Developing WITHIN practice PD:

A cultural-historical approach to understanding the institutional practice of teachers' professional development

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Abstract

Over the past two decades, the term *professional development* has increasingly been replaced in the education research literature by the term *professional learning,* reflecting the paradigm swing towards conceptualisations of learning as ongoing, social, situated and actively constructed. Arguing that this notion of professional learning is currently under-theorised, this study uses Vygotsky's cultural-historical theoretical framework to provide a robust theorisation of the institutional practice of teachers' professional development in order to understand the necessary conditions required for teachers to develop new motives and competences to transform their participation in their various professional practices.

Cultural-historical interventionist methodology (introducing the role of researcher as *observant collaborator*) was used to collaboratively create two different practices of professional development (PD) with teachers in two Australian primary schools. In the first practice, the researcher collaborated with the entire staff of one school, in 10 hours of after-school PD meetings over a period of six months, as they *learnt* about cultural-historical principles of teaching/learning and child development. However, analysis of the collected video and audio data highlighted that, in this after-school format based on the existing professional *learning* literature, it was very difficult for an outside facilitator to effectively support the teachers' *development of new motives and competences* to be able to utilise their newly learnt knowledge to actually transform their classroom practices. A preliminary model of the system of essential relations found to be necessary for effective professional *development* was formulated and then used to inform the creation of 'WITHIN practice PD' (Professional development WITH a teacher, IN their practice) as the second phase of the project.

In this second phase, the strategies of co-teaching (18.5 hours working together in the classroom) and co-generative dialoguing (6 hours of reflecting, planning and theorising), were used over a five month period with a Grade 3/4 teacher at another school. Through these strategies we were able to not only collaboratively create significant changes in the teacher's classroom practice, but also came to understand the significance of joint activity and conscious awareness for creating a developmental environment for all participants. It was found that joint activity in

both the classroom and the co-generative dialoguing sessions opens up a space for creating the necessary conditions for the participants' development of unified concepts – the synthesis of theoretical and practical aspects of a concept – and for development of the participants' capacity to use these unified concepts with conscious awareness to create, implement and sustain deliberate and thoughtful expansions of classroom teaching and other professional practices.

Joint activity in the classroom was also found to be particularly important for disrupting the teacher's habitual practices (actions which occur without conscious awareness), because the presence of another, who could lend their own conscious awareness in the very situation and moment that the teacher was acting without conscious awareness, disrupted the expected patterns of actions and institutional structures that typically predispose teachers to act in habitual ways. This disruption provoked *situated conscious awareness*, allowing the teacher (and students) to experience the effects of new ways of acting and making it easier for the teacher to disrupt their own habitual practices and act with conscious awareness in future situations.

This thesis provides important contributions to both our theoretical understanding of the institutional practice of teachers' professional development, in order that we can continue to improve the effectiveness of this practice; and to our methodological understanding of how cultural-historical interventionist research can simultaneously contribute to, and expand our understanding of, the development of practices and participants.

Declarations

This thesis contains no material that has been accepted for the award of any other degree or diploma in any educational institution and, to the best of my knowledge and belief, it contains no material previously published or written by another person, except where due reference is made in the text of the thesis.

Signed:

Date:

The research for this thesis received the approval of the Monash University Human Research Ethics Committee (Approval number: CF10/0746 – 2010000349) and the Research Branch of the Department of Education and Early Childhood Development, Victoria (Approval number: 2010_000534).

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It is with great relief and joy that I finally write these acknowledgements. It has been a (mostly) wonderful three and a half years, but I won't deny that there have been tough times along the way. It is only with the help and support of the following people that I have managed to persevere and reach this goal.

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Chapter 1: Introduction

SETTING THE SCENE

"The history of writing in the child begins long before a teacher
first puts a pencil in the child's hand and shows him
how to form letters" (Luria, 1978, p. 145).

Introduction

This study is a story of development. Some stories are simple tales, composed primarily of descriptions of characters, settings and events which build to a climax and neatly resolve into a happy ending. Other stories are more complex and need to take the reader backtracking and jumping through time and space in order to fully explore the subject material and come to a new understanding of an aspect of human experience they may never have considered before. As would be expected in a thesis, this story is a complex story – a complex story about teachers' professional development. However, rather than telling the story of a group of teachers' development as professionals, or even telling the story of my own development as a facilitator of professional development, ultimately I have chosen to tell this story as an investigation and explanation of the development of an institutional practice. I have chosen to focus on the development of the institutional practice of teachers' professional development because in the process of working with a group of professionals I eventually realised that until we understand, improve and develop *this* institutional practice, the necessary conditions for effective professional development will not exist, limiting the potential for teachers to truly develop *their own* professional classroom practice.

I begin this chapter by outlining my motivation for undertaking educational research in general and this study in particular, followed by an outline of recent government policies that shape the context within which practices of professional development have emerged over the past decade. This is followed by a summary of the various phases of the study, including the research questions. The chapter finishes with an outline of the remaining chapters of this thesis.

Motivation for this study

Three personal experiences that have motivated my participation in educational research

My own experiences as a student at an 'alternative' secondary school in the early 1980s have strongly influenced my understandings of what education can and should be. This school, most likely based on the theories of Dewey and A.S. Neill, worked hard to build close personal relationships between teachers and students and allowed students significant choice, control and voice in issues concerning their own learning. For a keen student, like me, school became a place for participating and growing through interesting projects, excursions and discussions. Independence, initiative and self-motivation were highly valued and encouraged and led to a wonderful learning environment for those of us with sufficient skills to be able to cope and thrive. However, for less-focused students, and there were many, school seemed to be a place for hanging out, smoking and wasting time. What seemed to be great ideas in educational theory, did not in reality work well for everyone in practice.

When I first began teaching, at a small country primary school in 1989, I often tried to implement innovative approaches to my classroom (learning centres, individual contracts, co-operative groups etc.) but was frustrated both by the lack of support from colleagues and administration, and the students' inability to cope with different approaches to learning. Of course, I realise now that this (supposed) inability of the students was actually my own inability to adequately provide support and structure as they learned new requirements for these styles of teaching and learning. However, I also now realise that it is extremely difficult for a newly graduated teacher to implement such innovations without the support of colleagues and administration. I was quickly enculturated into "this is the way we do it here" rather than encouraged to try out new ideas and practices. I soon discovered that teaching seemed to be a choice between being bored, but maintaining control of my class (and gaining approval from superiors) or being excited, but being reprimanded for having a rowdy class (when things were going to plan) or worse still losing control of my class altogether (when things didn't go to plan!). None of these scenarios were very satisfactory. Hence, while my passion for educational theory has continued, my

passion for the nitty-gritty practice of teaching quickly dimmed and my teaching career became more about surviving until I left the profession to have children.

As a parent, I have also become frustrated with my children's experiences at school. In their first years at school my daughter complained that it was boring and too easy, while my son complained that it was boring and too hard. The excitement, curiosity and initiative they showed for learning before they started school quickly faded to disappointment and resentment. My own observations of them as capable and self-motivated learners at home have made me question many of the 'typical' curricular practices of teachers and schools, including of my own former teaching practice, which seem aimed at maintaining an ordered classroom environment and covering the required curriculum rather than building on students' natural curiosity and thirst for learning. I began to ask, "Surely there must be some way for teachers to build on that initial enthusiasm for learning rather than stifle it, without losing total control of both the classroom and the required curriculum?" I also assumed that teachers able to achieve this were far more likely to retain their own passion for teaching, rather than slip into survival mode.

I believe it was this combination of personal experiences that led me towards embarking on educational research to try and resolve some of these issues, rather than contemplate returning to teaching and perpetuating the dissatisfaction currently experienced by so many teachers, parents and students. While I understood this was a naively optimistic goal, I didn't expect to single-handedly change the world—I merely wanted to add my contribution to those educationalists who are working for improving the situation rather than keep adding to the weight of those who perpetuate the unsatisfactory status quo because of a lack of resources to do anything differently. I believed the best way for me to make this positive contribution was to support dedicated teachers currently working in the system to make 'bottom-up' change in their own practice, and the rest of this thesis explains how I used this cultural-historical study to attempt to achieve this. Funnily enough, now that my thesis is finished, I am itching to get back into the real world of teaching and put what I now know into practice.

Motivation for this particular research study

I first encountered cultural-historical theory when I carried out a case-study of the singing culture in a primary school for my Master of Education thesis (see Grimmett, 2008). Sociocultural-historical theories of learning (including Vygotsky's (1978) *Zone of Proximal Development [ZPD]*, Rogoff's (1990, 2003) *Guided participation*, Lave and Wenger's (1991) *Legitimate peripheral participation* and Wenger's (1998) *Communities of practice*) were used in the thesis to describe singing development as a process of supported participation in the valued practices of the school culture. Willingness and ability to participate in these cultural practices were therefore considered vital prerequisites to learning and development. A major finding of the case study was that choice of appropriate singing repertoire was a crucial factor in engaging students' participation in singing activities. Analysis of the collected data using Wenger's (1998) components of communities of practice (meaning, practice, community, identity) as categories, suggested, that for engaged learning to occur, the following three considerations need to be taken into account by teachers choosing learning materials and activities:

- students must be willing (i.e., the perceived social and personal benefits of participating in the learning activity must outweigh the perceived risks of participation) and able (i.e., possess minimum levels of competence and/or have suitable assistance and support available) to participate in the activity;
- the material and activities must provide appropriate levels of challenge for skill development (i.e., within the Zone of Proximal development);
- meaningful purposes and aesthetic merit of the material must provide authentic value to the activity.

I soon realised that these considerations could also hold true for other learning experiences besides singing. I have since made small modifications to some of the original wording of my model to broaden its use for creating and analysing learning activities that promote engaged learning in all areas of the curriculum (see Appendix A).

In Vygotskian spirit, the ideal relationship between research, theory and practice can be regarded as dialectical, with each element simultaneously influencing and being influenced by the other to create an ever-evolving, mutually constructed

understanding and improvement of the situation being studied. While good research is always informed by theory, educational research also needs to be informed by the real context within which teachers operate and produce practical implications that can influence teachers' future practice. Unfortunately, in reality, this dialectic system does not always function smoothly. In the field of education, research and practice are frequently regarded as separate entities which fail to effectively inform or influence each other, leading to disappointment from both researchers and practising teachers (A. Edwards, 2000; Kennedy, 1997; Nuthall, 2004; Ohi, 2008).

While the data collected in my M Ed case-study (i.e., informed by practice) was combined with understandings of cultural-historical theories of learning and teaching (i.e., informed by theory and other research) to generate a new theoretical model of engaged learning (which could theoretically inform future practice), the time and word constraints of a Masters thesis unfortunately did not allow for investigating how the generated theory could be applied back into practice. The aim of this PhD study was to build on from where my M Ed study finished by creating a professional learning environment (a ZPD for teachers) focusing on engaged learning. However, the aim of this research was never merely to extend my M Ed research by simply asking teachers to test my model of engaged learning. Instead I aimed to build an entirely new study, using the cultural-historical understandings of teaching and learning incorporated in the engaged learning model as the basis for exploring teachers' own professional learning *about* engaged learning, as I had come to believe that teachers are only able to transform their practice if they also examine and transform their own theories/understandings of teaching and learning. This viewpoint is supported in the literature (S. Edwards, 2005, 2009a; Fleer & Robbins, 2004; Leavy, McSorley, & Boté, 2007; Richardson, 1990; E. Wood & Bennett, 2000).

While my *practical* intention for the content of the professional learning activity was that the teachers and I would collaboratively reflect on our current practices and theories, explore new practices and theories suggested in existing research (including the model generated in my M Ed if appropriate), and ultimately transform/create new practices and theories for use in their own classrooms; my actual *research* intention was to understand the institutional practice which was being collaboratively created as the teachers and I worked towards this practical intention.

However, intentions are merely imagined possibilities. Not only are these imagined possibilities limited by our current level of understanding (for instance, I now recognise the rather naïve understanding of Vygotsky's concepts my M Ed model was built upon), but inevitably these imagined possibilities collide with unimagined real-life constraints when we attempt to realise them in concrete practice. While it is easy to consider these set-backs and difficulties as disappointing, I have come to realise that it is in the unexpected difficulties that new opportunities for development arise, and potentially even greater levels of understanding than those imagined can be created.

By framing my research as a study of the institutional practice of professional development, the unexpected difficulties actually served to highlight essential aspects of this practice which must be considered as necessary conditions for effective professional development. These findings were then used to inform a second phase of the project. The various phases of the study are described in a later section of this chapter, but firstly I would like to present a discussion of the current context for teachers' professional learning and development in Australian (and particularly Victorian) primary schools within which this study was conducted.

The current context of teachers' professional development

In order to understand what is meant by the term 'professional development', it is necessary to understand how 'professional' is defined in the particular context within which development of this entity is called for. In an extensive review of the literature about 'professionalism', Evans (2008) has catalogued many definitions of the term before coming to the conclusion that there are differences between the professionalism that is *demanded* or *requested* by the clients of the practice (i.e., parents and students), *prescribed* and officially set down by legislating bodies, and what is actually *enacted* in the practice of individuals, making it difficult to pinpoint a definition that encompasses all of these perspectives. She then reasons that it is only enacted professionalism that can be considered to reflect reality and therefore provide a meaningful conception of professionalism, stating that demanded or prescribed conceptions of professionalism "represent insubstantiality ranging from articulated ideology to wishful thinking" (p.29).

However, in the neoliberal and neoconservative socio-political environment of many countries in the last decade, the definition of teachers' professionalism has been increasingly prescribed and standardised in government policy documents and registration or accreditation procedures (Groundwater-Smith & Mockler, 2009). For example, in England all teacher candidates must demonstrate proficiency on a set of outcome standards in order to be awarded Qualified Teacher Status, while in the US teachers can voluntarily apply for the National Board Certification credential which is rewarded with financial incentives in many states (OECD, 2005).

Similarly, in Australia, the Teacher Quality and Educational Leadership Taskforce under the auspices of the Ministerial Council on Education, Employment, Training and Youth Affairs (MCEETYA) published *A national framework for professional standards for teaching* in 2003. Part of the introduction to this document states:

> This current National Framework for Professional Standards for Teaching provides an architecture within which generic, specialist and subject-area specific professional standards can be developed at National, and State and Territory levels. It provides an organising structure which establishes, at a national level, the agreed foundational elements and dimensions of effective teaching. … It provides an agreed language, utilising commonly understood terms and definitions, with which to discuss professional teaching practice at the national level. It will therefore facilitate more effective information sharing about professional teaching practice across jurisdictions and provide a source document for Commonwealth, State and Territory governments to draw upon for their own strategic purposes. … The National Framework will provide guidance, support and recognition for ongoing professional development of teachers. (Teacher Quality and Educational Leadership Taskforce, 2003, p. 2)

Over the following years, the regulatory bodies responsible for the registration of teachers in each state of Australia formulated and published their own professional standards based upon this national framework. Then, in 2011, the newly created Australian Institute for Teaching and School Leadership (AITSL) published *National professional standards for teachers* (Australian Institute for Teaching and School Leadership, 2011). However, at the present time, each state is still responsible for registering their own teachers using their own state standards as guidelines.

Nevertheless, the different state documents and the new national document are all very similar, basically covering the same areas even if some terminology and

organisational structures are slightly different. For instance, while most state documents share the AITSL organisational strands of Professional Knowledge, Professional Practice and Professional Engagement, this last strand is called Professional Commitment in New South Wales, and Professional Relationships in South Australia and Tasmania. Tasmania also adds Professional Values as a fourth strand, while Queensland lists their 12 standards without organising them into any strands. All documents with strands do however explicitly state that these categories are interdependent and overlapping in actual practice.

While each state document has a different number of standards within each strand, generally Professional Knowledge refers to knowing students and how they learn, and knowing subject-matter content and how to teach it; Professional Practice refers to planning, assessment, reporting and creating effective learning environments; and Professional Engagement refers to professional learning, and participating in professional and broader school communities. The AITSL, New South Wales, Northern Territory and Tasmanian documents also outline descriptors of their standards at four different career stages (again the terminology varies between documents but the AITSL document refers to graduate, proficient, highly accomplished and lead teachers).

In Victoria, teacher registration is currently being moved from a five-year renewal process to an annual renewal process. As part of this annual renewal process, teachers will be required to meet a professional practice requirement of:

- 10 days teaching, equivalent practice or educational leadership in the previous twelve months; and

- 20 hours of standards referenced professional development activities that update knowledge about pedagogy, content and/or practice.

All professional development activities (commonly referred to as PD by teachers) counting towards this requirement must relate to the Victorian professional standards and at least half of the professional development hours must involve research-based knowledge that is sourced from outside of the teacher's immediate school or work environment (www.vit.vic.edu.au, accessed 27/1/12). As I was an outsider to the particular school environments that I worked with in this study, the teachers were

able to count their participation in this project toward these research-based professional development hours for registration renewal purposes.

While the above information provides the policy context for the increasing formalisation and documentation of teachers' professional development, it also raises interesting questions about whether such standardisation and detailed specification of what it means to be 'professional' is actually desirable. These policies argue that documented standards of professional knowledge, practice and engagement provide a clear framework for articulating teachers' professional role and what excellence in this role looks like. However, it is not clear what assumptions about teaching/learning and development, and the nature of knowledge and skills necessary for future life have been used in the formulation of these standards, which makes it difficult to evaluate whether these assumptions are valid for all teachers and students in all contexts.

The provision of descriptive outcome statements within each documented standard implies that development in areas outside of or beyond those specified in the statements is not valuable. In particular, for the states and the AITSL document which divide the statements into levels of teacher career stages, they provide a linear and prescribed view of what professional development should look like and appear to provide an end goal which can ultimately be achieved, implying that a teacher reaching the lead teacher stage has no further need for development.

Connell (2009) provides a strong argument against providing standardised statements of professionalism, arguing that they have been developed in response to neo-liberal notions of individualism, competition and accountability, and lead to a narrowing of what is considered to be good practice. In contrast, she argues that for an increasingly diverse educational population to be prepared for an increasingly non-predictable future society requires a diversity of teacher competences viewed at the collective and/or institutional level rather than the individual.

> [W]e do not need a picture of 'the good teacher' in the singular, but pictures of good teachers in the plural, and good teaching in the collective sense. We need models of teacher education that will support creative, diverse and just teaching practices in an educational future that we can expect to look different from the educational past. (p. 226)

Professional development in this sense then requires openness to what might be considered a development of a teacher as a professional, which cannot necessarily be determined and prescribed before entering the particular context of the teachers' practice. In this study, the professional standards help to inform the context within which teachers seek to develop as professionals, but they are not regarded as limiting goals which can be 'ticked off' and seen as achieved. I regard the standards as providing a helpful starting place for teachers to begin to engage with what it means to enact being a professional in a complex and multifaceted career such as teaching, rather than an end goal which determines what their development as professionals should look like. With this context in mind, I will now provide a summary of the various phases of the development of this study.

Summary of the phases of this study

Preparatory phase – The imagined PLZ

As in the quotation from Luria at the start of this chapter, the history of this project began well before I set up a video camera to collect my first piece of data in the first professional learning session. I spent the first year of my doctoral studies preparing my study proposal by immersing myself in the concepts of cultural-historical theory and reviewing the literature around teachers' professional learning and cultural-historical approaches to education. Throughout this process I was creating an imagined possibility of a Professional Learning ZPD (PLZ) based upon the concepts and experiences described in the theoretical and empirical research literature (see Chapters 2 and 3).

During this phase of the research I became increasingly interested in the idea of viewing teaching and learning as collaborative improvisation between teachers and learners in which both parties contribute to both the co-construction of the learning environment and the knowledge that is co-constructed within this environment (Holzman, 2009). I therefore decided to develop a series of professional learning sessions for teachers that would actively involve them in experiencing learning about cultural-historical theory in a manner consistent with these principles. This series of sessions would form the basis of a new practice of professional learning which would provide a context within which I could attempt to understand the essential

relations of theoretical concepts that provide the necessary conditions for supporting teachers to change their professional practice.

Phase 1 – Collaboratively improvising the actual PLZ

After receiving approval for my research proposal and gaining ethics approval I set about realising this imagined PLZ as an actual reality. Unfortunately, as will be explained further in Chapter 4, I had enormous difficulty finding participants for my original project which led to substantial alterations to the project design. However, this modified project still allowed me to collect considerable data about the effectiveness and limitations of this type of professional learning activity.

Throughout the analysis of data collected in Phase 1, it became increasingly evident that the concept of Professional Learning (as currently described in the academic literature and used to inform the creation of the PLZ) is a necessary, but not sufficient, concept for assisting teachers to change their practice (even though this is often professed to be the intended outcome of professional learning activity (Leadership and Teacher Development Branch, 2005; Osterman & Kottkamp, 2004)). Moreover, the preliminary findings were indicating that merely changing practice is an insufficient goal for Professional Learning if we want to create long term, sustainable improvement in teachers' professional capacity. Although I had been a firm convert to the term 'professional learning' to distinguish from the more traditional approach of one-off PD sessions, I began to realise that it really was 'professional *development*' (when the term development is understood from a cultural-historical perspective, as described in Chapter 2) that should be the aim.

Using Seth Chaiklin's (2008, 2009, 2011) notion of Cultural-Historical Science as the study of human practices (discussed in Chapter 2), I rephrased my original questions about professional learning to become:

> 1) What is learnt about the *institutional practice of professional **development*** through the process of creating collaborative professional learning activity?

> 2) What is the system of essential relations revealed by analysing my participation in transforming the practice of professional development at one particular school?

Therefore, while the focus of the content of the professional learning sessions was on helping teachers understand cultural-historical principles of teaching and learning in order to improve their practice to enhance students' engagement in learning, the focus of the research was to study the actual *institutional practice* of professional development in order to understand the essential relations necessary for creating the conditions that support, develop and sustain this practice. These identified essential relations were then used as the basis for modelling a proposal for a different form of practice of professional development in Phase 2.

Phase 2 – Using the findings of Phase 1 to extend the study of the practice of professional development

Once I had developed preliminary models of the system of essential relations in the practice of professional development as outcomes of Phase 1, it seemed necessary to try to apply these theoretical models in a real-world situation to assess their appropriateness for informing a new practice of professional development. A new search of the literature was conducted to further inform development of a new approach to professional development which might build upon the knowledge developed in the first phase of this study. The chosen approach is discussed in chapters 4 and 7. Two new research questions and sub-questions were added for this phase of the project:

> 3) How does conscious awareness of the system of essential relations inform and continue to develop an institutional practice of professional development in another school context?
>
> - Are the identified concepts in the theoretical model important in the new practice?
>
> -How do the changes made to the professional development practice in the new context address the issues related to these concepts encountered in the first context?
>
> 4) Does analysis of the new practice expand the proposed system of essential relations?

Outline of chapters in this thesis

In a break from traditional thesis format, the second chapter of this thesis is the theoretical framework chapter instead of the literature review. This chapter outlines the cultural-historical concepts used throughout this thesis, and so has been placed ahead of the literature review so that the particular meanings of cultural-historical terminology used in some sections of the literature review (and the rest of the thesis) can be clearly understood. The explanations of institutional practice, development, and unified concepts are of particular importance for understanding the basis of this thesis, but these can only be fully explained by introducing the many other concepts that act as a system for explaining these key ideas.

Chapter 3 reviews the historical and current research literature on teachers' professional development and learning in order to show gaps in the literature that this study aims to address. It is argued that using cultural-historical theory as a methodological and analytical framework provides a unique approach for examining examples of Australian primary school teachers' professional development. Rather than just contributing another description of a professional development approach or program to the literature, this thesis aims to provide a robust theorisation of professional development as an institutional practice so that we can understand how and why certain necessary conditions can be created to assist teachers to continue their development as professionals.

Chapter 4 discusses the cultural-historical methodology that has been used in this research project to create a unique approach to studying teachers' professional development. The research methods and data analysis procedures are outlined and details of the data collected are summarised. Specific details about the participants and settings of each phase are provided in the data chapters (Chapters 5 and 7 for Phases 1 and 2 respectively).

In addition to these details, Chapter 5 presents a selection of data collected in Phase 1 of the project to illustrate three main themes that became crucial to the analysis and understanding of this phase. Detailed discussion of this data in relation to cultural-historical concepts is provided in Chapter 6, and preliminary models of the system of essential relations created to represent understandings of this analysis, and subsequently used to inform creation of Phase 2, are presented and discussed.

Chapter 7 provides background details and presents data collected from Phase 2 of this project. Based on the preliminary findings of Phase 1 and a further search of the literature, a new practice of professional development was created and enacted by working with a teacher in her classroom practice. The data presented in this chapter illuminates new insights that were made possible by the repositioning of professional development to within the teacher's classroom practice.

Chapter 8 discusses the analysis of this data in order to verify and expand upon the preliminary models presented in Chapter 6. The concepts of joint activity and conscious awareness as crucial features of development are highlighted and a new concept is introduced to emphasise a particularly critical tool for disrupting teachers' habitual practices which occur without conscious awareness.

Chapter 9 draws together all the findings of the thesis and presents a new model representing the theoretical system of concepts essential for creating an effective practice of professional development within a teachers' practice. Implications of these findings are discussed and suggestions for future research are made.

Conclusion

This chapter has introduced the topic and motivation for this particular research study, and explained the context in which it has been carried out. The various phases of the project have been outlined, including research questions for each phase, and a summary of the thesis chapters has been provided.

The next chapter provides the theoretical framework for this research, introducing Vygotsky's cultural-historical theory and providing a detailed discussion of the particular meanings of concepts drawn from this theory and used extensively to inform the planning, implementation, and analysis of this project and throughout every chapter of writing this thesis.

Chapter 2: Theoretical Framework

CULTURAL-HISTORICAL THEORY and THE VYGOTSKIAN PROJECT

"To perceive something in a different way means to acquire
new potentials for acting with respect to it" (Vygotsky, 1987, p. 190).

Introduction

In this chapter I will outline relevant concepts from cultural-historical theory which provide the theoretical framework for this study. The above quotation was chosen as a reminder that adopting a particular understanding of a concept can allow us to utilise it in a new way to bring a new perspective to a phenomenon that has previously been studied or understood in different ways. It is my intention to use this unique framework of cultural-historical concepts to shed new light on current understandings of the institutional practice of professional development.

Cultural-historical theory has its basis in the work of Belorussian psychologist, Lev Vygotsky (1896-1934). Working in the fledgling Soviet Union in the 1920-30s, and reportedly influenced by the writings of Marx, Engels, Hegel and Spinoza, Vygotsky and his colleagues sought to create a revolutionary, holistic form of psychology using dialectical logic to explain the complex role of cultural and historical processes in human development (Gredler, 2009). The use of dialectical logic sought to overcome the many dichotomies of classical psychology, such as mind/body, knowledge/action, internal/external, social/individual, intellect/emotions etc., by examining these as dynamic syntheses or unities of opposites.

> Dialectics aims to understand phenomena concretely, in all their movement, change and interconnection, with opposite and contradictory sides as constitutive parts of the same unit. In the idea of the unity of opposites, dialectical logic recognizes that all processes and phenomena of the social and natural world embody contradictory, mutually exclusive and opposite tendencies. In dialectical logic, contradictions are not evils but the engine of development. That is, development arises from the resolution of contradictions and conflict. (Roth, 2002, p. 165)

Therefore, it was not just the theoretical content of this new psychology that was different, but its development also necessitated a new dialectical method for studying it (see Chapter 4, for further discussion).

Stetsenko and Arievitch (2004) have argued that while Vygotsky is frequently portrayed as being the creator of cultural-historical theory, it is important to recognise the contributions of his colleagues, students and followers:

> This project represented fruits of a work by a group of enthusiastic colleagues and followers of Vygotsky – Alexander Luria, Alexey Leontiev, Lydia Bozhovich, Alexander Zaporozhets, Natalia Morozova, Daniil Elkonin, Liya Slavina, Rosa Levina, and several others – who participated in discussing, spelling out, and writing up the initial assumptions of what is termed Vygotsky's cultural-historical theory. (p. 71)

Stetsenko and Arievitch are not merely attempting to set the historical record straight by outlining this information, but do so to make the point that both the history of the creation of the project, and the ideas developed within it, embody the dialectical relationship between theoretical knowledge and practical life. That is, that knowledge is inextricably present in, created by and dependent on collaborative practical activity and vice versa. They argue that the ongoing, collaborative and transformative nature of the entire 'Vygotskian project' (as the group set about establishing a new science and contributing to the establishment of a new Soviet society), provides contemporary researchers with "far more than a set of neutral theoretical principles" (p. 59), but also provides a method of "practical, political, and civic engagement and ideological commitment to ideals of social justice, equality, and social change" (p. 58). They also highlight that this project was not merely an intellectual endeavour, but that engagement in collaborative and ideologically-driven pursuits necessarily involves emotional relationships and tensions. Moreover, the project is not considered complete, and will continue to develop as contemporary researchers continue to engage in the process of collaborative knowledge building through contributing to collaborative transformations of social practices.

As will be discussed in later sections of this chapter, not all interpretations of Vygotsky's work share this emphasis on the collaborative and transformative aspects of cultural-historical theory (and particularly of the inherent role that emotions play), but this is the particular interpretation that will be used throughout this study in order

to not only highlight new understandings of the practice of professional development, but also to continue the development of cultural-historical interventionist methodologies. This study is therefore both informed by and contributes to the continuing 'Vygotskian project'.

Explaining the term 'institutional practice'

Chaiklin (2011) describes *cultural-historical science* as "the study of human practices" which are manifested in "institutionally structured traditions of action … organised in relation to the production of collectively needed products" (p. 227). However, in attempting to further explain the meaning of the term 'practice', he contends that when practice is the intended object of the research then a "comprehensive, a priori definition is not expected or intended" (p. 230). He argues that a specific scientific concept can only be understood by its relation to a system of concepts, and this IS the analytical task of the research. Nevertheless, it is important to realise that he is using the term 'practice' in a specific sense which may be different from the everyday understandings or dictionary definitions of the term. To help differentiate this particular use of 'practice' from other more common uses of the word in educational research (for example, in reference to theory versus practice or teaching practices as pedagogical strategies or actions), I will generally refer to it as 'institutional practice'.

Chaiklin (2011) goes on to say:

> All [institutional] practices are organised around producing particular objects or products, where these objects are necessary for reproducing some conditions of life. Practices arise when, over time, these needed objects are repeatedly lacking (e.g., because they are consumed or new persons appear). The assumption is that collectively (i.e., as a species) humans respond to these lacks by making material transformations that produce material objects or conditions that overcome the lack, thereby satisfying the need. Although a need may be satisfied in a particular instance (e.g., *your* house is built, *your* shoes are made), this general need (and associated lack) continues to appear for others, and may reappear again for you. (p. 233)

This notion of practice relates closely to Leontiev's (1978, 2009) concept of activity as a mediating relationship between subject (living organisms) and object (something in the environment which satisfies a need of the subject), where needs are both products of social life and satisfied by the products of social life (Blunden, 2009).

