relationships may be less effective in the long run than more diverse groups in terms of professional learning and changing practice (Louis, 2008). In the only major Australian study of the development of a professional learning community, a group of volunteers with a mixture of experience, roles and subject disciplines proved to be particularly effective in terms of promoting their own professional learning and in changing their own practice but there was limited dissemination to others in the school (Andrews & Lewis, 2002). Other studies in high schools suggest that practitioner inquiry, which leads to change in

practice, will be most effective when it is located in the academic teams that are part of the existing organisational structure (Cooper et al., 2005).

While there may be many different effective group structures, a recent study emphasised the importance of group stability since frequent changes can result in more time being devoted to re-building trust and less productive reflection and professional learning (Louis & Freeman as cited in Louis, 2008). Each of the theoretical perspectives discussed so far recognise what the research literature identifies as one of the most significant supporting or hindering influences on professional learning community development – engagement in the reciprocal processes of 'learning to share' and 'sharing to learn' is dependent on the nature and extent of social trust (Collinson & Cook, 2004). Recent studies have suggested that this social trust needs to be evident in a range of relationships if professional learning communities are to be sustained (Wood & Anderson, 2003).

The co-researcher's experience of their school as a developing professional learning community highlighted for them the key supporting strategy of providing opportunities to engage in practitioner inquiry of the type that they had experienced in the co-operative inquiry cycles. Theoretical Perspective 4, developed from the co-researcher knowledge generation in recursive co-operative inquiry cycles, identifies that professional learning and leadership capacity-building is supported by engagement in practitioner inquiry groups with trusting professional relationships. The discussion of this theoretical perspective, in the light of the research literature, confirms the critical supporting condition of social trust and the importance of dissemination of generated knowledge in continuing the professional dialogue. While there are different types of practitioner inquiry in the literature, there is some confirmation of the usefulness of engagement in the type of practitioner inquiry described in the theoretical perspective during the beginning stages of a professional learning community. However, the literature also clearly identifies that this type of practitioner inquiry will not sustain professional learning community development without school-wide investment in creating a collaborative inquiry culture. Contextual influences are evident in the development of the theoretical perspective. The role of external facilitation is not included in this perspective but the literature identifies external facilitation as a useful supporting strategy for schools developing as a professional learning community.

8.4.4   Time to support collaborative activity

The co-researchers recognised time as both a supporting and hindering influence on their ability to engage in collaborative activity. The first group of co-researchers valued the extended and embedded time that they were provided for their work together. Although the second group of co-researchers

found it more difficult to meet together as a full group they valued the flexibility of the embedded time that was available. As the co-researchers reflected on how they were working as a collaborative inquiry group and how they were experiencing other teacher group meetings they identified that providing time for teachers to meet does not necessarily mean that collaborative activity related to student learning occurs. They recognised structural, cultural and personal barriers to the effective provision and use of time for collaborative activity in their context. The practical and propositional knowledge that the co-researchers generated with respect to supporting and hindering influences on collaborative activity by time are reflected in Theoretical Perspective 5 (see Figure 8.5).

FIGURE 8.5
THEORETICAL PERSPECTIVE 5

Providing embedded, flexible and extended time supports engagement in collaborative inquiry.

The provision and effective use of collaborative inquiry meeting time is hindered by cultural and structural barriers, particularly within the secondary school context *[3f]*. The provision of time most effectively supports collaborative inquiry when it is embedded, flexible and extended over a realistic time frame *[1l,1m]*. Overcoming personal barriers to engagement in collaborative inquiry requires managing competing demands for time so that such inquiry does not become an 'add on'; and seeking to understand the different perceptions about the use of non-contact time that exist among teachers *[2r,3g]*. The provision of time to meet together in teacher groups is a critical supportive structure in the development of teacher groups as collaborative inquiry learning teams and requires clear, agreed expectations for the use of collaborative inquiry time to ensure that genuine collaboration and professional learning occurs *[1l,1e]*.

The literature consistently supports this Theoretical Perspective's view of time as both hindering and supporting collaborative inquiry in a professional learning community (see Figure 8.5). Social trust and time are almost overwhelmingly identified as *the* most supporting or hindering influences on engagement in collaborative inquiry that leads to professional learning. It is collegial learning that is the critical defining characteristic of professional learning communities (Hord & Sommers, 2008; Stoll et al., 2006b) and so time to meet to engage in collaborative learning activities is considered critical. However, research suggests that it is probably the most difficult resource to provide in support of meaningful collaborative inquiry and teacher professional learning within the school, particularly in traditional secondary school contexts (Bolam et al., 2005; Hord & Sommers, 2008; Schmoker, 2004a).

There is a consistent recognition in the literature that secondary schools are likely to find it more difficult to develop as a professional learning community than their primary school counterparts. The class teacher structure in primary schools often affords a degree of structural flexibility lacking in most secondary schools (Waterhouse, 2003). In secondary schools, the effects of specialist teacher and departmental organisation, together with the structure of the school day/year, on the provision of time to meet collaboratively, have been identified in empirical studies as significant restraining factors on both teacher collaborative inquiry focused on student learning and the sharing of professional learning (Collinson & Cook, 2004; Leonard & Leonard, 2003). Teachers will be less likely to engage in collaborative inquiry if opportunities, as well as expectations to do so, are insufficient (Hord & Sommers, 2008; Leonard & Leonard, 2005). In high school studies in both the U.S. and U.K. (Collinson & Cook, 2004; Hipp & Huffman, 2002; Leonard & Leonard, 2003; Moore & Shaw, 2000; Wells & Feun, 2007), teachers expressed a desire to work more collaboratively for professional learning, but identified that finding time to meet within the school day, which allowed for in-depth discussion, was not only a frustrating endeavour but also becoming increasingly difficult to achieve. There was a preference for working in departments and, where such time was allocated during normal teaching time, there was a reluctance to take that time away from their students, particularly if these were in cohorts with high-stakes test environments. Understandably, teachers were not willing to be released from their classes unless the particular activity was judged to be highly relevant and valuable to them (Wood & Anderson, 2003).

Theoretical Perspective 5 also recognises the cultural and personal influences on teacher perceptions of how non-contact time should be used. There is limited mention of this perception of time in the literature. Wells and Feun (2007) did identify the influence of the prevailing isolationist and privacy norms in the reported perception that the non-contact time was valued as individual private time to plan. Findings such as this direct attention to the importance of generating a shared purpose for collaborative inquiry, as well as the importance of understanding the different interpretations and values placed on time by different teachers (Collinson & Cook, 2001).

One of the difficulties of all participants in the co-operative inquiry cycles was that of managing competing demands on time and actually 'finding' adequate common time to meet to engage in collaborative inquiry. There are specific suggestions about the provision of time which could support collaborative inquiry within this theoretical perspective – this time should be flexible, extended and embedded. Arising as they do from the co-operative inquiry findings, these suggestions are inevitably context-based. However, there are exhortations to principals in the literature of the type that tell principals they should be "attending to the hunger that most teachers feel for time to think about their

work in concert with others whom they know and trust" (Louis, 2008, p. 54). Principals are commanded to be "creative" about "finding" time for collaborative inquiry that includes the need for flexibility with respect to scheduling so that extended common time becomes available within the school day (R. DuFour et al., 2006). Embedding the time for collaborative critical reflection on practice within the school day has been identified as critical to sustaining on-going professional learning in the school (Hord & Sommers, 2008; King, 2002). Managing competing demands is a recognised issue for any school improvement effort, particularly within the challenging contexts of continual change in educational agendas by governments and systems. However, it is imperative that engagement in collaborative inquiry focused on student learning is not another 'add-on' for teachers.

Providing the time to support collaborative inquiry as a professional way of being, which is not perceived by teachers as an 'add-on', is a particular structural and cultural challenge for schools developing as a professional learning community (Grossman et al., 2001; Waterhouse, 2003). Examples of professional learning communities as "job enlargement" can be identified in the research literature (Louis, 2008). Work intensification and the subsequent marginalising of reflective inquiry is the reality in international as well as local contexts (Gunter, 2005). The challenge for leadership is to genuinely confront competing priorities through what has been variously described as "prioritized abandonment" (Lezotte, cited in Hord & Sommers, 2008) or "proactively addressing the distractors" (Fullan, 2007). The amount and availability of time are inevitably influenced by contractual arrangements, industrial agreements, and educational system mandates as well as individual school priorities and scheduling. The extensive study by Collinson and Cook (2001) suggested that what is really needed is a radical rethinking of time with respect to many of these issues, including contracts, schedules and expectations, to more adequately support teachers in collaborative inquiry and sharing of their professional learning. While RI College has a degree of autonomy with respect to some of these issues, there are significant structural and cultural challenges that exist beyond the school in any such radical rethink including transport issues and parental and community expectations of school scheduling.

While it is widely recognised in the literature, and reflected in this theoretical perspective, that the way in which time for collaborative inquiry is allocated is a critical supporting structure, it is also recognised that such time does not ensure that productive collaboration leading to professional learning actually occurs. Longitudinal empirical studies in secondary schools have demonstrated that providing scheduled time for collaboration may be insufficient to overcome the traditional emotional and professional isolation norms (Siguróardottir, 2005). The significant cultural issues identified in the other theoretical perspectives, particularly relational trust and inquiry norms, highlight that

strategies and structures cannot be implemented in isolation from one another. Richardson's (2005) comment identifies the considerable challenge for secondary schools in this regard:

> …professional learning communities don't just happen because a principal sets aside time for teachers to meet and slaps a new label on that meeting. That's especially the case when teachers have been accustomed to working in isolation. (p. 1)

Communicating clear expectations for collaborative inquiry time is essential (R. DuFour et al., 2006). Unfortunately, one of the most common comments from researchers into professional learning communities in high school settings seems to be that the considerable restraining effects of cultural and structural factors, such as those mentioned here, mean that establishing the collaborative inquiry approach with a focus on student learning still remains 'elusive' (Leonard & Leonard, 2003; Skytt, 2003; Wells & Feun, 2007).

The co-researcher's experience of their school as a professional learning community highlighted for them the key supporting strategy of providing embedded, flexible and extended time for collaborative inquiry. Theoretical Perspective 5, developed from the co-researcher knowledge generation in recursive co-operative inquiry cycles, identifies that the provision of embedded, flexible and extended time to support engagement in collaborative inquiry needs to overcome structural, cultural and personal barriers to ensure that the time is effectively used. The discussion of this theoretical perspective in the light of the research literature, confirms the existence of time related structural and cultural barriers particularly in secondary schools. There is some support in the literature for the existence of personal barriers highlighted in this theoretical perspective as influencing the different perceptions about non-contact time among teachers. The effectiveness of time for collaborative inquiry is influenced by the varying perceptions about time use that exist. While there are consistent calls in the literature for 'creative' ways of 'finding' time, empirical studies showing how this might be achieved in Australian contexts is lacking. Theoretical Perspective 5 highlights the significant contextual nature of time as a supporting influence on the development of a professional learning community.

8.5   RESEARCH QUESTION 3 - Can a theoretically based and context-specific instrument be devised to assess practitioner experience of their school as a professional learning community?

Co-operative inquiry, by its very nature, is both responsive to the context in which it occurs and flexible in the way it proceeds. One of the outcomes of the first cycle of inquiry was the recognition that the wider teacher experience of the school as a professional learning community was not being captured in the co-operative inquiry process. Research Question 3 was formulated in response to this

TABLE 8.1
VALIDATION OF TEPLC INSTRUMENT- SCALE CONSTRUCT MEASURES

recognition from the first co-operative inquiry cycle resulting in the subsequent development and administration of the TEPLC instrument. The results of this development and administration process are discussed in two sections. Section 8.5.1 considers the development and administration of the instrument in terms of its theoretical basis and context-specific nature; these are discussed in the light of the Theoretical Perspectives 1-4 and the research literature. Section 8.5.2 discusses the findings from the administration of the survey in terms of the assessment of practitioner experience of their school, RI College, as a professional learning community. In the context of the second co-operative inquiry cycle, results from the TEPLC survey informed the reflection of the co-researchers and contributed to the generation of practical and propositional knowledge. As such they have also contributed to the development of the researcher's theoretical perspectives. Theoretical Perspective 6 is presented in Section 8.5.3 and is also discussed in the light of relevant research literature.

8.5.1   Theoretical basis and context-specific nature of the TEPLC instrument

Drawing on the literature review (see Chapter 2), the construction of the TEPLC instrument involved a theoretical conceptualisation of the characteristics of a professional learning community (see Chapter 5). This theoretical conceptual framework proposed key constructs of a professional learning community in the essential attributes of community culture, student learning, teacher professional learning and teacher professional practice. These key constructs were conceptualised as structurally related defining dimensions with enabling processes (see Section 5.2). These constructs formed the scales of the TEPLC instrument and the analysis of results (see Tables 5.7 and 5.8) provided some confirmation of the validity of these proposed key constructs and their relationship as well as suggesting further refinements of the instrument (see Sections 5.6 an 6.4). Statistics relating to the validation of these constructs are summarised in Table 8.1.

Some refinements to the TEPLC instrument have already been identified in Chapters 5 and 6. For example, an examination of response patterns for items suggested refinements that could make the scales more distinctive, particularly those relating to the scales of Improving Student Learning and Collective Instructional Decision Making (see Section 6.3.1). However, the Theoretical Perspectives 1-5 developed in the previous sections also suggest emphases and refinements that could   be incorporated into any future development of the TEPLC instrument in the areas of supportive conditions for the development of a professional learning community; the essential attributes of teacher professional learning and practice; Catholic school context; and the Australian and Queensland contexts. These are discussed in the following sections.

Essential Attribute	Defining dimension:		Enabling Process:		Inter-scale correlation *r*
	Cronbach Alpha α	**per item mean**	*Cronbach Alpha α*	**per item mean**	
Community culture: A community culture in which a shared purpose and values are nurtured by a supportive staff culture.	Shared Purpose and Values (SPV)		Supportive Staff Culture (SSC)		0.80[*]
	0.71	**3.26**	*0.83*	**3.07**	
Student learning: A focus on student learning in which improving that learning is sustained through capacity-building leadership and the processes that this leadership promotes.	Improving Student Learning (ISL)		Capacity Building Leadership (CBL)		0.77[*]
	0.74	**2.99**	*0.71*	**2.93**	
Teacher professional learning: Teacher professional learning in which the emphasis is on shared professional practice supported through collaborative inquiry work practices.	Shared Professional Practice (SPP)		Collaborative Inquiry Work Practices (CIW		0.74[*]
	0.67	**2.96**	*0.67*	**3.14**	
Teacher professional practice: Teacher professional practice in which there is engagement in collective instructional decision-making informed by individual reflective practice.	Collective Instructional Decision Making (CID		Individual Reflective Practice (IRP)		0.59[*]
	0.73	**2.90**	*0.63*	**3.01**	

[#] Cronbach Alpha of >0.70 deemed acceptable in social science research (see Section 5.4).

*p<.01 (Note: paired scale relationship between defining dimension and enabling process supported by other data with the exception of teacher professional practice.)

Supportive conditions:

No separate construct for 'supportive conditions' was identified in the development of the TEPLC instrument although separate constructs can be found in a number of the existing published instruments. The types of conditions often included in this section in existing instruments comprise both structural conditions – such as resource allocation priorities, supporting personnel and communication promoting information flow – and cultural conditions – such as caring relationships and attitudes to change. Although research such as that using *The Professional Learning Community Assessment* instrument placed supportive conditions as a separate scale, the developers acknowledged that these conditions did encompass the other four dimensions they had identified to the extent that they concluded supportive conditions are "the glue that is critical to hold the other dimensions together" (Huffman & Hipp, 2003, p.146). In the TEPLC the conceptualisaion of enabling processes meant that it was considered more appropriate to place items relating to supportive conditions, both structural and cultural, with their particular enabling process rather than as a separate scale. For example, item 26: *The contributions of teachers to improve student learning are recognised by school leaders,* was considered part of the Supportive Staff Culture scale as representative of the nurturing

indicator, drawn from the literature, that the staff care about and celebrate each other's achievements (see Appendix B). Similarly, item 20: *Allocating resources to support professional learning is a high priority in this school*, was considered part of the Capacity Building Leadership scale as representative of the sustaining indicator, drawn from the literature, that resources are committed to professional learning (see Appendix B). Cronbach alpha internal consistency reliability coefficients of greater than 0.70 for the enabling process scales support the location of items relating to supportive conditions within at least three of the scales. The exception is the scale for Individual Reflective Practice, which is not supported as a separate construct by the final administration of the TEPLC instrument.

Open-ended response data suggested some key supportive conditions, which are indicators of a professional learning community, that were not clearly articulated in the TEPLC instrument such as shared space for collaborative activity, induction strategies, and appraisal structures (see Section 6.4). Further refinement of the instrument would need to consider the placement of items relating to supportive conditions within the enabling process scales, as well as considering the inclusion of other relevant supportive condition items based on the Theoretical Perspectives 1-5 and the teacher comment data from the TEPLC survey. For example, the teacher comment data indicated that the supportive condition of proximity of working spaces to support professional dialogue and collaborative inquiry should be included (see Section 6.4.1); this is certainly supported by the literature (Hord & Sommers, 2008). Theoretical Perspective 5 suggests that supportive time provision is not only embedded but also extended and flexible. Embedded time was represented in the TEPLC by item 44: *There is in-school time for working together with colleagues on joint planning and development*; however, there were no items reflecting the extended or flexible nature of time provision and items that reflect these conditions should be considered for inclusion. Some of the items relating to supportive conditions are also too similar in content and their inclusion should be reconsidered. For example, response patterns clearly indicate that there is insufficient distinction between item 28: *Communication structures encourage professional dialogue about student learning* (CBL) and item 50: *School communication systems promote professional dialogue* (SSC).

The development and discussion of the Theoretical Perspectives 1-5 identified the importance of social trust in supporting the development of a professional community within collaborative inquiry groups such as existing curriculum year level/subject teams. Trusting personal and professional relationships are identified by three items in the Supportive Staff Culture scale of the TEPLC instrument:

> 18. I experience professionally supportive relationships with other teachers.
> 10. High levels of trust and respect exist between teachers and leaders.

2. Positive, caring relationships exist among teachers and leaders.

These items do not, however, adequately identify whether these teacher/teacher or teacher/leader relationships exist within the curriculum teams in which teachers would come together for collaborative inquiry. Although it is recognised that teacher allocations, and so trust levels within curriculum teams, could vary from year to year, future refinements of the instrument should consider including items that are more specific with respect to the teacher's curriculum teams.

Teacher professional learning and professional practice essential attributes:

The attempt was made to distinguish between teacher professional learning and teacher professional practice in the development of the TEPLC instrument where they were conceptualised as two different essential attributes. This distinction had been made on the basis of research that suggests that there is a distinction between teacher professional learning and professional practice with transfer of professional learning to practice identified as "one of the least developed processes of a PLC" (Bolam et al., 2005, p. 149). However, while the internal consistency of five of the eight scales was supported by Cronbach alpha internal consistency reliability α coefficients of greater than 0.70, the three scales that were clearly less defined in the instrument (α=0.63-0.67) related to the attributes of teacher professional learning and practice – Shared Professional Practice, Collaborative Inquiry Work Practices and Individual Reflective Practice. Other published instruments have also experienced some difficulty in distinguishing between teacher professional learning and practice. For example, U.S. research reported difficulties in separating shared practice and collective learning and application, suggesting that these were perhaps parts of a continuum of the same attribute that may be cyclical in nature:

> Teachers learn together, apply what they have learned, reflect on the process, and in turn, discuss the results of their practices. (Huffman & Hipp, 2003, pp. 145-146)

Capturing this interplay of professional learning and professional practice in instrument scales is obviously a challenge. It can be argued that one of the distinctive features of a professional learning community is that teacher learning and practice are inextricably linked. Professional learning is the outcome of critical reflection on practice; changes in practice occur as an outcome of this professional learning. Thus, further refinements of the instrument might consider collapsing these two attributes of professional learning and practice and include items that might more effectively capture this interplay. The pattern of inter-scale correlations between the four scales of these attributes of professional learning and practice (see Table 5.8) would also seem to support this possible future refinement. Larger trials that would allow for factor analysis of items could assist in the clearer identification of these scale constructs.

Catholic school context:

A review of the literature relating to Catholic schools and those with a Mercy tradition revealed emphases that were incorporated into the Shared Purpose and Values and Supportive Staff Culture scales (see Section 5.2.1). In the trials and in the final administration of the TEPLC instrument these two scales had the highest Cronbach alpha internal consistency reliability α coefficients and their paired relationship was supported by the highest inter-scale correlation of *r*=0.80. Many of the items that were intended to reflect the Catholic school and Mercy contexts were among the highest per item means in the Shared Purpose and Values scale for RI College (see Appendix F). Items such as the following are key distinctive features of Catholic schools in the Mercy tradition and correlate closely with Schneider's (2006) Mercy culture audit components:

1. Our school values are evident in our mission statement. (3.8)
49. I am encouraged by the school leadership to incorporate Mercy values in my class activities. (3.8)
57. The school leadership is explicit about the school's purpose and values. (3.8)
17. The values of the school are evident in the day to day practices of teachers. (3.8)
25. There is a strong connection between our school mission statement and my daily practice. (3.8)

The research literature records that this dimension, usually described as shared vision, or shared purpose and values, is often what is "not modelled effectively" in the schools that were studied (Huffman & Hipp, 2003, p. 145). The professional learning community research has been undertaken almost exclusively in public school contexts, but it can be argued that Catholic schools, by their very nature, do model this distinctive dimension very effectively. While the TEPLC instrument would appear to adequately measure this construct, Theoretical Perspectives 1 and 2 suggest that this construct would be enhanced by including items that specifically reflect the shared purpose and values for collaborative inquiry groups.

Australian and Queensland contexts:

In developing the TEPLC instrument, care was taken to ensure that the wording and nature of items reflected professional learning community characteristics identified in the literature which were relevant to the Australian and Queensland contexts. The trials at two interstate schools clearly showed the difficulties of devising an instrument that might have a more generic application within these contexts. In particular, the terms 'curriculum team' and 'department' have specific meanings within RI College that may not be the same in other schools. For example, 'department' reflects a structural organisation that does not necessarily apply in primary schools, or even other secondary schools, which may use the term Key Learning Area instead. 'Curriculum team' is understood by RI College middle school teachers as their year level class teacher team but again this would not necessarily apply in primary schools with these year levels. Accountability structures that impact on the development of

professional learning communities, such as various performance management strategies, were the most difficult to translate from research based in the U.S. and U.K. to the Australian context. Use of the terms 'appraisal', 'coaching', 'mentoring' and 'induction' remain problematic (see Section 6.4.1). Further refinement of the instrument for use in other Australian contexts would need to carefully consider terminology that is specific to an education sector or even to a school.

Overall, the conceptual framework developed in the instrument design was partially supported by the RI College response data that also serves to highlight the interdependent nature of professional learning community characteristics as identified in the literature. It is recognised that a larger sample size would enable the use of other statistical measures, such as factor analysis, to more readily distinguish constructs relevant to attributes of a professional learning community. The analysis and discussion have identified that it is possible to devise an instrument that is theoretically based and context-specific, and has also identified ways in which the instrument could be refined in the future to increase its ability to identify key dimensions and enabling processes of a professional development community.

8.5.2 Assessment of practitioner experience of their school as a professional learning community by the TEPLC instrument

The purpose of the TEPLC instrument was to try and identify the wider practitioner experience of their school as a professional learning community. The analysis of results reveals this practitioner experience in so far as the scales and items measure significant attributes of a professional learning community. Thus, the analysis of the results of the TEPLC survey identifies the experience of the practitioners for RI College and the extent and nature of variation in that experience (see Table 6.7 and Section 6.8).

As with all surveys of this type, the results cannot establish that the defining dimensions and enabling processes of a professional learning community exist at the school; they can only identify the respondent perception of the experience of those attributes as reported through their responses to the survey items (Huffman & Jacobson, 2003). The TEPLC survey analysis focused on identifying any differences in the experience of the school as a professional learning community with respect to the two areas made possible by the format of the survey. These areas were the different professional learning community characteristics – as evident in the instrument scales and their items – and the respondent demographic characteristics collected at the end of the survey – such as role, age, teaching experience and teaching area. Although not strongly supported statistically, some differences do exist in the reported experience of the school as a professional learning community between different age

groups, roles and teaching experience. Within the limits of the validity of the constructs, it is also possible to identify variation in the reported teacher experience of the different characteristics of a professional learning community. In particular, the data suggests that young, less experienced teachers (aged <30, teaching <5 years) viewed their experience of the cultural and relational characteristics of a professional learning community far less favourably than other age groups and experience levels. Open-ended responses suggested that this difference could be the outcome of different expectations about leadership opportunities and about how and when they worked with colleagues (see Section 6.4.3). In contrast to this the middle school teachers of years 5 to 7 consistently perceived their experience of the school as a professional learning community more positively than other teachers. These findings were supported by the open-ended responses that identified the provision of weekly in-school meetings as critical in supporting collaborative inquiry work practices and sharing of professional learning (see Section 6.4.3). While there is a possible variation in experience according to main teaching area in the survey results, the survey respondents were not representative of the RI College departments (see Section 6.2.5). However, the co-researcher reflection on the survey results suggested that there were observable differences between departments with respect to the extent of collaborative processes (see Section 7.7).