The collective, social nature of needs and the collaborative activities that produce objects which satisfy these needs are particularly emphasised in this theoretical approach. Leontiev's work is discussed further in a later section of this chapter explaining motives.

In this particular study, the institutional practice of professional development is organised around producing the professional development of teachers, which is necessary for improving the institutional practice of school teaching (and in turn for improving the conditions for students' learning). Understanding the object of the practice in this case is complicated by the fact that the object of the institutional practice being studied (i.e., the development of teachers as professionals) is aimed at improving another institutional practice (i.e., the need for the object is to improve the teachers' classroom practice). It is therefore important to remember that the focus of this study is the *institutional practice of professional development*, even though this necessarily involves dealing with both the institutional practice of classroom teaching and the microgenetic practices (actions) of the teacher that occur within, and in relation to, this practice.

Additionally, each individual teacher's work also overlaps into a number of other institutional practices, that is, their school, the families and local community of their students, and the broader institution of the educational profession in its entirety (see Figure 2.1). Effective development as a professional will therefore have impacts on a teacher's capacity to participate in and contribute to each of these practices.
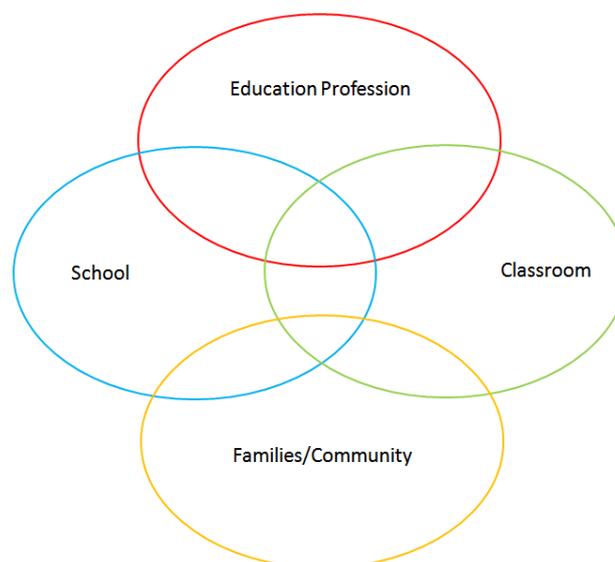
Figure 2.1 Overlapping institutional practices of a teacher's work.

Chaiklin (2008, 2009, 2011) also argues that institutional practice can be considered as both a general idea and as specific instantiations. Research on institutional practice therefore embodies three forms:

- The abstract **universal** form found in all institutional practices – "practices appear as traditions of action that aim to produce objects or products that satisfy collective or generalised needs" (Chaiklin, 2011, p. 234).
- The **specific** form (embodying the universal form), organised in relation to meeting specific generalised needs – in this case, the institutional practice of teachers' professional development.
- The **concrete** form, as the realisation of a specific institutional practice grounded in local historical conditions – in this case, the actual professional development activities developed with the participant teachers in each school context.

The abstract and specific forms of institutional practice can only be studied/analysed in actual concrete practices (Chaiklin, 2011; Pasqualini & Chaiklin, 2009), which is why the research questions of this study (see Chapter 1) examine concrete examples of local professional development practices in order to develop new understandings of the specific form of institutional practice that meets the generalised need for professional development of teachers across a range of contexts.

Explaining the term 'development'

As this research is a study of professional development, it also seems important to provide a theoretical explanation of the term 'development'. Although much of the cultural-historical theory literature focuses on child development, my argument throughout this thesis (supported by the literature on international examples of education systems developed using cultural-historical principles, discussed in Chapter 3), is that many of Vygotsky's understandings of cultural development provide a relevant framework of concepts for explaining development throughout the lifespan. Therefore, although quotations in this chapter may refer to the 'child' because the authors were writing about development in the context of their research on children, for the purposes of this discussion all quotations selected for this chapter should be read as applying to humans of all ages.

Hedegaard (2008b, p. 11) provides a succinct definition for development which I will refer to regularly throughout this thesis:

> *A child's development can be thought of as a qualitative change in his or her motive and competences.*

However, while this definition explains *what* development is, it does not explain the details of *how, when* or *why* development occurs. This is not to say that Hedegaard has not explained these aspects in the rest of her body of work, but merely to say they are not covered in this short definition. Nevertheless, this definition has been useful for me to return to throughout my data collection and analysis as a quick check on whether development is occurring, but, as will be explained, it only tells part of the story about development.

As stated earlier, in cultural-historical theory a concept can only be fully defined, explained and understood in relation to a system of concepts (Blunden, 2012; Chaiklin, 2011; Minick, 1989; Veresov, 2004). Therefore, to give a full explanation of 'development' from a contemporary cultural-historical perspective will require not only exploration of the following three concepts/ideas specifically about development in Vygotsky's work (and how they have been interpreted and continued by contemporary researchers):

- The *general genetic law of cultural development,*
- The *social situation of development,*
- The *zone of proximal development,*

but must also consider the inter-related roles the concepts outlined in the remainder of this chapter also play in development, i.e.:

- *Intersubjectivity, perezhivanie* and *obshchenie,*
- *Agency,*
- *Imagination,*
- *Motives,*
- *Concept development.*

The general genetic law of cultural development

Vygotsky (1997a) explains the three basic stages of cultural development by providing the example of the development of the pointing gesture: Initially, the child reaches unsuccessfully for an object just beyond reach, leaving his/her fingers

dangling in the air pointing toward the object. Here the action is aimed only towards the object. When the adult sees this action, and interprets it as a pointing gesture, the situation is changed and the action is seen as a gesture for others. The adult carries out the initial idea of the unsuccessful attempt to reach the object. When the child makes the connection between his/her movement towards the object, and the subsequent action of the adult in carrying out the intention of reaching the object, the child begins to regard the movement as a direction for others, and ultimately as a gesture for him/herself:

> In this way, the child is the last one to recognize his gesture. Its significance and function are initially made up of an objective situation and then by the people around the child. The pointing gesture most likely begins to indicate by movement what is understood by others and only later becomes a direction for the child himself. Thus we might say that through others we become ourselves, and this rule refers not only to the individual as a whole, but also to the history of each separate function. (Vygotsky, 1997a, p. 105)

Vygotsky goes on to explain how these three processes are also evident in the development of speech: Firstly, "there must be an objective connection between the word and what it signifies" (p. 105); secondly, the connection between the word and thing is provided through social interaction between adults and child so that the word gains meaning for the child; finally, the child is able to use the word meaningfully for him/herself. Recognition of these processes of development led Vygotsky to formulate the *general genetic law of cultural development*, commonly quoted as:

> ...every function in the cultural development of the child appears on the stage twice, in two planes, first, the social, then the psychological, first between people as an intermental category, then within the child as a(n) intramental category. (Vygotsky, 1997a, p. 106)

Veresov (2004, 2009) argues that we must understand the cultural and personal context within which Vygotsky was writing to ascertain the full meaning of this law. Acknowledging that Vygotsky frequently used references to drama and theatre in his writing, and understanding the significance of the terms *stage, plane* and *category* in pre-revolutionary Russian theatre, Veresov provides a significantly different interpretation of this law than that usually discussed by Western writers:

> The words "on the stage" and "on two planes" are not metaphors, which might be omitted or ignored. Stage in Russian means "scene", the arena,

literally the place in the theatre where actors play. Scene has two planes – the front plane (also called "the first plane") and the back plane (often called "the second plane"). According to theatre's traditions, main events of the performance should happen on the front plane of the scene (the same law we could find in visual arts). So, it means that on the stage of our development, the category appears twice – interpsychologically (on the first, front plane) and then intrapsychologically (on the second internal individual plane). Therefore there are no two levels in development, but there are two planes on ONE stage, two dimensions of one event. (Veresov, 2004, p. 7)

Moreover, Veresov explains that in his interpretation the word *category* refers to a dramatic event, or collision of characters on the stage. Therefore, by using the terms *stage, plane* and *category,* Vygotsky is not just referring to mental changes as occurring withIN social relations, but AS the social relation itself, as an emotionally coloured, collision or contradiction between people, which brings radical changes to the individual's mind (Veresov, 2004).

Although Veresov's interpretation of *category* has been contested by some researchers (see XMCA archives, June 2011), Andy Blunden's research into the background of 'kategoria' (the Russian word used by Vygotsky and translated as *category*) provides a logical explanation that provides plausibility to Veresov's assertion. Blunden writes:

> I have verified that the word /kategoria/, was translated from Greek via Latin into English as "predicament" and from 1580, meant "predicament" in the sense of a "problematic situation" and whatismore "kategoria" is used to this day in Rhetoric and in a broadly similar sense, but only in highly specialist discourses. Not "category," just "kategoria." There is some evidence also that kategoria is used in the theory of theatre in a similar sense to this day. So, I have to give some plausibility to the claim that the word had such a sense in Vygotsky's circle of theatrical friends in Moscow before he went into psychology, but I cannot document it from that time. "Predicament" remains the technical word in theatre for the situation from which a plot develops, the source of the basic tension which drives the story. I have long been of the view, on the basis of reading Volume 5 of the LSV CW [Vygotsky's Collected Works], that the "social situation of development" can be characterised in Vygotsky's view, as a "predicament." But I made the connection with a Marxist view of history, not the theory of theatre. (Andy Blunden, XMCA forum, 15/6/11)

It is interesting that this dynamic and emotion-laden interpretation of the developmental process has come from Veresov, a psychologist who grew up and studied in Russia before migrating and working in various Western countries. Ageyev (2003) suggests that Vygotsky's own enculturation in a collectivist culture led him to take integration of the affective and intellectual dimensions, and collectivist social practice orientations to social interactions as implicit givens, which are often overlooked by researchers enculturated by the individualist, cognitive dominated cultural views common in Western society and Western psychology in particular. While Vygotsky certainly makes mentions of the "unity of affective and intellectual processes" (for example, Vygotsky, 1987, p. 50; 1998, p. 239), and collective activity (Vygotsky, 2004a), these ideas are rarely mentioned in Western writings (see Holzman, 2009; Lobman & O'Neill, 2011; Quiñones & Fleer, 2011 for notable exceptions).

Koshmanova (2007) and Levykh (2008) also agree that limited access and poor translations of his original writings and lack of understanding of Vygotsky's historical and cultural context led early Western researchers to an overly cognitive and individualistic conception of Vygotsky's notion of development. The growing amount of literature discussing Vygotsky's work, particularly by writers from Russia (and other former Soviet states) sympathetic to his cultural context, has significantly expanded our understanding of collaboratively mediated development of culturally developed psychological functions.

Levykh (2008) discusses Vygotsky's notion of cultural development as a tripartite model involving the dynamic, interrelated development of personality, cultural emotions and behavioural mastery within a sociocultural-historical context. The dialectical unity of affect and intellect is presupposed throughout this process:

> Finally, in every step of cultural development, and as a result of struggle [dialectical synthesis], there is always the appearance of a central neoformation (*novo-obrazovaniye*), the newly formed psychological system, that guides the development. The struggle presumes emotional involvement and the results of the struggle are newly and culturally developed emotions. Where there is no struggle, there is no development. Cultural development is always triggered, accompanied, and permeated by emotional development. (p. 100)

This view would also seem to support Veresov's account of development occurring as 'dramatic collisions and contradictions between people' emphasising the emotional involvement that is always present in truly developmental situations. The notion of contradictions also reminds us of the two-sidedness of this process, rather than a one-way acquisition of knowledge from 'experts'. The following quotation taken from an ongoing discussion about internalisation amongst cultural-historical academics on the xmca discussion forum reminds us of the continual need to use dialectical reasoning in interpreting Vygotsky's work:

> "Internalization" suggests a rather simple process of bringing in to the inside what is outside, and in which only the insides have been changed (and in a rather simple fashion of having had something from the outside added to them). In contrast, a dialectical notion of the same process would recognize that something new is created in the process of bringing together the outside and inside, and that both are likely changed as a result. (Greg Thompson, XMCA forum, 5/8/09)

Likewise, Scrimsher and Tudge (2003) argue that the individual characteristics, such as prior experiences and motivation, that the learner brings to the social interaction, transform what is appropriated, making it "at the same time both socially derived and individually unique" (p. 295). They go on to say:

> When Vygotsky wrote that learning is a social process before it is an individual function, he did not mean that development is brought about by the world outside the individual. Instead, he meant that the individual is a necessary part of that social world, and is helped to develop by a dynamic combination of his or her own motivations, interests, prior skills or knowledge in conjunction with those of other people. (p. 296)

While this discussion of Vygotsky's general genetic law of cultural development describes the socially mediated nature of cultural development, his concept of the social situation of development, discussed next, provides more detailed understanding of how participation in the activities of social institutions provides the context for this development.

The social situation of development

Vygotsky's (1998) concept of the *social situation of development* , is translated by van Oers (1998) as "the system of relations between the child of a given age and

social reality" (p.485). Veresov (2004) describes the social situation of development as the starting point for any given developmental process, once again emphasising that it is the dramatic nature of contradictions between the demands of the environment and the child's current level of development that provoke development:

> Dramatic contradiction is the moving force of development. Not in social surrounding itself and its demands, and not in the child itself we could find such force, but in the relations between them, which are dramatic contradictions-collisions. Drama is a key word here. (p. 4)

Thus, the stirring up of emotional collisions and contradictions differentiate the relations in the social situation of development from an ordinary social situation which does not initiate the developmental process. Perhaps it is for this reason that this 'dramatic' and emotional process is often referred to as the developmental 'crisis' which leads to the emergence of new forms of self-awareness (Fleer, 2010; Kravtsova, 2006; Vygotsky, 1998).

While Vygotsky, Kravtsova and Fleer's accounts of the developmental crisis refer to the periodisation of **children's** development as the development of new self-awareness and reorganisation of psychological formations as they encounter new demands and contradictions through participating in different social institutions at different ages; this study suggests that this theorisation of development is equally applicable to **adults'** continuing development. That is, that new demands and contradictions within the social institutions of their work environments can provoke new self-awareness and reorganisation of the psychological formations that inform their implementation of work practices, that is, lead to professional development.

Hedegaard (2012b) points out an important difference between *learning* that occurs within a particular social practice and *development* which occurs when this learning brings about new psychological formations that change the way a person participates in and contributes to all of their institutional practices:

> People learn when their activities change their social relations in a practice and thereby give them possibilities for new activities. Development occurs when a person's learning takes place across institutional practices and changes the person's relation qualitatively across all the practices in which the person participates. (p. 12)

It is this important distinction which explains why I am using the term 'professional development' rather than 'professional learning'. This interpretation suggests that teachers may *learn,* for example, a new teaching strategy or new theoretical understanding of children's development through participating in a PD activity, and be able to demonstrate new competence in acting with and discussing this strategy or theoretical understanding within the PD activity. However, this learning does not necessarily lead to the *development* of the teachers as professionals unless it also leads to sustained changes in the way they participate and contribute to their other professional practices, that is, their actual classroom teaching practice and their professional engagement with other colleagues, parents and the broader educational community (as represented earlier in Figure 2.1).

Bozhovich (2009) argues that we must analyse the unity of both external and internal developmental factors in order to understand the social situation of development and how it can be structured to assist development. As described in the previous section, the active position the child [or adult] brings to this interrelation (equipped with competences and motives from previous stages of development) together with the new demands, tasks and challenges present in the new environment creates a dynamic, unified, interrelationship, consequently producing new desires and needs. It is the process of satisfying these desires and needs that determines development within a given developmental period (Bozhovich, 2009).

Cultural-historical researchers are increasingly turning their attention to the concept of *motive* as a framework for analysing these desires and needs created in the relationship between the social reality and the individual (Hedegaard, Edwards, & Fleer, 2012), and this concept will be discussed in more detail in a later section of this chapter. Our attention will now turn to the third, and perhaps most commonly referred to, of Vygotsky's concepts about development: The ZPD.

The zone of proximal development

One of the first explanations of the zone of proximal development (ZPD) to gain attention in the West was presented in the edited edition *Mind in society* (Vygotsky, 1978). In this translation, edited by Cole, John-Steiner, Scribner and Souberman, Vygotsky argued that children are able to accomplish tasks of greater complexity and difficulty with the assistance of more knowledgeable others than they are able to

accomplish on their own. This gap between the actual level of development demonstrated by independent problem solving and the level of potential development attained with the assistance of others forms the ZPD and gives a more accurate assessment of a child's potential for intellectual development.

Vygotsky goes on to argue that learning therefore leads development rather than coincides with it:

> From this point of view, learning is not development; however properly organized learning results in mental development and sets in motion a variety of developmental processes that would be impossible apart from learning. Thus learning is a necessary and universal aspect of the process of developing culturally organized, specifically human, psychological functions. (Vygotsky, 1978, p. 90)

However, it must be pointed out here that the term *learning* used in this 1978 translation, actually refers to the Russian word *obuchenie* (Cole, 2009). One of the major difficulties in writing about Vygotsky's theories is that the English language does not have equivalent translations of many of the Russian terms he used to describe the dialectical relationships central to his work (Cole, 2009; Daniels, 2001). A prime example of this is the Russian term *obuchenie* (pronounced ah-boo-chay-ni-yeh). Although variously translated as either learning or instruction, it actually refers to the dialectical interrelationship of teaching and learning, which is often not adequately conveyed in English translations of his work (Daniels, 2001). Moll (1990) cites a definition provided by Michael Cole in a posting on the *XMCA forum*:

> The term '*obuchenie*' … can be used for both the activities of students and teachers, implicating a double sided process of teaching/learning, a mutual transformation of teacher and student.

Cole's posting also goes on to add that Westerners have been

> provided with an impoverished representation of the concepts that Russian readers take for granted, e.g., that American discussion about 'learning and development' are about *obuchenie* and development in the USSR. (p. 24)

David Clarke (2003) gives the example of how the substitution of the word 'teaching' for 'learning' in this popular quotation from Vygotsky retains a meaningful text – although possibly provides a slightly different meaning:

> We propose that an essential feature of learning [teaching] is that it creates the zone of proximal development; that is, learning [teaching] awakens a variety of developmental processes that are able to interact only when the child is interacting with people in his environment and in collaboration with his peers. (Vygotsky, 1978, p.90)

However, Clarke argues that neither of these readings (either using learning or teaching) adequately conveys the full depth of meaning Vygotsky intended by his use of the dialectical concept of *obuchenie*. Clarke continues:

> A more useful reading is obtained if the term "*obuchenie*" is interpreted as evoking a conjoined practice in which both teacher and learner participate. This joint participation in a single body of practice does not require that participants contribute to the practice in the same way. It does, however, commit us to a reading that simultaneously invokes the presence (and participation) of both teacher and learner. (D. Clarke, 2003, p. 6)

In *Thinking and Speech* (Vygotsky, 1987), where the term *obuchenie* has been translated as instruction, activity within the ZPD appears to be a teacher-dominated process:

> It is important to determine the lower threshold of instruction. … It is equally important to determine the upper threshold of instruction. Productive instruction can only occur within the limits of these two thresholds. Only between these thresholds do we find the optimal period for instruction in a given subject. *The teacher must orient his work not on yesterday's development in the child but on tomorrow's.* Only then will he be able to use instruction to bring out those processes of development that now lie in the zone of proximal development. (p. 211)

Many writers have been critical of the way the ZPD has typically been interpreted and used in Western educational settings as an instructional technique, characterised primarily as adult- controlled scaffolding of discrete cognitive tasks with individual children (see for example, Ageyev, 2003; Chaiklin, 2003; Holzman, 2009; Koshmanova, 2007; Levykh, 2008; Moll, 1990; Newman & Holzman, 1993; Scrimsher & Tudge, 2003). These authors argue that interpreting the ZPD in this way fails to understand the importance of collaborative use of socially mediated tools and interactions as the driving force of holistic human development (internalisation of culturally developed higher mental functions, concepts, behaviours and emotions), rather than merely as an instructional tool for

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transmission of cognitive skills from adult to child. As Chaiklin (2003) reminds us, the ZPD should be used to focus on maturing psychological functions, rather than existing ones; and to conceptualise the general development of the whole child, rather than their performance on single cognitive tasks.

Mahn and John-Steiner (2002) suggest that an 'expanded' notion of the ZPD incorporating the role of affective factors is necessary for developing pedagogical approaches that build competence through "dignified, collaborative, caring support...between teachers and students" (p. 48).

> This approach reveals the ZPD as a complex whole, a system of systems in which the interrelated and interdependent elements include the participants, artifacts and environment/context, and the participants' experience of their interactions within it. In addition, we suggest that the complementarity that exists between these elements plays a central role in the construction of the ZPD. When a breach in this complementarity occurs because the cognitive demands are too far beyond the learners' ability or because the negative affective factors such as fear or anxiety are present, the zone in which effective teaching/learning occurs is diminished. (Mahn & John-Steiner, 2002, p. 49)

These authors conclude that it is through such caring support within this complex 'system of systems' that learners develop the confidence to understand and apply knowledge, tackle new challenges and sustain lifelong learning. In other words, the focus is on creating the effective environment for supporting the processes of learning that lead holistic development, rather than merely on accumulating new cognitive skills.

Lobman and Lundquist (2007) describe the ZPD as "the activity of people creating environments where children (and adults) can take risks, make mistakes, and support one another to do what they do not yet know how to do" (p. 6). Based on the work of Fred Newman and Lois Holzman, the authors describe a collaborative, 'improvisational approach' to teaching and learning in which children learn how to become learners by co-creating the environment in which they learn. There are two important aspects to this approach which are important to this study:

1. That learners and teachers work together to simultaneously create the process and product of learning (i.e., *obuchenie*),

2. That participants (meaning learners *and* teachers) can be supported to perform "beyond who they are and how they have learned to behave up to this point, and to create in an ongoing way other ways of relating to themselves, others and the elements of their surroundings" (p. 8).

Lobman and Lundquist liken this conceptualisation of the ZPD with children collaboratively engaging in pretend play, (which Vygotsky (1967, 1978) actually regarded as creating a ZPD for pre-school children):

> No one hands them the rules for Spider-Man, assigns parts, and tells everyone what to say. The group of children creates the environment for the game and plays the game at the same time. If they do not create the conditions to be able to play Spider-Man – if for example, they never find a way to decide who will be Spider-Man or if they all go off and do their own thing – there will be no game. Many educators and psychologists have pointed out that it is this feature of play – the fact that the players themselves create it – that makes play such a great way for children to learn and develop. (Lobman & Lundquist, 2007, p. 6)

I find this a very useful conceptualisation of the ZPD. If we view the teacher as one of the participants of the game, it is impossible to view the ZPD as a teacher-dominated process for transmitting skills. Unless the game is actively taken up by and negotiated with other participants, who each bring their own unique ideas, emotions and experiences to the game, the game will not continue to function. The game allows the participants to pretend to be who they currently are not, and in the process of doing so they can actually learn in collaboration with the other participants what it is they do not yet know how to do. Vygotsky (1967) has famously described this as, "In play a child is always above his average age, above his daily behaviour; in play it is though he were a head taller than himself" (p. 16).

Translating the collaborative, performative activity given in this play example to a learning activity, the teacher (or a student) may suggest a problem that the students do not yet possess the knowledge to be able to solve, yet through actively collaborating together, taking on the roles of able writers/readers/mathematicians/ problem-solvers etc., sharing and building upon their current levels of understanding, and introducing the teacher's (or a peer's, or even a text's) higher level of understanding as a new tool for solving the problem if necessary, the group collectively co-creates the environment in which the problem can be solved and

simultaneously develops and co-constructs the knowledge to be able to do so. Each participant shares responsibility for keeping everyone 'in the game' – involved in the process of solving the problem, and developing the required motivation and knowledge to act beyond what they can currently do as individuals – otherwise the game/ZPD ceases to function effectively.

Roth and Radford (2010) also highlight the importance of each participants' contributions by calling for the ZPD to be viewed as a symmetrical process (rather than being seen as an asymmetrical process of the teacher transmitting skills to learners). In providing a transcribed example of a child and teacher interacting as the child struggles to solve a mathematical task, the authors point out that the child's pauses, expressions of confusion and tentative responses work as actively to guide the teacher's pedagogical interactions as the teacher's utterances and gestures work to guide the child's understanding and performance of the task. Teachers learn too in the ZPD, even if they don't learn the same thing as the students, and vice versa. But the authors also remind us that this is not the main purpose of the ZPD:

> However, the most important aspect of the zone of proximal development is not the mutual benefits that participants obtain in achieved interaction. To think along those lines is still to remain in the waters of individualism, one that justifies interaction in terms of the profits that each one of the participants collects. The most important aspect of the zone of proximal development is the emergence of a new form of collective consciousness, something that cannot be achieved if we act in solitary fashion. (Roth & Radford, 2010, p. 306)

The goal of establishing the ZPD therefore is for teachers and learners to collaborate together on the joint task of development – of the group, of themselves, of each other, and ultimately, of society and culture. In this project, professional development activity is regarded as a ZPD; the activity of creating an environment in which all participants can contribute their expertise to help each other perform their professional roles as teachers in new ways. The following sections outline additional concepts which act together with the concept of development as an interrelated system to further explain how this happens.

The role of intersubjectivity, perezhivanie and obshchenie

Fleer (2010) has suggested that it is *intersubjectivity* between and among teachers and students that is critical in the dialectical relationship of *obuchenie* described in the previous section. Tharp, Estrada, Dalton and Yamauchi (2000, pp. 58-59) describe intersubjectivity as shared perceptions, interpretations, values and meanings. However, Vygotsky's (1994b) explanation of *perezhivanie* would suggest that an individual's perceptions and interpretations of any experience are always personal and unique. Therefore it is perhaps more accurate to suggest that intersubjectivity refers to the mutual understanding, attunement to and respecting of each others' perceptions, interpretations, values and meanings. That is, it is possible to understand that a particular student perceives reading in front of the class as threatening and interprets the teacher's request for them to do so as 'being picked on,' even if you do not share that perception or interpretation about reading aloud yourself. It is also possible to understand and respect different cultural values without necessarily sharing them. Of course, it must be remembered that although the literature referred to in this section is generally discussing children's learning and development, in this thesis I am arguing that the same principles also apply to adults' learning and development and are therefore relevant for the practice of professional development too.

Perezhivanie is another Russian word that cannot be directly translated into English. Marjanovic-Shane et al. (2011) describe it as "a lived through and emotionally experienced event" (p. 31), while the notes provided by Van der Veer and Valsiner as editors of *The problem of the environment* (Vygotsky, 1994b) give the following definition:

> The Russian term serves to express the idea that one and the same objective situation may be interpreted, perceived, experienced or lived through by different children in different ways. Neither 'emotional experience' (which is used here and which only covers the affective aspect of the meaning of *perezhivanie*), nor 'interpretation' (which is too exclusively rational) are fully adequate translations of the noun. (p. 354)

Vygotsky uses the notion of *perezhivanie* to explain why different children placed in the same situation, become aware of, interpret and emotionally relate to the event differently depending on their own personal characteristics, their level of

understanding of the situation and their interpretations of previous experiences. The influence that the environment has on the development of the child is therefore dependent on the child's *perezhivanie* in the particular situation, that is, the way they live through and experience the event. Vygotsky therefore refers to *perezhivanie* as the unit of analysis for studying the role the environment plays in psychological development, as the emotional experience is the unity of the personal characteristics and the environmental characteristics.

The notion of *perezhivanie* highlights the dialectic unity of cognitive and affective aspects inherent in intersubjectivity. Goldstein (1999) refers to these as the interpsychological and interrelational dimensions of intersubjectivity. The interpsychological dimension refers to shared cognitive understandings between participants within the activity and the interrelational dimension refers to shared understandings of the affective aspects and emotions of the participants within the activity. I believe Fleer (2010) is describing the interpsychological dimension of intersubjectivity in her pedagogical model of using contextual and conceptual intersubjectivity for exploring or introducing concepts during play. The teacher is required to be "in tune" with both the context the child is creating and the child's current understanding of the concepts they are using in their play in order to be able to successfully introduce scientific concepts and extend children's cognition within the play situation. While explaining that in describing her pedagogical model of conceptual play she has foregrounded the cognitive (or interpsychological) connections between teacher and child, she reminds us that the emotional and imaginative sphere of the child must also be equally considered. The interrelational or affective aspect of intersubjectivity (while not discussed as explicitly) is always implied.

Goldstein (1999) however, explicitly discusses the interrelational dimension that exists in mutual relationship with the interpsychological dimension of activity within the ZPD. She argues that while interpretations of the interpsychological dimension of intersubjectivity have been well documented in the literature, the affective features of the interrelational dimension of intersubjectivity have been underexplored. Drawing on terminology from Nel Nodding's (1984) 'ethic of care' and Vygotsky's allusions to the unity of affect and intellect (for example Vygotsky,

1962, 1994a; Vygotsky & Luria, 1994) Goldstein explains the role caring relationships play in the motivation and volition of participants in the ZPD.

> Looking at the zone of proximal development as a locus of connection and relationship offers a new perspective on the intriguing question of motivation. An interaction in the ZPD is both intellectually rewarding and emotionally satisfying for the adult and the child involved. Adults and children are motivated to enter into teaching-learning encounters by the pleasure, the growth, and the interpersonal connection they provide. The zone of proximal development is a space to experience the particular joys of being human. (Goldstein, 1999, p. 665)

Obuchenie requires intersubjectivity between the participants in order to understand how each others' *perezhivaniya* [emotional experiences] influence the students' development. Responsibility for lack of development therefore, is not seen as a deficiency in the child, but a failure to create intersubjectivity to collaboratively create an environment (ZPD) that provides appropriate *perezhivaniya* for optimal development.

In Golden Key Schools in Russia, intersubjectivity is deliberately created through *obshchenie* (translated as 'social communication') in *sobytie* (translated as 'event' or 'co-existence'), although once again the English translations do not give a true representation of their fullest sense in Russian (Kravtsov, 2010; March, 2011).

> Kravtsova and Berezhkovskaya stress two fundamental criteria for the **process** of *obshchenie*: a common context and the coexistence, within this context, of two points of view, between which dialogue is possible. … These two criteria of *obshchenie* form the basis of the design of the Golden Key School program: Common context is created through a system of events (*sobytie*) and dialogue between two points of view is facilitated through a system of *pair pedagogy* and multi-age family groups. (March, 2011, p. 18)

In other words, *obshchenie* is the special form of communication arising in shared events, described earlier as the basis of the general genetic law of development. As will be seen in this study, successful professional development activity must therefore be organised to create this communication between and amongst participants and facilitator in order for effective development to occur. This communication/relationship as the source of development is inherently emotion laden, bringing to mind the 'struggle' or 'dramatic collision' discussed earlier, in the

dialogue between two different points of view. It also emphasises the active role that people play in their own development, a point discussed further in the next section.