Of particular note, in terms of implications for developing a professional learning community, are those results relating to the two school leadership roles of middle-management and the school leadership team. These showed divergence on almost all scales suggesting different views of the experience of the school as a professional learning community in their particular roles. At RI College, middle-management positional leadership roles include both the pastoral role of House Co-ordinators and the academic role of Heads of Department. It is not possible to distinguish between these two roles in the survey results but, given the key supporting role of leadership identified in Theoretical Perspectives 1-5, this variation in experience is an area for reflection in further co-operative inquiry cycles.

However, the relatively small sample size of 54, the small number of respondents in some of the teacher characteristic groups, and the disproportionate over-representation of teachers who had been at the school less than five years, all suggest the need for caution in the interpretation of these results.

8.5.3   TEPLC instrument role in prioritising the provision of supportive strategies and structures

The development, administration and analysis of the TEPLC instrument were essentially the researcher's practitioner inquiry within the second co-operative inquiry cycle. As such, chapters 5 and 6 comprise the report of phases of action and reflection. The TEPLC survey generated specific knowledge about RI College that informed co-researcher reflection and has re-framed their knowledge (see Section 7.7). In this process, the co-researchers effectively 'tested' out the new knowledge generated from the engagement in the co-operative inquiry cycles against the wider practitioner experiential knowledge revealed in the survey results. While the co-researcher reflection only considered some of the survey findings, the more complete analysis has informed the researcher's developing understanding about how the teacher experience of a school as a professional learning community may vary. Knowledge from this reflection, and the reflection of the co-researchers, has been integrated with the knowledge gained in the development and discussion of Theoretical Perspectives 1 to 5 to form a tentative further Theoretical Perspective 6 by the researcher. It remains tentative at this stage as it has yet to be informed by reflection with the co-researchers and the school leadership team as part of the continuing cycle of co-operative inquiry. In the understanding of knowledge generation that informs this study, there is a sense in which all theoretical perspectives are temporal or incomplete as they inform future actions and become part of the on-going cycle of action and reflection that influences professional practice. Theoretical Perspective 6 is given in Figure 8.7.

FIGURE 8.6
THEORETICAL PERSPECTIVE 6

Identifying any differences in the practitioner experience of the school as a professional learning community may assist in prioritising the provision of supportive strategies and structures.

A survey instrument such as the TEPLC instrument is able to identify key defining dimensions and enabling processes where a school is developing as a professional learning community and those in need of further development *[4c,4e,4f,4g,4h,4k]*. In a school-wide approach, prioritising the provision of appropriate supportive strategies and structures may be assisted by identifying any differences in practitioner experience of their school as a professional learning community. These differences may relate to role, age group and teaching experience *[4a,4i,4j,4l,4m]*, as well as phase of school *[4o]*, department *[4n],* and cultural attributes *[4a,4b,4d].*

The purpose of the TEPLC instrument was envisaged as a prompt to reflective action in the context of the co-operative inquiry cycles at RI College. In this sense, it is similar to the stated purpose of the *Professional Learning Community Organizer* (Olivier et al., 2003) as a tool that can be used to

promote dialogue among relevant school personnel. In this study, co-researcher reflection demonstrates how the practitioner experience captured in the TEPLC survey may be used to prompt the professional dialogue and reflection that can generate/re-frame propositional knowledge and develop theoretical perspectives that can inform future action by relevant personnel within the school (see Section 7.7). In particular, this dialogue and reflection can inform future actions that promote supportive conditions for collaborative inquiry.

One use of a survey instrument – such as the TEPLC survey – is to identify if, and in what way, there are differences in the experience of professional learning community at a school. However, it is in reflection that decisions would then be made as to whether such differences are of any importance in terms of what they reveal about the school's approach to developing as a professional learning community. The theoretical perspective suggests that this information could assist in setting priorities relating to supportive strategies and structures in relevant areas of the school. Described as a 'segmentation' process, which identifies common characteristics in segments of the workforce and then plans to support identified needs, the use of this process in one U.K. school was identified as "enhancing the school's collective knowledge and experience" (Wood & Anderson, 2003, p. 22). Having a deep understanding of the school's context enables the allocation of human and financial resources so that they mitigate teacher isolation and provide appropriate collaborative opportunities for teacher learning (Drago-Severson & Pinto, 2006).

Theoretical Perspective 6 (see Figure 8.7) suggests that teachers of different age groups and teaching experience may experience the school as a professional learning community in different ways. There has been limited direct research into these types of differences within schools identified as professional learning communities. One U.S. study in 19 elementary and high schools, which investigated the influence of teaching experience, found teachers' years of experience, either total or at their current school, had no bearing on their perception of their school as a professional learning community (Cowley & Meehan, 2001). However, there is some emerging evidence of different expectations about leadership and preferences for collegial work environments among the generation of teachers born 1978 or later and dubbed the "millennials" (son, 2008). Further insight is gained from the teacher professional learning literature. Research studies based in the U.K. have identified teachers with 3-5 years teaching experience as having more positive dispositions towards professional learning and a more reflective inquiry stance than more established teachers (Wood & Anderson, 2003). While a number of suggestions, such as changed teacher education practices, have been put forward to account for these observations, Wood and Anderson (2003) concluded that there was little evidence to support any of these suggestions.

Consistent with the literature, this theoretical perspective also suggests that there may well be differences in the developing learning community experience of practitioners according to department or phase of schooling. Although not extensively researched, these are the two areas that contain some relevant findings. In general, research reveals that elementary (primary) school teachers are more likely to have a higher sense of a professional learning community than their high school colleagues; the departmental sub-culture nature of secondary schools may well hinder professional learning community development (Bolam et al., 2005; Mawhinney, Haas, & Wood, 2005).

Theoretical Perspective 6 identifies that contextual understanding of the practitioner experience of the school as a professional learning community needs to also consider any differences with respect to role that may emerge from the administration of a survey instrument. While the other theoretical perspectives highlight the importance of both positional and non-positional leadership in promoting the development of a professional learning community, the literature suggests possible positional leadership differences. Recent research has identified that administrators and teachers experience professional learning community in different ways; and questioned whether the administrative and accountability role demands of positional leadership hinders their ability to genuinely foster a professional learning community (Barnett & Fallon, 2007). The growth of middle leadership in schools has also been linked to reinforcing the hierarchical norms and practices that counteract collaborative professional learning focus on student learning (Gunter & Fitzgerald, 2007).

In identifying possible areas where differences in the experience of professional learning community may be identified, this Theoretical Perspective 6 also points to areas that are not yet well explored within the professional learning community literature. What this theoretical perspective highlights is the need for reflection on any differences that may emerge from the administration of an instrument such as the TEPLC survey. If there are apparent differences in the experience of practitioners with respect to their school as a developing learning community then this reflection needs to ask why and does it matter. Such reflection can then be used to examine the school's strategies and structures that are supporting, or may well be hindering, the development of the school as a professional learning community. The importance of this reflective contextual understanding is emphasised by Louis who identifies that "tailoring the work to the school" is particularly critical in creating and sustaining schools as professional learning communities (Louis, 2008, p. 52).

8.6   CHAPTER SUMMARY

This chapter has developed and discussed the researcher's theoretical perspectives from the knowledge generation process in this study. Six theoretical perspectives emerged from an inspection of the knowledge generated through the cycles of co-operative inquiry:

1. Developing a professional learning community occurs through creating collaborative inquiry learning teams with a shared purpose and values for engagement in collaborative inquiry;

2. Collaborative inquiry is supported by skilled facilitative positional and non-positional leadership;

3. Collaborative inquiry is supported by prompting professional dialogue using student achievement and evaluation data from a range of sources;

4. Professional learning and leadership capacity-building is supported by engagement in practitioner inquiry;

5. Providing embedded, flexible and extended time supports engagement in collaborative inquiry; and

6. Identifying any differences in the practitioner experience of the school as a professional learning community may assist in prioritising the provision of supportive strategies and structures.

Each of these theoretical perspectives was examined in terms of their relationship to the current research literature on professional learning communities and 'new' knowledge, which may add to this existing knowledge, was identified in the discussion. These theoretical perspectives represent the researcher's response to the challenge of the participatory/cooperative paradigm of making the link between practice and theory developed through engagement in the practice of co-operative inquiry. With these theoretical perspectives in mind, the next chapter reviews and synthesises the praxis-oriented knowing that has emerged in the context of this research and concludes with the identification of implications and recommendations for future actions.

Chapter 9 Review and Synthesis

9.1   RESEARCH PROBLEM AND PURPOSE

This research study sought to investigate the development of a professional learning community at RI College, a large independent girls' school in Brisbane, and was prompted by the researcher's involvement in a project of revitalisation at the school. The researcher had recognised that the directions in the newly adopted school strategic plan, the cultural and structural changes that were occurring during implementation, and the development of a draft professional learning model, all pointed to the school developing as a 'professional learning community'. However, she was concerned about how the school was actually developing with respect to the concept of professional learning community and how she could contribute to this development in her role in the school. Beyond this local concern, the researcher recognised that there was a growing Australian policy context promoting the concept of schools as professional learning communities but little Australian-based research to support practitioners interested in developing their schools as these communities.

Recognising the limits of contextually based research, the researcher identified the purpose of this research study as gaining a more informed and sophisticated understanding of the school as a developing professional learning community, with the intention of 'living' this vision of RI College as a professional learning community. In particular, this study focused on practitioners' experience of developing RI College as a professional learning community. Over a two year period, practitioners at the College, including the researcher, came together as co-researchers to undertake two successive cycles of co-operative inquiry. These inquiry cycles generated extensive experiential, presentational, propositional and practical knowing with respect to both understanding and living a vision of professional learning community for RI College. Using this knowledge the researcher has developed six theoretical perspectives that offer practical insights into how a professional learning community may be conceptualised and how it may develop. In addition, as an outcome of the first co-operative inquiry cycle the researcher has developed a theoretically based and context-specific survey instrument that was relatively successful in identifying the wider practitioner experience of the school as a professional learning community. In this respect, the research study addresses a gap in the professional learning community research by offering some guidance to practitioners in Australian contexts about how a professional learning community might be conceptualised and nurtured.

9.2   THE RESEARCH QUESTIONS

Within this study, the research questions emerged following a comprehensive review of literature relevant to understanding the professional learning community. In particular, this review traced the emergence of the professional learning community and identified the different ways in which it is conceptualised. This review also explored the challenges of developing the school as a professional learning community and identified research relating to how the professional learning community might be developed. Finally, this review considered how the development of the professional learning community is being influenced by external and internal contexts.

This review of the literature found that, for over the past 20 years, there have been significant developments in organisational learning theory and school improvement. Consequently, scholarly writing has highlighted three interdependent themes: the learning organisation, the school learning community, and the teacher as professional. Over time these themes have coalesced into the concept of professional learning community. Whilst the term 'professional learning community' is variously described (Eaker et al., 2002a; Hord, 1997), this review of the literature found that the various conceptualisations seem to incorporate notions of teacher learning in a form of collaborative culture with an inquiry focus on student learning (DuFour & Eaker, 1998; Leonard & Leonard, 2005; Toole & Louis, 2002).

Following this research the literature offers generic definitions of the professional learning community. Here professional learning community is defined as:

> ...an inclusive group of people, motivated by a shared learning vision, who support and work with each other, finding ways, inside and outside their immediate community, to enquire on their practice and together learn new and better approaches that will enhance all pupils' learning. (Stoll et al., 2006a, p. 1)

Building on this generic definition the literature offers a "social architecture" approach (Toole & Louis, 2002) which highlights the notion of enabling processes and offers a broad conceptual framework through which the practitioner can approach the development of a professional learning community. Here this conceptual framework identifies four essential attributes of the professional learning community with each attribute linked to a defining dimension and an enabling process. Together these attributes, defining dimensions and enabling processes highlight the importance of shared purpose and values, and a focus on student learning as well as teacher professional learning and practice. However, the value of this understanding is limited. While this 'social architecture' conceptual framework brings some clarity to the conceptualisations of a professional learning

community it does not provide the fine detail of how professional learning communities may be developed in specific contexts that require "shades of interpretation" (Stoll et al., 2006b).