The role of agency

Ahearn (2001) has provided a provisional definition of agency as "a socioculturally mediated capacity to act" (p. 112), but acknowledges that this definition under specifies many of the details. Wardekker, Boersma, ten Dam and Volman (2012) claim, "Agency implies being aware of your own position, role and competences, and being aware also that you can change these" (p. 166), while Matusov (2011) defines agency as, "[A] person's transcendence of preset, existing limits, expectations, and norms of a sociocultural practice (Bakhtin,1990, 1993; Buchanan, 1979)" (slide 4). These last two definitions help fill in some of Ahearn's details by specifying what may be acted upon, but both give the impression that agency is an individual capacity, neglecting the role that others, and cultural tools, play in this process. By drawing on all three of these definitions we can come to understand that agency is not only a socioculturally mediated *awareness* of the *possibility* for changing our current position and competences within the existing expectations and limits of our sociocultural situations; but also the mediated capacity to *act*, by using cultural resources, in order to *actually* transcend these. This section will discuss the role agency plays in a cultural-historical view of development.

While the concepts of the general genetic law, the social situation of development and the ZPD discussed earlier provide the basis of Vygotsky's explanation of development, I would also like to introduce the definitions of development provided by Anna Stetsenko (2005, 2008b, 2010b, 2012) and Yrjo Engeström (2006, 2008) who use the work of Vygotsky and Leontiev to highlight the role of agency in development. I will also mention the notion of 'relational agency' developed by Anne Edwards and colleagues (A. Edwards, 2005, 2010; A. Edwards & D'Arcy, 2004; A. Edwards & Mackenzie, 2005) to emphasise the dialectical relationship between development of individuals and collective practices. An understanding of development as both agentive and relational is particularly relevant to this study of the practice of teachers' professional development, as it allows a drastic reconceptualisation of the common notion of Professional Development (PD), described by Loughran, Berry, Clemans, Lancaster and Long (2008) as something

which is done *to* teachers by outside 'experts', or as a *product* to be consumed, rather than a *process* actively undertaken *by* and *with* teachers (see Chapter 3 for further discussion).

According to Vygotsky, it is through the mediation of others that individuals are able to appropriate the tools and symbols of the surrounding culture that have developed over historical time, yet it is also in the process of this development that humans collectively are able to create and construct new forms of cultural behaviour. The uniqueness of humans over animals is our ability not only to adapt to the environment, but also to create and use tools to transform the environment in accordance with human needs and demands (Vygotsky, 1997a). In fact, it is this idea that stands behind Stetsenko's (2008b) notion that "*collaborative purposeful transformation of the world is the core of human nature and the principled grounding for learning and development*" (p. 474, italics in original).

She elaborates on this by providing the following definition of development:

> Human development, from this perspective, can be conceptualized as a *sociohistorical project and a collaborative achievement* – that is, a continuously evolving process that represents a 'work-in-progress' by people as agents who together change their world and, in and *through* this process, come to know themselves, while ultimately *becoming* human. (Stetsenko, 2008b, p. 483)

I believe this definition helps add the how, when and why dimensions described as missing from the brief definition of development (Hedegaard, 2008b) provided previously in this chapter. Collaborative transformative practices are thus seen as both the source *and* "fabric" of human development and life (Stetsenko, 2010b).

Similarly, Anne Edwards (2005) also draws upon Stetsenko's (2005) expansion on the canonical version of activity theory to emphasise the dynamic transactional nature of the object-subject relationship to explain her notion of 'relational agency'.

> In CHAT terms relational agency is a capacity to work with others to expand the object that one is working on and trying to transform by recognising and accessing the resources that others bring to bear as they interpret and respond to the object. It is a capacity which involves recognising that another person may be a resource and that work needs to be done to elicit, recognise and negotiate the use of that resource in order to align oneself in joint action on

the object. It offers an enhanced version of personal agency and as a capacity it can be learnt. (A. Edwards, 2005, p. 172)

In other words, and referring back to Wardekker et al. (2012) at the beginning of this section, individuals can go beyond their own current position, role and competences by drawing on the resources of others they collaborate with, simultaneously transforming both the object of their joint activity and their own individual development. This idea of relational agency is therefore a crucial aspect in the effectiveness of the co-teaching strategy used in Phase 2 of this project, and is discussed further in Chapter 8.

Engeström (2006, 2008), in arguing that development should be the central category when studying human practices, reconceptualises human development as *breaking away* in order to emphasise the importance of agency and movement. He recognises that all activities contain contradictions which generate conflicts and disturbances, but these can also generate innovative attempts to change the activity:

> Breaking away may now be tentatively defined as resolving or escaping a contradictory situation by means of constructing mediating artifacts that enable the subjects to master their own actions in a qualitatively new way. As such, this definition seems very benign: there is no direct indication of rejection and destruction. However, when you break away, you also break something: a constraining rule, a limiting boundary or constraining relationship. … In other words, breaking away is both movement *out* of something and *into* something else. (Engeström, 2006, p. 29)

Engeström is attempting to weave this reconceptualisation of human development into the basis of his work in transforming work practices, arguing that we can focus "not only on individuals moving (or remaining stuck) but also on objects and institutions facing contradictions, undergoing transformations, and being destroyed and created" (Engeström, 2006, p. 30).

In this study, not only are teachers challenged to *break away* from their existing understandings and practices of teaching/learning, but I (in collaboration with others) am also attempting to *break away* from existing practices of professional development, to develop the practice itself. Edwards (2005) argues that while cultural-historical discussions have often emphasised the mediating role of cultural tools in forming the individual mind, and activity theory has often emphasised how

[social] systems develop through use of cultural tools, her notion of relational agency, along with Stetsenko's (and others) continuation of the cultural-historical activity theory (CHAT) 'project', are attempting to dialectically overcome remaining dichotomies between collective-individual and internal-external. Restating Stetsenko's definition given earlier, it is both in *and* through this collaborative project of changing our world (in this case, developing our various professional practices) that we ultimately come to understand and develop our (professional) selves.

However, to carry out new actions to transform our world also requires an intellectual component of working out what actions can be taken, that is, imagining new possibilities for action and what consequences these actions may have. Although agency and imagination have rarely been discussed together by cultural-historical theorists (see Pelaprat & Cole, 2011 for a rare exception, although they refer to human action rather than agency specifically), sociologists Emirbayer and Mische (1998) highlight three interrelated temporal aspects of agency, with the future-oriented "projective" aspect specifically referring to imagination:

> Theoretically, our central contribution is to begin to reconceptualise human agency as a temporally embedded process of social engagement, informed by the past (in its habitual aspect), but also oriented toward the future (as a capacity to imagine alternative possibilities) and towards the present (as a capacity to contextualize past habits and future projects within the contingencies of the moment). (p. 963)

As this study focuses on how the practice of professional development can assist teachers to develop their professional practices, this obviously involves a necessity for both agency and imagination if they are to have the capacity to think and act in newly imagined ways to create change in their practice. Vygotsky's interpretation of imagination is very closely related to these three temporal aspects of agency described by Emirbayer and Mische, and is discussed in the following section.

The role of imagination

Vygotsky (2004b) explains that there are two basic forms of activity:

1. **Reproductive activity** "consists of a person's reproducing or repeating previously developed and mastered behavioral patterns or resurrecting traces of earlier

impressions" (p. 7), for example sketching the house in which they lived as a child or teaching a handwriting lesson in the same way they were taught, or have observed a mentor teacher teach.

2. **Creative or combinatorial activity** consists of combining and reworking elements of past experiences "to generate new propositions and new behaviour" (p. 9) that have not been personally experienced before, for example forming a mental image of a place or time never visited or creating a new strategy for teaching handwriting based on a new theory of teaching/learning introduced to the teacher.

Vygotsky argues that this creative form of activity is referred to as imagination in science (psychology), even though in everyday use it is common to think of imagination as involving fantasy and not corresponding to real life. He also argues that creative activity is not reserved only for a limited number of especially talented people in the arts or sciences, but is actually a fundamental feature of all human development and everyday life.

> … creativity is present, in actuality, not only when great historical works are born but also whenever a person imagines, combines, alters, and creates something new, no matter how small a drop in the bucket this new thing appears compared to the works of geniuses. (p. 10-11)

Vygotsky goes on to explain how the interrelationship between reality and imagination consists of four basic laws and creates a complete cycle:

1. The material for imagination is drawn from real experience (i.e., combining elements from past experiences to create new mental images or ideas), thus the greater the range of personal experiences a person has to draw upon, the greater the potential for imagination;

2. Creating mental images or conceptualising ideas from others' descriptions of their experiences (for example, having a discussion or reading a newspaper report) extends or broadens our understanding beyond our own direct experience;

3. Constructs of the imagination have emotional effects which are felt as real emotions (fear, happiness, excitement etc.) even when we are aware that the imagined events, characters or situations are not real;

4. Products of imagination can be crystallised or externally embodied to become real objects in the world (for example, a plan can be realised), thus affecting and altering reality and changing a person's experience (and in turn provide new material for the imagination).

This conception of imagination and in particular these four aspects of the relationship between imagination and reality have important consequences for teachers' professional development. If we want teachers to create new practices in line with new understandings rather than continue to reproduce practices from their own past experiences or those given to them by others, then it is crucial to consider how imagination must be utilised and encouraged within the practice of professional development. Teachers can be encouraged to draw upon past experiences, new knowledge from descriptions of others' practices, and discussions and reading of new theories, to combine elements of all of these to creatively imagine new possibilities for teaching/learning.

Emotions are inherent throughout this process, not only in arousing or inhibiting the need or desire to develop new possibilities (i.e., dissatisfaction with present practice, or fear of change) but also in actually carrying these out (i.e., excitement to try something new or fear stemming from past experiences of failure). However, it is the realisation of these plans into actual embodied practices that completes the cycle of creativity, providing new experiences (whether positive or negative) to draw upon for future development.

Thus, Vygotsky's interpretation of imagination also embodies the three temporal aspects of agency outlined earlier (i.e., is informed by the past, creates new plans for future possibilities, and is crystallised in actual practices in the present moment). Agency and imagination are dialectically related as interdependent and mutually reciprocal concepts involved in the process of changing practice. Without imagination there can be no agency to act in new ways, but without a sense of agency (that change is possible) there is no motive to imagine new ways of acting. These concepts are therefore also closely related to the concept of motive, introduced earlier in relation to the social situation of development, but discussed more fully in the following section.

The role of motives

As mentioned earlier in the section on the 'social situation of development', the concept of motive is increasingly being used by cultural-historical researchers to analyse the desires and needs that arise in the interactions between the individual and the environment. However, as always, the concept of *motive* can only be understood from a cultural-historical perspective by understanding its relationship within a system of concepts (Chaiklin, 2012).

> The concept of motive is used to refer to relationships that organise a person's action in the situations in which they are acting. As a simple rule of thumb, one might speak about action that is oriented or related to a motive, where further specification of that relation is an analytical problem. Concepts like *motive* and *motivation* are not a property of a person, or something that 'drives', 'causes', or 'determines' action. (Chaiklin, 2012, p. 212)

Chaiklin goes on to explain that "this shift in explanatory logic (from property to relation)" means that motive cannot be treated as the *object* of scientific investigation, but rather as "an auxiliary concept, used as part of an analysis or explanation of other phenomenon" (p. 213). Therefore, in this study, motive is just one part of the system of concepts used to analyse and explain the institutional practice of professional development.

Leontiev's (1978, 2009) use of the motive concept is related to his explanation of activity, subject, object and need, as mentioned earlier in the section explaining practice, and further articulated here:

> The main thing that distinguishes one activity from another lies in the difference between their objects. It is the object of activity that endows it with a certain orientation. In the terminology I have been using the object of activity is its *motive*. Naturally, this may be both material and ideal; it may be given in perception or it may exist only in imagination, in the mind. (Leontiev, 2009, p. 400)

Leontiev (2009) explains that all activities have motives, even if these are hidden subjectively or objectively, and that an activity may have more than one motive – either different motives for different people engaging in the same activity or an individual may have more than one motive for engaging in the activity. He also explains that in labour-based societies, activities (as being oriented to satisfying the needs of all participants) came to be realised through goal-driven *actions* of

individuals which do not in themselves satisfy the need, but produce intermediate results towards the collective activity which satisfies the need. Leontiev provides this example:

> Let us assume that a person's activity is stimulated by food, this is its motive. However, in order to satisfy the need for food he must perform actions that are not directly aimed at obtaining food. For example, one of his goals may be the making of trapping gear. Whether he himself will later use the gear he makes or pass it on to other participants in the hunt and receive part of the common catch or kill, in either case his motive and goal do not directly coincide, except in particular cases. (Leontiev, 2009, pp. 400-401)

This process of breaking down activity into intermediate actions can also occur for the individual and gives an indication of what the true motive is. For example, to satisfy the motive of providing food for the family in today's society usually requires breaking down the activity into actions such as earning money, going to the supermarket, finding recipes and cooking. Although individuals will set goals for each of these actions (e.g., to finish the shopping as quickly as possible), if the only reason they are undertaking the action is in order to provide food for the family then this is the object that is the true motive.

Likewise, Leontiev (2009) gives the example of a student reading a textbook until a friend tells him that the material in the textbook will not be on an upcoming exam – if the student puts down the book immediately then it can be seen that his motive was only to prepare for the exam (so the action of reading the book was only part of the activity of exam preparation and so is no longer required as an intermediate result towards the activity), whereas if the student continues to read the book, or only puts away the book with reluctance, then it can be seen that the content of the book has stimulated a new need (to understand the content of the book for its own sake) and reading the book has now become an activity with a corresponding motive in its own right.

This breakdown of activities into intermediary actions and the transference of motives from activities to actions is very important in educational contexts. The societal 'ideal' motive for participating in school activity (to become a productive member of society) is often poorly understood or taken up by students because the actions they are required to perform in school are typically far removed from the

activity of participating in society. Instead, it is more likely that students' 'actual' motives for turning up to school and performing required tasks could be merely to please teachers and parents, to avoid getting into trouble, or to mix with friends etc. There is also a potential risk that students may develop motives that reject and even disrupt the prosocial goals of schooling, for example to impress a friendship group by deliberately subverting school activity through misbehaviour, resistance, vandalism etc. Fleer (2008a) argues that paying attention to the 'ideal', 'actual' and 'potential risk' motives that are generated through children's participation in the activities that schooling demands and expects, can potentially assist our understanding of how and why some children fail to achieve the curricular goals of schooling.

Because the societal motive of schooling is so distant, the 'ideal' motive that schools (at least nominally) aim to develop is for school students to regard 'learning' as the activity that satisfies their needs. That is, that by participating in engaging learning environments, students' will come to see the learning task as an activity in its own right with a corresponding motive, rather than as merely an action toward whatever actual motive is currently held. Hedegaard (2002) explains that this development of the learning motive should be regarded as equally important as the acquisition of content knowledge and skills.

> In a teaching situation, the goal is both to provide a child with knowledge of the subject area and skills concerned, and also to motivate the child to set himself goals that involve an acquisition of knowledge, skills and motives linked to the subject being taught. It is not enough to teach a child to read if the child is not motivated to read outside the learning situation. (p. 62)

In the case of this study, the development of teachers' motives is also regarded as vital. It is not enough to teach a teacher new strategies or theoretical understandings if they are not motivated to implement these strategies and understandings in their actual classroom teaching practice. Developing a motive for the teacher to continue to develop their own practice (i.e., through continued agency and imagination in collaboration with others) must be an important goal of the practice of professional development.

The sections of this chapter so far have examined each of the concepts involved in the system of concepts that explain institutional practice and the *process* of

development, but it is also necessary to theoretically explain the *product* of this practice, that is, what is actually being *developed* in this practice. While the term *professional* has been explored in the introductory chapter by examining policy documents to provide an overview of what is expected of teachers in the current context, in this final section of the theoretical framework chapter I discuss Vygotsky's notion of concept development as this provides a particular cultural-historical theoretical perspective that I bring to my conceptualisation of professional development.

Concept development

The online Oxford English Dictionary defines *concept* as:

> **Concept** *noun* an abstract idea: *philosophy* an idea or mental image which corresponds to some distinct entity or class of entities, or to its essential features, or determines the application of a term (especially a predicate), and thus plays a part in the use of reason or language. (http://oxforddictionaries.com/definition/concept)

This definition, which I would argue is commonly agreed upon in everyday use, gives the impression that concepts are solely abstract thought forms which remain fixed representations of the entity they represent. However, Vygotsky's (1987) writing about concepts, drawing upon dialectical logic, provides quite a different understanding. Unfortunately, discussing Vygotsky's description of concept development is complicated not only because of Vygotsky's own inconsistent uses of different terms (for example, between Chapter 5 and Chapter 6 of *Thinking and Speech*), but also because contemporary researchers and writers have each had to make their own interpretation of these inconsistencies and so each discusses the same issue using different terminology and with different interpretations of this terminology (Smagorinsky, Cook, & Johnson, 2003; Towsey, Kellogg, & Cole, 2010). In this section I will attempt to make clear the particular interpretation and terminology I will be using throughout this thesis.

Firstly, it must be recognised that when Vygotsky refers to concepts he is referring to the *development* of concepts (Blunden, 2012), that is, a dynamic process, rather than the abstract and static form referred to in the dictionary definition given above. This can be confirmed through close examination of Vygotsky's own writing:

> At any stage of its development, the concept is an *act of generalization.* The most important finding of all research in this field is that the concept – represented psychologically as word meaning – develops. (Vygotsky, 1987, pp. 169-170)

Nevertheless, he generally uses the word 'concept' to refer to both the final product of this process of development and also to its 'less than fully developed' forms along the way. Blunden (personal communication, December 2011) has explained that this is typical of Vygotsky's assumption that his readers would have an understanding of Marxism and the dialectical interplay of product and process.

Vygotsky (1987) describes two different lines of concept formation: spontaneous concept development (often referred to as *everyday concepts)* and non-spontaneous concept development (often referred to as *scientific* or, in some cases, *academic concepts).* Spontaneous concept development occurs through the learner's immediate experience with real things, forming intuitive understandings of how things operate and how the world works (Fleer, 2010). However in this form, the learner, while aware of the objects the developing concept represents, does not have conscious awareness of the concept itself, and does not have "the capacity to operate abstractly with the concept" (Vygotsky, 1987, p. 219). Use of the spontaneously developed everyday concept is tied to the concrete situation and it is often difficult for the individual to give a verbal definition or explanation of their understanding.

Conversely, non-spontaneous development of what Vygotsky refers to as academic or scientific concepts (which refers not specifically to scientific subject matter, but mature forms of all subject matter) occurs through formal instruction, providing conscious awareness of the abstract concept, so that the learner "easily defines the concept, applies it in various logical operations, and identifies its relationships to other concepts" (Vygotsky, 1987, p. 218). However, Vygotsky also argues that unless these abstract forms of concept learning are linked to the developing everyday concepts of the learner, they remain meaningless and disembedded from real life, unable to be applied in concrete situations.

These two different *processes* or *lines* of concept development eventually merge and interact with each other to form mature or, what have variously been called, 'true' (Vygotsky, 1987), 'unified' (Smagorinsky, et al., 2003) or 'actual' or 'concrete' (Blunden, 2012), concepts.

> In general, all our concepts owe their origin both to education and everyday life, and in reference to the real activity of [educated professionals], … all concepts are of this nature and we cannot talk of two kinds of concept. That is, all our *actual* concepts owe their origin to *both* instruction *and* life experience, and in their structure demonstrate traces of both origins. 'Actual' means concepts which reflect a concrete understanding. (Blunden, 2012, p. 262)

By referring to *concrete* understanding, Blunden is using the Marxist meaning of concrete – as a "unity of diverse aspects", that is, a synthesis of *all* of a concept's sensuous-practical and ideal thought-form aspects, not merely the common understanding of concrete as 'real', sensually perceived material objects or situations (as an opposition to 'abstract' as purely the product of mental activity) (Ilyenkov, 1960/1982). To avoid confusion between different philosophical meanings of true, concrete and abstract, I have chosen to adopt Smagorinsky and colleagues' use of 'unified concept' to refer to concepts approaching their fullest point of development. My reasoning for this choice is because it can be assumed that, as educated adults, the participants in my study have been exposed to a wide variety of real-life experiences and book learning across many domains of study, including those particular to the profession of teaching. Thus, the term 'unified concept' best represents to me the ultimate aim of professional development – the unifying of spontaneous and non-spontaneous development of practical and theoretical knowledge to form fully developed concepts of teaching, learning, development and subject matter, which teachers can utilise in real-life situations with conscious awareness and in relation to each other as parts of a whole system of concepts (which Vygotsky emphasises as being the criteria for full development of a concept).

> Only within a system can the concept acquire conscious awareness and a voluntary nature. Conscious awareness and the presence of a system are synonyms when we are speaking of concepts, just as spontaneity, lack of conscious awareness, and the absence of a system are three different words for designating the nature of a child's concept. (Vygotsky, 1987, pp. 191-192)

Vygotsky explains what he means by conscious awareness by using the example of tying a knot (although please note that this is a different example of knot tying than his well-known example of tying a knot in a handkerchief as a memory aide (see Vygotsky, 1997a; Vygotsky & Luria, 1994)):

> The object of my consciousness in this example is the tying of the knot, that is, the knot and what I do with it. However, the actions that I carry out in tying the knot – what I am doing – is not the object of my consciousness. However, it can become the object of consciousness when there is conscious awareness. Conscious awareness is an act of consciousness whose object is the activity of consciousness itself. (Vygotsky, 1987, p. 190)

We can assume that he is initially talking about tying any old knot in two pieces of string just because he wants to get them joined together. As he says, he is conscious of tying the knot because he needs the pieces of string joined together, but he is not paying special attention to the particular actions required to make a certain type of knot in a certain type of way. However, if after considering the material of the strings, and the purposes for which he needs to join them, he makes a conscious decision to tie a particular type of knot, for example a reef knot, then he must become consciously aware of the unique actions needed to carry out the task of tying the specified knot. The conscious activity of tying a knot is then carried out with conscious awareness of each action he is making and why – right over left and under, left over right and under, makes a knot that joins two similar types of string and sits flat.

Teaching is a conscious activity (we are aware we are doing it), but it is not always carried out with conscious awareness of why we choose to make particular actions in particular circumstances. However, if we act with conscious awareness of what we are doing and why, then these choices can be deliberately based on our knowledge of what will be most effective in achieving our planned purposes.

An emphasis on Vygotsky's description of concept development is relevant to this thesis in two distinct ways. Firstly because, as discussed above, a significant goal of the institutional practice of professional development is to assist teachers to understand the system of unified concepts of teaching, learning, children's development and subject matter, so that they have conscious awareness of the necessary conditions and actions that provide for the effective learning and development of their students. It is only through such conscious awareness that teachers can *deliberately* create, plan, discuss, implement and evaluate their own effective teaching practice, rather than rely on habits of practice or uncritical implementation of others' ideas.

Although emerging concepts of teaching, learning, development and subject matter which develop spontaneously through practical experience in specific contexts can be valuable for their practical utility in those contexts, they cannot easily be transferred to new contexts or deliberately planned for and controlled. This thesis will propose that participation in collaborative professional development activities, which combine reflection on everyday practice and interaction with appropriate theoretical ideas as mediation tools, can lead teachers toward development of unified concepts, which includes conscious awareness of how each of these concepts relates to each other as part of a system of concepts of the profession of teaching, that is, that the teachers' spontaneously developed everyday concepts and formally acquired scientific concepts can intertwine, build upon each other and be transformed. This transformation toward unified concepts allows conscious awareness of how both the generalised, abstract forms (typically thought of as theory) and their specific concrete and practical uses (typically thought of as practice), inform and co-create each other, eventually leading to deliberate and thoughtful expansions of classroom teaching practice.

Secondly, and perhaps even more importantly, because the aim of this thesis is to develop the institutional practice of professional development, I am trying to further develop currently held concepts of what professional development practice is. The description of *institutional practice* given in an earlier section of this chapter, as an abstract, generalised concept we now have conscious awareness of, is an example of the non-spontaneous development of a concept of practice (formed through formal instruction, even though in this case this is indirect instruction through reading academic articles). In contrast, teachers' spontaneous development of a concept of the practice of professional development (usually referred to by teachers as PD), based on teachers' previous experiences of PD activities, does not provide *conscious awareness* of how the practice of developing as a professional can be deliberately controlled and mastered by the participants' own behaviour (in interaction with others).

A unified concept of the institutional practice of professional development includes conscious awareness of how this concept fits within a system of concepts about professionalism, development and practice, allowing mastery or control of the

practice, just as a child gains mastery of their own actions when they have a conscious awareness of the concept behind an academic task:

> Because the child consciously realizes what he or she is doing, he or she can *deliberately* carry out actions or operations. In other words, the child's actions are no longer at the mercy of environmental stimulation, because the child has mastered his or her own behavior. (van der Veer, 2007, p. 90)

Therefore, development of a unified concept of professional development allows teachers, educational administrators and researchers to deliberately plan and carry out actions that contribute to their own, and each others', agentive development as professionals.

Conclusion

In this chapter I have outlined the complex system of cultural-historical theoretical concepts that are used in this study to create and analyse concrete examples of professional development practices and, in turn, develop new understandings of the institutional practice of professional development more generally. Referring back to the quotation provided under the heading at the beginning of this chapter, this unique system of concepts, based on the work begun by Vygotsky and continued by researchers who contribute to the Vygotskian project, provides new potential for analysing, understanding and actively developing the institutional practice of professional development.

The next chapter reviews the educational research literature which provides the context for studying teachers' professional development and informed the creation of the professional development practices used in Phases 1 and 2 of this study.

Chapter 3: Literature Review

SITUATING THE STUDY IN THE PROFESSIONAL DEVELOPMENT/LEARNING LITERATURE

"… Newton's metaphor of scientists 'standing on the shoulders of giants'… can only be accepted with a realization that literally standing on someone's shoulders (and thus continuing one's predecessors' ideas) is a very difficult and demanding, indeed agentive, balancing act…" (Stetsenko, 2010a, p. 78).

Introduction

The previous chapter outlined particular theoretical conceptualisations of the terms *institutional practice* and *development* within a cultural-historical framework, which are fundamental for understanding this thesis. These conceptualisations also need to be considered alongside the discussion of government policy documents in Chapter 1 to understand the term *professional* as it relates to teachers working in the current Australian and Victorian context. By bringing these three descriptions of the notions of institutional practice, professional and development together it can be seen that I am using a very particular meaning of the *institutional practice of professional development* in this thesis.

This chapter provides a review of the existing literature in the field of teachers' professional learning and development to show how this study is situated within this literature and to demonstrate how this study is able to make a significant contribution to our understanding in this field. Firstly, I will provide a brief overview of the history of the research interest in teachers' professional development and the swing towards its reconceptualisation as professional learning. Then I will present a small selection of existing theoretical models that can be found in the literature, followed by discussion of the small, but growing body of literature which uses cultural-historical theory to frame research on teachers' professional development, and in particular the literature which draws upon using improvisation as a metaphor for development. Finally, I will review literature which outlines four contemporary approaches to professional learning/development in order to provide an understanding of the additional literature which was used to inform the creation of the institutional practices of professional development in the two phases of this study.

A brief history of the research interest in teachers' professional development

A Google Books *Ngram Viewer* search using the search term "teachers' professional development" (see Figure 3.1) of the entire English language corpus from 1930-2008 (the latest date possible), shows that publication of books referring to this topic started to rise in the mid 1970s, increased dramatically throughout the 1990s, and reached a peak in 2001:
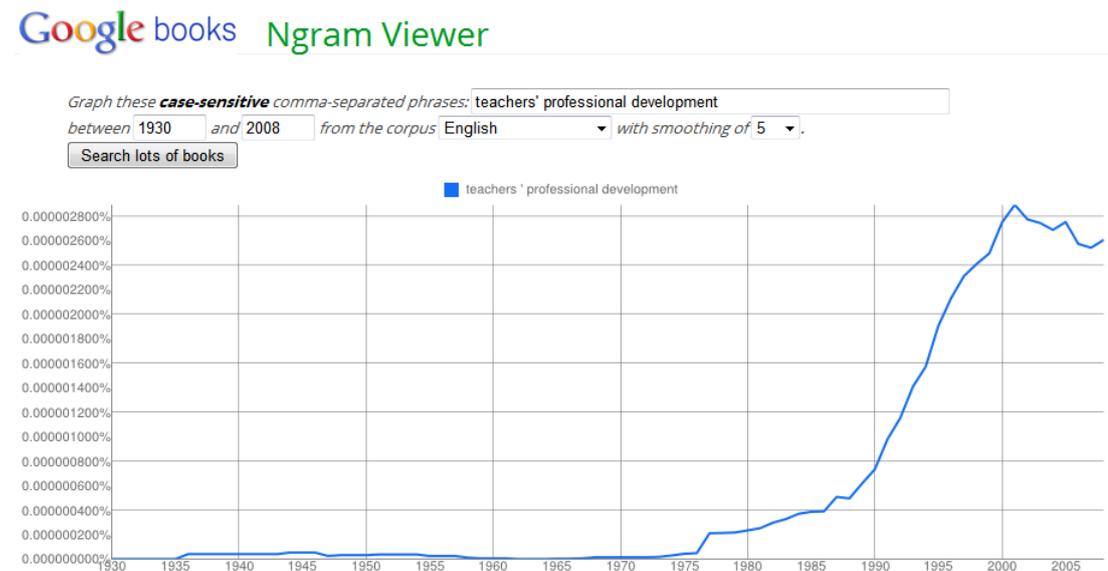
Figure 3.1 Graph representing the rise of publication of English language books mentioning teachers' professional development in recent decades (http://books.google.com/ngrams).

Lieberman and Miller (2008) claim that staff development programs had their genesis in the US in the late 1950s and early 1960s as part of the National Defense and Education Act passed by Congress in response to the Soviet launch of Sputnik. These programs generally consisted of lectures and summer-institutes developed by university professors to transmit subject-specific knowledge, techniques and materials to teachers who were in turn expected to apply these in their classrooms. Sparks and Loucks-Horsley (1989) argue that early research in the 1970s focussed mainly on determining teachers' attitudes towards these staff development programs, with general agreement that dissatisfaction with current efforts was widely experienced (see for example, Ainsworth, 1976; Dillon, 1979).

In the late 1970s and early 1980s, research attention turned to understanding the characteristics of effective professional development, focusing on actual practices

rather than attitudes (Sparks & Loucks-Horsley, 1989). With the upsurge of research in the field in the 1980s, Showers, Joyce and Bennett (1987) were able to conduct a comprehensive meta-analysis of nearly 200 research studies to produce a list of 'highlights' of staff development research to that date (see Figure 3.2).

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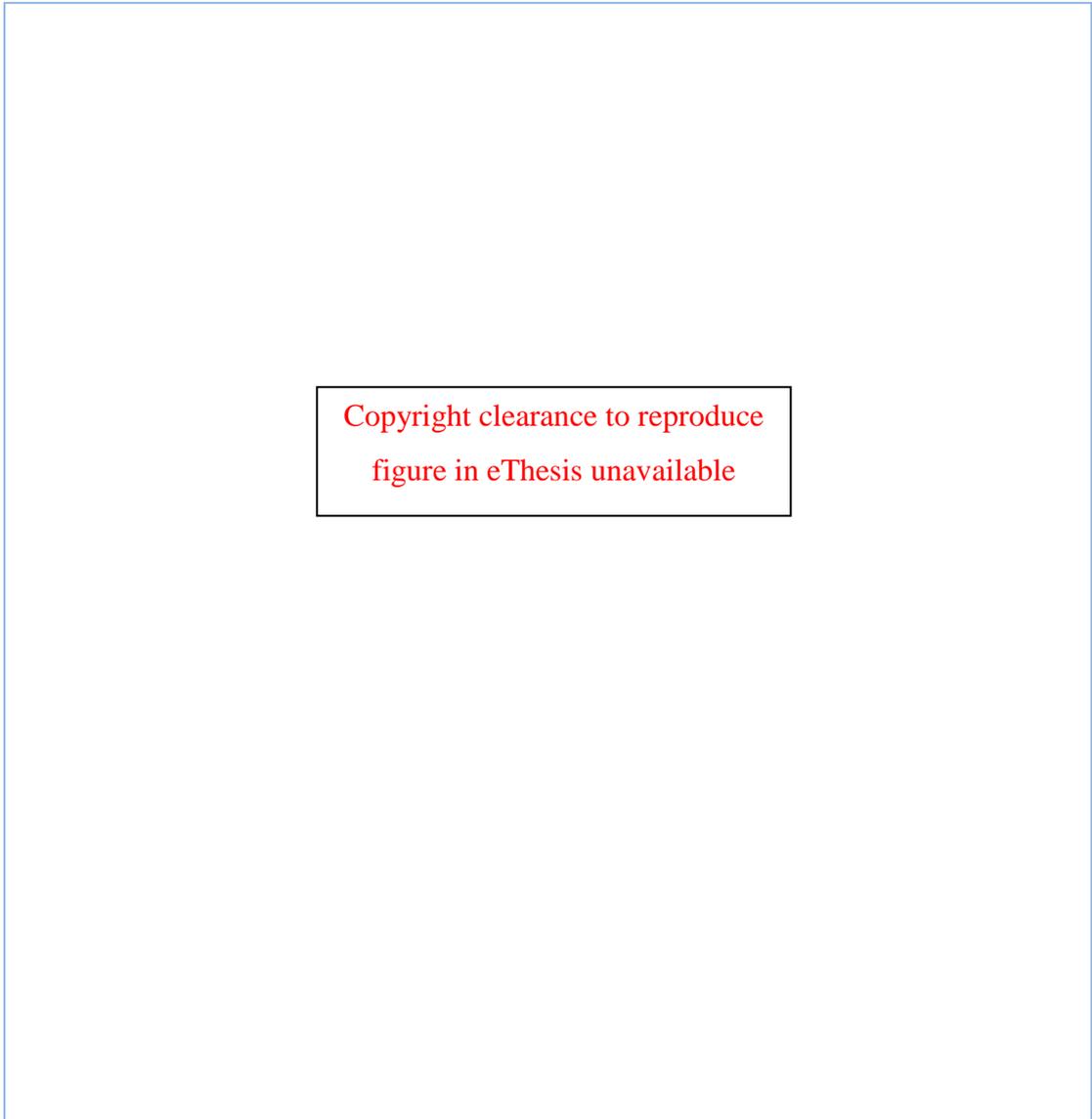
Figure 3.2 Highlights found in a synthesis of research in staff development (Showers, et al., 1987, p. 79).

Although this list is now 25 years old, there is little that has been refuted by more recent research, indicating that despite the enormous increase in the quantity of research in this area since 1987, advances in knowledge in the field have been mostly incremental and confirmatory rather than dramatic and revelatory.

The swing towards professional learning

Since the 1990s, the literature on teachers' in-service training has reflected the general paradigm swing towards conceptualisations of learning as ongoing, social, situated and actively constructed (Putnam & Borko, 2000; Webster-Wright, 2009). This has led to a change of focus from professional development – as something done *to* teachers by outside 'experts', to professional learning – as something done *with* and/or *by* teachers in response to their own pedagogical needs and concerns (Loughran, et al., 2008). Although the term 'professional learning' began to appear in the mid to late 1980s (see for example, Day, 1985; Elliott, 1989), many of the most frequently cited seminal works in the professional learning literature appeared in edited collections during the 1990s (see Biddle, Good, & Goodson, 1997; Darling-Hammond & Sykes, 1999; Fullan & Hargreaves, 1992; Guskey & Huberman, 1995).

Although the professional learning literature is now vast, several authors have noticed considerable consensus on the characteristics of effective professional learning (Borko, Jacobs, & Koellner, 2010; Elmore, 2002; Hawley & Valli, 1999; Putnam & Borko, 1997; Wilson & Berne, 1999), generally agreeing that professional learning should be: ongoing and closely linked with actual practice by being situated within the school context; collaborative and allow teachers to actively construct and transform their knowledge, beliefs and skills; empowering, by acknowledging teachers as professionals with existing knowledge and skills to share; based on current research and theory; focussed on improving student learning.

Based on these consensus views, in 2005 the Victorian Department of Education and Training released a document entitled: *Professional learning in effective schools: The seven principles of highly effective professional learning*, as part of its *Blueprint for Government Schools* reform agenda. The document recognises that improving teacher knowledge and practice is critical for improving student learning outcomes, and has important ramifications for this study as it implies that teachers in Victorian schools are expected to undertake the type of ongoing professional learning employed in this study in order to implement governmental reform efforts. The seven principles outlined in the document are:

> High quality professional learning models effective teaching and learning practices and should be:

1) focused on improving student outcomes *(not just individual teacher needs).*
2) focused on and embedded in teacher practice (*not disconnected from the school*).
3) informed by the best available research on effective learning and teaching (*not just limited to what they currently know).*
4) collaborative, involving reflection and feedback *(not just individual inquiry).*
5) evidence based and data driven to guide improvement and to measure impact (*not anecdotal).*
6) ongoing, supported and fully integrated into the culture and operations of the system – schools, networks, regions and the centre *(not episodic and fragmented).*
7) both an individual responsibility and a collective responsibility at all levels of the system (*not just the school level and not optional).*

(Leadership and Teacher Development Branch, 2005)

Yet despite this long-standing consensus of what is effective, and even governmental directives to provide programs based on this consensus, Australian teachers surveyed in large-scale mapping projects in 2000 and 2008 still report limited access to these types of professional learning activities and limited impact of professional learning on their classroom practice (Doecke, Parr, & North, 2008; McRae, Ainsworth, Groves, Rowland, & Zbar, 2001). Little (2012) suggests that this is also still the case internationally.

Timperley, Wilson, Barrar and Fung (2007) comment, "What is known to be effective, however, is not always what is practised" (p. xxv), observing that listening to speakers and attending one-off workshops are known to be of limited effectiveness and yet are still the predominant forms of professional development activity offered to teachers. However, no reasons for this inconsistency between knowledge and predominant practice are suggested by the authors. Elmore (2002) has also commented:

> The knowledge gap, then, is not so much about knowing what good professional development looks like; it's about knowing how to get it rooted in the institutional structure of schools. The problem is connecting the ideal prescriptions of the consensus model with the real problems of large-scale improvement and accountability. (p. 11)

In other words, we know *what* we need to do in theory, but we don't yet know enough about *how* to make it happen effectively in practice on a large-scale basis.

However, I would suggest that this is not necessarily just a lack of technical know-how, but most probably a consequence of economic rationalisation (workshops are relatively cheap to run), and possibly a lack of knowledge on how to disrupt traditions and expectations of 'this is how we always do it' that are often fiercely held by teachers, administrators and providers. Despite the frequent assertions that one-off workshops and seminars are less effective than other ongoing forms of professional learning activity (Ling & MacKenzie, 2001), I have not been able to find any research that rigorously investigates why these forms strongly persist.

It is also interesting to note that, despite agreeing that there is a strong and growing consensus that situated, ongoing professional learning is more fruitful than traditional workshops, several authors believe there is still no empirical evidence to support this claim (Desimone, 2009; van Veen, Zwart, & Meirink, 2012; Wayne, Yoon, Zhu, Cronen, & Garet, 2008). The relatively small number of quantitative studies (for example, Garet, Porter, Desimone, Birman, & Yoon, 2001; Murray, Ma, & Mazur, 2009; Polly & Hannafin, 2011), have typically not found strong evidence of alignment between participation in professional development and changes in teaching practices or improvements in student outcomes, even when teachers involved in such programs self-report positive benefits. Supovitz (2001) provides several possible reasons for the lack of impact often reported in quantitative studies of reform efforts:

> First, there are often incompatibilities between standards-based reform practices and the assessment instruments used to measure their impact. Second, there is often poor alignment between the content of what is taught and what is tested. Third, our impatience for results leads us to look for impacts too soon, rather than allowing effects to accumulate. Fourth, our models relating teaching practice to student achievement may not include crucial environmental specifications. Finally, reformers' specifications of professional development may not be precise enough to powerfully impact student achievement. (p. 95)

Van Veen et al. (2012) argue, that while the growing number of qualitative case study reports on successful professional learning interventions provide *indications* of what is effective, the lack of studies which "examine one specific intervention in several settings or several interventions in several settings, with different coaches" (p. 17), make it difficult to draw rigid and reliable conclusions that are generalisable

to all professional learning activities. This assertion also aligns with Borko's (2004) call for using a variety of research designs (including individual case studies of effective professional development programs, multi-site implementations of a single program, and comparative studies of multiple programs), to generate richer knowledge about how to provide high-quality professional development for all teachers.

After my examination of the literature in this field, I agree with van Veen et al. (2012) that a high proportion of the recent studies in this area are qualitative case studies relying on observation, interviews and self-reports of positive benefits. However, I would argue that this predominance of qualitative research is most probably because researchers who construct these types of interventions (that use a paradigm of learning theory which sees knowledge as situated and socially constructed) also share epistemological and ontological beliefs that are more commonly used in qualitative, interpretivist methodology, rather than the quantitative, positivist methodologies that might provide the type of empirical 'evidence' that van Veen et al. call for.

In response to this qualitative/quantitative dichotomy, Patricia Shehan Campbell (2002) calls upon researchers to adopt the 'fish-scale model of omniscience' (see D. T. Campbell, 1969), recognising that while the individual contribution of each qualitative researcher is unique and only covers a small amount (although in great detail), each contribution overlaps with the contribution of others, and when viewed together is able to cover a broad area from which collective knowledge can be built. In this view, rather than accepting individual studies as 'evidence', it is the collective knowledge drawn from multiple studies (as is the case with the consensus view of effective professional learning discussed above) that provides strength to any claims.

Interestingly, although few authors in this field explicitly draw a link with cultural-historical theory, it is evident from reviewing this literature that this consensus view of effective professional learning (summarised and listed in the left-hand column of Table 3.1) fits closely with the principles of cultural-historical theory discussed in the previous chapter (listed in the right-hand column for comparison):

TABLE 3.1 *Comparison between Principles of Effective Learning in Professional Learning Literature and Cultural-Historical Theory*

Professional Learning literature Effective professional learning ...	**Cultural-historical principles** Effective learning ...
is ongoing and situated in the school environment and actual classroom practice	is shaped by the specific cultural and historical context of the educational setting
is collaborative, allowing for active construction and transformation of beliefs, knowledge and skills	creates a ZPD for learning from each other through mediation and internalisation
empowers and acknowledges teachers as professionals with valuable knowledge to share	creates intersubjectivity and respectful, trusting relationships between and amongst participants
is based upon current research and theory, yet makes strong links with actual practice	intertwines everyday and scientific forms of knowledge to develop unified concepts
focuses on improving student learning outcomes	provides an authentic purpose for learning

It is my argument throughout this thesis that while many forms of professional learning activity described in the literature as being effective are at least partly consistent with the principles of cultural-historical theory, at present these descriptions are often under-theorised (a view supported by Eun, 2008; Fullan, 1995; Hoban, 2002; Timperley, et al., 2007), limiting our potential to understand and improve the effectiveness of these approaches. There are only a few examples of researchers analysing examples of professional learning to develop theoretical models which show the system of essential relations between various elements of professional learning activity, regarded by Chaiklin (2008, 2009, 2011) as crucial for understanding a practice in order to improve or develop it. My contention is that cultural-historical theory provides a robust conceptual framework for theorising and understanding these activities as an institutional practice of professional development.

In the following section I will examine a small selection of existing models of professional learning/development, in order to show the areas in which significant gaps in understanding still exist. Although the three models reviewed are not the only models that I have been able to find (see also Huber, 2011; Huberman, 1995; Ling & MacKenzie, 2001; Turbill, 2002 as other examples), they have been selected as representative of the growth in knowledge about the complexity of the process of professional development.

A selection of existing theoretical models of professional development

Guskey (1986) argues that typically professional development activities have been designed to initiate changes in teachers' beliefs and attitudes on the assumption that this will lead to changes in their classroom practices and behaviours and, in turn, result in improvements in students' learning (as depicted in Figure 3.3). This assumed sequence of change events, which Guskey declares is based on the work of early change theorists such as Lewin, is still commonly accepted in many approaches to professional learning (Butler, Lauscher, Jarvis-Selinger, & Beckingham, 2004; Costa & Garmston, 2006; Desimone, 2009; McIntyre, 1993; Nilsson, 2012; Osterman & Kottkamp, 2004).
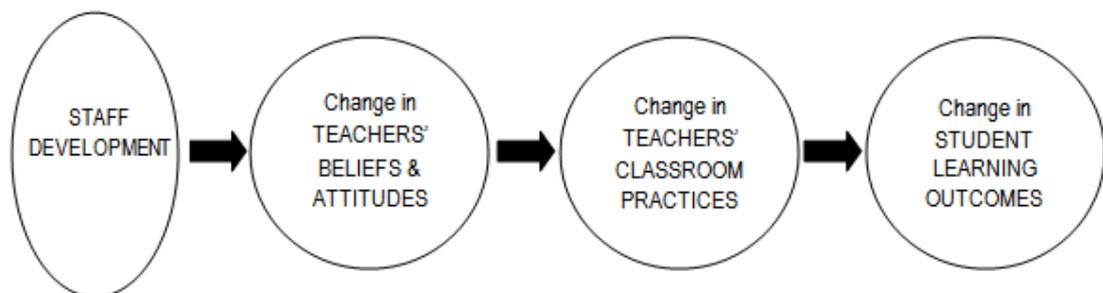
Figure 3.3 Sequence of events described by Guskey (1986) as typically assumed by providers of professional development activities.

However, based on research of his own and others (for example Bolster, 1983; Crandall, 1983; Guskey, 1982, 1984; Huberman, 1981), Guskey (1986) asserts that changes in teachers' beliefs and attitudes generally only occur *after* teachers try out the changes in practice introduced in the staff development program and gain evidence that they actually lead to improvements in student learning. These findings led Guskey to propose an alternative model of 'teacher change' (see Figure 3.4) and

to suggest that continued follow-up, support and pressure to assist teachers to implement desired changes in practice is more crucial than the quality of the design of the initial training. Nevertheless, Guskey does not outline the characteristics of the crucial follow-up, support and pressure that might be necessary to help teachers implement changes, stating that further research needs to be done in this area.
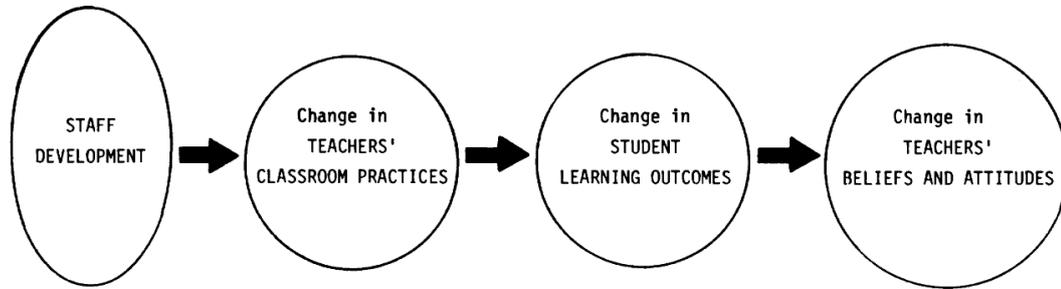
Figure 3.4 A model of teacher change (Guskey, 1986, p. 383). *Reprinted by Permission of SAGE Publications.*

Interestingly, in an updated version of his 1986 article, Guskey (2002) acknowledges that the linear nature of his model may be overly simplistic and that Huberman's (1995) description of the process as cyclical should also be considered, but still argues that research continues to support his model.

> In some ways, this Model of Teacher Change overly simplifies a highly complex process, and exceptions to the model certainly exist. For example, participants' attitudes must at least change from `cynical' to `skeptical' for any change in practice to occur. Furthermore, the process of teacher change is probably more cyclical than linear (Huberman, 1992, 1995). In other words, changes in attitudes and beliefs are likely to spur additional changes in practice that bring further change in student learning, and so on (Huberman, 1983, 1985). Still, the consistency of the results from diverse studies makes a strong case for the proposed model. (Guskey, 2002, pp. 385-386)

Also arguing that Guskey's model is too linear to fully represent the complexity of teacher change, D. Clarke and Hollingsworth (2002) present "The Interconnected Model of Professional Growth" (see Figure 3.5), which builds upon the Guskey model by using analogous (although not identical) domains, suggesting that

> change occurs through the mediating processes of "reflection" and enactment", in four distinct domains which encompass the teacher's world: the personal domain (teacher knowledge, beliefs and attitudes), the domain of practice (professional experimentation), the domain of consequence (salient

outcomes), and the external domain (sources of information, stimulus or support). (D. Clarke & Hollingsworth, 2002, p. 950)

By drawing upon data from three large empirical studies (reported in Carlin, Clarke, & Peter, 1992; D. Clarke, 2001; Hollingsworth, 1999), the authors argue that this model encompasses previous linear models, rather than replaces them, demonstrating that an individual teacher's growth can follow any path (i.e., could follow one of the paths indicated by either of the previous models, but alternatively could also follow a cyclical or recursive/reiterative path through any number of the domains and lead to continual growth). Additionally, this model does not stipulate that external training programs will necessarily be the chief catalyst for teacher growth, as the motivation for changing practice may, for example, come purely from reflecting on current practice or student outcomes. This model also makes mention of the change environment, recognising that professional growth is influenced by the affordances and constraints of the school context to support or restrict – access to, participation in, experimentation with, and long term application of – new ideas and practices.

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Figure 3.5 The Interconnected Model of Professional Growth (D. Clarke & Hollingsworth, 2002, p. 951).

While this Interconnected Model represents the process of teacher growth with significantly more complexity and variability than the Guskey model, it still does not help us to understand the essential characteristics of the types of activities that will support teachers to move from one domain to the other; simply stating that such moves occur through reflection or enactment. If a teacher chooses not to reflect or enact new actions from one domain to another, or encounters difficulty in doing so, the change path, and therefore growth, is halted.

Engaging an even greater level of complexity, Hoban (2002) has drawn upon Systems thinking and Complexity theory to develop a model of a 'Professional Learning System' (see Figure 3.6), which does include necessary conditions for effective teacher learning.
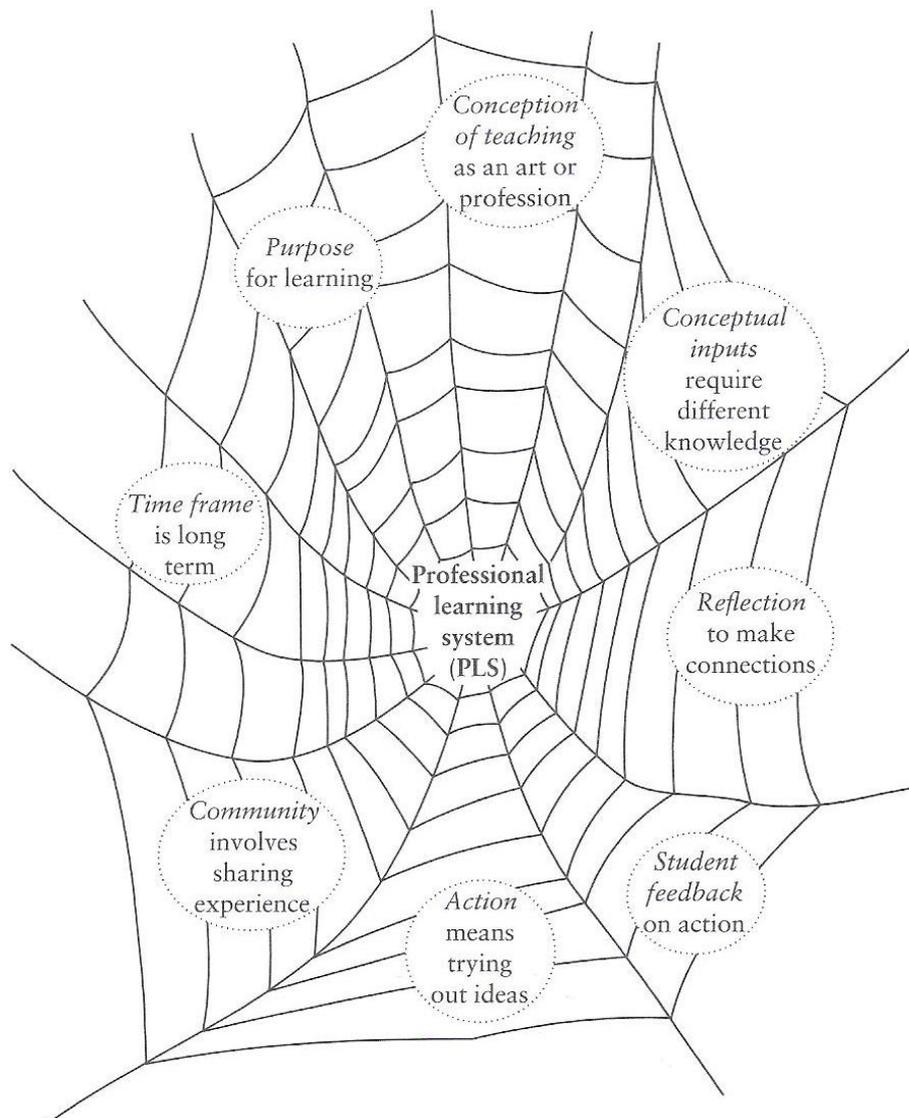
Figure 3.6 Conditions for teacher learning in a professional learning system (Hoban, 2002, p. 70). *Reproduced with the kind permission of Open University Press. All rights reserved.*

Hoban argues that the Professional Learning System (PLS) is not just the sum of its identified conditions, but rather that the dynamic relationships between conditions create a multiplier effect.

> The cause of the multiplier effect comes from the reciprocity among the conditions such that the more reflective a teacher is, the more they contribute to discussions and seek student feedback, which further enhances their reflection resulting in cumulative and continuous learning. (Hoban, 2002, p. 75)

Hoban's complex framework acknowledges the dynamic relationships between and among the personal, social and contextual conditions for teacher learning, emphasising that *all* of the conditions need to interrelate in order for the system to act effectively. The emphasis in his model is on the unbroken interconnecting lines denoting the relationships between conditions, rather than on the conditions themselves (in dotted lines), any one of which he argues is not new to teacher learning and will not, on their own, sustain teacher learning, yet when combined in a system can be highly effective. This dynamic systems approach which strives for continuous learning forms a stark contrast to the 'mechanistic' and linear conceptions of learning and teacher change that are used in traditional approaches, which assume that mastery is possible and results from an accumulation of knowledge and skills (Hoban, 2002).

By treating teachers as professionals (rather than labourers), providing time and an authentic purpose for learning, and involving them in the interrelated activities of reflecting, taking action, sharing with colleagues, seeking new ideas from other sources, and seeking feedback from students, Hoban (2002) argues that an educative environment that "empowers teachers to generate their own knowledge and products" (p.164) can be created. He does however recognise that this system does not develop spontaneously and that, at least initially, this type of professional learning needs to be managed by "a facilitator or a group leader who understands the process of non-linear learning and who can provide conceptual inputs to extend the experiences of the participants" (p.73).

Hoban's Professional Learning System addresses many of the gaps identified in the previous models (i.e., acknowledges complexity and identifies conditions for learning), yet still does not account for *how* teachers make the connections between

each of the conditions. It is my contention that instead of using Systems thinking as the theoretical framework, cultural-historical theory (based on dialectical logic) also allows explanation of the dynamic relationships in his model, but could also provide an alternative system of concepts as the framework for analysis which may highlight different issues still not addressed in the existing models found in the literature.

Using cultural-historical theory could also provide a more consistent approach to explaining both student and teacher learning. This is particularly so in cases where cultural-historical theory is being used as the basis of the conceptual inputs being introduced to the teachers (as in this study). By theorising the teachers' own professional learning and development using the same concepts being introduced to help teachers understand their students' learning and development, a consistent vocabulary is established and enables teachers to discuss and understand their own learning experiences as further examples of theory/practice unity.

For these reasons, although the practices of professional development developed in this study share many similarities with Hoban's model, the use of cultural-historical theory as the framework for analysis will provide a new theoretical model that seeks to explain (rather than describe) the complex relations between the necessary conditions for teachers' professional learning and development.

The next section of this review examines the small, but growing body of professional development literature that has used cultural-historical theory as an explanatory framework.

Cultural-historical research on teachers' professional development

Internationally, much of the literature using cultural-historical theory as a framework for discussing teachers' professional development is written in the context of descriptions of schools or systems which are implementing cultural-historical principles as the basis of their educational programs. For example, descriptions of the OC school (Rogoff, Turkanis, & Bartlett, 2001) and the KEEP school (Tharp & Gallimore, 1988) in the US, the Developmental Education schools in the Netherlands (van der Veen & Pompert, 2011; van Oers, 2009; van Oers, Janssen-Voss, Pompert, & Schiferli, 2003) and the Golden Key Schools in Russia (Kravtsov, 2010), all

discuss the teachers' ongoing professional learning about implementing cultural-historical theory within their schools and emphasise the importance of a consistent approach to both teacher and student learning and development.

To provide more detail, I will describe the approach taken in the Developmental Education schools in the Netherlands as an example of providing a developmental environment for teachers. Van Oers et al. (2003) describe three forms of joint activity that each teacher in a Developmental Education school participates in: 1) *collaboration with other teachers* – to act as a team of agents to plan and improve education at the school and in their individual classrooms, 2) *collaboration with innovators* – to work with an external consultant "to find ways to innovate and improve teaching on the basis of new concepts and values" (p. 112), and 3) *collaboration with pupils* – to assist pupils to gain proficiency in cultural activities, such as reading, writing, problem-solving etc. This conception of development as joint activity in meaningful cultural practices thus provides a consistent terminology and approach for the development of all participants in the school environment.

When the teacher works with an innovator, both parties are jointly responsible for improving the teaching practice as they work together through three phases of teacher development (van der Veen & Pompert, 2011). Firstly, teachers are guided to reflect on how their current practice reflects the goals of developmental education (e.g., video, photos or student work may be analysed to determine the current balance between the teacher's intentions and the students' personal meanings and interests), providing a motive for the teacher to implement an innovation in practice. Secondly, the innovator assists the teacher to plan and implement classroom activities that will involve the teacher and pupils in joint activity, and the teacher learns to appropriate the double role of participating in the activity with the children to extend their learning abilities while simultaneously evaluating the children's development during the activity. In the third phase, once teachers have gained some competence in planning and implementing joint activities, they are introduced to tools which help them systematically observe and reflect on both the effectiveness of the developed activities and their own role in implementing them. Ultimately, the aim is for teachers to be able to reflect analytically on their own continually evolving role as an educator and collaborator with other teachers (van Oers, et al., 2003).

This description shows how teachers' professional development can be conceived as a ZPD, created by participating in joint activity with others to carry out meaningful interventions and innovations in practice. In each phase, the teacher is assisted to perform in new ways beyond what they can currently do alone, until they are able to incorporate these new ways of acting into their own practice independently, and are ready to begin working collaboratively on another new innovation or implementing a new concept. Van Oers and Duijkers (2012) emphasise that such transformations in teaching are not easy or fast, and must be supported by an infrastructure consisting of "educators, colleague-teachers, and authors of good, exemplary practices" (p. 6). Although I have focussed on the Developmental Education schools, the other schools and systems mentioned above describe similar approaches in varying levels of detail (for other detailed examples see, Tharp, et al., 2000; Tharp & Gallimore, 1988).

While the examples listed above describe teacher development within schools that are already operating with cultural-historical principles, there have also been a few examples of similar projects to Phase 1 of this study, where university researchers using a cultural-historical theoretical framework work in collaboration with a group of teachers from mainstream schools to inquire into and transform beliefs and practices. Examples of these collaborations have occurred in the US (A. F. Ball, 2000; Flint, Kurumada, Fisher, & Zisook, 2009; Palincsar, Magnusson, Marano, Ford, & Brown, 1998; Teemant, Wink, & Tyra, 2011), Canada (Roth, 2005; Wells, 1999, 2001), the Netherlands (Meirink, Meijer, & Verloop, 2007), Israel (Zellermayer & Tabak, 2006), and New Zealand (Sewell, 2006; Sewell & St George, 2008). These studies present promising possibilities for teacher change using a cultural-historical focus in a collaborative community of inquiry, but also acknowledge that such change takes considerable time and requires teacher commitment and willingness to both examine existing practices and beliefs and experiment with new possibilities. As Sewell (2006) concludes:

> This study has shown that it *is* possible to develop a community of learners in a primary classroom when teachers and children are willing to question their taken-for-granted perspectives and practices, and when they have the time, space and support to engage with and understand sociocultural ideas. (pp. 263-264)

However, most of these studies focus on examining the effectiveness of the intervention in changing teachers' beliefs and practices rather than explicitly understanding the nature of professional development. In contrast, Eun (2008, 2011), in answer to her own claim that the literature on teachers' professional development is under-theorised, provides a comprehensive account of how Vygotsky's concepts of development (which she lists as social interaction, internalisation, mediation and psychological systems) can be used to provide a theoretical framework to explain the effectiveness of various forms of common professional development activities. While this is an important step forward in the cultural-historical literature on professional development, Eun's theorisation is limited by presenting the concepts as a list of features rather than formulating a theoretical model which demonstrates the relations between concepts and how they function as a system. Although her work provides an explanation of why professional development which includes socially mediated activity is likely to be more effective, it falls short of providing understanding of the system of necessary conditions that could inform new forms of professional development.

In Australia, research on teachers' professional development using cultural-historical theory has predominately been carried out in the early childhood sector (for example, S. Edwards, 2007a, 2007b, 2009a, 2009b; S. Edwards & Nuttall, 2009; Fleer & Richardson, 2009; Fleer & Robbins, 2004; Nuttall, Coxon, & Read, 2009; Nuttall & Edwards, 2004). This research typically highlights the difficulties early childhood (EC) teachers face in moving from the traditionally dominant and firmly entrenched Piagetian/developmentalism paradigm of teaching and learning to a cultural-historical theory based paradigm. These authors take a dialectical view of theory and practice, acknowledging the importance of respecting teachers' existing knowledge but then challenging teachers to examine their current conceptualisations of teaching and learning in light of their actual experiences in practice and explore whether alternative theories may offer more coherent explanations and solutions to problems encountered in practice.