Beyond this generic understanding of the professional learning community, this review of the literature also identified significant challenges in developing schools as professional learning communities relating to leadership, collaborative teacher norms, school structures/organisation, practitioner engagement and phases of the development journey itself (Bolam et al., 2005; Huffman & Hipp, 2003; M. W. McLaughlin & Talbert, 2006; Mitchell & Sackney, 2000; Schmoker, 2006). Moreover, influenced by external and internal contexts, it seems that professional learning communities can develop as communities of containment and control or communities of empowerment (Hargreaves, 2008; Sachs, 2001; Stoll et al., 2006b). In this respect, the research consistently points to the need for schools to 'unpack the metaphor' of professional learning community and develop their own process and development model (Hord, 2004), but also acknowledged that there was still limited guidance that could be provided to practitioners in how to create professional learning communities in different contexts (Toole & Louis, 2002).

The understanding of the importance of context-specific models and processes in support of the development of the professional learning community is consistent with the 'meaning hypothesis' advanced by Fullan in his seminal work *The new meaning of educational change* (1991, 2001a). Here Fullan argues that "if reforms are to be successful, individuals and groups must find meaning concerning what *should* change as well as *how* to go about it" (p. xi). Developing this thought, Fullan (2001a) focuses on the importance of meaning-making for practitioners

> Perhaps the most important conclusion…is the realization that finding moral and intellectual meaning is not just to make teachers feel better. It is fundamentally related to whether teachers are likely to find the considerable energy required to transform the status quo. Meaning fuels motivation; know-how feeds on itself to fuel on-going problem-solving. Their opposites – confusion, overload, and a low sense of efficacy – deplete energy at the very time when it is sorely needed. (p.48)

Thus, this literature review clearly established the importance of context based research and understanding the practitioners' experience of the school as a professional learning community. Consequently, the researcher identified two initial research questions:

1. How do practitioners conceptualise a developing professional learning community?

2. What strategies and structures do practitioners experience as supporting or hindering the development of their school as a professional learning community?

In the course of this study, a third research question emerged from the practitioner engagement in response to these two questions. Here, the value of developing a theoretically based and context-specific instrument for data collection was recognised and this recognition resulted in a further research question being added to the research study:

3. Can a theoretically based and context-specific instrument be devised to assess practitioner experience of their school as a professional learning community?

These three research questions focused on how practitioners at RI College conceptualised and experienced their school as a developing professional learning community and suggested the need for a research methodology that was able to generate and 'listen' to these practitioner voices.

9.3   THE DESIGN OF THE STUDY

With these research questions in mind, this study was situated within an emergent research paradigm, namely, the "participatory/cooperative paradigm" (Guba & Lincoln, 2005, p. 192). From an ontological perspective, the participatory/cooperative paradigm recognises a "[p]articipative reality – subjective-objective reality, cocreated by mind and given cosmos' (p. 195). Thus, this research paradigm frames the professional learning community as a socially constructed, complex, dynamic and organic entity, thereby focusing research attention on both the concept and its wider and deeper experiential context (Heron & Reason, 1997). Moreover, this research paradigm recognises the pragmatic link between theory and praxis and gave priority to an extended epistemology in which a collective praxis-oriented knowing could develop out of communities of practice (Greenwood & Levin, 2005). In line with the participatory/cooperative research paradigm, "cooperative inquiry" (Reason, 2003, p. 211) was selected as an appropriate methodology for this study. As a participative/collaborative form of inquiry, co-operative inquiry is a form of action research that relies on "the emergence of a self-aware, critical community of inquiry nested with a community of practice" (p. 211). Cycling through phases of action and reflection, co-operative inquiry involves research with people who become co-researchers in the collaborative endeavour and contributors to the production of co-generated knowledge (Heron, 1996; Reason, 2003).

Within this study there were two cycles of co-operative inquiry over a two-year period, as the researcher explored with a group of practitioners in the school how to nurture and sustain their school as a professional learning community. The group of co-researchers (which included the researcher for this study) established their own focus for the collective and individual inquiries in these two cycles of co-operative inquiry (see Sections 4.3 and 7.3). During the first co-operative inquiry cycle, the value

of a theoretically based and context-specific instrument was recognised. Although the first cycle of co-operative inquiry involved many teachers across the school, this inquiry was not capturing the wider teacher experience of the school as a professional learning community. This recognition caused the researcher to devise and administer a survey instrument, the TEPLC survey (see Appendix E), that might capture that experience. This particular inquiry took place simultaneously with the second co-operative learning cycle.

Thus this study used mixed method data collection strategies with quantitative methods employed in the development, validation and analysis of the TEPLC survey, and a range of qualitative data strategies employed to collect the knowledge generation data of the co-operative inquiry cycles. In order to not influence the knowledge generation process of these inquiries, the researcher collected the data at the conclusion of the co-operative inquiry cycles. At that time, semi-structured interviews and focus group interviews of the co-researchers collected data relating to the propositional and practical knowledge outcomes of the inquiries (see Section 3.6). From the collected data the researcher constructed pen-portraits for each of the individual practitioner inquiries and used the focus areas and questions from these inquiries to construct the reflection narratives of the co-researchers. The researcher drew on the data in the pen-portraits and the reflection narratives to identify the propositional and practical knowledge for each of the cycles (see Tables 4.3, 7.2 and 7.3). This knowledge informed the researcher's theoretical perspectives that were then examined in the light of an extended literature review (see Chapter 8). The theoretical perspectives embody what Reason (2003) identifies as "frameworks of understanding" that endeavour to communicate what has been "discovered" in co-operative inquiry.

It is recognised that co-operative inquiry as a methodology is not yet common within educational research. One of the difficulties of a research study such as this is not only how to effectively communicate the inevitably context-centred knowledge to academics and other practitioners (Greenwood & Levin, 2005), but also how to address the wider research community's concerns of 'generalisability' and validity. Although proponents of forms of participative inquiry research argue that it is "a disciplined way of developing valid knowledge and theory while promoting positive social change" (Greenwood & Levin, 2005, p. 55), they also recognise that it is important to develop criteria for quality research within this participatory world view. Accordingly, it was deemed appropriate in this review section to subject the research study to the criteria for quality recently proposed by Bradbury and Reason (2006), who invite doctoral students using participative inquiry methodologies to "include a review of the strengths and weaknesses of their work in relation to these "choice-points"

(p. 349). Many of these issues have been dealt with in preceding chapters but a brief review is given in the following sections using the criteria of choice points.

Explicit in developing a praxis of relational–participation?

This criterion includes paying "explicit attention" to developing the quality of relationships within the group so that there is "congruence between the process and co-operative spirit of inquiry" (Bradbury & Reason, 2006, p. 346). As a "bootstrap" group, who were essentially initiating themselves into the process of co-operative inquiry (Heron & Reason, 2006, p. 147), the understanding of the nuances of the methodology by the co-researchers developed largely in the reflection that took place after the completion of the cycles and so was not an explicit intention of their work together. However, although both the co-operative inquiry cycles lacked this explicitness, the co-researchers recognised the ways in which they established their own group norms had led them to implicitly paying attention to ensuring the participation of all in the group and building rapport and supportive relationships as the inquiries progressed (see Sections 4.5.1, 4.5.2, 7.3, 7.5.1, 7.5.2). In this sense the two co-operative inquiry cycles were different, with the first cycle quickly developing this relational-participation of "authentic collegiality" (see Section 4.5.3) but the second cycle taking much longer to develop this practice – even then not to the extent of the first cycle. In their reflections the co-researchers recognised two influential development processes, namely, the importance of the storytelling of Phase I in Cycle 2 and the continuity of participation by Carmel and the researcher that helped to build up the supportive relationships in that cycle (see Sections 7.5.3 and 7.5.4). This criterion of quality is inevitably dependent on the particular personnel, the nature of their pre-existing relationships and the interpersonal skills of the co-researchers.

Guided by reflexive concern for practical outcomes?

This criterion relates to sustaining the pragmatic and contextual generation of practical knowing in the co-operative inquiry and asserts that the question of validity is about whether the participants are able to identify that the experience was useful and are able to say "I am using what I learned!" (Bradbury & Reason, 2006, p. 347). This judgement is necessarily subjective and contextually bound and was achieved in this research project to the extent that the co-researchers were able to respond reflexively within their inquiries, articulate their learning and identify how they had put that learning into practice as practical knowing (see pen-portraits of individual practitioner inquiries in Sections 4.4.1 to 4.4 and 7.4.1 to 7.4.6). It was possible to identify practical outcomes of the co-operative inquiry cycles that did affect RI College in various ways – from influencing decision-making to changing how those with positional leadership positions exercised that leadership in collaborative contexts (see Sections 4.6 and 7.6).

Ensuring conceptual-theoretical integrity?

The propositional knowledge presented in this study derives from the experience of the co-researchers in the co-operative inquiry context of RI College. The proponents of this type of participative research recognise that any "generalisability" beyond the co-operative inquiry research context lies in whether there is a "reasonableness" in the interpretation offered that is accepted by the wider community of inquiry (Bradbury & Reason, 2006, p. 347). While it was possible for the researcher to identify propositional knowledge from the collected data (see Tables 4.3, 6.7, 7.2 and 7.3), the theoretical perspectives developed in Chapter 8 represent an attempt to identify the conceptual-theoretical integrity of the research study beyond RI College. These theoretical perspectives developed by the researcher were discussed in the light of current scholarly literature in professional learning communities and related fields and, as such, they offer some fresh insights into these areas. The extent to which these insights illuminate the development of professional learning communities for other researchers and practitioners remains to be seen.

Embracing ways of knowing beyond the intellect?

It is suggested that participative inquiry research needs to embrace aesthetic representations, particularly with respect to presentational knowing (Bradbury & Reason, 2006, p. 348). In this respect the research study demonstrated this criterion of quality to a limited extent. While the co-researchers readily used imagery in their discussions (see Section 7.5.6) and in their formal presentations, this represented the ways of working of the personnel involved rather than any conscious effort to embrace such aesthetic representations in their work together.

Intentionally choosing appropriate research methods?

This particular criterion is addressed in the research design (see Chapter 3) where it was argued that the structure of the co-operative inquiries and the data collection and analysis procedures were relational and provided a systematic way of engaging the co-researchers in areas of importance, "drawing on many ways of knowing in an iterative fashion" (Bradbury & Reason, 2006, p. 348). The development, validation and administration of the TEPLC survey instrument (see Chapters 5 and 6) was a responsive outcome of the first co-operative inquiry cycle and represented the selection of an appropriate research method with respect to the co-researcher desire to identify the wider practitioner experience of the school as a developing professional learning community. Similarly, the co-researchers recognised at the end of the second cycle of co-operative inquiry that participation in future cycles needed to be more inclusive of teachers without formal leadership positions (see Section 7.6).

Worthy of the term significant?

As identified in Chapter 3, the most important criterion for judging the validity of co-operative inquiry is that the inquiry emerges from, and concerns itself with, everyday concerns of the people involved (Bradbury & Reason, 2006, p. 348). In this respect, the co-researchers selected the focus of their collective inquiry (second-person research practice) and then engaged in the first-person research practice of the ten individual practitioner inquiries within their own sphere of influence and in an area of concern to them (see Sections 4.3 and 7.3). The research problem and purpose established for the researcher a focus for the overall study that was grounded in her own practice and within the scholarly literature relating to professional learning communities (see Chapters 1 and 2). Thus, within the context of RI College, the research study has significance for those involved in the inquiry particularly as it moved from a focus on collaboration to a focus on community and so towards the "deeper levels of significance" identified by Bradbury and Reason (2006, p. 348) as an important aspect of this criterion.

Emerging towards a new and enduring infrastructure?

A "new infrastructure" is identified as an outcome of research consistent with the emancipatory world view of participative inquiry that "structures new patterns of behaviour" even after the research has concluded (Bradbury & Reason, 2006, p. 349). While some transformative outcomes could be recognised in the outcomes of the two co-operative inquiry cycles (see Sections 4.6 and 7.6) further outcomes that may represent these 'new patterns of behaviour' are in a future time beyond the scope of the research study. While acknowledging that responsibility for exploring the issues that have emerged in this research 'with people' rests with the "community as a whole" (Bradbury & Reason, 2006, p. 350), the recommendations made in this chapter (see Section 9.5) give some indication of the areas that could be explored. The extent of attributable significance that may be enduring in terms of 'new' propositional knowledge within the research field of professional learning communities remains to be seen and will largely depend on the extent to which this study prompts the dialogue of third-person research practice.