Suzy Edwards (2009a) has found that this respectful approach to professional learning enables teachers to overcome initial resistance to presentations of sociocultural (cultural-historical) theory and to gradually make an informed and

empowered transition from the developmentalism paradigm to a sociocultural paradigm.

> [E]xperiential knowledge is positioned in relation to theoretical knowledge, which in turn enables the theoretical to operate as a means of understanding, interpreting and critiquing practice (Moss, 2005). The teacher actively researches his/her own conceptualisation of the teaching and learning process within her educational context, and in doing so, is positioned more strongly as an expert engaged in professional learning than a 'student' attending professional development. (S. Edwards, 2009a, p. 85)

While much of this research in the Australian EC sector is also relevant to primary school teachers and provided a useful approach for my project, the differences between EC and primary school settings (for example, mandated curriculum standards and assessments, different expectations of schooling from parents and broader society, and larger staffing structures) present some unique difficulties in professional learning about cultural-historical theory which do not appear to have been explored with Australian primary teachers.

Sewell's (2006) observation above, that both teachers and children must be willing to question taken-for-granted perspectives and practices, leads us to the question of how this can best be supported. What conditions can be created to help both teachers and learners re-imagine and transform school settings into truly developmental environments for the entire school community? The following section reviews the (mostly) cultural-historical literature discussing the use of improvisation and playful performance for creating and transforming learning environments to encourage development. These ideas suggest a novel strategy which was used in this study for not only approaching the design of professional learning activities for local teachers, but also for assisting both teachers and students to transition to new ways of approaching learning in school settings.

Improvising education: Engaging in creative, improvisatory activity to collectively build developmental environments for teachers and learners

This section reviews the work of several authors who have used the metaphor of improvisation to reconceptualise teaching and learning as a collaborative, creative activity. Sawyer (2004a, 2006) suggests that, in today's innovation economy,

effective work teams function like a jazz ensemble, and that classroom discussions should also resemble this approach.

> In both a jazz group and a successful work team, the members play off of one another, with each person's contributions inspiring the others to raise the bar and think of new ideas. Together, the improvisational team creates a novel emergent product, one that is more responsive to the changing environment and better than what any team member could have developed alone. (Sawyer, 2006, p.43)

While Sawyer's conceptualisation of collaborative classroom discussions as improvisational activity (allowing ideas and knowledge to emerge and be constructed by the group through interactional dynamics and give-and-take between students and teacher), draws obvious parallels with Vygotsky's zone of proximal development and concept of *obuchenie* (see Chapter 2), these links to Vygotsky are not mentioned by Sawyer explicitly. Holzman (2009) however, is very explicit in her linking of creating improvisatory activity with Vygotsky's perspectives of development and the ZPD. She views Vygotsky's work as a "theory of becoming" (p. 17), drawing on a dialectical conception of *becoming* as a synthesised unity of the contradictions who you are/who you are not yet.

Using Vygotsky's (1978) discussions of children's make-believe play as performing 'as though they were a head taller than themselves', Holzman (2009) conceptualises human development as "the activity of creating who you are by performing who you are not" (p. 19) and regards playful and improvisatory activity as the ideal ZPD—a vehicle for simultaneously creating developmental environments and development. Furthermore, in her work with Fred Newman creating school and therapeutic programs, they have realised that this playful/performatory activity promotes development beyond early childhood and is relevant throughout people's lifetimes (Newman & Holzman, 1993), a point also supported by Kravtsova (2006).

As I am focusing on teachers' professional development in this study, this idea of lifelong learning and development through the creation of environments in which adult participants can perform beyond their present capacity is very important. These conceptualisations of using playful activity to create developmental environments provide an interesting basis for designing learning activities to engage teachers in

professional learning which in turn leads to improvement in their students' engagement in learning. Holzman and others (see Farmer, 2008; Fusco, 2000; Holzman, 1997, 2009; Lobman, 2007, 2011; Lobman & Lundquist, 2007; Martinez, 2011; McKnight & Scruggs, 2008; Newman & Holzman, 1993; Newton, 1999; Sawyer, 2004a, 2006; K. Smith & McKnight, 2009) have shown that becoming comfortable with improvisatory performance, through collaboratively participating in theatre games, ensemble performances etc., is a highly effective method of facilitating this process.

Lobman (2007, 2011) describes how these improvisatory processes are used as the basis for the *Developing Teachers Fellowship Program* in New York, involving teachers from urban schools in learning about new ways to create developmental teaching environments through creating improvisatory performances as an ensemble. Participants create scenes and stories by accepting offers (contributions) made by others and build upon these to effectively move the group forward. Negating offers, by not taking up and building upon the other contributions but instead persisting in one's own course of action, halts the collective co-construction process.

> [C]onsistent with a Vygotskian understanding of learning and development, rather than teaching them "seven steps to a supportive, playful environment," this goal was approached by inviting them to create such an environment with the directors and each other. As one of the fellows said, "A very interesting and refreshing characteristic of the program is that we are learning *about* improvisation, and we are *doing* it improvisationally. There is no separation between the content of what we are learning and the process by which we are learning it." (Lobman, 2011, pp. 79-80)

This notion of having no separation between the content of the learning and the process by which it is learnt has been crucial throughout this project, and explains my insistence on using cultural-historical theory as the basis of, a) my methodology, b) the content and process of the professional development practices developed (i.e., learning about the ZPD by creating a ZPD), and c) the theoretical framework for analysing data and conceptualising findings. It is intended that this consistency between content and process provides coherence both for the participants in the project and readers of the thesis.

Taking a different angle to the metaphor of improvisation, Roth (2002) claims that in the moment-by-moment events in a classroom, teachers do not have time to reflect on how to use theories of education that are separate from their practice, but instead act instinctively from a repertoire of embodied courses of action developed over their teaching career. The more courses of action available in the teacher's repertoire, the more likely that the teacher will be able to respond appropriately to the particular situation to guide student learning and manage the classroom environment effectively. Roth refers to the particular situatedness and unpredictability of classroom interactions as requiring teachers' "readiness for action, which is a highly developed improvisation and the bipolar opposite of 'winging it'" (pp. 63-64). While he does not elaborate on the differences between improvisation and winging it, I take him to mean that while both require 'making it up as you go along', improvisation implies the presence of an underlying structure of flexible intention and availability of a repertoire of appropriate skills and knowledge that can be called into action in response to the unique turns of the situation as they arise (just as jazz musicians have an understanding of the musical scales and riffs they can utilise within the particular genre to build upon the contributions of the others in the ensemble), whereas 'winging it' implies no structure or readiness for action but simply allowing the situation to unfold unguided.

Using this idea of teaching and learning as improvisatory activity, the cultural-historical context in education can therefore not only be understood as applying to different broad cultural or systemic contexts or historical eras, or even individual schools or classes within cultures, systems or eras—it also applies to the minute-by-minute historical changes within each context according to the particular interactions between the participants, environment and resources at any given moment, all of which "affect the way in which the activity is actually played out" (Wells, 2000, p. 61). A conceptualisation of teaching as improvisatory activity therefore has implications for how teachers and learners choose to act at given moments of time, but also for the way institutional practices and curriculum programs are structured to allow improvisatory activity to occur (i.e., is dialectically both the activity of teaching and learning as 'improvising' *and* the simultaneous production of the improvisational environment within the constraints of required societal demands for education). Wells concludes that curriculum must therefore be regarded as "a means,

not an end" for education and that outcomes are "both aimed for and emergent" (p. 61). Floden and Chang (2007) suggest that teaching should be like 'interpreting a jazz score', allowing teachers to improvise within a composer's given structure (government imposed curriculum) to create unique interpretations in every situation.

Anthony Clarke and colleagues have used the metaphor of improvisation in their *Community of Inquiry in Teacher Education* (CITE) project for developing spontaneous and innovative ways of working collaboratively with lecturers, teachers and student teachers, stating: "The goal is not to discern a pre-given ideal form but to create that which is possible to sustain" (A. Clarke, Erickson, Collins, & Phelan, 2007, p. 222). This is an important reminder to be aware of the emergent and unpredictable nature of collaborative projects such as those created for this study. My project could not be fully articulated and planned before it commenced, as it was the creative act of building the project in response to the interactions between and amongst participants that was the very nature of the project. As Clarke and colleagues suggest, sustaining the learning community is a matter of discarding destructive practices that arise and maintaining more useful practices. Just as I earlier described joint activity within the ZPD as 'keeping everyone in the game' (see Chapter 2), or as a jazz ensemble or theatrical improv group improvises together, participants must constantly be making adjustments to what arises from within the group and collaboratively build the direction of the activity as it occurs.

As described in the previous chapter, Hedegaard (2008b) defines development as qualitative changes in motives and competences occurring through participation in societal institutions (family, school, work etc.), but this is just another, albeit more eloquent, way of saying that we become who we are by being participants in the activities and practices of who we want to be. If, as Holzman (2009) suggests, playful, improvisatory, collective performance of 'who we are not yet' creates the ideal ZPD for both children and adults, it stands to reason that creating a developmental professional learning environment for teachers (as a new societal institution) which encourages them to collectively create and 'perform' teaching in new ways, could lead to significant changes in teachers' professional motives and competences in teaching.

Although I have shown that the literature on this type of approach to professional development is slowly growing internationally, I have not discovered any reference to this type of work in Australian primary schools. It is therefore not known whether creation of a developmental environment for teachers based on cultural-historical theory can assist Australian teachers to create similar environments in their own classrooms, particularly if their whole school setting does not share the same theoretical traditions and values (as it does in many of the reviewed settings such as the Golden Key schools in Russia and the Developmental Education schools in the Netherlands). In this case, the opportunity to engage with fellow teachers to collectively experience, create and 'rehearse' new forms of teaching and learning is even more important, as teachers will be trying to act in newly imagined ways that they may not have experienced or observed in their school setting before. This study therefore investigates how the possibilities suggested in the reviewed literature for using cultural-historical theory and creative, performatory activity as a framework for organising engaging student and professional learning can be utilised by teachers in the Australian educational context where very few schools have adopted whole-school cultural-historical based approaches.

The final sections of this review discuss research literature on several other contemporary approaches to professional learning/development that were also used to inform the creation of the two practices of professional development developed in this project. This literature is reviewed in order to provide a sense of the current context of professional development within which this study was developed. The reflective practice literature is discussed first as it has formed the basis of most other contemporary approaches.

Review of literature on different types of professional learning/ development approaches related to this study

Reflective practice

Reflective practice provides an approach to professional development that moves away from casting teachers as technicians who can be trained to implement others' ideas, towards viewing teachers as professionals capable of making informed judgements and learning from their own experiences to generate new knowledge about their work (Leitch & Day, 2000; Zeichner & Liston, 1996). Larrivee (2000)

has described effective teaching as "a deliberate philosophical and ethical code of conduct" (p. 294), that therefore requires teachers to be critically reflective of their practice if they are to move beyond merely managing instruction and student behaviour, and become practitioners who can flexibly adapt and invent strategies to solve problems in their own practice context.

> If teachers latch onto techniques without examination of what kinds of teaching practices would be congruent with their beliefs, aligned with their designated teaching structures, and harmonious with their personal styles, they will have just a bag of tricks. … Unless teachers engage in critical reflection and ongoing discovery they stay trapped in unexamined judgments, interpretations, assumptions, and expectations. (p. 294)

Drawing upon Dewey's (1933, 1938) writings about reflection; Kolb's (1984) notion of experiential learning; Argyris and Schön's (1974) work on espoused theories and theories-in-use; and Schön's (1983, 1987) work on reflection-on-action, reflection-in-action and knowing-in-action; reflective practice has became recognised as an important component of professional development (Osterman, 1990; Osterman & Kottkamp, 1993, 2004). Action research (for example, Bradbury & Reason, 2003; Day, 1985; Elliot, 2007; Kemmis & McTaggart, 1988; Mills, 2003; Sagor, 2009; Stringer, 2008), action learning (Aubusson, Ewing, & Hoban, 2009) and other forms of practitioner inquiry (Groundwater-Smith & Mockler, 2009), also draw at least partially upon these same roots, and are regarded as more formal and strategic approaches to reflective practice (McMahon, 1999), but are not specifically reviewed here. Likewise, the literature on reflective practice in pre-service teacher education (for example, Calderhead, 1989; Hoban, 2000b; Korthagen, 2001; Loughran, 1996, 2002) is also not reviewed here.

Reflective practice is based upon the premise that changes in behaviour are dependent upon changes in ideas and beliefs (Osterman & Kottkamp, 2004). Proponents of reflective practice argue that it is important for teachers to critically analyse discrepancies between their espoused theories (what they say they do) and their theories-in-use (what they actually do) if professional learning is actually to succeed in leading to sustainable changes in practice (Ferrier-Kerr, 2012). Brookfield (1995) calls this process *hunting assumptions*, arguing that taking action on the basis of unexamined assumptions leads to poor judgements and unintended outcomes.

Osterman and Kottkamp's (2004) instantiation of reflective practice is designed to "facilitate identification, examination, and modification of the theories-in-use that shape behavior" (p. 13), using a cyclical process of problem identification, observation and analysis, abstract reconceptualisation, and active experimentation. This process may be undertaken individually, although more commonly it occurs with the assistance of a facilitator working with a group of teachers.

Schön's (1983) notions of *knowing-in-action* and *reflection-in-action* have been particularly influential in reframing teachers' professional knowledge as artistry rather than technical rationality.

> Once we put aside the model of Technical Rationality, which leads us to think of intelligent practice as an *application* of knowledge to instrumental decisions, there is nothing strange about the idea that a kind of knowing is inherent in intelligent action. Common sense admits the category of know-how, and it does not stretch common sense very much to say that the know-how is *in* the action – that a tightrope walker's know-how, for example, lies in, and is revealed by, the way he takes his trip across the wire ... There is nothing in common sense to make us say that know-how consists in rules or plans which we entertain in the mind prior to action. Although we sometimes think before acting, it is also true that in much of the spontaneous behavior of skillful practice we reveal a kind of knowing which does not stem from a prior intellectual operation. (p. 50-51)

Schön describes this type of practical knowledge as 'tacit' (Polyani, 1967), because it is generally difficult to describe verbally, and is more frequently described as a 'feeling' for what the situation requires. In reading this description of knowing-in-action as compared to technical rationality it is possible to see a resemblance to the cultural-historical explanation of everyday and scientific concepts. Knowing-in-action is formed in the everyday experience of professionals, whereas technical rational knowledge is provided from outside sources in completed forms. Schön's argument is that complex practices can never be completely specified, meaning that provided technical rational knowledge will not fit every case, and so professional competence in irregular or divergent situations can only be accounted for with an alternative form of knowledge (i.e., artistry or knowing-in-action).

Schön argues that when events are not proceeding as expected the professional can reflect on what is happening, *as* it is happening, and make adjustments to their

actions accordingly. That is, *reflection-in-action* occurs in the midst of the activity while there is still a chance to modify action and affect the outcome. In contrast, reflection-*on*-action occurs after the events have taken place and can no longer be influenced in that instance, even though plans and intentions may be formed to change the outcome in future instances.

Several critics have however questioned the relevance of this description of reflection-in-action for teachers, arguing that Schön misunderstands the critical nature of time in a classroom setting (Eraut, 1995; Roth, 2002; van Manen, 1995). For instance, Roth (2002) points out that in Schön's example of building a gate, the materials lie waiting (i.e., the situation remains static) as the builder thinks about the problem of how to ensure that the gate is square, whereas in a classroom the events continue to unfold (and potentially escalate) as the teacher thinks about how to respond to a disruptive student. Roth argues that such continually evolving situations require instant judgements that cannot really be regarded as reflection, rendering the notion of reflection-in-action as an incomplete explanation for teachers' competence in the classroom, and explaining his preference for the use of the improvisation metaphor discussed earlier.

Eraut (1995) also discusses this issue of time, and questions whether teachers really do reflect-*in*-action:

> In general, Schon fails to appreciate the importance of the time variable in understanding professional behaviour. When time is extremely short, decisions have to be rapid and the scope for reflection is extremely limited. In these circumstances, reflection is best seen as metacognitive process in which the practitioner is alerted to a problem, rapidly reads the situation, decides what to do and proceeds in a state of continuing alertness. A familiar example would be … a teacher might need to respond rapidly in a classroom to a pupil's question or a disruptive action. If, however, we adjust this situation to one where the teacher is walking round a classroom of children quietly working on their own, the reflective process appears a little different. There is time for the teacher to look around, to contemplate in silence, and to decide whether or not to intervene. The period of reflection will still be fairly short, but it is already beginning to resemble a time *out* of action. Extending the period for reflection still further is likely to result in the reflection assuming a more deliberative character, with time to consciously explore a range of possible options or even to consult with other people. Thus the more

reflection assumes a critical function, the less appropriate it becomes to describe it as being *in* the action. (p. 14, italics added)

Eraut suggests that for teachers, a more accurate description of this phenomenon would be reflection-*for*-action, in that it refers to the *purpose* of reflection as affecting action currently in progress, as distinguished from reflection-on-practice and Kolb's (and I would add, Dewey's) stated purpose of reflection as *learning* from past experiences for the benefit of future action. In this thesis I have not used Schön's terms, but instead used the cultural-historical concepts of imagination and agency to describe how reflection is used to inform planning and implementation of future actions. Again, this is not only because I have chosen to maintain a consistent theoretical framework, but also because bringing a new theoretical lens to analysis highlights different aspects and creates new explanations of previously studied phenomena.

Although Schön's work is frequently discussed in the reflective practice literature, the actual instantiations of reflective practice described almost exclusively focus on teachers reflecting *on* practice, after the event (see for example, Hoban, 2000a; Loizou, 2010; Osterman & Kottkamp, 2004; Postholm, 2008; Tsangaridou & O Sullivan, 2003; Williams & Grudnoff, 2011). This is not hard to understand, as it is virtually impossible for researchers to have access to a teacher's reflection-in-action, and even a researcher carrying out self-study (see LaBoskey, 2004) cannot simultaneously act, reflect and document this reflection (unless they spoke their thoughts aloud into a recorder, which is not practical in a classroom situation). At best, a researcher can only ask a teacher about their reflection-in (or for)-action *after the event* (as can happen in stimulated recall interviews where a teacher watches a segment of video recording of their practice and explains to the researcher the thinking behind their actions), but this process cannot be a completely accurate representation of what the teacher was thinking at the time because time is available for the teacher to extend and reconsider their original thoughts either consciously or unconsciously (Lyle, 2003).

Nevertheless, reflection on, for, or in practice is clearly a valuable component of professional development, requiring teachers to question themselves to describe (What did I do?), inform (What does this mean?), confront (How did I come to be this way?) and reconstruct (How might I do things differently?) their teaching

practice (Williams & Grudnoff, 2011). As such, reflective practice forms the cornerstone for most other forms of contemporary professional learning/development programs that eschew the one-off training/seminar model of transmitting information, including the forms described in the following sections.

Professional Learning Communities (PLCs)

Locally and internationally, efforts to create professional learning opportunities in line with the consensus view of effective characteristics discussed earlier have built upon the ideas of reflective practice to create 'professional learning communities' (PLCs). Although there is no universal definition of the term PLC (Stoll, Bolam, McMahon, Wallace, & Thomas, 2006), the three words within the term (professional, learning and community) are strongly suggestive of the characteristics a PLC should embody and have led to "broad international consensus that it suggests a group of people sharing and critically interrogating their practice in an ongoing, reflective, collaborative, inclusive, learning-oriented, growth-promoting way" (Stoll, et al., 2006, p. 223).

Lieberman and Miller (2008) stress the importance of 'collegiality' over 'congeniality' in PLCs, arguing that congenial relationships can be adverse to conflict and risk as they aim to seek consensus and compatibility, whereas collegial communities aim to build relationships of trust where challenge and disagreement can lead to opportunities for development. While several authors have suggested that PLCs should be the modus operandi for all schools to effectively manage educational change (for example, DuFour, DuFour, & Eaker, 2008; Hord, 2008, 2009; Schmoker, 2006), there have also been warnings that some mandated PLCs are unsuccessful in gaining teacher support, leading to resistance or 'cynical compliance' (Elmore, 2002), or are insufficiently critical or improvement focused, merely reinforcing existing practices (Fullan, 2007; Sagor, 2009; Servage, 2008, 2009). As Fullan says:

> Collaboration is powerful, which means it can be powerfully bad as well as good. ...Strong teacher communities can be effective or not depending on whether they collaborate to make breakthroughs in learning or whether they reinforce methods that do not get results. In other words, when teachers collaborate to reinforce one another's bad or ineffective practices, they end up making matters worse. (Fullan, 2007, pp.147-148)

Nevertheless, there are many reports of PLCs in which teachers have committed to sustained collaborative inquiry into improving their practice or implementing reform programs (see for example Butler, et al., 2004; Clausen, Aquino, & Wideman, 2009; Coburn, 2001; Elliot, 2007; Englert & Tarrant, 1995; Flint, Zisook, & Fisher, 2011; Hoban, 2008; James & McCormick, 2009; Lee & Wiliam, 2007; Lieberman & Miller, 2008; Judie Mitchell, 2004; Nilsson, 2012; Peters & Le Cornu, 2005; Timperley, Parr, & Bertanees, 2009; Vescio, Ross, & Adams, 2008; Williamson & Zimmerman, 2009; Zellermayer & Tabak, 2006).

In Australia, the Project for Enhancing Effective Learning (PEEL) has been a particularly long-running and successful network of PLCs (Loughran, 1999). Although initiated as a two year project in 1985 as a collaboration between a group of teachers in one secondary school and a university researcher to investigate how they could improve student metacognition, the PEEL concept of groups of teachers meeting to discuss issues of practice has since expanded to many other schools (including primary schools) within Australia and overseas (I. Mitchell, 1999). While admitting that there have been difficulties and set-backs during the process, particularly in the early stages (Baird & Mitchell, 1997), significant teacher learning and improvements in practice over the long term have been consistently reported (I. Mitchell, 1999; I. Mitchell & Mitchell, 2008).

The success of PEEL indicates that many teachers are willing to participate in actively and collaboratively pursuing improvements in their own practice. Furthermore, the longevity of the program suggests that participants have developed new motives for continuing their professional learning beyond the initial reason for setting up the original group. That is, while the initial motive for the original group was to implement a program to improve student metacognition, (to be achieved through the activity of collaborative sharing and reflection amongst fellow teachers), quite quickly the dominating motive of participants appears to have shifted to the intellectual stimulation of collaborative professional learning, and this was able to sustain the group through the initial difficulties in achieving the original motive (see I. Mitchell, 1999). Even though the original motive of improving student learning was eventually achieved, Loughran's (1999) assertion that many PEEL participants have sought further opportunities for continuing and sharing their professional

learning through post-graduate courses and publications indicates that teachers' own professional growth remains an important motive for participants.

Although PLCs are an increasingly common way for schools to organise school-based professional learning/development, Phase 1 of this study highlighted important issues that were difficult to address within this format. This led to a further search of the literature to examine alternative forms of professional development that occur within teachers' classroom teaching practice. The following two sections will review the literature on coaching and co-teaching/co-generative dialoguing.

Coaching

In the last two decades, and particularly since the No Child Left Behind Act of 2001, coaching has become a very popular form of professional development in the US, with many school districts employing coaches to support teachers to implement curricula changes and other reform initiatives (Borman & Feger, 2006). In recent years, Australia has also copied this trend with most state education departments implementing coaching initiatives, particularly as part of the federally funded *Smarter Schools National Partnerships* strategy (Queensland Department of Education and Training, n.d.; Thelning, Phillips, Lyon, & McDonald, 2010).

The literature, however, describes several different forms of coaching, stemming from a variety of historical and philosophical frameworks. In the following sections I will examine three different types of coaching that have evolved since the 1980s in the US to show the origins and main characteristics of the variety of strategies that have been used to develop the coaching programs typically implemented in Australia, and particularly in Victoria.

Peer coaching was originally proposed as an on-site follow-up process to enhance transfer of teaching strategies from staff development training programs into classroom practice (see Joyce & Showers, 1980). The original model paired more experienced teachers or consultants with teachers who had attended training to provide follow-up modelling, practice and feedback, finding that rates of transfer increased significantly for teachers who received coaching compared to teachers who received no coaching (Showers, 1982).

Over more than fifteen years the strategy evolved to working with whole faculties and teams of teachers to identify their own needs, design training accordingly, and then follow up with collaborative planning and development of materials, modelling, and observations of each others' practice (Showers & Joyce, 1996). Importantly, the feedback component of the original model was abandoned (because teachers felt it was too evaluative and distracted from the development of collaborative relationships), and observation sessions instead focus on learning from the teacher demonstrating a strategy rather than on critiquing a teacher's implementation. Interestingly, the evolution toward a more collaborative structure means this approach now closely resembles the PLC approach even though there appears to be no crossover in the literature.

Cognitive coaching was conceived in the mid 1980s by Art Costa and Robert Garmston, and although it shares many of the sentiments of reflective practice (i.e., is based on the belief "that all behavior is determined by a person's perceptions and that a change in perception and thought is prerequisite to a change in behavior" (Costa & Garmston, 2006, p. 7)), it actually stems from completely different roots. Cognitive coaching is a modern expression of the 'clinical supervision' model developed by Cogan and Goldhammer in the late 1960s (see Cogan, 1973; Goldhammer, Anderson, & Krajewski, 1969), adopting the same cycle of pre-conference, observation and collection of data, and post-conference events. The chief difference lies in clinical supervision's emphasis on changing overt teaching behaviours whereas cognitive coaching focuses on changing the teacher's inner thoughts, beliefs and values as a prerequisite for changing behaviour (Costa & Garmston, 2006).

While research on the impact of cognitive coaching on student improvement has been mostly inconclusive (Cornett & Knight, 2009), several studies have nevertheless shown increases in teachers' self-efficacy and satisfaction with their career, with effects increasing over several years (J. L. Edwards, Green, Lyons, Rogers, & Swords, 1998; J. L. Edwards & Newton, 1995; Hull, Edwards, Rogers, & Swords, 1998; Slinger, 2004).

Cognitive coaches use specific questioning techniques to help teachers reveal and understand their own thinking behind their practices in order to increase the teacher's capacity for decision-making and assessment of their own teaching:

> The ultimate goal of Cognitive Coaching is teacher autonomy: the ability to self-monitor, self-analyze, and self-evaluate. In early cycles of Cognitive Coaching, the coach must draw these capacities from the teacher, but as the cycles continue, a teacher begins to call upon them internally and direct them toward an area of personal interest. (Garmston, Linder, & Whitaker, 1993)

Rather than working together collaboratively on reflecting, planning or problem resolving; the cognitive coach withholds advice, judgements and interpretations, instead using questioning, listening, pausing, paraphrasing, and probing to mediate the teacher's mental processes as the teacher plans, reflects or resolves their own problems out loud (Costa & Garmston, 2006). While these techniques could be regarded as forms of scaffolding the teacher's own thinking, the fact that the available resources of the coach are withheld, in my opinion, reduces the potential of the conversation for creating an effective ZPD and effectively leading development.

Instructional coaching, in contrast, is described as a 'partnership approach to improving instruction', with coaches collaborating with teachers to "choose and implement research-based interventions to help students learn more effectively" (Knight, 2007, p. 13). Even so, although in this form of coaching the coach works more collaboratively with the teacher on the tasks of planning, reflecting and problem solving, the role of the coach in the classroom is generally to either model a new instruction strategy or observe and collect data on a teacher's implementation of the strategy, meaning that collaboration is rarely used in the actual teaching practice.

Instructional coaches use the principles of equality, choice, voice, dialogue, reflection, praxis and reciprocity as they work with the teacher to identify possible interventions in any of the following areas: behaviour/classroom management, content knowledge – understanding curriculum standards and translating these into lesson plans, direct instruction – research-based instructional practices, and formative assessment (Knight, 2007).

This form of coaching was developed in the late 1990s and early 2000s by the University of Kansas Center for Research on Learning as part of several federally

funded university-district partnership projects (Knight, 2004), and based on initial research conducted by Knight (1998). Although in this research the coach/teacher relationship is defined as collaborative, and learning is said to be reciprocal, in my examination of the available literature on instructional coaching (see for example, Cornett & Knight, 2009; Gallucci, DeVoogt Van Lare, Yoon, & Boatright, 2010; Knight, 2004, 2006, 2007), it is clear that the coach is still positioned as an 'expert', and responsibility is placed on the coach to source, explain and demonstrate new instructional or organisational strategies, and then support the teacher until they are able to implement these with fidelity. Knight himself has written:

> [The university-district project] Pathways to Success has provided an opportunity to also study how coaches can improve student achievement by enabling what we refer to as "hi-fi teaching", teaching that demonstrates fidelity to the scientifically proven critical teaching behaviors of the various interventions being implemented. (Knight, 2007, p. 13)

However, West (2009, p. 120) suggests that in coaching, fidelity should be regarded as "*mindful engagement",* encouraging teachers to investigate and explore programs and materials, rather than mindlessly reproducing a mechanical implementation of a given script. Denton and Hasbrouck (2009) have noted that the rapid growth in the number of coaches employed throughout the US has outstripped accompanying research, leading to wide discrepancies in the way coaching (in its many forms) is enacted, and only limited knowledge about its actual effectiveness.

> There is a need to develop fully-articulated models of instructional coaching based on cohesive theories, and to validate these models. In a very real sense, practice has preceded theory in this area. Until coaching models are clearly defined, it will be impossible to determine whether specific coaching approaches result in improved teacher practices and, most importantly, in improved student outcomes. (p. 172)

However, a recent research study has shown that following-up teachers' attendance at a series of workshops with instructional coaching led to significant positive effects in eliciting teacher change and increasing skill transfer (Teemant, et al., 2011). The authors particularly noted that they considered the observational design of this study (using measurable performance targets), to be an improvement on previous instructional coaching studies which generally rely heavily on teacher self-reports of changes in practices, beliefs and attitudes.

In Australia, the 'Getting it Right Strategy' introduced in Western Australia in 2002, appears to be the only coaching style program that has been systematically researched, as coaching is still a relatively recent phenomenon in this country. This program placed the equivalent of 200 full-time Specialist Teachers into selected primary schools around the state to improve literacy or numeracy programs (Cahill, 2004). These Specialist Teachers (often appointed from within the school's existing staff) were redeployed from their own classroom duties to work *shoulder-to-shoulder* alongside colleagues – primarily by "helping them in the collection and analysis of student performance data, using that data to inform planning, modelling lessons, and team teaching" (Ingvarson, 2005, p. 64). This approach is clearly consistent with the international coaching initiatives described above.

In comparing this program with Hawley and Valli's (1999) principles for the design of effective professional development, Ingvarson (2005) found that the Getting it Right Strategy exemplified each principle, even though Hawley and Valli gave no suggestions about the type of program that may be required to fulfil such principles. Ingvarson suggests that one of the key advantages to the Specialist Teacher role is that it frees up expertise that is typically located in one experienced teacher's classroom, making this expertise available to all staff at the school through the allocation of the specialist to work for a half day each week with each teacher for a two year period.