9.4 ANSWERING THE RESEARCH QUESTIONS

From the knowledge generated in the co-operative inquiries, including the administration of the TEPLC survey (see Tables 4.3, 6.7, 7.2 and 7.3), the researcher identified theoretical perspectives in response to each of the research questions. Each of these theoretical perspectives was examined in terms of their relationship to the current research literature on professional learning communities and 'new' knowledge, which may add to this existing knowledge, was identified in the discussion in chapter 8. In this sense, the development of the theoretical perspectives represent the strategy

advocated as the starting point for the development of professional learning communities (York-Barr et al., 2006), namely, engaging in the process of interpreting through the "wisdom of local knowledge" and developing a "lived theory" to build "organisational capacity for improvement" (Durrant & Holden, 2006, p. 111). Without knowledge of Hargreaves' (2008) use of the term, the second group of co-researchers used 'living and learning community' to describe their understanding of what they were trying to create in their inquiry (see Section 7.3) and clearly portrayed a conceptualisation of a professional learning community that was "professionally empowering and organizationally sustainable" (p. 187). The theoretical perspectives developed in response to Research Question 1 highlighted the professional empowerment conceptualisation of professional learning community, while the theoretical perspectives developed in responses to Research Questions 2 and 3 elaborated strategies for organisational sustainability.

9.4.1   Research Question 1

Research Question 1 sought to identify the practitioner conceptualisation of their school as a developing professional learning community

How do practitioners conceptualise a developing professional learning community?

An examination of the extensive knowledge generated by the co-researchers in the co-operative inquiry cycles revealed that 'professional learning community' is conceptualised as *what happens when practitioners meet – collaborative inquiry that is critical reflection on practice to improve student learning.* In addition, 'developing' a professional learning community is conceptualised as *making this happen - creating collaborative inquiry learning teams through generating a shared purpose and values.* They acknowledged that, within general principles, there were many ways of undertaking collaborative inquiry, as shown by the range of their individual practitioner inquiries; most important was for teacher groups to become collaborative learning teams. The co-researchers of Cycles 1 and 2 thus identified general principles in their practitioner conceptualisation of a professional learning community and these are elaborated by the researcher in Theoretical Perspective 1 in Figure 8.1 and summarised below as:

THEORETICAL PERSPECTIVE 1: Developing a professional learning community occurs through creating collaborative inquiry learning teams with a shared purpose and values for engagement in collaborative inquiry.

The elaboration of this conceptualisation of a developing professional learning community in Figure 8.1 recognised the influence of school professional and cultural norms on the ability of the school to

generate a shared purpose and values for collaborative inquiry that would create and sustain these collaborative inquiry learning teams across the school. Important professional and cultural norms were identified as those influencing the generation of trusting and respectful relationships among practitioners, and the effective facilitation of collaborative inquiry in practitioner teams. Significantly, this conceptualisation identified that negotiating the role tension between the teacher as professional and as member of the professional community (see Section 2.6.2) is facilitated by the development of the shared purpose and values for engagement in the collaborative inquiry at both the school and inquiry team levels. Furthermore, this conceptualisation highlighted the importance of engaging in meaningful and purposeful inquiry in ways that are empowering (Fullan, 2001a) and are not narrowly defined by the school change context, whether that is internally or externally generated (see Section 2.6.1).

9.4.2   Research Question 2

Research Question 2 sought to identify the practitioner experience of strategies and structures that support or hinder the development of their school as a professional learning community.

> What strategies and structures do practitioners experience as supporting or hindering the development of their school as a professional learning community?

The co-researchers generated extensive knowledge in their two cycles of co-operative inquiry, and these highlighted four key supporting areas – positional and non-positional leadership, professional dialogue, practitioner inquiry and time. From the integration of this experiential, presentational, propositional and practical knowledge the researcher identified four theoretical perspectives, in addition to the theoretical perspective developed in response to the first research question. These four theoretical perspectives elaborated the four areas identified by the co-researchers as influencing the development of a professional learning community (See Figures 8.2 to 8.5) and are summarised as:

> THEORETICAL PERSPECTIVE 2: Collaborative inquiry is supported by skilled facilitative positional and non-positional leadership;
>
> THEORETICAL PERSPECTIVE 3: Collaborative inquiry is supported by prompting professional dialogue using student achievement and evaluation data from a range of sources;
>
> THEORETICAL PERSPECTIVE 4: Professional learning and leadership capacity-building is supported by engagement in practitioner inquiry; and
>
> THEORETICAL PERSPECTIVE 5: Providing embedded, flexible and extended time supports engagement in collaborative inquiry.

Although derived from contextually centred knowledge, these theoretical perspectives represent organisationally sustainable strategies and suggest ways to address the challenges of developing professional learning communities identified in the literature review (see Section 2.5).

9.4.3   Research Question 3

The theoretical perspectives for Research Questions 1 and 2 are enhanced by the propositional knowledge generated through the wider practitioner experience of the school as a professional leaning community focus of Research Question 3.

> Can a theoretically based and context-specific instrument be devised to assess practitioner experience of their school as a professional learning community?

In the development and validation of the TEPLC instrument, the researcher developed a 'social architecture' theoretical conceptual framework that focused the investigation of practitioner experience of a professional learning community (see Section 2.4.2 and 5.2). Derived from the scholarly literature, this conceptual framework identified four essential attributes of a professional learning community, each with their own defining dimension and enabling process:

- a community culture in which a shared purpose and values are nurtured by a supportive staff culture;

- a focus on student learning in which improving that learning is sustained through capacity-building leadership and the processes that this leadership promotes;

- teacher professional learning in which the emphasis is on shared professional practice supported through collaborative inquiry work practices; and

- teacher professional practice in which there is engagement in collective instructional decision-making informed by individual reflective practice.

This conceptual framework was partially supported by the RI College response data. The analysis and discussion of this data identified that it is possible to devise an instrument that is theoretically based and context-specific; and also ways in which the instrument could be refined in the future to increase its ability to identify key dimensions and enabling processes of a professional development community (see Section 8.4.1).

The TEPLC data analysis and the co-researcher reflection on these were also integrated with the knowledge gained in the development and discussion of Theoretical Perspectives 1 to 5 to form a tentative Theoretical Perspective 6 (see Figure 8.6), summarised as:

THEORETICAL PERSPECTIVE 6: Identifying any differences in the practitioner experience of the school as a professional learning community may assist in prioritising the provision of supportive strategies and structures.

The discussion of this theoretical perspective pointed to areas that are not yet well explored within the scholarly literature with respect to possible variations in the practitioner experience of their school as a professional learning community. What this theoretical perspective highlights is the need for a developing professional learning community to identify and reflect on apparent variations in the experience of practitioners with respect to their school as a developing learning community. Such reflection can then be used to examine the school's strategies and structures that are supporting, or may well be hindering, the development of the school as a professional learning community. The importance of this reflective contextual understanding is emphasised by Louis (2008) who identifies that "tailoring the work to the school" is particularly critical in creating and sustaining schools as professional learning communities (p. 52).

9.5   RECOMMENDATIONS FOR THE RESEARCH CONTEXT

This research study used co-operative inquiry to investigate the practitioner experience of their school as a developing professional learning community. As such, the outcome of the co-operative inquiry is praxis-oriented knowing, which is inevitably linked to action in the context of RI College – the community of practice in which it is set (Greenwood & Levin, 2005). Recommendations for action within the research context of RI College have already occurred as outcomes of the two co-operative inquiry cycles of this study (see Sections 4.6 and 7.6). Beyond these, the following three recommendations are made in response to the theoretical perspectives identified by the researcher with respect to RI College.

RECOMMENDATION 1: That the cycles of co-operative inquiry continue in future years in order to further 'unpack the metaphor' of professional learning community within the context of RI College.

This study clearly demonstrated the value of the practitioner inquiries and the collective inquiry of these cycles in changing professional practice and creating empowering professional learning contexts for the practitioners. In continuing these cycles of co-operative inquiry, consideration should be given to providing continuity with some 'more experienced' co-operative inquiry practitioners being involved in successive cycles, as well as supporting the inquiries with access to relevant scholarly and practitioner researcher literature and appropriate presentation forums. In particular, these inquiries

need to explore the potential differences in practitioner experience of the school as a professional learning community by role, teaching experience and department, and how these might be addressed.

> RECOMMENDATION 2: That collaborative inquiry learning teams continue to be created and supported – both in departmental and cross-curricular contexts across the school – in order to improve both professional learning and student learning.

The transformation of teacher groups into collaborative inquiry learning teams is at the heart of the professionally empowering and organisationally sustainable practitioner conceptualisation of professional learning community in this study. The school professional learning model offers a viable process for improving professional practice through the critical reflective practice it promotes and its emphasis on collaborative inquiry. To support this collaborative inquiry, consideration needs to be given to the development of facilitation skills of the positional and non-positional leaders within the school and to the provision of student achievement and evaluation data from a range of sources.

> RECOMMENDATION 3: That the school engage in a radical re-think of how time is used in order to support the continued development of a collaborative inquiry culture among professionals at the school.

The research study demonstrated the importance of providing embedded, flexible and extended time to support both the collective and individual inquiries of the co-operative inquiry cycles. Within these individual inquiries, the influence of time structures and perceptions about how time should be used by the professionals in the school with respect to collaborative activity and professional learning was clearly identified. Significant cultural and structural barriers relating to time were identified as inhibiting further engagement of the practitioners in collaborative inquiry. It would be valuable for the professionals at the school to participate in critical reflection on how time is used and how it might more constructively support their professional learning in collaborative inquiry contexts.

In making these recommendations the researcher is affirmed by the observation that "schools that take the plunge and actually begin *doing* the work of a PLC develop their capacity to help all students learn at high levels far more effectively than schools that spend years *preparing* to become PLCs through reading or even training" (DuFour et al., 2006, p. 8).

9.6   'NEW' KNOWLEDGE IN THE FIELD

Co-operative inquiry is a research methodology that presents a challenge, in terms of any generalisations beyond that context, due to its contextually-centred knowledge. However, proponents of this type of research argue that generalisations may be possible, and contributions to the wider field

of knowledge possibly identified, if the notion of generalisation is reframed as "necessitating a process of reflective action rather than being based on structures of rule-based interpretation" (Greenwood & Levin, 2005, p. 55). In order to facilitate this reflective process by other practitioners this study has sought to provide a comprehensive picture of the conditions under which the knowledge that informed the development of the theoretical perspectives was developed (see Section 9.3), thereby enabling reflection to the extent that these understandings might transfer into their own context. In the spirit of prompting this reflection, the following conclusions and recommendations are identified for this research study.

The literature review identified the acknowledgement among researchers that there was still limited guidance that could be provided to practitioners in how to create professional learning communities in different contexts (Toole & Louis, 2002). In adopting the three fields of knowledge framework for the study (see Section 3.5) the researcher recognised that the outcomes of the co-operative inquiry could not only be the integration of the four forms of knowing into theoretical perspectives that would inform her own future action (see Section 9.5), but also that these theoretical perspectives might make a contribution to 'new' knowledge in the field. Through drawing together the knowledge generated within the context of this research study and examining it with respect to existing knowledge in the field (see Chapter 8), these theoretical perspectives represent potential 'new' knowledge in the field.

The starting point for this consideration of 'new' knowledge is the generic definition used by Stoll et al. (2006a) to describe the professional learning community:

> ...an inclusive group of people, motivated by a shared learning vision, who support and work with each other, finding ways, inside and outside their immediate community, to enquire on their practice and together learn new and better approaches that will enhance all pupils' learning. (p. 1)

For over 20 years, literature in the areas of organisational learning theory and school improvement has highlighted three interdependent themes: the learning organisation, the school learning community, and the teacher as professional. Subsequently, these themes have coalesced into the concept of professional learning community as described by Stoll and her colleagues.

Within this study, it is argued that the theoretical perspectives generated in this research study (see Sections 8.2 to 8.6) offer potential insights into how this understanding of a professional learning community might be elaborated to provide some guidance to the practitioner wanting to develop such a community within their own context. This elaboration is presented in Figure 9.1. This elaboration is presented to readers of this research study as an integration of the first- and second- person research

practice of this research study, which might prompt the continuing dialogue of third-person research practice in the field of developing professional learning communities (Reason, 2001).

FIGURE 9.1
THEORETICAL PRESPECTIVES APPLIED TO THE DEFINITION OF A
PROFESSIONAL LEARNING COMMUNITY

as collaborative inquiry learning teams of practitioners (TP1)

with a shared purpose and values for their collaborative inquiry (TP1)

A professional learning community is an inclusive group of people, motivated by a shared learning vision, who support and work with each other, finding ways, inside and outside their immediate community, to enquire on their practice and together learn new and better approaches that will enhance all pupils' learning. (Stoll et al., 2006a)

through embedded, extended and flexible time (TP5)

of prioritizing the provision of supporting strategies and structures (TP6)

through skilled, facilitative positional and non-positional leadership (TP2)

prompted by professional dialogue using student achievement data from a range of sources (TP3)

engaging in practitioner inquiry leading to professional learning, leadership capacity-building and change in practice (TP4)

TP = Theoretical perspective identified by number as per Figures 8.2 to 8.7.

Beyond this 'new' knowledge relating to developing the professional learning community, this research study also provides new understanding in respect to co-operative inquiry as a methodology. This study demonstrates the usefulness of co-operative inquiry to investigate the complex social reality of a professional learning community; the outcomes of this co-operative inquiry suggest that this has been a valuable approach within the research context. The process of 'unpacking the metaphor', suggested by the literature review (see Section 2.7), and the 'social architecture' approach to the conceptualisation of a professional learning community (see Section 2.4.4) developed by the researcher provide practical inquiry approaches for future researchers. In addition, by adopting a mixed methods approach to data collection and analysis, this study resulted in the identification of pragmatic knowledge that was transformative in nature. The cycles of co-operative inquiry within the study enabled the researcher and her co-researchers to generate ideas, design and manage their inquiry. In this way, the study gave 'voice' to the practitioner experience of developing the professional learning community in a specific context. Furthermore, it seems that further refinement of the TEPLC instrument developed in this study could assist in prompting a contextual understanding of the practitioner experience of developing professional learning communities for schools in Australian contexts. Finally, the trustworthiness and authenticity of the study were safeguarded by making sure that quality criteria for credibility and validity as proposed by Bradbury and Reason (2006) were in place from the outset of the research (see Section 9.3).

9.7   LIMITATIONS

This research study is set in the context of a single school that is independent of any educational system imperatives other than those of its governing body and those legislatively mandated by the state educational authority. It lacks many of the supporting and hindering external influences of a broader school system. What has been described is the researcher's construction of the school's professional learning community journey in a largely autonomous environment with a self-selecting group of research participants. The voluntary nature of the co-researcher participation in the co-operative inquiries, and also the voluntary response to the TEPLC survey, mean that the research study may not provide sufficient data to accurately reflect the practitioner experience of the RI College context, which is the focus of the study's research questions. As such, the practitioner experience of professional learning community at this school cannot be considered representative of other schools outside of this context. The limitations inherent in research in such a particular context are acknowledged.

With respect to the research design, the research paradigms of constructivism and participatory inquiry have limits inherent in their ontology, epistemology and methodology as identified earlier (see Sections 3.7 and 9.3). The main limitation of this study is the dual role of the researcher and co-researcher in the co-operative inquiry context and the positional leadership role she has in the overall research context (see Sections 3.5 and 3.8). It is important to identify that the relationship with the co-researchers in the co-operative inquiry cycles was professional and friendly, not social or personal. In drawing together the data that has informed the development of the theoretical perspectives, the researcher recognises that the claim to understanding can only be considered partial as certain perspectives may have been consciously or unconsciously privileged over others; the research narrative is inevitably a construction. The researcher acknowledges her bias as a member of the school leadership team with a specific influence in the future directions of the school, an enthusiasm for professional learning and a passion for improving student learning and enhancing the teacher pedagogy that achieves this.

9.8   CONCLUDING COMMENTS

It has been suggested that all good research is *for me, for us,* and *for them* (Marshall & Reason, as cited in Heron & Reason, 1997). In this sense the research speaks to three audiences:

- It is *for them* to the extent that the research has contributed to knowledge in the field of professional learning community development with respect to the research questions; that it resonates with the experience of other practitioners who may find the articulation of the knowledge creation process and the explication of the theoretical perspectives useful reflective prompts for their own context.

- It is *for us* to the extent that it has responded to authentic concerns about praxis in the context of RI College and has generated relevant and timely action with respect to the developing of the school as a professional learning community; that the individual and collective knowledge generated informs and continues to inform the actions of the co-researchers in their personal and professional life-contexts.

- It is *for me* to the extent that the process and outcomes of this research bear directly on my being-in-the-world. As Reason (2002) points out so clearly "working in a group of people who trust each other, engaging together in cycles of action and reflection over time, supporting and challenging one another to look experience in the face and take risks in developing new forms of practice, is a very special experience" (p. 172).

Concluding then on a personal reflection of this very special experience, I was recently asked in conversation what had I learned in my research and how would it "make a difference". Trying to express this concisely in this conversational context, two statements from key researchers came to mind:

> You can't mandate what matters. (Fullan, 1993, p. 22)

> Professional learning communities can't be forced; they can only be facilitated and fed. (Hargreaves & Fink, 2006, p.129)

The validity of these statements was confirmed in this research and they will continue to guide my reflection and action. For someone who is, by nature, relatively introverted and who can all too readily succumb to a task orientation, I learned the importance of cultural leadership. Hopefully I have learned how to contribute to facilitating and 'feeding'. But most importantly I have learned the power, excitement, frustration, and fun of learning with others; and how energising and life-giving this can be!

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APPENDICES

MAPPING OF SCHNEIDER'S COMPONENTS OF THE MERCY SCHOOL CULTURE
AGAINST PROFESSIONAL LEARNING COMMUNITY CONSTRUCT PROPOSAL

	DIMENSION	ENABLING PROCESSES	
Community culture	Shared Purpose and Values *(the lens)* **2, 5, 6, 10, 11, 15, 16, 17, 18, 19, 20**	Supportive Staff Culture *(the nurturer)* **1, 4, 8, *11*, 12, 22**	
Student learning	Improving Student Learning *(the focus)* **3, *4, 10, 12, 14,* 19**	Capacity Building Leadership *(the sustainer)* **7, 9**	
Teacher professional learning	Shared Professional Practice *(the critical paradigm shift)* **21**	Collaborative Inquiry Work Practices *(the conditions)*	**The 'less observable' – teacher culture and ways of learning and working**
Teacher professional practice	Collective Instructional Decision Making **13** *(the key)*	Individual Reflective Practice *(the change agent)*	

Italics – component related to more than one construct

Components of the Mercy school culture audit (main focus underlined)

1. The <u>general environment</u> – the school is a happy place, encouraging positive relationships and reflecting compassionate concern for people.
2. There is a clear <u>mission statement</u> describing the vision and core values.
3. The school provides a <u>positive learning environment</u> which affirms holistic education and encourages creative teaching and learning.
4. <u>Pastoral care</u> for students, staff and parents offers support and opportunities for personal growth.
5. The <u>school community celebrates its Catholic and Christian faith</u> through prayer, liturgy and worship.
6. The school acts in <u>creative partnership</u> with parents, parishes and the wider community.
7. <u>Leadership</u> in the school is life-enhancing and empowering.
8. People in the school <u>communicate well</u> with each other.
9. <u>Decision-making</u> is a shared responsibility in a spirit of collaboration.
10. There is a <u>priority in the curriculum for religious education</u>, both at the formal level in communicating the Catholic story and the infusion of the curriculum with Gospel values.
11. The school is <u>a just place</u> and it promotes a <u>harmonious relationship with the earth.</u>
12. Each person in the school community is <u>respected and made welcome</u>.
13. The <u>curriculum is relevant</u> for the students.
14. Members of the school community have <u>access to and use of school resources</u>.
15. The physical environment contains <u>appropriate religious signs and symbols</u>.
16. <u>School ceremonies</u> reflect the school's vision and mission.
17. <u>Mercy ministries</u>, both at home and overseas, are publicized and supported.
18. <u>School publications</u> reflect the school's vision and mission.
19. Stories are told of the <u>school's heroes and heroines</u> who personify the school's vision and mission.
20. <u>School-based policies and procedures</u> reflect the school's core values.
21. Ongoing <u>teacher learning and professional development for all staff</u> are actively promoted.
22. The <u>achievements of members of the school community</u> are appropriately celebrated and rewarded.

SOURCE: Schneider, A. (2006). Seeking mission integrity: the Mercy school culture audit as a map-in-process for the journey. *Journal of Catholic School Studies, 78*(1), 61-73.

COMMUNITY CULTURE	
DIMENSION Shared Purpose and Values *(the lens)*	Shared values and vision Values statement exists and understood by all Personally and collectively model Mercy values Moral purpose as agreed ways of being and doing Revisiting of school vision to ensure remains relevant in evolving contexts Leadership that encourages and sustains teacher commitment to school vision
ENABLER Supportive Staff Culture *(the nurturer)*	Mutual trust and respect – teachers with each other and with leaders Care about and celebrate each other's achievements Mutual co-operation, emotional support and personal growth are fostered High mutual expectations and accountabilities are evident among teachers Professional dialogue valued and encouraged

STUDENT LEARNING	
DIMENSION Improving Student Learning *(the focus)*	Shared focus on student learning and engagement High expectations/levels of learning for all students Culture of improvement evident Focus on whole school improvement at core of mission Priority given to creating positive learning experiences for all students A focus on life-long learning for all Teachers considered a model for student learning Shared decision-making invites teacher commitment to agreed goals Commitment to learning as the basis for decisions Emphasis on continuous learning and accountability to themselves and students Development of common goals Principal articulates shared focus for improvement and high expectations of teachers Norms of critical continuous inquiry and improvement

| ENABLER

Capacity Building Leadership

(the sustainer)	Leadership of learning distributed throughout the school Performance management strategies of appraisal, induction, mentoring, coaching Concept of plc embedded in policy documents and development plans Balance of pressure and support by leadership Resources committed to professional learning Appointment and allocation practices support collaborative inquiry culture Support of inquiry oriented practices Strong relationships between teachers and leaders 'Filtering' of external factors to ensure sustained focus on student learning Willingness to engage in external partnership and learning networks with other education providers Risk-taking, creativity and innovative thinking are encouraged

TEACHER PROFESSIONAL LEARNING	
DIMENSION Shared Professional Practice *(the critical paradigm shift)*	Evidence of learning with and from each other e.g. work shadowing Situated learning – classrooms open, mentoring and coaching practices evident Emphasis on creating common understandings Commitment to keeping up to date with evolving educational knowledge base Professional learning model emphasis on collaborative learning build around inquiry Provision of constructive feedback to each other Peer review and feedback on instructional practices valued Effective communication strategies support sharing Leaders model learning and coach colleagues
ENABLER Collaborative Inquiry Work Practices *(the conditions)*	Teachers work in a variety of collaborative teams Use of protocols to give agreed discipline and purpose to collaborative activity Collaboration evident in a range of contexts across the school Provision of shared spaces and time for staff interaction Value placed on collaboratively meeting to discuss student work and teaching practice Deprivatisation of practice encouraged Provision of training in how to work and learn in teams Structures and processes encourage shared practice Embedded time committed to observation of teaching others

TEACHER PROFESSIONAL PRACTICE	
DIMENSION Collective Instructional Decision Making *(the key)*	Systematic investigation using data and evidence from research and practice Collaboration focused on examining effects of professional work (not inputs) View results on frequent common assessments as sources of data to inform practice Team planning and teamwork common Actively seek feedback from student son their learning experiences Continuous inquiry to address the diverse needs of students Application of learning from analysis Increased skill to analyse data and implications Student outcome data reviewed by a range of school teams (subject-department-leadership)
ENABLER Individual Reflective Practice *(the change agent)*	Valuing of Individual Reflective Practice Research and inquiry inform planning for student learning Formal and informal discussion of teaching practice with other teachers Engagement in a range of professional learning activities evident Professional learning opportunities valued Openness to change Examine learning environments for effects on student confidence to learn Adopts a range of innovative practices to deal with factors inhibiting student learning Regularly collects, analyses and uses data to set learning targets for students

INSTRUMENT TYPES FOR IDENTIFYING CHARACTERISTICS OF SCHOOLOS AS PROFESSIONAL LEARNING COMMUNITIES
SUMMARY

Instrument name Number of scales & items Intended respondent	Prompt *Example*	Response type	Source
1. School Professional Staff as a Learning Community 5 scales - 17 items School staff - teachers	Statement about the school as a learning organization with sub-item descriptions *e.g. School administrators participate democratically with teachers sharing power, authority, and decision-making*	• 5 point scale to represent degree to which school has developed that characteristic • Written descriptions given for points 1, 3 and 5	Southwest Educational Development Laboratory (USA) (Hord, 1996)
2. Professional Learning Community Checklist # 4 scales – 35 items Teachers	Statement about school as a professional learning community *e.g. Teachers meet with one another to discuss specific teaching practices*	• presence of characteristic in the school • tick for presence	McREL (USA) (Mid-continent Research for Education and Learning, 2004)
3. Creating Effective Professional Learning Communities 3 parts: Professional learning in this school – 57 items A professional learning community – 5 items Factual information about the school – 18 items Headteacher/ CPD coordinator	Part 1: Statement about teachers in this school *e.g. Teachers in this school: have some protected time for joint planning and development* Part 2: Questions relating to plc development *e.g. What do you see as the main barriers to becoming a professional learning community?* Part 3: Questions about school facilities and management practices *e.g. Hours per week allocated to CPD coordinator*	Part 1: Two rating scales A. How many staff does this apply to? Four % groupings , Don't know B. How has this changed in the last two years? 3 level scale -up, down, no change Part 2: tick box & open-ended Part 3: tick box, yes/no & open-ended	This was a questionnaire used in research to further explore the concept of effective plcs in a UK context. (Bolam et al., 2005)
4. The Professional Learning Community Continuum 8 scales – 8 items School personnel	Dimension of a PLC brief description *e.g. Collaborative Culture: Teachers Working Together*	• Four development descriptions for each dimension – pre-initiation, initiation, developing, sustaining	National Educational Service (USA) (Eaker, DuFour, & DuFour, 2002)
5. The Professional Learning Community Continuum ** 12 scales – 12 items School personnel	Elements of a PLC brief description *e.g. Collaborative teams of teachers focus on issues that directly impact student learning*	• Four development descriptions for each dimension – pre-initiation, initiation, developing, sustaining	Solution Tree (USA) (DuFour et al., 2006)