An extensive evaluation report concluded that the strategy had been highly regarded by teachers and principals and was rated as having a much higher impact than other forms of professional development (Meiers, Ingvarson, Beavis, Hogan, & Kleinhenz, 2008). The Getting it Right strategy was also extended into Western Australian secondary schools in 2006 with similar success, but funding for the strategy ceased in 2010 (Strong, 2010). However, Strong predicts that the influence of the Specialist Teachers will be felt for some time:

> Their legacy in building knowledge and capacity around adolescent literacy with teachers from all corners of the state, however, will undoubtedly remain as the most significant, system level response yet to this labyrinthine issue of literacy improvement in high school settings. (p. 59)

In Victoria, a state-funded coaching initiative employed 45 literacy coaches in 2007, 200 teaching and learning coaches in 2008 and 15 Koorie [indigenous] literacy coaches in 2009 (Department of Education and Early Childhood Development, 2010). However, Gill, Kostiw and Stone (2010) report that due to the perceived value of coaching as an effective form of professional development some schools have also employed a coach from within their existing resources and the Western Metropolitan Region provided funding for every school in their region to have a school-based literacy and numeracy coach (approximately 350 coaches) as part of a three year strategy to improve student outcomes.

The Victorian government publication *Coaching Teachers in Effective Instruction* (Department of Education and Early Childhood Development, 2010) draws upon international coaching literature to set out six core elements of a coaches role:

- Professional Relationships
- Data and Evidence
- Substantive Conversation
- Purposeful Instruction
- School Improvement
- Self Development

The description in this document of 'substantive conversation' is very similar to the description of cognitive coaching given above – emphasising listening and questioning to facilitate reflective practice, while 'purposeful instruction' shares instructional coaching's emphasis on implementation of evidence-based teaching strategies. The 'data and evidence' and 'school improvement' elements reflect the current era of accountability and promote the implementation of government initiatives and reforms, while the 'professional relationships' and 'self development' elements recognise that coaching involves building trusting and equitable relationships in which all parties can continue their development as professionals. It can therefore be seen that the Victorian coaching initiative has drawn upon a variety of existing models of coaching rather than adopting one particular model or approach.

Unfortunately, funding for the 260 state employed coaches was not renewed at the end of 2011 and these programs have now ceased. The evaluation report of this initiative, carried out over the lifespan of the program has not yet been publically released. Despite this setback for Victorian schools, the federally funded *Smarter Schools National Partnership* launched in 2009 has also been used in many states to provide literacy, numeracy and instructional coaches to schools regarded as under-performing on national literacy and numeracy testing. In Victoria over 100 coaching positions have been created as a result of this initiative (Australian Government, 2010).

As can be seen from this brief review of the coaching literature, coaching is generally associated with either large-scale government-funded projects charged with implementing reform packages, or with commercial enterprises attempting to develop their own 'brand' of coaching which can be taught to private consultants or school leaders, and thus is primarily concerned with achieving replicable reform outcomes. In contrast, the co-teaching/co-generative dialoguing strategy developed by Wolff-Michael Roth and Kenneth Tobin had its genesis in small-scale research studies, and thus has been developed primarily from a theoretical basis. Although improvements in practice are still a primary objective, co-teaching operates from a dialectical philosophy, enabling understanding of practice and participants' development as professionals to be simultaneous (and mutually dependent) goals alongside improvement.

The following section gives a brief review of the co-teaching/co-generative dialoguing literature, but further explanation of this unique form of professional development, and particularly of its use as a research method, is provided in Chapter 4.

Co-teaching/Co-generative dialoguing

Roth first began to write about co-teaching in the late 1990s after conducting research in a primary classroom where two teachers worked together to implement a science unit. He discovered that this process of teaching together led to three forms of teacher learning: "learning-in-practice; learning to talk about (or theorize) practice; and learning by attempting to put theory (propositional knowledge) into practice" (Roth, 1998, p. 363). Over several years, Roth continued to work on a

variety of co-teaching projects, sometimes acting as a co-teacher himself with a pre-service secondary science teacher (for example, Roth, 2002; Roth, Masciotra, & Boyd, 1999), or with Ken Tobin, another researcher who also co-taught extensively in an urban secondary science classroom with both in-service and pre-service teachers (for example, Roth, Lawless, & Tobin, 2000; Roth & Tobin, 2002, 2004, 2005a; Roth, Tobin, & Zimmermann, 2002; Tobin & Roth, 2005, 2006).

Together, Roth and Tobin have drawn primarily (although not exclusively) on cultural-historical activity theory to form a theoretical framework for explaining the dialectical activities of co-teaching (working at the 'elbow of another') and co-generative dialoguing (reflective debriefing and collective theorising about the shared co-teaching experiences).

> Coteaching is not about two teachers being in the classroom together to make their job easier, but about developing as teachers while teaching; that is, continuously participating in a process of becoming (a better teacher) in the classroom (Roth, 2002). This becoming in the classroom is associated with and defined by an increasing range of actions available to any individual teacher, an increased *room to maneuver* for dealing with the myriad of situations that a teacher faces on a daily basis. As part of our work, we generate theory that allows us to understand and explain the classroom events that we experience together with the resident coteachers. (Roth & Tobin, 2004, p. 165)

Roth (2002) has observed that because co-teachers directly experience the consequences of other teachers' actions and then collectively build localised theory relevant to their shared situation (rather than read about suggested courses of actions as abstract theory removed from practice), teachers are more likely to successfully adopt the effective practices of their co-teachers and incorporate them into their own repertoire over time. This finding has important implications for understanding teachers' professional development as it provides evidence of successful changes in practice occurring simultaneously alongside changes in knowledge developed in discussion (a phenomenon Kazemi and Hubbard (2008) have labelled "the *coevolution* of [teachers'] participation between classroom practice and PD" (p. 430)), rather than perceiving this as occurring in either a linear or cyclical fashion as described in the models by Guskey (1986) and Clarke and Hollingsworth (2002) discussed earlier.

Although other international researchers have also adopted Roth and Tobin's model of co-teaching/co-generative dialoguing (see for example, Eick, Ware, & Williams, 2003; Murphy & Carlisle, 2008; Murphy & Scantlebury, 2010b; Siry, 2011; Siry & Lara, 2012; Siry & Zawatski, 2011), at present almost all co-teaching research has been conducted by science teacher educators, meaning that most studies provide examples of working with science teachers, and particularly with pre-service science teachers. This present study sits within the co-teaching literature, but will also make an important contribution by bringing this approach to a broader audience and demonstrating its applicability across different subject areas, levels of schooling and levels of teacher experience.

Conclusion

At the very beginning of Chapter 1 of this thesis I described two forms of storytelling – the simple tale that moves linearly to a neat resolution and the complex narrative that jumps forwards and backwards through time and space to provide an exploration of the subject material. This review of the literature has necessarily taken this complex narrative form, to jump temporally through history and spatially around the world, in order to provide an understanding of the existing research into teachers' professional development, and the gaps that this study seeks to address.

Firstly, by examining the historical development of research on professional development, I have discovered that a great deal of this research is under-theorised, mainly presenting descriptions of different approaches, and observations that, despite some examples of successful practice, the types of programs typically provided for most teachers are known to be ineffective. I argue that this demonstrates a need for robust theorisation of professional development in order to *understand* (not just describe) the practice of teacher development so that the necessary conditions for this development can be provided effectively.

Secondly, I suggest that cultural-historical theory provides an alternative theoretical framework for developing this theorisation, but that at present cultural-historical research in the Australian context has been limited to the Early Childhood sector. Currently very little is known about how primary school teachers in Australia are able to use cultural-historical theorisations of teaching/learning and development to

understand the learning and development of their students and themselves as professionals.

Thirdly, although the literature acknowledges that what is learnt in professional development is not necessarily transferred by teachers into their practice, there has been very little research into understanding the reasons behind this and how the problem can be solved. Current approaches draw on reflection, collaboration, and in-practice coaching to assist this process, but still do not provide a theoretical basis for understanding this issue. Co-teaching/co-generative dialoguing has been developed as an interventionist research strategy which provides a theoretical basis for understanding and promoting teachers' development while simultaneously implementing improvements in practice, yet at present has been mostly restricted to work with science pre-service teachers, and most often (although not exclusively) in secondary school settings.

Therefore, this study addresses the gaps in the current professional development literature by using cultural-historical theory to provide a theorisation of the institutional practice of professional development, with particular relevance to primary school teachers in the Australian context. The following chapter will discuss the methodology used to achieve this.

Chapter 4: Methodology

CULTURAL-HISTORICAL RESEARCH

"The philosophers have only *interpreted* the world, in various ways;
the point is to *change* it" (Marx, 1994, p. 101).

Introduction

The purpose of this chapter is to outline the methodology, methods and study design used in each phase of the project. The methodology in this cultural-historical interventionist study is closely linked to the theoretical framework described in Chapter 2. Several writers have stated that the above quotation from Marx is often misunderstood to infer that philosophy is pointless, whereas it should be read to imply that the point of philosophy should not merely be to interpret or describe existing phenomena, but rather to understand and explain how phenomena develop through the process of change (Blunden, 2012; Chaiklin, 2011; Newman & Holzman, 1993). A research methodology based on this premise therefore requires the researcher to take an interventionist stance, provoking change so that development can be observed and analysed.

Cultural-historical methodology

Vygotsky's tool-and-result methodology

My understanding of cultural-historical methodology used to design the study was based primarily, although not exclusively, on readings of Vygotsky (1987, 1997a), Newman and Holzman (1993), Holzman (2009) and Hedegaard and Fleer (2008). This section will give a brief overview of this understanding in order to provide a context for explaining the decisions I made about my methods and study design.

As mentioned in Chapter 2, Vygotsky used dialectical reasoning to create a revolutionary, holistic form of psychology to explain the complex role of culture in human development. Vygotsky (1997a) believed that the unique process of changing behaviour through cultural development (through the interplay between individual, interpersonal and socio-historical factors) required a unique method for studying and explaining this process.

> Finding a method is one of the most important tasks of the researcher. The method in such cases is simultaneously a prerequisite and product, a tool and result of the research. (p. 27)

His aim was to create a methodology that *explained* the process of developing mental functions and cultural behaviours rather than to simply *describe* the completed products of development. His experimental-genetic method devised ways to elicit and create the object of the study as a dynamic process unfolding and changing from its initial genesis to its mature form throughout the course of the study, rather than to study the static form of completed development. This explains why cultural-historical research straddles the interpretivist and critical paradigms of understanding and changing the world. Vygotsky believed that it was only through creating and studying *change* that we could come to *understand* the process of development.

Newman and Holzman (1993) refer to this as *tool-and-result* methodology, in which creating and implementing the tool of the research – in this case, the process of collaboratively creating a professional learning community/ZPD to transform participants' practice and understanding of teaching and learning – simultaneously is also the result (product) of the research (i.e., produces [explanations of] participants' transformations). They argue that this dialectical notion of tool-and-result (as opposed to the pragmatic tool-for-result) is how psychology can be performed as a revolutionary practice/activity in line with Vygotsky's Marxist approach. Tools, in this tool-and-result scenario, refer to the type of purpose-designed tools created by a toolmaker for a specific function in the process of creating a unique product, that is, "the activity of producing is inseparable from the product" (p. 74). This is compared with tool-for-result pre-manufactured, mass-produced tools with pre-determined functions that can be taken off the shelf and applied to creating any number of products.

Coming to understand this tool-and-result principle involves constantly wrestling with a lifetime of Cartesian thinking to embrace dialectical reasoning. I have come to understand traditional tool-for-result methodology as being applied as 'a means to an end' whereas revolutionary tool-and-result methodology is practised as 'a means (and end) in itself'. The challenge is to keep this principle in mind when designing a

research program within the confines of 'the academy' built on traditions of Cartesian thinking.

Holzman (2009) argues that contemporary Vygotskian research will necessarily be different to Vygotsky's original research, as not only must it reflect the cultural-historical changes that have taken place since his time, but must also be practiced in the spirit of Vygotsky's revolutionary methodology. As Newman and Holzman (1993) state:

> With Vygotsky, as with Marx, it is extremely tempting to take the substantive discoveries as most important since they are both pragmatically useful and compelling. But to do so, we think, is to minimize and, in fact, to distort Vygotsky's (and Marx's) contribution. However rich the content of their discoveries, the value of their work lies in their method – in which results of method and method itself are inseparable. If this is so, then it follows that to benefit fully from Vygotsky's work contemporary psychologists would have to continue in a scientifically revolutionary tradition. In other words, it is not Vygotskian to simply apply Vygotsky. (p. 17)

Therefore, this research study, while firmly grounded in Vygotsky's theoretical perspectives, concepts and methodology, also involves the radically different conceptions and methods of education and research that have evolved in the late 20th and early 21st Centuries. Furthermore, it does not seek merely to apply these theories, concepts and methodologies as they currently exist as a 'means to an end' but to continue creating them as 'means (and ends) in themselves'.

To end the discussion here however appears to leave the research project as having no purpose beyond itself, which would be contrary to the nature of a PhD thesis which must make some contribution to the field. In acknowledgement of this tension between research situated in specific settings and the need to build theory that generalises across situations, Hedegaard and Fleer (2008) have worked within the cultural-historical tradition to elaborate what they term a *dialectical-interactive* methodology for studying children's development. They argue that "such a methodology must be anchored in a concrete historical setting and at the same time contribute towards an understanding of the *general conditions* that support child development" (p. 4).

While much of Hedegaard and Fleer's work relates to researchers interpreting their interactions with children and their caregivers as they participate in their existing activities across the various social institutions in which the studied child participates, Hedegaard (2008c) does also outline 'the educational experiment' which takes a more interventionist approach to research by creating new activity within a classroom setting. My use of this approach will be further elaborated in my discussion on the methods used in this study, but is mentioned here because of its importance in providing a model which explicates that revolutionary tool-and-result methodology is dialectically informed by, and continues to inform a theoretical framework generalisable beyond its immediate situation.

I have found it easiest to represent the dynamic nature of this idea as an animated slideshow which can be viewed on the CD-ROM included with this thesis. Screenshots of this series of seven images are reproduced here as Figure 4.1:

1. Castles represent theory – This theory suggests that to get holes you will need to create a tool for digging them.

2. Theory makes suggestions about what sorts of tool may be appropriate...

3. ...but ultimately participants collaboratively create a tool to meet their own specific needs in this specific environment

participants

environment

4.

participants

environment

The process of
participants creating and
using the tool in their
environment produces
holes (changes practice)
–and also changes the
participants,
environment and tool
throughout the process

5.

participants

environment

The process of digging
holes simultaneously
produces piles of sand –
generates data about
relationships between
participants, tool,
environment and dug
holes

The process of
participants creating and
using the tool in their
environment produces
holes (changes practice)
–and also changes the
participants,
environment and tool
throughout the process

6.

7.

Figure 4.1 Pictorial representation of cultural-historical methodology and its relation to theory.

Where this particular research study is unique, is that the focus of the research is on understanding the actual practice of teachers' professional development itself (i.e., in reference to the above diagrams, studying the relationships and interactions between participants, tools and environment), rather than studying the consequences participating in the PD had on the teachers' classroom practices (i.e., evaluating how successfully they could dig holes).

This idea is consistent with the first principle of *cultural-historical science* outlined by Chaiklin (2011): "Researchers have often only looked at the consequences of practices; the point is to develop them" (p. 242). In creating this principle, Chaiklin has drawn an obvious and deliberate parallel with the Marx quotation from *The Theses on Feuerbach* given at the beginning of this chapter in order to highlight the theoretical basis of his approach. He refers to empirical interventionist research projects based on his five outlined principles as 'practice-developing-research' focussed on creating theoretical analyses of the selected practice and the conditions necessary to develop that practice, and then creating change through concrete actions within that practice (Chaiklin, 2008, 2009, 2011).

However, my research takes a slightly different form from Chaiklin's because the practice that is the *focus of the research* is *not the practitioners' practice*, but is the *joint practice of researcher and teacher participants created to develop the teachers as professionals*. Sutter (2011) has suggested that this could be a necessary expansion of interventionist methodology – "beyond interventionism" – where the unit of analysis in the research is the joint developmental project of researcher and participants, whereas typically the unit of analysis is the participants' activity that the intervention project was designed to improve. Sutter argues that such an expansion would allow for researchers to move beyond creating only the representational knowledge valued by traditional science, but to also provide what Shotter (2006) calls "knowing of a third kind":

> It [knowing of a third kind] is concerned with the articulation of an 'insider's' understanding of what is involved in carrying out an action in a social situation—that is, it is not a 'knowing-that' (Ryle, 1949), a knowledge that can be formulated in terms of facts or general principles, nor is it a 'knowing-how', the knowledge of a craft or a skill—it is the unique, particular kind of knowledge one has 'only *from within a social situation*, a group, or an institution . . . which . . . takes into account (and is accountable

to) the *others* in the social situation within which it is known' (Shotter, 1993a, p. 7). In other words, it is an account of our consciousness activities that is of use to other human beings who are seeking not to create consciousness, *de novo*, in something non-living or non-human, but to elaborate, develop, extend or refine their own relations to the others and othernesses around them, so as to deal with them in a conscious, less impulsive, more deliberate manner. (Shotter, 2006, p. 20)

This research takes a first-person perspective because not only am I situated within the practice I am studying as an observer, but I also take an active stance in co-creating and transforming this practice. My research is therefore not about *other people's* practice, but primarily studies *my role in conjunction with others* in order to understand a jointly developed practice. This is further discussed in the next section of this chapter.

Role of the researcher

My role as researcher in this study is recognised as a joint collaboration with teacher participants to create and understand new practices of professional development. As such, my personal assumptions and biases (as far as these can be recognised) have been openly acknowledged and explicated to both participants and readers of the research. At all times I endeavoured to engender a relationship of trust between and among researcher and participants.

As mentioned above, the collaborative nature of this project also required a unique stance in my role as researcher. Although it is common for researchers in qualitative studies to adopt a stance as a 'participant observer' (Atkinson & Hammersley, 1994; Flick, 2002; Silverman, 2006), other authors (for example, Erickson, 1996; Johnstone, 2007) use the term 'observant participant' to indicate when a researcher is seen as an 'inside' member of the community (although one who takes an especial interest in observing their own and others' participation), rather than an outsider who participates only in order to observe. However, to me, both 'participant observer' and 'observant participant' give the impression that the researcher is participating in activities that were already present and operating without their intervention (for example, joining a choir in order to understand something about singing in a group, or deciding to document and analyse participation in a choir you are already a

member of), whereas in this case, these specific (concrete) forms of professional development (PD) activity did not exist until they were created for this study. Cole (2003) has also discussed this in relation to his work on the 5th Dimension program:

> [I]n most cases, participant observers are not responsible for the existence of the system they study. By virtue of the fact that it is a "real world" system they are investigating (an important virtue, because it displays the utility/believability of the theory), the activity they study would exist if they were not there to observe it; the ongoing activity of the observer (sic) does not require their participation.
>
> By contrast, my students, colleagues, and I literally create the systems of activity that are the focus of our research. We are participant observers in a quite unique way. In this, I believe we are invoking an idea that has been common to both the cultural-historical tradition and to the study of artificial intelligence: you can best understand something you have made. (p. 12)

For this reason, I have chosen to use the term 'collaborator' rather than participant to indicate that I did not simply join or change my role within an existing activity, and, even though it was *my* research that created the presence of the activity, the teachers and I collaboratively created the exact form and nature of the activity together. However, collaborator alone does not fully describe the extent of my role, because the fact that I was doing research about the new activity meant that I needed to be observant about the collaboration in a different way than my fellow teacher collaborators needed to be. I therefore regard my role as researcher as an ***observant collaborator***, recognising that as a co-creator of the activity I was an insider and full member of the collaborative activity, albeit a particularly observant one.

The next section of this chapter will outline the particular methods I have used in this study in order to carry out research consistent with the methodological approach described above.

Methods

The educational experiment

Hedegaard (2008c) describes the 'educational experiment' as containing elements of both the traditional experiment and action research paradigms. I have constructed a table (see Table 4.1) to show the similarities and differences between each of these paradigms, as outlined by Hedegaard (p. 185):

TABLE 4.1 *Comparison between Hedegaard's Educational Experiment, Traditional Experiments and Action Research*

Educational experiments	Traditional experiments	Action research
Similarities	Systematic intervention, based upon theory, to investigate how planned changes influence a specified system.	Intervention is planned and carried out in cooperation with participants to make a change to their ordinary practice. These activities are monitored and modified over a protracted period.
Differences	No attempt to control variables. Experiment takes place within the complexities of normal life.	The intervention is planned in relation to a theoretical system and not simply from agendas of practice.

Although Hedegaard acknowledges Davydov's (1990) ideas of theoretical-dialectical knowledge as the inspiration for the educational experiment, she is critical of the natural science methods (e.g., statistical comparison of test results between experimental and control classes) that have dominated research in this area. Instead, Hedegaard's approach uses qualitative methods and data analysis to examine the dialectical relations between theoretical considerations of learning, teaching and development in relation to the chosen subject matter and how these manifest and transform in actual practice.

The 'educational experiment' appears to draw several parallels with the relatively new field of 'design-based research' (DBR), evolving from research using the 'design experiment' (see Brown, 1992; Cobb, Confrey, diSessa, Lehrer, & Schauble, 2003; Roth, 2005). DBR is characterised as "iterative, process-focused, interventionist, collaborative, multileveled, utility oriented, and theory driven" (London Knowledge Lab, 2007) and aims to generate new knowledge of learning by studying the effects of designed curricular innovations in real contexts (The Design-Based Research Collective, 2003). However, much of the DBR and design experiment literature appears to fall into the pragmatist tool-for-result category

described by Newman and Holzman (1993), exploring how the intervention causes changes in children's learning, rather than creating a revolutionary activity in which the interrelations between theory, practice and children's development are examined as tool-and-result/simultaneous process and product.

Engeström (2007) is also critical of design experiments' linear process, which he argues is aimed at constant refinement to achieve a 'perfect' product which can then be implemented into other settings. He argues that this aim for perfection ignores the fact that implementation is always subject to resistance and reinterpretation, and thus can never be regarded as finished. However, I do not believe it is fair to regard this as a fault with all design research. Roth's (2005) description of his design experiment research is considerably more collaborative and reflexive than Engeström's characterisation and recognises that results are used to inform and influence future change as an ongoing, rather than a completed, process:

> More than any other form of research, design experiments have a real potential in bringing about change in teaching and learning. As they are both rigorous and flexible, the decisions made for changing the curriculum and for documenting the teaching and learning that occurs optimize both learning and the research design in an ongoing and cumulative way. In this second sense, the results of design experiments are generalizable or rather, transferable, to new settings, which they inform and influence, and which in turn generate new knowledge that has the potential to further change what and how we teach. (Roth, 2005, p. 82)

I believe Roth's dual concern with the process of collaboratively participating in improving practice in a specific context and adding to general understandings of teaching and learning is more closely aligned with the 'educational experiment' and dialectical-interactive approach explicated by Hedegaard and Fleer (2008), than with much of the more pragmatic 'design experiment' literature mentioned above.

Similarly, Giest (2008) describes a 'formative experiment' based on Vygotsky's experimental-genetic method, which also appears to be similar to Hedegaard's educational experiment. He provides four considerations for "developing an educational program based on activity theory" (pp. 113-114) which I have summarised as:

1. The program must be aimed at the formation of learning activity. The structural components (aims, learning tasks, learning means) must be elaborated explicitly. Cultural tools must be introduced to allow one to practice and acquire the activity.

2. To allow learners to construct their knowledge on a theoretical level, the learning must be structured and constructed according to epistemology of "ascending from abstract to the concrete" – ascend by concretising initial abstractions and applying them in practice, as a synthesis of *all* of a concept's sensuous-practical and ideal thought-form aspects (see Chapter 2).

3. The introduction to the object and the learning activity must be through meaningful, authentic activity.

4. Social interaction, cooperation and communication must be emphasised.

These four considerations of Giest's apply equally well to the examples Hedegaard has provided of her educational experiments (Hedegaard, 1990, 1998, 2002, 2008a, 2008c; Hedegaard & Chaiklin, 2005), and they also apply to the professional learning programs I created in this study. However, while Giest's formative experiment uses Vygotsky's tool-and-result principles and has created an educational program sympathetic to Hedegaard's approach, he uses quantitative methods of data collection and analysis, thus carrying out the research in a very different manner.

Due to the myriad of names researchers have chosen to apply to their research methods and the lack of clear definitions of these terms, all research in this genre must be analysed on its own merits to see if it meets the 'tool-and-result' criteria and aligns with Vygotsky's revolutionary methodology. Ultimately, the label researchers apply to their chosen method is not of great significance – it is how the chosen method is created and utilised that is important. However, despite the traditional connotations of the term 'experiment' in Western academic circles which could be misleading, I have chosen to retain the label of 'Hedegaard's educational experiment' in order to maintain the strong link with the literature of cultural-historical theory and methodology.

Hedegaard (2008c) explains that the educational experiment can be conducted within any form of social practice "where the aim is to facilitate learning possibilities" (p. 200). Therefore, although Hedegaard's experiments have typically been conducted in classroom settings, the institutional practice of professional development is an ideal

context because it aims to facilitate the learning possibilities of teachers. She also explains that the process consists of two main phases because in researching a new problem area the theoretical conceptions are "vague and fragile" and therefore, as a first step, knowledge of the conceptual relations must be systemised and modelled as a basis for planned interventions in practice in the second phase.

> In the first phase the research is closely connected with the life situation of the subjects, the researcher's model of how to invent and what to ask is very vague. The researcher (more or less intuitively) records her impression of the changes and contradictions in the process; through participant observation or through interviews she becomes part of the context, collecting protocol material. Through interpretation of these protocol records some conceptions about the object of research can be formed and the researcher can systematise the knowledge and formulate models of relations.
> … The researcher in the second phase uses the conceptual relations and the conceptual models formulated through the research in the first phase. Here she explores if the conceptual models are useful by … creating experimental intervention into everyday practice. This allows for an evolving theoretical understanding and for the creation of new and better practice conditions for [learners'] development. The methodological aspects of the second phase are characterised by the researcher's intentional transformation of practices in the problem area to bring out the central relations. (p. 182)

The first phase of this research therefore sought to create a practice of professional development (based upon current theoretical understandings and literature on professional learning examined during the first year of candidature) in order to identify, systematise and model the essential relations that provide the necessary conditions for effective professional development. This new model was then used as the basis for planning the second phase intervention, informing the choice of approach (co-teaching and co-generative dialogues, discussed later in this chapter) and formulation of research questions to examine the salience of the model.

It must be emphasised again, that even though this second phase intervention took place within the teacher's classroom practice, the focus of the research was still on analysing the joint activity of the researcher and teacher as a new practice of professional development, not on analysing changes in the teacher's classroom practice. Of course, it was necessary to make observations of changes in the classroom practice in order to understand the effectiveness of changes in the

professional development practice under examination, but these were not the primary focus of data analysis.

Video (or audio) analysis and interviews

In the same volume containing Hedegaard's (2008c) explanation of the educational experiment, there are also chapters describing a cultural-historical approach to using video (Fleer, 2008b) and interviews (Hviid, 2008). Although video observation and interviews are common methods in many qualitative research methodologies, the dialectical-interactive approach to research used by these authors provides a unique emphasis on how these methods can be used not only to inform the researcher but also to add to the developmental situation of all participants (including the researcher).

Cultural-historical researchers are interested in capturing the complexity of the social situation they are studying, and video cameras provide an excellent tool for assisting this process. Fleer (2008b) points out,

> Video observations are particularly useful to cultural–historical researchers, who seek to examine the dialectical relations between participants, the social setting and the institutional practices, and who need to revisit their material many times in order to make interpretations from a range of perspectives in order to understand the child's social situation for development. (p. 110)

Fleer also describes how segments of video data can be reintroduced to participants at a later date to solicit further explanations of the situation from the participants' perspective. In this study, although I did not actually show video clips to the participants, I did on several occasions reintroduce comments that had been made in previous sessions and noted when viewing the video, to generate further discussion and clarify participants' perspectives on their meaning. These new conversations often led to new insights, providing developmental moments for the participants involved.

Similarly, Hviid (2008), when discussing research interviews, notes that bringing a cultural-historical perspective that perceives participants as continuously developing and as "active co-constructors of [their] own sociocultural conditions" (p. 139), creates developmental possibilities for both interviewer and interviewee. In dialogue

they must construct shared meaning not only of the life-world as *described* by the interviewee but also of the *meaning* this life-world has to the interviewee. Articulating, reflecting on and examining these meanings creates new opportunities for development.

While audio recording does not allow the analysis of visual data (body language, gestures, environmental setting etc.), and therefore limits understanding of the context, it is often regarded as less intimidating by participants than a video camera, and therefore less likely to inhibit their responses (Desplanques & O'Carroll, 2006). Audio recording also raises less ethical issues with regards to privacy and identification of participants and so was considered more appropriate for Phase 2 of this project where children may have been present.

Co-teaching and Co-generative dialogues (Co-gens)

As discussed in Chapter 3, the use of co-teaching and co-generative dialogue as a research method was pioneered and extensively developed by science education researchers Wolff-Michael Roth and Kenneth Tobin, along with the teachers, student teachers and students they worked with as colleagues (see for example, Roth, 1998, 2002; Roth, et al., 2000; Roth & Tobin, 2002, 2004, 2005b; Roth, et al., 2002; Tobin & Roth, 2005, 2006). Several other international groups of science teacher educators have continued this line of research, particularly in regards to pre-service teacher education (see for example, Murphy & Carlisle, 2008; Murphy & Scantlebury, 2010b; Siry, 2011; Siry & Lang, 2010; Siry & Lara, 2012; Siry & Zawatski, 2011).

Murphy and Scantlebury (2010a) define co-teaching as:

> Coteaching is two or more teachers teaching together, sharing responsibility for meeting the learning needs of students and, at the same time, learning from each other. Coteachers plan, teach and evaluate lessons together, working as collaborators on every aspect of instruction. (p. 1)

In Phase 2 of this study, co-teaching was used as a means for creating a different form of professional development practice, so although the teacher and I worked together to implement an innovation in her classroom practice, it is emphasised again that the focus of the data analysis was on the practice of professional development rather than the changes in the classroom practice.