6. A Needs Assessment for PLC Support & Training ^
 	
15 questions
 	
School staff
	Statement about a plc characteristic
	
	e.g. Teams are provided time during the contractual day and school year to meet
		• Yes/No tick box for each statement
		    o Yes –describe the statement details
		    o No – describe the barriers being faced
			PLC Needs Assessment
			
			(Capistrano Unified School District, 2005a)

7. The Professional Learning Communities Survey + 3 scales - 15 items School staff	Statement about a plc characteristic *e.g. Teachers share, observe, & discuss each others' teaching methods & philosophies*	• 5 point Extent rating from Not al All to To a Great Extent	Web based resource http://nsrfharmon.org (National School Reform Faculty, n.d.)
8. Professional Learning Community Assessment 5 scales– 45 items Principal, staff & stakeholders (parents & community members)	Statement about a plc 'critical attribute" *e.g. Decision-making takes place through committees and communication across grade and subject areas*	• 4 point Agreement rating from Strongly disagree to Strongly Agree	Scales modified from Hord, (1996) with identified critical attributes (USA) (Hipp & Huffman, 2003)

Variations of this type of questionnaire with different rating type scales have been adapted by a range of school districts in the US such as the Bay Area School Reform Collaborative of San Francisco

**   This expands on the previous questionnaire and is designed for assessing a school's place on the PLC journey and identifying future directions

^   There is a number of other questionnaires adapted from the work of DuFour, DuFour and Eaker and adapted for various school districts in the US

+   Based in the work of Kruse, Seashore Louis and Bryk (1995)

Scale Item #	Item Statement	Comment
SPV Q49	I engage in activities which further my understanding of Catholic education in the Mercy tradition	Probably more representative of Individual Reflective Practice rather than the agreed shared notion of this scale
SPV Q33	Our shared values are clearly evident to new teaching staff	Less readily responded to – possibly requiring a judgement beyond own experience
SSC Q50	I feel supported by other teachers when I try new approaches in my teaching	Linking of 'supported' and 'new approaches' problematic in respondent interpretation – notion of supported picked up in this scale in item Q66
SSC Q42	The recognition of excellent teaching is an important part of our staff meetings	Issue of 'excellent teaching' judgement made by respondents – appreciation of staff efforts already in this scale in item Q34
SSC Q58	A consultative style of decision-making is common at this school	Structural rather than cultural component of school operation
ISL Q51	I regularly discuss individual student achievement with other teachers	Interpretation of learning goals varied – other items more readily identify the focus on student learning and working with others
ISL Q27	I work with other teachers to build shared understandings of learning goals	Reflects CID scale rather than school focus of this scale
CBL Q76	Teachers are encouraged to be innovative in approaches to teaching	'Innovative approaches' not linked with leadership in these contexts
CBL Q44	I value performance appraisal of teaching practice	'Appraisal' not linked to leadership by respondents – not interpreted as supportive – reflecting the appraisal experience (or not) of schools
SPP Q61	School structures enable teachers to participate in Shared Professional Practice	Could be interpreted as an enabling process rather than an indication of collegial sharing
SPP Q5	School leaders encourage teachers to evaluate their practices	Interpreted more as relating to leadership rather than collegial sharing
CIW Q62	Cross-marking is a valuable way of working together to identify student strengths and weaknesses	Probably picked up in SPP – difficulty of interpretation – has a different purpose in different schools
CIW Q14	Allocating time for collaborative learning is a high priority for our school	Relates to time intent rather than to the inquiry work practices per se
CID Q79	We regularly study questions specifically linked to improving student achievement	Wording is not sufficiently clear – interpretation of what constitutes 'questions'
CID Q7	Teachers in this school systematically analyse student achievement data	Issue of interpretation of 'systematically' – overlap as analysis of student data picked up in Q39
IRP Q24	I consult students about how they learn effectively	Student evaluation already picked up in Q40 – different interpretations of 'consult'
IRP Q8	There is a formal process for teachers to critically reflect on their own practice	Relates more to school practice than the individual – affected by interpretation of formal process as appraisal and perception that this is not a critical reflection process of the individual

APPENDIX E
FINAL FORM OF TEPLC ONLINE SURVEY

Note:

The final version was an online survey using the school web-based intranet. The response circles did not have the numbers for response type in them for the online version – these were indicated by headings on the columns instead.

Teachers were sent the weblink with the invitation to participate with an email explanation of the project.

Items were not numbered on the online version but for analysis purposes they commenced at 1 for the first item in the first set and were then numbered consecutively. These item numbers appear against the statements in Appendix F.

The first screen gave the information below and subsequent screens contained the four sets of survey items, the demographic questions, the open-ended comment question and the anonymous identifier.

Professional Learning Community Questionnaire

This questionnaire has items that ask for your opinion about your experience of this school as a professional learning community.

It will take about **10 minutes** to complete with four sets of about 15 statements. It is **anonymous** - names are NOT recorded or stored. Response data may be organised for analytical purposes and general information may be publicly reported in the future. It will remain available **until November 27**.

If you are interrupted while completing this questionnaire it is possible to save and resume from that point later.

This questionnaire is for research purposes and will not be related to your role as a teacher at this school. A professional learning community is described in the research as:

...an inclusive group of teachers, motivated by a shared learning vision, who support and work with each other, finding ways, inside and outside their immediate community, to enquire on their practice and together learn new and better approaches that will enhance the learning of all students. [Stoll et al, 2006]

The term 'curriculum team' refers to the various groups of teachers you work with in the school in planning and assessing student learning such as a year level or subject team, an academic department, a 'connected curriculum' team or similar.

1. Please use the scale provided to indicate your agreement or disagreement with each of the descriptions of your experience of this school. If you:

Strongly Disagree select **1**   **Disagree** select **2**   **Agree** select **3**   **Strongly Agree** select **4**

Our school values are evident in our mission statement	①	②	③	④
Positive, caring relationships exist among teachers and leaders	①	②	③	④
School goals for improving student learning are clear to teachers	①	②	③	④
There are structures for improving student learning across curriculum teams	①	②	③	④
Teachers regularly share successful practices with each other	①	②	③	④
Teachers at this school are committed to working together to achieve the best outcomes for our students	①	②	③	④
I regularly work with colleagues to build shared understandings about standards of student work.	①	②	③	④
I regularly seek out research that can inform my practice	①	②	③	④
Teachers at this school share my beliefs about the central mission of the school	①	②	③	④
High levels of trust and respect exist between teachers and leaders	①	②	③	④
I participate in processes which set measurable goals for student learning	①	②	③	④
Leadership of teaching and learning is promoted and nurtured among teachers	①	②	③	④
Teachers regularly share what they have learned at workshops or conferences	①	②	③	④
We regularly use time to think about practices which are specifically linked to improving student achievement	①	②	③	④
Examining trends in student achievement is a regular part of our curriculum team meetings	①	②	③	④
Self-assessment is an important part of my daily practice	①	②	③	④

2. Please use the scale provided to indicate your agreement or disagreement with each of the descriptions of your experience of this school. If you:

Strongly Disagree select **1**   **Disagree** select **2**   **Agree** select **3**   **Strongly Agree** select **4**

The values of the school are evident in the day to day practices of teachers	①	②	③	④
I experience a spirit of mercy in my relationships with other teachers	①	②	③	④
Teachers monitor their progress in achieving goals for improving student learning	①	②	③	④
Allocating resources to support professional learning is a high priority in this school	①	②	③	④
Teachers model inquiry and reflection practices for each other	①	②	③	④
Working with colleagues to plan student learning is an effective way of improving my practice	①	②	③	④
Making the connection between student achievement and instructional decisions is a focus of our curriculum team meetings	①	②	③	④
I change my practice in the light of student feedback on their learning experiences	①	②	③	④
There is a strong connection between our school mission statement and my daily practice	①	②	③	④
The contributions of teachers to improve student learning are recognised by school leaders	①	②	③	④
Improving learning for all students is an important focus of our curriculum team meetings	①	②	③	④
Communication structures encourage professional dialogue about student learning	①	②	③	④
I discuss particular lessons that were not very successful with other teachers	①	②	③	④
My contributions to our curriculum team meetings are valued by others	①	②	③	④
Analysis of student achievement data is used to critically reflect on teaching practice	①	②	③	④
Teachers at our school regularly engage in inquiries of the kind 'How do I improve my practice?'	①	②	③	④

3. Please use the scale provided to indicate your agreement or disagreement with each of the descriptions of your experience of this school. If you:

Strongly Disagree select **1**   **Disagree** select **2**   Agree select **3**   **Strongly Agree** select **4**

Decisions about student learning made at this school align with the school's mission and values	①	②	③	④
I feel appreciated by school leaders for my contributions	①	②	③	④
In our curriculum team meetings we regularly discuss how to respond when a student is not learning	①	②	③	④
Teaching allocation practices support teachers learning from each other	①	②	③	④
I promote my teaching strategies with other teachers	①	②	③	④
I value regular opportunities to discuss student learning with other teachers	①	②	③	④
We regularly seek feedback from students about their learning experiences	①	②	③	④
Effective use is made of pupil-free days for individual professional learning	①	②	③	④
Reviewing our school mission statement is an important part of school planning	①	②	③	④
I experience professionally supportive relationships with other teachers	①	②	③	④
School leaders model a collaborative focus on improving student learning	①	②	③	④
There is in-school time for working together with colleagues on joint planning and development	①	②	③	④
Visiting other teachers' classrooms is an effective way of improving my professional learning	①	②	③	④
There is a lot of cross-Department/KLA collaboration in this school	①	②	③	④
School leaders give priority to developing teacher skills in data collection, analysis and interpretation	①	②	③	④
Teachers are encouraged to develop plans for improving their own professional growth	①	②	③	④

4. Please use the scale provided to indicate your agreement or disagreement with each of the descriptions of your experience of this school. If you:

Strongly Disagree select **1**   **Disagree** select **2**   **Agree** select **3**   **Strongly Agree** select **4**

	1	2	3	4
I am encouraged by the school leadership to incorporate Mercy values in my class activities.	①	②	③	④
School communication systems promote professional dialogue	①	②	③	④
School leaders keep the school focused on providing high quality learning experiences for all students	①	②	③	④
Teachers are encouraged to participate in mentoring and coaching activities with other teachers	①	②	③	④
I receive constructive feedback about my teaching from other teachers	①	②	③	④
Within my curriculum teams there is mutual accountability for student learning	①	②	③	④
Analysis of student performance data is used to inform our school's professional learning priorities	①	②	③	④
I am encouraged to undertake professional learning	①	②	③	④
The school leadership is explicit about the school's purpose and values	①	②	③	④
Teachers respect the personal competence of other teachers	①	②	③	④
The Principal invites input from teachers into decision-making relating to student learning	①	②	③	④
Teachers are involved in decision-making that affects student learning	①	②	③	④
I have had the opportunity to teach co-operatively with other teachers in this school	①	②	③	④
Teachers engage in collegial networks that support teaching practice	①	②	③	④
Student feedback on their learning experiences is used to inform instructional decision-making	①	②	③	④
I change my teaching practice in the light of feedback from other teachers	①	②	③	④

Note: The following demographic questions were all formatted as drop down menus

5. What is your main role in the school?

Response
Teacher Years 5 to 7
Teacher Years 8-12
Middle management
Leadership team

6. What is your main teaching area? Please select only one

Response
The Arts
English
Health & Physical Education
Language Other Than English
Mathematics
Science
Studies of Society and Environment (including Business)
Technololgy
Religious Education
Middle School - core and connected curriculum

7. What is your age group?

Response
<30 years
31-40 years
41-50 years
>50 years

8. What are your total years of service **at this school**?

Response
<5 years
6-10 years
11-20 years
>20 years

9. What are your total years of service **as a teacher (all schools)**?

Response
<5 years
6-10 years
11-20 years
>20 years

Note: The following question was open-ended

10. The items in the questionnaire have touched on many aspects of the school as a professional learning community. Please add any comments you may have about your experience of the school as a professional learning community:

Note: The following question was used as an anonymous identifier
11.