Co-teaching is always accompanied by co-generative dialogues, more recently referred to as co-gens (Scantlebury & Murphy, 2010), where the events of the co-taught lesson are later discussed and analysed in order to not only search for solutions to practical problems and further improve the learning situation in subsequent co-teaching episodes, but also to create 'localised' theory explaining the experienced phenomena and situation (Roth, 2002; Roth & Tobin, 2002). The data generated in co-gens (i.e., audio tape of co-gen discussions which analyse the shared events of the co-teaching session) can also be analysed at a meta-level and revisited many times in order to create more generalised understandings of teaching and learning:

> The initial purpose of the cogenerative dialogue is to change the teaching and learning environment. But during these meetings we also make explicit attempts to "ratchet up" our conversation, to move from our immediate experience and *emic* discourse to explaining experience and the use of *etic* discourse; that is, we began to articulate more general and site-independent, general categories. We revisit the discussed events both in further face-to-face meetings and email exchanges among participants. The descriptions of classroom events and associated analyses, … emerge from these recursive discussions that originally begin with the cogenerative dialoguing and that are subsequently revisited until we feel that we understand and have an explanation for them. (Tobin & Roth, 2006, p. 192)

In this study, meta-analysis of the co-gen data (i.e., using the original analyses of our co-teaching generated in co-gens as the material for further analysis) was used to gain further insights into important conditions for enabling effective professional development.

Data generation

Phase 1 – The Banksia Bay PLZ

In the first phase of the study, the 'educational experiment' method used by Hedegaard (2008c) to study the effects of a classroom intervention on children's development was adapted in order to create a socially mediated activity in which a concrete instantiation of the institutional practice of professional development could dialectically be studied as an unfolding process, as it was created. The created practice was based on a cultural-historical theoretical understanding of practice and development (as discussed in Chapter 2) and informed by the professional learning

literature (as discussed in Chapter 3) to explore how teachers could learn about cultural-historical theoretical approaches to teaching/learning and create new classroom practices by participating in collaborative, ongoing and participatory professional learning activity. In other words, the teacher participants and I were creating a professional learning community which acted as a ZPD for participants' learning and development. From here on in I will refer to this new professional learning community as our 'professional learning ZPD' (PLZ). Details of the participants and context of this phase of the study are provided in Chapter 5.

The PLZ ended up consisting of seven professional learning workshops spread over six months from July 2010-February 2011. Six of these sessions ran for approximately 1.25 hours each and were held during the teachers' scheduled after-school meeting time. The final session ran for approximately 2.5 hours and was held during one of the pupil-free professional development days at the start of the 2011 school year. Each session was video recorded by two cameras placed on tripods and audio recorded using a digital voice recorder. This provided a total of 20 hours of video and 10 hours of audio recordings. These recordings were initially reviewed as soon as possible after each session to inform planning for future sessions, and to document early "common-sense" interpretations. Incidents thought to be of particular interest were transcribed in full and in later sessions I sometimes referred back to comments made in previous sessions and asked the participants to clarify what they had meant by a comment or respond to my interpreted understanding of the event, thus generating further data. I also interviewed the principal six months after the conclusion of the series of sessions to discuss whether the sessions had any ongoing effect on the teachers' understandings and practices. This one hour interview was audiotaped.

Plans to collect data from teachers' reflective journals and participation in an online forum were abandoned due to lack of participation. I believe this occurred due to the change in the nature of the research project when I was unable to attract participants to my original (proposed) project. While my original intention was to work with teachers from across any number of schools who had self-volunteered for a project to collaboratively form a community to create innovative teaching practices, a lack of response to the original flyer (sent to 20 schools) led to a renegotiation of the project with the principal of one school to work with her whole school staff in their regular

professional learning meeting times. Although all of the teachers in this school voluntarily agreed to participate in the series of PLZ sessions, their level of self-motivated commitment to participate in the project in their existing meeting time and location was obviously significantly less than would have been necessary for teachers agreeing to travel to an off-school site for seven sessions in addition to their own normal school meeting requirements.

Also, because the final participants were all staff of one school there was no need for them to communicate with each other online, as they could just talk over morning coffee in the staffroom if they wanted to discuss ideas. This had been one of the major reasons for my original research design drawing teachers from across several schools, so that I could share in and be witness to any online communication between participants. Even without anticipating the technical difficulties the Banksia Bay teachers had in logging in to the Sakai Virtual Research Environment I had set up, I had already realised that the change of research design would lead to a significant reduction in the anticipated amount of electronic field data likely to be generated. Unfortunately, heavy workload requirements in this small school and technical difficulties with internet access at Banksia Bay reduced this even further and I only ever received two comments on the Sakai.

Phase 2 – Co-teaching with Sia

The second phase of the study formed the second phase of Hedegaard's (2008c) educational experiment by using the modelled knowledge of the conceptual relations created through analysis of first phase data as the basis for planning an intervention in practice. This planned intervention was also informed by literature on practice-developing research (Chaiklin, 2008, 2009, 2011), and made particular use of Roth's (2002) co-teaching and co-generative dialogue strategies as the participant teacher and I collaborated together to implement a new innovation in her literacy program. Details of the context, participant and innovation are provided in Chapter 7.

Data gathering during this phase occurred over ten visits to the classroom (approximately 18.5 hours in total) and eight discussion sessions (approximately 6 hours in total) with the teacher. Written notes and observations of the classroom visits were recorded in my research journal as soon as possible after each visit, and all discussion sessions, with the exception of the initial orientation meeting, were

audio-recorded (approximately 4.5 hours in total). As in the first phase, all audio data was reviewed as soon as possible after each session to provide initial "common-sense" interpretations and inform planning of possible topics for future discussions.

Email conversations (47 messages) and the teacher's journal were also collected for analysis, although once again, as in the first phase, time and workload demands severely limited the number of journal entries made by the teacher (just over one typed page).

TABLE 4.2 *Summary of Data Collection*

	Phase 1	Phase 2
Participants and context	11 teachers plus 1 principal at 1 primary school (school enrolment: approx 200)	1 teacher at another primary school (school enrolment: approx 250)
Time line	**July 2010 – Feb 2011** 7 professional learning sessions with whole staff (10 hours total) **July 2011** 1 hour semi-structured interview with principal	**Aug 2011 – Dec 2011** 10 co-teaching sessions (18.5 hours total) plus 8 formal discussion sessions (approx 6 hours total) with Grade 3/4 teacher.
Video data	20 hours (2 cameras x 10 hrs)	-
Audio data	10 hours (7 PLZ sessions) plus 1 hour interview	4.5 hours (7 sessions)
Additional data	Researcher's journal	Teacher's reflective journal Email correspondence (47 messages) Researcher's journal (including observational notes on the 18.5 hours of co-teaching events)

Data analysis

NVivo9 was used to manage the data generated throughout the study. Documents, digital images, video and audio recordings could all be grouped, annotated, transcribed, coded, searched and queried using this software. However, the actual

work of analysis – finding patterns in data, identifying emerging themes and drawing connections between data and theoretical concepts – still had to be carried out by the researcher.

As mentioned earlier, the data analysis process occurred alongside the data generation process in both phases. Early "common-sense" interpretations (Hedegaard & Fleer, 2008) formed during the initial viewing and transcribing of the video and audio data as soon as possible after each session were not only used to inform the planning of future PLZ and co-teaching/co-gen sessions, but also to provide initial candidates for code categories. After four or five sessions in each phase, several significant themes began to emerge which suggested further possibilities for code categories.

At the conclusion of the first phase of the project, all videos were reviewed many times. Firstly, to search for additional coding opportunities not identified in the initial analysis; secondly, with a particular focus on looking at the *practice* of professional development, and then several times again to search specifically for data pertaining to each of the three major themes which had by this stage emerged as being of significant interest.

This analysis was then used as the organising structure for modelling the conceptual relations revealed as being the necessary conditions for effective professional development, and then modelling the broader institutional conditions of typical professional development which takes place outside of teachers' classroom practice. Finally, I modelled a proposed form of professional development which seemed more likely to be effective in providing the necessary conditions identified in the first phase data analysis. This preliminary model became the basis for planning the second phase intervention.

At the conclusion of the second phase of the project, all audio tapes were transcribed in full and, along with other written data, were coded initially with codes developed during phase one and then with further codes that became apparent during further reviews of the data. This process allowed me to highlight similarities and differences between each of the phases and draw comparisons that were useful for answering each of the research questions in order to formulate findings.

Conclusion

This chapter has discussed the methodological approach and research methods used in order to create a research study consistent with Vygotskian cultural-historical theory. This discussion was followed by descriptions of the specific data generation and analysis processes used to inform my new understandings of the institutional practice of professional development. The next chapter presents data from Phase 1 of the study where I worked with the staff of Banksia Bay Primary School to create a Professional Learning ZPD (PLZ) in order to gain preliminary insights into the necessary conditions and relations for creating effective professional development.

Chapter 5: Data from Phase 1 of the Study

THE PLZ AT BANKSIA BAY

"Educational change depends on what teachers do and think
– it's as simple and as complex as that" (Fullan, 2007, p. 129)

Introduction

This chapter provides a description of the Banksia Bay PLZ that was created as the first phase of this research project. Approval to conduct the research was granted from the Monash University Human Research Ethics Committee (Approval number: CF10/0746 – 2010000349) and the Research Branch of the Department of Education and Early Childhood Development (Approval number: 2010_000534). Copies of the explanatory statement and consent form for participants are included in Appendix B.

Firstly, I describe the context and participants of Banksia Bay Primary School, followed by a brief outline of the content of each PLZ session as it was collaboratively improvised by all participants. Finally, I present examples of data extracted from the video and audio recordings, my research journal, and an interview with the principal which illustrate three significant themes and answer the first research question:

1) What is learnt about the practice of 'professional development' through the process of creating a collaborative professional learning activity?

Although there is some commentary and analysis provided with each example to indicate its relevance to the thesis, the main purpose of this chapter is to present the data of this phase of the project which will be more fully analysed and discussed in relation to theoretical concepts in the following chapter.

The Banksia Bay PLZ - Participants and context

Banksia Bay Primary School is a pseudonym for a state government school catering for just over 200 students in Years Prep-6 (5-12 yrs old). Although the Australian government's "My School" website lists the school as *Metropolitan*, in reality the school is in a semi-rural coastal township approximately 65km from Melbourne CBD, just beyond the outer fringe of suburban Melbourne. According to figures from the Australian Bureau of Statistics 2006 census, the population of the township

is 3146 people and the median family income of $1193/week is just above the median for the total Australian population ($1171/week). 91.2% of the Banksia Bay population speak only English at home compared to 78.5% of the total Australian population.

Banksia Bay Primary School has 12 teaching staff (including the principal) and 6 part-time support staff (administration and integration support). The Prep-2 classes had recently moved into a new "Building the Education Revolution" (BER) teaching/learning space consisting of 4 classroom spaces and a large central common space when this project began in July 2010. The remainder of the classes were located in "Mod 5" portable buildings, mostly in a fairly poor state of repair, although one term into the project the existing school library was refurbished to relocate the two Yr 5/6 classes into an open-plan team-teaching environment.

The participants in this project consisted of myself as facilitator of the professional learning group, the principal and 11 teachers. A brief description of each participant's qualifications, teaching experience and years at Banksia Bay is provided in Table 5.1. This information was provided in a short open answer questionnaire (see Appendix C), completed by participants before the first professional learning session. The names, except for mine, are pseudonyms. The other information collected from the questionnaire was used primarily to help me understand the prior knowledge and experience of the participants and to plan for the first professional learning session.

The change of research design, from working with teachers drawn from many schools to working with just this one school, considerably altered the dynamics of my anticipated relationship with the participants. When I had envisaged the original project as a creation of a community of like-minded teachers keen to support each other in innovative endeavours, I anticipated my role would be as like-minded participant with my own unique knowledge and expertise to add to the contributions of the group. Instead, my role was recast by the Banksia Bay teachers as an 'outside expert' visiting 'their turf' to tell them what they should do. Not surprisingly, this disparity of expectations caused some misunderstandings, and perhaps disappointments, leading to unexpected changes in direction that ultimately provided quite a different set of data than originally anticipated.

TABLE 5.1 *Details of Participants in Banksia Bay PLZ*

Name	Qualifications	Years of Teaching Experience (as at 2010)	Years at Banksia Bay (as at 2010)
Helen (Me)	Dip T (Prim) 1988 Grad Dip Ed (Music) 1991 M Ed 2008	9 – Primary 1 – Higher Education	N/A
Ann	Dip T (Prim) 1979	7 – Primary 3 – Regional Consultant 3 – Higher Education 17 – Assistant Principal 1 – Principal	1
Beth	Dip T (Prim) 1989 B Ed 1995	21 – Primary	11
Cath	Dip T (Prim) 1985	25 – Primary	25
Deb	Dip T (Prim) 1976 B Ed 1982 B Letters (Indo) 2005	34 – Primary	23
Eve	B Prim Ed 2004	6 – Primary	6
Fiona	Dip T (Early Chd) 1988 Grad Dip? (LOTE) 1998	21 – Primary	21
Gary	Dip Ed 1998	11 – Primary	4
Ian	B Arts/ Teach 2004	6 – Primary	4
Jen	B Prim Ed 2008	2 – Primary	2
Kay	Dip T (Prim) 1974 B Ed 1996	30 – Primary	19
Liz	TPTC 1970 TT Lib Cert 1974 Grad Dip Ed 1993 M Ed 2001 Grad Cert (Sci Ed) 2003	35 – Primary	12
Mike	Dip T (Prim) 1983 B Ed 1987	18 – Primary	7

* PLZ 2 was also attended by Ness, one of the Regional Consultancy Team who had been working with the P-2 teachers in preparation for their move into the BER building.

Outline of PLZ sessions

The teaching and learning model utilised within the PLZ attempted to replicate the teaching and learning model (i.e., *obuchenie*) used in classroom settings based on cultural-historical theory. I was aiming to provide teachers with direct experience of participating in a teaching/learning environment incorporating cultural-historical theoretical principles and also provide a shared experience for collective theorising about these practices. I intended to achieve these aims by facilitating the group to participate in improvisatory games and activities, discuss features of engaged learning, reflect on personal theories and practices of teaching and learning, introduce key aspects of cultural-historical theory, share ideas and collaboratively design new teaching practices. Most of these intentions were met although not necessarily in the ways I had imagined them at the outset of the project. This will be further explained in the following data and discussion sections. A brief outline of the main topics of discussion in each session is given here:

PLZ 1 – 28/7/10

Getting to know participants – improv games, discussing definition and features of engaged learning, choosing metaphors for personal philosophies of teaching, introducing the idea of teaching/learning as collaborative improvisation or joint productive activity (i.e., *obuchenie*, see Chapter 2).

PLZ 2 – 4/8/10

The zone of proximal development – brainstorming prior knowledge, working in groups to read and discuss excerpts of writing about the ZPD, sharing new knowledge.

PLZ 3 – 1/9/10

Acting out a physical representation of the ZPD (in groups), discussing sociocultural approaches to assessment (looking at what children are able to do with the assistance of others as indicators of 'next' learning), introducing the Lemonade Learning model.

PLZ 4 – 15/9/10

Recap of tools/ideas that have been introduced in each session (*obuchenie*, ZPD, sociocultural assessment, Lemonade Learning model), brainstorming features of

learning activities in a 'Community of Learners', team discussion to create/revise a chosen teaching practice so that it displays these features, sharing ideas.

PLZ 5 – 6/10/10

Reflection session – 6 Thinking Hats reflection about the PLZ (in pairs), discussion about issues raised.

PLZ 6 – 3/11/10

Show and Tell session – teachers sharing activities they have tried out in their class in response to the PLZ sessions. Discussion about Walker Learning Approach seminar.

PLZ 7 – 3/2/11

Half day session – Play activities (Draw/construct your image of the child, What do you learn about teaching and learning by playing with goop?, Creating dramatised scenes of teaching), sharing discoveries; watching Ken Robinson video – *Changing the Paradigm of Schooling*; discussion about video and issues arising, including role of theory in practice, aims of schooling in the 21st century, meeting needs of students/society.

Presenting the data

I have chosen to present the data from the Banksia Bay phase of the project under three main headings. Each of these headings arose from a critical incident – which then suggested themes or concepts that I used for analysing all of the data from this phase of the project. In this chapter, each of the themes is presented by describing the initial critical incident, and then adding other examples of this theme discovered in the collected data. Although presented as three distinct themes, in reality each of these themes shows significant overlap and interrelation with each of the other themes. Several of the described incidents could have found their place under more than one heading.

"Ivory towers" – The theory/practice divide

In my determination to create the PLZ consistent with cultural-historical principles, my intention when working with the teachers was to always show the inextricable unity of theory/practice, by always referring to theoretical concepts in relation to

practical examples and discussing examples of practice as inherently theoretical. However, it soon became apparent that the teachers did not hold the same view of the relationship between theory and practice as I did, and I found myself caught in the very difficult position of trying to navigate the huge theory/practice divide that existed in the minds and talk of the teachers.

In the second PLZ session I asked teachers to brainstorm what they already knew about the ZPD (see Figure 5.1).
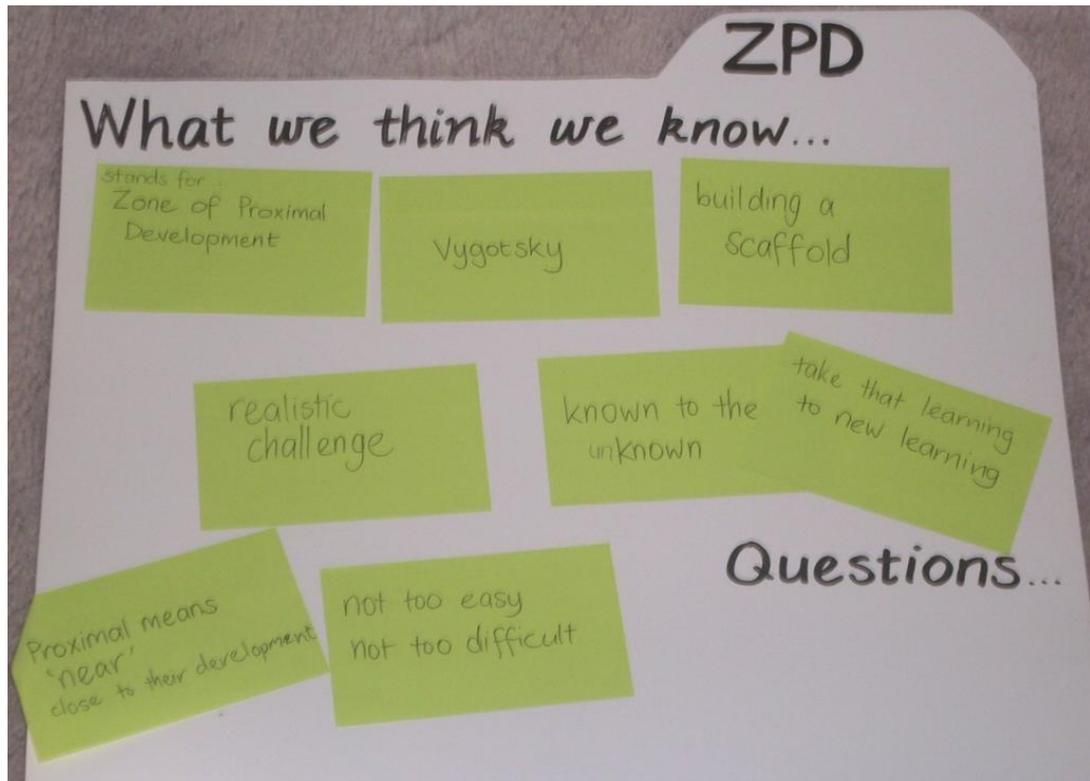
Figure 5.1 Participants' brainstorm of the ZPD.

Half way through the brainstorm Liz made the following comment:

LIZ: I would say that I probably know about this, but in '69 Piaget was very popular…

HELEN: …and in '89 too!

LIZ: Um, but I would say the language and the terminology that I've come through or grown with would probably be very different, but I dare to suggest that the basic truths are still there. So no, I don't know the ZPG or whatever it is, but I'd say I've probably been doing it for the 30 odd years.

HELEN: Exactly. That's how I felt when I first discovered cultural-historical theory and started reading Vygotsky. That's what I was saying last week, that watching my children grow I'd sort of formed these theories of development that didn't really fit with my theories that I'd learnt at uni from Piaget. And so when you read the theory of Vygotsky you think "Aah, that all makes sense!" But yeah, it's nothing new and unusual, it's just a way of talking about it and recognising it. It's what good parents do and what good teachers do automatically and instinctively.

LIZ: So it goes from a theory to an understanding.

HELEN: That's right. And a theory is not necessarily a truth, it's only someone's way of explaining something. And what you need to decide is, "Is this theory a better explanation for what we see than the theories we've been using before?" And that's a decision you need to make for yourselves. But if you've been struggling with the theories that you learnt at uni and thinking, "Something's just not adding up here," maybe this theory gives you a better understanding, a better explanation for what you have noticed yourself. That's the idea.

In other words, I was trying to explain that we all have our everyday concepts about children's learning and development built upon what we have observed in the classroom and with our own children, but scientific concepts can provide us with a language for articulating our understanding which means it can be used as a tool for deliberately planning the learning environment that best provides conditions which will help support learning and development. While parents and teachers often instinctively create conversations and interactions which create the ZPD, understanding why these interactions lead development means that teachers can deliberately plan for them and value the time spent in these interactions, rather than these being seen as incidental conversations that take time away from the teacher's perceived main task of 'teaching' the curriculum to the class. For me, an understanding of the ZPD means I now view creating these interactions and conversations as *the* task of the teacher. Understanding the theory changes the way I view my practice and allows me to consciously modify my practice in ways I *know* will lead the children's development rather than acting on a hunch or instinct about what *feels* right.

Liz however was implying that even though she had never heard of Vygotsky or the ZPD, she recognised many of the ideas being discussed as already being part of her practice, even if she either had different words to describe them or had never really consciously examined their place in her practice but were just part of her 'tool kit' picked up over the years. Several times over the course of PLZ sessions Liz (and others) repeated this view, that the basic truths of teaching remain the same, but new theories come along from time to time that require them all to learn a new language for what they already do. This seems to imply that theory therefore has no influence on practice. Rather than providing new ways to reflect on, analyse and improve practice, theory is just new words an academic has provided for what teachers already instinctively 'know' and do. A few minutes later in this session this disdain for academics was made very clear, as shown in the next presented episode:

Following on from our brainstorm I wanted to introduce the teachers to a broader understanding of the ZPD than the typical Western version of 'scaffolding' they may have previously been introduced to at university or in PD courses. To do this I asked each pair of teachers to read a different short excerpt of writing about the ZPD. Kay and Eve were given the following excerpt taken from Chapter 2 of this thesis:

> Mahn and John-Steiner (2002) suggest that an 'expanded' notion of the ZPD incorporating the role of affect and emotions is necessary for developing pedagogical approaches that build competence through "dignified, collaborative, caring support…between teachers and students" (p. 48).
>
>> This approach reveals the ZPD as a complex whole, a system of systems in which the interrelated and interdependent elements include the participants, artifacts and environment/context, and the participants' experience of their interactions within it. In addition, we suggest that the complementarity that exists between these elements plays a central role in the construction of the ZPD. When a breach in this complementarity occurs because the cognitive demands are too far beyond the learners' ability or because the negative affective factors such as fear or anxiety are present, the zone in which effective teaching/learning occurs is diminished. (Mahn & John-Steiner, 2002, p. 49)
>
> These authors conclude that it is through such caring support within this complex 'system of systems' that learners develop the confidence to understand and apply knowledge, tackle new challenges and sustain lifelong learning. In other words, the focus is on creating the effective environment for supporting the processes of learning that lead holistic development, rather than merely on accumulating new cognitive skills.

After the pairs had had time to discuss their excerpts, I asked each group to read out their excerpt to the whole group and share the ideas they had discussed. Kay introduced their excerpt to the rest of the group with:

KAY: *This is just a load of rubbish! (someone laughs) No, really it is! (She then reads their excerpt with increasing sarcasm, exaggerating the long sentences by gasping for breath etc.)... Which if you just read that last paragraph…*

EVE: *That's better than what all the other stuff says. (Several others agree)*

KAY: *Exactly, that's shocking.*

HELEN: *I wrote the last paragraph! (Group laughs)*

KAY: *Well done, because the other one is just a load of rubbish (She throws the piece of paper onto the table in disgust).*

HELEN: *Now why do you think it is a load of rubbish?*

KAY: *Because it goes on and on and on. There aren't any full stops, and it's almost like some academic has thought I will write this…*

HELEN: *…Welcome to my world!... (Others laugh)*

KAY: *… I will write this, as I said to Eve, "I will write this in the most complicated way I can while keeping my hands in my pants." (Some gasp, others laugh)*

MIKE: *What did we say at that thing the other day? Academics are just, their legs are just ways to get their brains to meetings? (Several others agree and laugh)*

KAY: *And what we thought it means...(Returning to the task of discussing the excerpt)*

HELEN: *Yes, please, what did you think it means? (With relief that the conversation is getting back on track and away from the topic of academic bashing!)*

KAY: *Many factors affect the zone of proximal development. Ideally they should all complement each other and some of these things are: (reading from her notes) a caring attitude by those involved, a positive environment, the emotional state of the*

student should be a good one without fear or anxiety and the equipment that's used should be suitable and up to date.

HELEN: *That's right. So why was that rubbish? Or do you think that's rubbish, what you've written there?*

KAY: *No that's alright. (Others laugh)*

BETH: *Cos she wrote it! (Kay smiles)*

KAY: *But the fact that that (pointing to excerpt) could have been said by that (pointing to what she had written) or by what you wrote at the bottom (pointing back to the excerpt)...is why that is rubbish.*

ANN: *But you've actually understood it...*

KAY: *Why write something in the hardest most difficult way you possibly can if you can say it in shorter sentences.*

BETH: *But that's the times though too isn't it? Is it an old...*

LIZ: *What year is that?*

HELEN: *Um, no, this is 2002.*

BETH: *Oh God.*

NESS: *It's academic jargon. Every profession has its jargon.*

KAY: *No, it's not just jargon. It's not...*

LIZ: *But again, why do they have to use sentences that go on and on and on when they could write what they've said in...*

KAY: *It's not good writing.*

LIZ: *It's not good writing. I agree!*

(Mike and Ann complain that this is off the track and we need to move on)

I found this exchange quite confronting, as evidenced by my relief when Kay first returned the conversation back to the task. To me, this conversation represents the separation from the 'real world' of teaching and the 'ivory towers' of academia, and my own loss of a stable place to belong. I had actually chosen that excerpt because I thought it was reasonably accessible for the teachers. To hear that they thought it was too academic made me realise how far I had crossed into the academic world, and my comments reflect me trying to save face and show that I still wanted to belong in 'their' world. I claimed responsibility for the one paragraph they liked, and by saying, "Welcome to my world," I was trying to indicate that having to read academic writing is painful for me too. However the comments about hands down pants and academics' brains left me speechless. Which side would I defend here? Where did my loyalties lie? Where did I belong?

Judie Mitchell (2004), in her doctoral thesis on facilitating a professional learning community in the school within which she was also a member of the teaching staff, refers to this as 'hedging' – trying to maintain her position with the teachers as 'one of them' by playing down her use of academic language:

> I am trying to restructure the discourse to position myself as a teacher, not an academic but as one of them. These signs of a cringe are evident in many of my texts [transcripts of sessions and interviews] and signal the delicacy of my position within the group. (p156)

This incident with Kay marked the first time I really felt a sense of not knowing where I belong, and being lost between the two worlds of teaching and academia. I had spent much of the first year and a half of my PhD candidature reading literature about the myth of the theory/practice divide (see for example, Kessels & Korthagen, 1996; Klein, 1992; Roth, 2002), and coming to terms with the dialectical understanding of the unity of theory/practice (Lenz Taguchi, 2010; Roth, 2002; Smagorinsky, et al., 2003; Stetsenko, 2008a), and yet in this session I was presented with evidence that, for these teachers at least, there was not just a gap but a yawning chasm between theory and practice (and the ivory towers of the academy and the real world of school). My intention was for the PLZ to overcome this separation through our collaborative work of theorising practice and practicalising theory, but I quickly discovered that the teachers did not want to be involved in this process. As will be

explained later, they wanted me to do this work and then present them with readymade strategies to implement straight into their classrooms.

I felt constantly torn between trying to treat the teachers as capable of learning the theory and the terminology associated with it, and trying not to alienate them by my use of academic language. In PLZ 4 I wrote the title "Features of Cultural-Historical Learning Activities" across a piece of butcher's paper and asked the group to brainstorm features of activities that would be consistent with cultural-historical theory. After a few suggestions, Mike suddenly interrupted with:

MIKE: Can I ask Helen, why such a wank of a name?

HELEN: Cultural-historical?

MIKE: Yeah, what a bullshit name.

DEB: What should it be Mike?

MIKE: What does it mean to anyone? Is that relevant to anyone that name? Cultural-historical learning. What does that mean?

HELEN: Well,…

MIKE: It's crap.

HELEN: Well I don't think that you, that's the name of the theory, Cultural-historical theory, but I think in terms of schools using the theory they talk about Communities of Learners.

MIKE: Yeah but why don't they call it that?

HELEN: OK, so (I start crossing out cultural-historical and changing it to Communities of Learners).

MIKE: That name is like calling the ultranet site for teachers "design space". It has no relevance to the name whatsoever, and to use it - features of cultural-historical learning - sounds like a load of crap. It doesn't have any relevance to what it means. If you said to me cultural-historical learning I go...

BETH: I actually thought it meant talking about the past. (General agreement)

MIKE: That's what it implies, the past and how you used to teach.

HELEN: I suppose I'm just trying to familiarise you with the term (General agreement).

MIKE: If you call it community of learners then it's something that's relevant.

To me, the term cultural-historical had become just a word representing the complex, yet specific system of concepts that I had spent several years developing an understanding of. Even though I had briefly explained in a previous session why the words cultural and historical were used, I was bandying around the term as if they all understood what I meant by it and forgetting that some would still be trying to make sense of it by bringing their previous understandings of the words cultural and historical to this new term with quite a different meaning. Again, Judie Mitchell (2004) also experienced this when she asked her group of teachers to discuss a theoretical article she had written for an academic journal:

> Another aspect of the text which caused problems related to the fact that teachers do not read theory and that sharing readings of theory is not a generally accepted part of teachers' professional lives. One of the consequences of this lack of engagement with theory is that crucial changes in terminology become mainstream and taken-for-granted by academics and those who read academic literature. Many of these terms are words used in the vernacular which retain their accepted meanings for those who are outside the worlds of academic literature. I had fallen into the trap of using such terms without explaining their changed meanings - this shows the extent to which I had become immersed in the academic lexicon. (p190)

Clearly, I am not the only facilitator who has fallen into this trap, but such errors of judgement do accentuate the feeling of a divide between 'us and them'. My journal reflection, written directly after the PLZ 2 session described earlier, indicated that people were feeling quite overwhelmed by the difficult language and concepts covered. A comment left on the Sakai a few days later by Beth confirmed this suspicion:

It's certainly a challenge to take all the language in! The theory behind it makes a lot of sense though. I am interested in finding out more, but as always, the day to day requirements have me snowed under at the moment.