We hope to re-administer this questionnaire at a later date and compare results. This requires an identifier. In order to maintain your anonymity and yet allow for the possibility of future research, could you please enter your mother's date of birth in the box below as ddmmyy eg. 240738 for 24July 1938.

Item Number	Item Statement	Item Mean	Scale
1	Our school values are evident in our mission statement.	3.8	SPV
22	Working with colleagues to plan student learning is an effective way of improving my practice.	3.6	CIW
6	Teachers at this school are committed to working together to achieve the best outcomes for our students.	3.5	CIW
7	I regularly work with colleagues to build shared understandings about standards of student work.	3.5	CID
49	I am encouraged by the school leadership to incorporate Mercy values in my class activities.	3.4	SPV
57	The school leadership is explicit about the school's purpose and values.	3.4	SPV
16	Self-assessment is an important part of my daily practice.	3.4	IRP
38	I value regular opportunities to discuss student learning with other teachers.	3.4	CIW
42	I experience professionally supportive relationships with other teachers.	3.3	SSC
58	Teachers respect the personal competence of other teachers.	3.3	SSC
17	The values of the school are evident in the day to day practices of teachers.	3.3	SPV
25	There is a strong connection between our school mission statement and my daily practice.	3.3	SPV
24	I change my practice in the light of student feedback on their learning experiences.	3.3	IRP
56	I am encouraged to undertake professional learning.	3.3	IRP
62	Teachers engage in collegial networks that support teaching practice.	3.3	CIW
2	Positive, caring relationships exist among teachers and leaders.	3.2	SSC
18	I experience a spirit of mercy in my relationships with other teachers.	3.2	SSC
61	I have had the opportunity to teach co-operatively with other teachers in this school.	3.2	SPP
11	I participate in processes which set measurable goals for student learning.	3.2	ISL
51	School leaders keep the school focused on providing high quality learning experiences for all students.	3.2	ISL
5	Teachers regularly share successful practices with each other.	3.1	SPP
37	I promote my teaching strategies with other teachers.	3.1	SPP
45	Visiting other teachers' classrooms is an effective way of improving my professional learning.	3.1	SPP

27	Improving learning for all students is an important focus of our curriculum team meetings.	3.1	ISL
64	I change my teaching practice in the light of feedback from other teachers.	3.1	IRP
54	Within my curriculum teams there is mutual accountability for student learning.	3.1	CIW
20	Allocating resources to support professional learning is a high priority in this school.	3.1	CBL
10	High levels of trust and respect exist between teachers and leaders.	3.0	SSC
34	I feel appreciated by school leaders for my contributions.	3.0	SSC
9	Teachers at this school share my beliefs about the central mission of the school .	3.0	SPV
33	Decisions about student learning made at this school align with the school's mission and values.	3.0	SPV
3	School goals for improving student learning are clear to teachers.	3.0	ISL
43	School leaders model a collaborative focus on improving student learning.	3.0	ISL
48	Teachers are encouraged to develop plans for improving their own professional growth.	3.0	IRP
30	My contributions to our curriculum team meetings are valued by others.	3.0	CIW
55	Analysis of student performance data is used to inform our school's professional learning priorities.	3.0	CID
4	There are structures for improving student learning across curriculum teams.	3.0	CBL
12	Leadership of teaching and learning is promoted and nurtured among teachers.	3.0	CBL
60	Teachers are involved in decision-making that affects student learning.	3.0	CBL
50	School communication systems promote professional dialogue	2.9	SSC
41	Reviewing our school mission statement is an important part of school planning.	2.9	SPV
13	Teachers regularly share what they have learned at workshops or conferences.	2.9	SPP
29	I discuss particular lessons that were not very successful with other teachers.	2.9	SPP
19	Teachers monitor their progress in achieving goals for improving student learning.	2.9	ISL
59	The Principal invites input from teachers into decision-making relating to student learning.	2.9	ISL
8	I regularly seek out research that can inform my practice.	2.9	IRP
14	We regularly use time to think about practices which are specifically linked to improving student achievement.	2.9	CIW
23	Making the connection between student achievement and instructional decisions is a focus of our curriculum team meetings.	2.9	CID
31	Analysis of student achievement data is used to critically reflect on teaching practice.	2.9	CID
39	We regularly seek feedback from students about their learning experiences.	2.9	CID

63	Student feedback on their learning experiences is used to inform instructional decision-making.	2.9	CID
44	There is in-school time for working together with colleagues on joint planning and development.	2.9	CBL
52	Teachers are encouraged to participate in mentoring and coaching activities with other teachers.	2.9	CBL
21	Teachers model inquiry and reflection practices for each other.	2.8	SPP
32	Teachers at our school regularly engage in inquiries of the kind 'How do I improve my practice?'	2.8	IRP
15	Examining trends in student achievement is a regular part of our curriculum team meetings.	2.8	CID
28	Communication structures encourage professional dialogue about student learning.	2.8	CBL
36	Teaching allocation practices support teachers learning from each other.	2.8	CBL
26	The contributions of teachers to improve student learning are recognised by school leaders.	2.7	SSC
53	I receive constructive feedback about my teaching from other teachers.	2.6	SPP
35	In our curriculum team meetings we regularly discuss how to respond when a student is not learning.	2.5	ISL
40	Effective use is made of pupil-free days for individual professional learning.	2.4	IRP
47	School leaders give priority to developing teacher skills in data collection, analysis and interpretation.	2.4	CID
46	There is a lot of cross-Department/KLA collaboration in this school.	2.3	CIW

A range of strategies for systematically monitoring student progress with the purpose of improving student learning:

19.	Teachers monitor their progress in achieving goals for improving student learning	2.9	ISL
14.	We regularly use time to think about practices which are specifically linked to improving student achievement	2.9	CIW
23.	Making the connection between student achievement and instructional decisions is a focus of our curriculum team meetings	2.9	CID
31.	Analysis of student achievement data is used to critically reflect on teaching practice	2.9	CID
39.	We regularly seek feedback from students about their learning experiences	2.9	CID
63.	Student feedback on their learning experiences is used to inform instructional decision-making	2.9	CID
15.	Examining trends in student achievement is a regular part of our curriculum team meetings	2.8	CID
32.	Teachers at our school regularly engage in inquiries of the kind 'How do I improve my practice?'	2.8	IRP
28.	Communication structures encourage professional dialogue about student learning	2.8	CBL
35.	In our curriculum team meetings we regularly discuss how to respond when a student is not learning	2.5	ISL
47.	School leaders give priority to developing teacher skills in data collection, analysis and interpretation	2.4	CID

A range of strategies which encourage teacher dialogue about pedagogy:

44.	There is in-school time for working together with colleagues on joint planning and development	2.9	CBL
52.	Teachers are encouraged to participate in mentoring and coaching activities with other teachers	2.9	CBL
13.	Teachers regularly share what they have learned at workshops or conferences	2.9	SPP
29.	I discuss particular lessons that were not very successful with other teachers	2.9	SPP
50.	School communication systems promote professional dialogue	2.9	SSC
21.	Teachers model inquiry and reflection practices for each other	2.8	SPP
33.	Teaching allocation practices support teachers learning from each other	2.8	CBL
53.	I receive constructive feedback about my teaching from other teachers	2.6	SPP
46.	There is a lot of cross-Department/KLA collaboration in this school	2.3	CIW

Other:

59.	The Principal invites input from teachers into decision-making relating to student learning	2.9	ISL
41.	Reviewing our school mission statement is an important part of school planning	2.9	SPV
8.	I regularly seek out research that can inform my practice	2.9	IRP
26.	The contributions of teachers to improve student learning are recognised by school leaders	2.7	SSC
40.	Effective use is made of pupil-free days for individual professional learning	2.4	IRP

Reflection on collective work this year...
- When I first started with this project I...
- How did the group come to a focus on community building and collaboration?
- How would you describe what this group has done this year?
- Thinking back over the project:
  - What surprised you?
  - What got in the way?
  - What do you think was achieved?
  - What has disappointed you?

- What do you see as the advantages/ disadvantages of a project group such as this in terms of developing a professional learning community?
- What would you change/not change if this type of project continued in the future?
- Of all the things that we have discussed which one thing do you think is most important in terms of the future development of AHS as a professional learning community?

The group posed the question:
  Can we be a living and learning community?
- What is meant by this term?
- How do you respond to the question in the light of the project experience?

...We want to try and narrow this gap and decrease the messiness of 'making collegial relationships work'!
How far has the group come
- in understanding how to do this?
- actually doing this?

Looking at the statements of agreement and disagreement:
- What surprises you? What concerns you?
- What do they suggest to you about strategies and structures that are supporting the development of the school as a PLC?
- What do they suggest to you about barriers that need to be overcome in order to support the development of the school as a PLC?
- What do they suggest to you about ways to overcome any such barriers?

In the light of these teacher views...
- What is the next step if the school is to continue developing as a professional learning community?

Further comments you would like to make...

APPENDIX I
INDIVIDUAL INTERVIEWS
SEMI-STRUCTURED – PROMPT QUESTIONS

Reflection on individual project...
- What influenced/informed your decision on the focus of your individual project?
- What was the most difficult part of your project? How did you address this?
- What do you consider to be the professional learning for you/your participants from the project?

Practitioner Inquiry Interacting Spiral...
Given the experience of this project and its outcomes what would you see as a next step for you?

The group asked the question:
How can we work within such an environment to develop a greater sense of community for both staff and students?
- How do you see your project contributing to an understanding of working in the AHS environment to develop this sense of community?

Further comments you would like to make...

Human Research Ethics Committee

Committee Approval Form

Principal Investigator/Supervisor: Dr Gayle Spry   Brisbane Campus

Co-Investigators:

Student Researcher: Mrs Shirley Coulson   Brisbane Campus

Ethics approval has been granted for the following project:
Developing a Professional Learning Community in a Catholic Girls' School

for the period: 9 August 2007 to 30 June 2008

Human Research Ethics Committee (HREC) Register Number: Q200708 1

The following standard conditions as stipulated in the *National Statement on Ethical Conduct in Research Involving Humans* **(1999) apply:**

 (i) that Principal Investigators / Supervisors provide, on the form supplied by the Human Research Ethics Committee, annual reports on matters such as:
- security of records
- compliance with approved consent procedures and documentation
- compliance with special conditions, and

 (ii) that researchers report to the HREC immediately any matter that might affect the ethical acceptability of the protocol, such as:
- proposed changes to the protocol
- unforeseen circumstances or events
- adverse effects on participants

The HREC will conduct an audit each year of all projects deemed to be of more than low risk. There will also be random audits of a sample of projects considered to be of negligible risk and low risk on all campuses each year.

Within one month of the conclusion of the project, researchers are required to complete a *Final Report Form* and submit it to the local Research Services Officer.

If the project continues for more than one year, researchers are required to complete an *Annual Progress Report Form* and submit it to the local Research Services Officer within one month of the anniversary date of the ethics approval.

K. Pashley.

Signed: Date: 9 August 2007
            (Research Services Officer, McAuley Campus)

Note:
The title of the project changed during the course of the research from
'Developing a professional learning community in a Catholic girls' school'
          to
'Practitioner experience of a developing professional community'

CONSENT FORM

Copy for Participant

TITLE OF PROJECT: DEVELOPING A PROFESSIONAL
LEARNING COMMUNITY IN A CATHOLIC GIRLS' SCHOOL
– PHASE 2

NAME OF PRINCIPAL SUPERVISOR: DR. GAYLE SPRY

NAME OF STUDENT RESEARCHER : SHIRLEY COULSON

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Queensland 4014 Australia
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Facsimile   Dr Gayle Spry 3623 7247
www.acu.edu.au

I .... *(the participant)* have read and understood the information provided in the Letter to Participants. Any questions I have asked have been answered to my satisfaction.

I have participated in action inquiry projects at the school understanding that these may be used in the research project. I agree to my documentation of these projects being used in the research. I agree to participate in the focus group discussions and interviews which may be audiotaped. I understand that I can withdraw my consent to participate in this action inquiry phase of the research project at any time without comment or without affecting my employment or future relationship with the student researcher in any way.

I agree that research data collected for the project may be published or may be provided to other researchers in a form that does not identify me in any way.

NAME OF PARTICIPANT: ....
                                                                                       (block letters)
SIGNATURE ....   DATE ....

SIGNATURE OF PRINCIPAL SUPERVISOR: ………………………………………………….

DATE:………………………...

SIGNATURE OF STUDENT RESEARCHER:..