I often try pairing kids up to work on activities. Today we were working on subtraction (with Preps) and I mixed the kids strategically to cater for best combinations and to cancel out some that don't work! Most of the time there are benefits to both groups of children and I find that even in Preps, kids can often get a message/idea across to others that you may find difficult/tedious/impossible to explain/demonstrate/embed. We all know peers can be great tutors - unfortunately with some of the challenging kids we have this year, it's not always in a positive way!

We can see by this comment that Beth is endeavouring to make the links between theory and practice but finds it difficult amidst the time constraints and difficulties of real classroom life. These sorts of theoretical discussions were evidently quite foreign to this particular staff. Ann, the principal, was only new to the school that year and had explained to me that there had been no culture of regular professional discussions before she arrived. This session was also attended by Ness, one of the team of Regional Office consultants who had been working with the P-2 team for the previous 6 months in preparation for their move to the new BER building. The following day she sent this email message, also indicating that theoretical discussions are an important part of professional learning that have been ignored for too long in traditional teacher PD:

Well done last night and thank you for letting me join in! Really like the way you got the teachers to read small pieces of information and then talk about their understandings. This kind of professional discussion is exactly what is needed.

Although I was not surprised at the relatively narrow interpretation of the ZPD contributed to the brainstorm by the few participants who had heard of the ZPD before this session, I was surprised that so many, even recent graduates, did not seem at all familiar with this concept. I think that the activity of sharing information amongst the group so that we had to work together to co-construct a fuller understanding of the ZPD was a good example of how I was trying to apply theoretical principles into the practice of the PLZ, although in reflecting on this

session as I rewatched the video again during a second analysis I was able to make the following suggestions for improvement:

I had to use my imagination to work out a way to expose the group to the broader understandings of the ZPD without just standing up and delivering a lecture. I think it was an effective way to do it, but I had misjudged their entry level of knowledge and how difficult they would find the language. It would have been better to have the various readings up on a screen for people to follow as each reading was read out in the sharing time. The ideas (and sentences) are too complex to just take in aurally. It was interesting that two groups found visual ways to represent their understandings – perhaps I could have asked all groups to do this to help the others understand what they had learnt from their own reading.

I had found preparing for this session an interesting challenge. How was I to 'teach' teachers about the theoretical concept of the ZPD in a theoretically consistent manner? It made no sense to tell people about the ZPD without getting them to co-construct meaning by collaborating with others. I had not come across any mention of Vygotsky's work or the ZPD before I left teaching to raise my children, therefore my understanding of the ZPD was purely theoretical and I had never had an opportunity to apply it in my teaching practice. As stated in the reflection above, I think I did find an effective way to solve the issue, but I was also able to use my theoretical understanding to help inform my reflection and evaluation of my practice and suggest ways that the session could be improved further. Theory and practice therefore become an interrelated, mutually informing and constituting unity.

Despite my efforts to demonstrate this unity in PLZ sessions, I feel I was unable to ever really convince the teachers that theory was relevant to their practice. This was particularly evident in the final PLZ session in which I had set up several arts/play-based activities in an attempt to get teachers to explore metaphorical descriptions of their conceptualisations of children, teaching and learning. As I was explaining the various activities Jen immediately said, "Ugh. That's the sort of stuff they made us do at uni." A bit later, at the 'goop' (cornflour and water) activity the following conversation was caught on camera and audio tape:

IAN: When you hold this it's like supporting the child - it's solid and it's strong.

When you don't support the child it's... (He lets the goop run through his fingers)

ANN: Wow!

IAN: That's it. What are you supposed to say? I mean... (His tone of voice indicates that he feels embarrassed to be talking about this stuff)

GARY: If you try to support them too much they get stubborn, see it doesn't move so much, but if you give them some freedom they can run free.

ANN: OH! GO Gary! That's fantastic!!

GARY: It's just bullshitting. Which is what I was going to say is the other thing about this...

IAN: Is that dictaphone on? (Wanting to warn Gary that his remarks are being recorded)

ANN: Yes.

GARY: (Pressing on regardless) This reminds me of how a lot of things in education can be a bit bullshitty.

ANN: (Laughs)

(Silence for a moment as they keep dipping in the bowl)

ANN: That's it though, what you said is true.

GARY: I predicted it because I've played with this stuff before.

This was merely one of several examples from this session of teachers downplaying their ideas and scoffing at themselves and each other as they discussed metaphorical representations of theory. As I reflected on this session on the way home I realised that I had made a massive error of judgement in trying to do these 'play' activities on the last pupil-free day before the new school year commenced. I had been excited about having a longer session time to do some hands-on activities that had not seemed possible in the previous after-school sessions, but of course the only thing the teachers were interested in doing the day before their new class of children were

to arrive was to get into their classrooms and finish setting up. They clearly resented being asked to 'play' when they had much more pressing issues on their mind.

Finally, as I was wrapping up the session I asked:

HELEN: Is there a place for anything we've learnt at university in our job?

BETH: Personally, there wasn't much, I don't think.

HELEN: What about from more recent courses, from younger teachers?

EVE: I learnt more being in the classroom than anything I've taken from uni.

BETH and DEB: (Start to discuss with each other that uni was valid for philosophy and child development that couldn't be learned on the job.)

KAY: And also when we went out on teaching rounds. That was of value if you were with a good teacher.

EVE: That's it, being in schools on teaching rounds. That was it.

BETH: A lot of what was talked about at college wasn't practised in schools. And there's a conflict. Well I came through in the era when we were learning Frameworks and then the minute I came out into schools it changed to something else, CSF [Curriculum Standards Frameworks].

EVE: That's what happened to us. [Changed from CSF to VELS (Victorian Essential Learning Standards)]

BETH: And we were talking to, even in the last 5 years, we'd be talking to new graduates, talking about the Early Years, and they're like, "Well we don't do that". It's that practical stuff I suppose. It's the philosophy and the child development that you learn, and that's probably valid. But it's the hands on, practical, getting in there and doing it. There's not enough of that. It's not relevant.

EVE: You can talk about it till you're blue in the face but you don't know until you get in there.

BETH: Nothing substitutes for hands on experience. How can you say this is how

you teach children when you haven't actually got children there.

EVE: And some of those people telling us how to teach children actually haven't ever taught children! And you sit there and think, "Well how do you know?"

DEB: And see I think it's different too, see when I went to college we were there face-to -face for 30 hours [a week]. Now they're there 12 hours?

BETH: My friend is doing it by correspondence, and has no hours face-to face.

DEB: So you can do it in all different ways, but it is probably the experience, I think, (sheepishly) that is more valuable.

HELEN: But there are different types of knowledge. Your everyday knowledge that comes from personal experience and practical application, and that theoretical knowledge that helps you explain that everyday knowledge. And I think there is a place for both, and each of those informs each other. But I think it's quite common in schools for teachers just to value that practical application and think that theory is irrelevant. So I think that it's not that it's irrelevant, that we have to realise that each informs the other. Like you can learn practice but if you're not evaluating it and thinking about it then it's just happening and you've got no way of controlling it and developing it and working on it if you're not reflecting on it and thinking why. You know, why does this happen and what explanation can help me understand that and help me work with it? So I think there is a place for both. It's not that they're even separate. Each of them is part of each other, but I think it's been quite common in schools to think, "Ppht! (tosses hand aside)…that's just theory. It's not relevant."

My comments here were made not just from my own experience in schools but also from several accounts in the literature (for example Allen, 2009; Fleer & Robbins, 2004). Ann then commented that she has become more interested in theory as her career has progressed and she has more experience to relate to the theory. Deb and Beth also agreed with this:

DEB: I agree with that. You can see how it all fits in. …

BETH: Philosophy, I thought was the biggest "toss" when I was there [at uni] ever, but NOW I look at it and think…

DEB: It's interesting, it did mean something. It does fit in.

BETH: Yeah.

This view is also backed up by Russell (1988), who argues that experience is important for shaping the meaning that we give to theory, but that pre-service and early career teachers are too pre-occupied with mastering the techniques of teaching to be able to adequately reflect on how their experience connects with theory, and that it is only once these techniques begin to become routine that teachers are able to start thinking about the tensions, connections and contradictions between theory and their practice. This observation highlights the crucial importance of in-service professional development that provides ongoing opportunities for experienced teachers to discuss and act upon these tensions and connections by critically analysing their current practices and developing new practices that align with current theories of teaching/learning. Rather than relegating this work to university researchers, which maintains the divide between the ivory tower and the real world of schools, in-service professional development can build upon teachers' experiences to show how theory is connected with practice and how each can inform the development of the other.

The next theme, however, demonstrates that in order to do this successfully, teachers need to be given the opportunity and support to utilise their own agency in creating changes in practice and theory, rather than expecting that this is the role of outside 'experts'.

"Well, tell us" – Shared authority and providing space and support for teachers' agency and imagination

In the fourth PLZ session, when we were brainstorming the features of learning activities consistent with cultural-historical theory described earlier, another small, but significant incident occurred:

HELEN: We're missing one really, really vital feature of cultural-historical learning activities.

KAY: What is it? (I laugh, surprised that she would say this outright rather than try to think about my question) Well, tell us.

Although this incident seems small, the phrase "Well, tell us" signified to me the teachers' lack of agency for controlling their own curriculum and pedagogy development, and the expectation that I, as outside expert, would provide them with all the answers. Looking through the data I began to find other examples where the teachers looked for me to provide 'tips and tricks' rather than actively collaborate with co-constructing new knowledge and curriculum ideas.

In the following session (PLZ 5) I asked the teachers to work in pairs to reflect on the sessions so far and then share ideas with the whole group. Beth started the sharing session with:

BETH: A common thread seems to be, we would have liked to see maybe some things in action and maybe seeing YOU [me!] operating in a classroom situation giving us actual, I know you've done it with us, but to see how you work with a class of children.

HELEN: Mmhmm

BETH: Because I can see some ideas and think, how do I start with that, how do I do that, but you know, I think rather than the, a practical, a practical demonstration in the classroom would be good to make me feel a bit more at ease.

HELEN: So…

BETH: Or to think that we can actually do it.

HELEN: But you see this is quite new for me too. I've been out of the classroom for 10 years, and I mean part of all this is that this is the stuff that's being talked about in theory [but] how do we put it into practice? And that's what I want to see in this group, that we work out how to do that together, rather than me being the person who comes in and shows you how to do it, because unless you're working out how to do it in your classroom, what I come in and do might be completely irrelevant anyway. You're the ones that know your kids and…

KAY: It's useful to have a model.

ANN: But trying to work it out for yourself too will make you be more reflective about this stuff.

BETH: I think sometimes though it's a bit threatening though and you think, "Oh God, where do I start, what do I do?"

HELEN: Well I saw Kay write that down and I said, "Well I'm happy to come."…(Chatter about seeing it written on sheet) Well I'm happy to do that for you too but I didn't realise at first that she meant for me to come in and take the session, I thought she wanted me to come and watch HER. (General chatter) But I think it's better that I come in and PLAN with you for a session and then I come again and do it with you in the class.

Here I am trying to point out why I can't just tell them (or show them) - that it needs to be something that is worked out collaboratively for their own situation. At the end of this session I asked Kay about her "Well, tell us" comment in the previous session:

HELEN: That brings me to one of the things I wanted to ask after listening to the tapes from last time. Remember last time Kay when we were making the list (Indicating the features list still pinned up on the wall) and we got about half way down and I said, "Oh, there's something really important we're missing." And I stopped, waiting for you all to think what it was, and you [Kay] said to me "Well, tell us!" (Everyone laughs) Do you want to tell me about that?

KAY: Well I had, I've taught children before (Everyone laughs, as Kay has been teaching for 30+ years!) Sometimes it's an exploratory thing, they're working things out and you want them to find the solution to something and they've actually said to me, "Do you know the answer to this?" and I've said yes and they've said, "Well can't you just tell us." And sometimes I've said, "Well are you close to getting an answer?" and sometimes they don't won't to be told, "No, don't tell us yet," but other times they just want to be told.

HELEN: Yep.

BETH: It's just different styles too, because if it was a maths problem and you were saying, I'd be saying, "No, no don't tell me," but it's when it's something where you think you can be, it's an opinion or a [unclear]. I HATE thinking, "Oh my God, don't let me say this cos I might say the wrong stupid thing and everyone will think I'm stupid." Whereas, if it's a logical maths problem where there is a right answer

or a wrong answer I'm happy to keep working and keep working until I've got the right answer cos I know I'm either right or wrong.

KAY: And if you're close to the right answer the last thing you want is someone telling you…

BETH: That's right, but if it's something like that and you're thinking, "What the hell, Oh, shit, what if I (mumbles away) I don't know," so I don't want to say anything at all. I don't know. …

ANN: But then sometimes do you think that's a confidence thing, because you say things…

BETH: Yeah, I suppose it is, because I'm questioning whether I'm right or wrong about it…

ANN: …and yet what you're saying is fine.

BETH: Yeah.

DEB: But then going back to what you were saying about just give me the answer, I remember at high school sometimes if I couldn't work out a maths thing that if I went to the back of the book and got the answer I could work backwards and think "Oh, now I know how to do it." (Much agreement from others)

KAY: That's a valuable strategy.

DEB: So sometimes giving someone an answer and letting them work it out from the answer is just as valuable. …

LIZ: And sometimes the kids just haven't got it and keeping on flogging a dead horse, you know, what's important, or whatever your question is, they don't know.

ANN: Well you have to redesign your question then and reflect on the things you're giving them.

LIZ: Yeah, but then there's the time to just tell them. Rather than just keeping on going and hope they fluke the right answer. OK you've asked the wrong question, but…

In the heat of the moment at the time of Kay's original comment I thought that she just couldn't be bothered putting in the effort to think of a response herself, but after the above discussion a week later and rewatching the video of the original incident, I realised that this incident had occurred directly after some discussion of the fact that sometimes learners need to have already mastered some skills or knowledge in order to be able to use them in new ways to construct new learning. I eventually realised that Kay was actually focussed on what we were planning to do with the list of features once it was complete. Her motive was not to complete the list, but to use the list to help her team plan some new learning activities. Therefore, she was becoming frustrated with the time I was taking to get them to think about the theory and construct the list, when all she wanted to do was to get to the practical activity of creating learning activities.

As I thought about this incident I wondered if there ever is a time just to 'tell' so that learners can get to the interesting part of USING the told information. As Liz said, are we just "flogging a dead horse" if the learner really has no idea? Or, as Deb said, can telling the answer actually allow learners to work backwards and make sense of the information anyway?

Oyler (1996), in her work on teachers sharing authority with students, describes direct transmission as a discourse pattern that sometimes must be used if teachers are to share their authority with students. Acknowledging that teacher authority has two dimensions: of *process* (the who, what and when of classroom procedures) and *content* (the teacher's greater knowledge of the academic curriculum), Oyler points out that sharing content authority sometimes actually requires the transmission of the teacher's knowledge:

> Therefore it is important to keep in mind that teachers sharing authority with students so that the students can become authors and authorities in their own right does not mean that they deny *their* authority. In fact, teachers must share their understandings directly with students *in order to share their own authority.* To do otherwise would not be sharing authority but withdrawing or abdicating it. Accordingly, one of the puzzles for teachers who seek to share power and control is deciding when to share their knowledge as teachers and when to make room for students to negotiate their own understandings. (p. 125)

Of course, there are alternative ways of sharing this content authority, and Oyler (1996) describes two other patterns of classroom discourse allowing for different levels of student and teacher control: student-initiated discourse and "cued elicitation (Edwards & Mercer, 1987) … characterized by the teacher leading students through a series of questions to arrive at specific understandings" (p. 117). This latter discourse is actually the approach I did choose to use in response to Kay's "Well, tell us" comment in PLZ 4:

HELEN: Well remember we were talking about how do children learn...[I ask them to refer back to the handout I had given them]

LIZ: (picking out words from the handout) Joint, collaborative…

HELEN: Yes, collaborative (writing it on the list). So what do you need to be working in to be collaborative?

MIKE and KAY: Teams, groups …

HELEN: There is another really important one we've missed. What's going to happen in the collaborative groups? What are kids going to need to be able to do?

KAY: Experiment?

HELEN: Oh, that's another one, not the one I was thinking of. (I write down Kay's suggestion)

DEB: Negotiate?

HELEN: So what do you do to negotiate?

BETH: Communicate.

HELEN: Communicate. Talk! (I write this down)

Although I also accepted Kay's suggestion of 'experiment', I kept providing hints or asking further questions until I got the answer I was really looking for. I had fallen into the trap of setting up the "guess what's in the teacher's head" game. Is this really much better than directly 'telling'? Although there were still opportunities for participants to initiate other ideas that I had not previously thought of, I was also determined that the information I had predetermined as important would be made

clear. It was after this part of the brainstorm that Mike initiated discussion of his problem with the word 'cultural-historical' (as described earlier in the chapter). It is interesting to note that when I managed to return the discussion to the brainstorm I realised that we were running short of time and I was losing the interest of the teachers, so I did resort to just 'telling' the last two items on the list rather than continuing to try and elicit responses. Therefore in this brief activity, all three of Oyler's patterns of discourse were displayed.

These issues also arose in discussion between the teachers about the way they work with their students. In PLZ 2, as we discussed the importance of collaborative co-construction in the ZPD, Deb became quite agitated at the tensions between doing what we know is educationally sound, and dealing with the realities of time constraints in the classroom:

DEB: I think what you're saying is right … but I find that time often gets the better of us and it's quicker to just show them how to do it rather than say can you go away and try this, this and this and then come back and tell me how you do it. Because we're running out of time, all the time, sometimes we do just revert back and say "Look, this is how you do it, go and think about it. Go and work out these sums or whatever to get the answers. It's an easy way and a quick way…

ANN: I would think the time taken for them to work together, to do it together, is far more valuable than just telling them.

DEB: I agree…

ANN: … and I would put other things aside if I was working through something like that, because they're going to get, internalise that more by hands on, sharing and talking together rather than you just tell them. So I would shelve the other stuff that I was going to do. I wouldn't just say "OK, quickly, I've got to go onto something else now…

DEB: …Well sometimes…

ANN: … I'd expand that time.

DEB: I agree with you but sometimes you DO have to go onto other things. Like sometimes, for example today, the kids were involved in something and all of a

sudden you have to pack up and change rooms. So you have to say, "Quick, this has to be done in this time, and they lose that little bit of engagement because we are changing rooms. But not just in this situation (referring to the new building), say back up in the old room, you might have another activity, you might have to go to PE, or you might have to get your lunch, or you know you've only got 10 minutes to DO something, and THESE kids are wanting to find out the circumference of a circle, and THESE kids are wanting to learn how to find the perimeter of a square, and these kids .. you're trying to go from one group to the other. But look, I do agree that it isn't really.. for them to be doing it hands on is the best way, but the other group's doing something and you are .. time constraints I think are probably the greatest hindrance.

EVE: It's not always possible. (Someone agrees) It's not always possible.

And in PLZ 3 when I suggest that it may be possible for children to work collaboratively on a maths worksheet, Gary argues that often children just fall into the trap of telling answers too, rather than explaining and helping another child come to understand the task:

GARY: I agree with that, but then I find most often that the kids aren't very good at explaining and they just give out answers. And it's not, I don't find it to be as valuable as a lot of people claim it to be.

HELEN: Well, I suppose that's a matter of teaching the children...

GARY: ...how to teach.

HELEN: Yeah.

LIZ: The skill of explanation.

HELEN: Well how could you do that?

GARY: If I knew I would have done it. (Others laugh)

HELEN: Well maybe...

ANN: It's that sort of role modelling situation all the time, as much as you can.

GARY: (to wider group) Do you find the same thing or am I the only person who finds that?

DEB: It depends on the child. (General conversation and agreement)

CATH: Some of them can't be bothered.

ANN: If you give them the opportunity and you have the expectation that they will do it, like have a high expectation that they will, then they will, in the end.

Clearly, it is not a straight forward process to decide that you will teach without 'telling'. It requires significant amounts of time, both in the short term because the co-construction of meaning takes longer than telling, and in the long term because it takes time to change the expectations of both teachers and learners. At the end of PLZ 2 Mike recognised that teachers are learners too and that, even though he personally hates to listen to lectures, his actions as a teacher are not always consistent with his own experience as a learner. Cath and Deb however disagreed:

MIKE: I think it's really easy to forget ourselves as learners. I mean, you talk amongst teachers and they go to a PD or something and they think, "Well, that was the crappiest PD I've been to," because they're sitting on their bums in a passive mode being lectured to.

CATH: I like that! That's the way I learn.

MIKE: Most teachers I know like to go to ones where they're involved, and they're actually involved in the day and can relate it back into teaching and the kids and it gets back to the whole thing of you being engaged. It's whether we sit there and be very explicit. I know it's the easy way to do it. I've fallen into it too. The easy way is to stand and basically dictate, but when they're actually part of the experience it does become, I think easier. It's setting it up to have that experience…

HELEN: That's right.

MIKE: It's the setting up that's the hard part. Once it's happened it's OK. But I mean think, (looks at clock and sees it is almost 5 o'clock) are we involved, are we not involved, or would you rather go and listen to a PD?

CATH: But that is the kind of learner you are.

DEB: I was going to say that. (General agreement and chatter) Everyone's different.

MIKE: I, I (laughs) I haven't spoken to too many people that go to a PD and like to be lectured at for 6 hours on their backsides.

DEB: Guess what, I'm with Cath.

Whether or not Cath and Deb really do prefer to learn by listening to lectures, it became increasingly clear over the course of the PLZ sessions that I was not meeting their expectations of what a typical PD should be. The reflections shared in PLZ 5, had largely illustrated that the things teachers had found useful were the games and resources I had shared that could be directly implemented in the classroom, but yet several teachers also commented that they did not enjoy or feel comfortable participating in the games. They clearly wanted more direct information about what they should do and were waiting for me to provide this in a 'ready to use' format, whereas I was constantly asking them to participate and co-construct knowledge (although, as seen above, when faced with resistance and lack of participation I had also sometimes acquiesced and fallen into the 'expected' transmission mode). In addition to wanting to see me conduct demonstration lessons, they were also waiting for me to tell them how to incorporate cultural-historical theory into their planning:

BETH: I think that's one of the other ideas, is looking at how we incorporate it into our planning and, yeah, how do you, yeah…

HELEN: But they're all things that haven't really been worked out and that WE have to work out. That's the aim of this research – Well how do we get these ideas out of the academic journals and into classrooms in OUR situation? I mean it has been done overseas but it's different everywhere you go and it NEEDS to be because we're all working under different requirements.

CATH: But if you have the ideas in your head then when you are doing your planning you realise that yes you are doing it anyway. Or you think about what you're doing with this activity or [unclear]. But you don't have to actually do anything different, but you have to be aware that you are doing it.

HELEN: That's right. It's how you think about it.

CATH: So your thinking might change but maybe what you're doing won't change very much.

HELEN: But even, I think, when you think about something differently, then the subtle things about how you introduce the activity or how you get the children to work on the activity may well change just BECAUSE you're thinking about it differently.

OTHERS: Mmmm

HELEN: If you're thinking about how children learn differently, then I think it will change the types of things you do with the children. But it's a process and obviously it's something that has to develop over quite a period of time and that's the aim of this type of research with having these sort of intensive sessions, although they've ended up being quite spread out, but um to get some information across and then having some time to try it out in your classrooms and whatever. But yeah, I'm happy to come and work with you in a planning session and help that process happen, but the aim is to try and get something happening in the classroom that then you can share and have something to be able to discuss and work out well what did work, what didn't work.

There are actually two important points in the above transcript. Firstly, I could not just tell them how to plan. This is a process that they needed to be involved in for themselves, and besides, I did not have a readymade answer for them anyway! To me, this was the actual point of the research, to see what we could collaboratively create together. For the teachers, the point of the PLZ sessions was for them to be provided with answers to their problems.

Secondly, Cath, who already felt familiar with the ZPD through her former training as a Reading Recovery teacher, was trying to use the concepts introduced in the PLZ sessions to justify her existing practice. Although I initially agreed with Cath's comment that being aware of the cultural-historical concepts made you think differently, I then realised that she didn't mean this in the way I meant it. I was thinking about the everyday and scientific concepts of teaching as discussed earlier in the chapter, and that having a scientific concept of teaching/learning helped you to consciously plan activities that capitalised on the conditions that lead to effective

teaching/learning. Oyler (1996) actually explains this much more clearly than I managed to in my exchange with Cath:

> When teachers act on the belief that students construct their own understandings … as part of a social process that is mediated by both students and teacher, the work and talk in classrooms are bound to change. For to build on student understandings, the teacher must begin by making room for student initiations. (p. 132)

As Cath continued on however, I realised that she was assimilating the concepts with her existing practice and using these to justify what she already does. In several sessions she was insistent that although the sessions were helping people think about their practice in new ways, it didn't mean they actually had to do anything different – that they were already doing all the right things, but they just hadn't realised it or had the opportunity to articulate and discuss it as a staff. As I had not been in any of the teachers' classrooms, I had no way of knowing whether Cath's assessment was accurate, although this was certainly a contradiction to what Ann had previously told me privately about her perception of the teachers' practice. This assimilation of new concepts with existing practice has also been reported in other studies (S. Edwards, 2009a; Pasqualini, personal communication, April 2011).

The exchange above was continued on by Mike:

MIKE: It'd be interesting to see what sort of shift people have had in their approach. Do people now add to their planning or think differently about their planning or not?

DEB: Well do you?

MIKE: Yes, definitely. In IT, rather than go well here is the skill, now it's more about well how can I apply this in a real life situation for example with the flip camera. We've looked at the base elements of it this week but they're going to use the flip camera to analyse an overhand throw and link that with Phys Ed. They go and video the kids doing an overhand throw and play it and analyse the footage for what they're doing wrong and putting that in an evaluation back to me. So I think that's something we touched on before, it is easy to get locked in the traditional core and go with doing what comes naturally but when you start opening it up it's easy for the kids to start driving a lot of the stuff and you can see how motivated and

engaged they are to do this because I'm not standing there saying do this, turn this way. It's actually quite easy.

HELEN: Great!

MIKE: I think from that view point, well me for anyway, I'm just talking for myself, but you start thinking about what's possible. I'd be interested to see, has anyone else thought that way? Has anyone else thought?

DEB: No, I probably haven't done as much as I'd like to do.

MIKE: It's hard to let go…

DEB: It's not that, I just feel…

BETH: It's time, and…

DEB: At the moment, but it doesn't mean that it's not for down the track…

CATH: But I think we're actually doing it.

DEB: We do do a lot of it.

CATH: We're just not thinking that we're doing it, but when someone's doing writing and it's just a string of letters but then you come and work with them and you sort of help starting them to sound it out and they're getting it all and they're doing it for themselves but you're helping them to do it and you can look at that piece of writing and see the string of writing that finishes with words that make sense and say well that's the ZPD, and that wasn't and hopefully next time they'll get more…

ANN: I think it makes you sort of think about the sorts of things you're doing like your traditional handwriting sheet. Suddenly you think well OK, now how is that engaging everybody and is that deep learning? Where's the student reflection on that?

MIKE: That's been the key for me, is the engagement component. Now I'm trying to think are the kids actually finding this boring? Do they want to do it? That's what I'm trying to think about.

Although Cath had continued with her insistence that they were already "doing it," I was encouraged that at least Mike had begun to think about new possibilities for his teaching. The PLZ sessions had encouraged him to reflect on his practice and imagine new ways of doing things. Although the concepts of cultural-historical theory had not necessarily caught his interest, the discussions about engaged learning had caused him to question his current practice and consider new possibilities. By trying to avoid being seen as the sole authority or 'outside expert' with all the answers, I was attempting to create space for teachers to exercise their own agency, and use their imagination to create new possibilities for their own practice. Mike had successfully embraced this opportunity, but the other teachers were either still waiting for me to take the role I was supposed to play (or perhaps they just thought I was incompetent at leading PD), or needed further support than I had been able to provide in order to successfully participate in creating their own changes in practice.

At the end of this session (PLZ 5) I asked for clarification of a comment that had been made at the end of the previous session. This discussion also raised the issue of how teachers' agency for controlling and creating their own curriculum had been limited in recent years:

HELEN: There was one other question I had to ask about and that was something Deb you said at the end of last session when your group was sharing the reading response ideas you had come up with. You looked across at Kay and said, "This all sounds very familiar"…

DEB: All this, I guess I've been teaching an awfully long time, but lots of these ideas aren't really new. (General agreement) There were things that we were doing, Kay and I had Preps years and years ago…

KAY: In the good old days…

DEB: …in the good old days of prep, and a lot of the things that we were doing WAY back then, weren't we.

HELEN: But why did it disappear in the in between?

DEB: I don't know (Several talking at once….)

GARY: It's exactly what Liz was saying earlier…

LIZ: That a new theory came out…

DEB:… But you don't leave all those good things behind. You've still got them and you still bring them to what you're doing.

HELEN: But what do you think it was about whatever's happened in between that sort of stopped that room for, I think it was all the MAKING things that you were talking about. We used to do all that…

DEB: Yeah…

(Several talk at once. Cath mentions "Early Years" [The Early Years Literacy Program introduced in all Victorian government schools in the late 1990s])

BETH: Yeah, cos Early Years came in. And I think that's why I've found this so challenging because I've been brought up on Early Years and this is my first really big change in the way I was, you know. (Many talking again)

HELEN: So what is it about the Early Years thing that now we're perhaps thinking is not as appropriate?

BETH: Probably the engagement.

DEB: It was too structured.

CATH: There was a formula you had to follow. If you weren't doing THAT at THIS time of the day you were in trouble. It was very regimented.

LIZ: The instructor said at one of the things I was at, was if you're the coordinator you should be able to lift the lid off, the roof off your school and look down into it and if someone is not doing (several chime in here with the same words!) "Big Book at 9.15," then you need to go and find out why.

CATH: We never really did it that seriously.

DEB: But lots of schools did. (Beth agrees)

HELEN: I think that's all part of the problem, that it cuts down the teacher's creativity.

DEB: Yeah.

HELEN: and, so then you feel no control over what you're doing and…

KAY: and it sort of takes away the fun too.

HELEN: Absolutely…

KAY: It was more fun wasn't it, (talking to Deb again) teaching in those days [before Early Years]

DEB: It WAS more fun back then.

KAY: I felt…

DEB: I think maybe our curriculum's a little bit overcrowded and you don't have as much time…

BETH: And it's that whole thing of getting results out of the kids. That's the way we thought you got results [by using Early Years]. You have to learn to read, because they were going up their levels in reading and gee look at how well they're progressing because they're getting from level 2 to level 4 to level 6 to level 10. But we know now that that's not a sign necessarily of someone who reads well.

Although the Early Years Literacy Program is no longer mandated in government schools, in my experience it is still one of the dominant forms of literacy pedagogy used in Victorian primary schools. In the last 10 years this has also often been complemented by the THRASS program – a commercial program which provides a sequenced curriculum for introducing sound/spelling patterns. Recently, the Walker Learning Approach (WLA) has been gaining popularity in some Australian schools (see www.walkerlearning.com.au) critiquing the pedagogical approach of Early Years and THRASS, yet providing a new formula and rigid structure of its own that restricts teachers' agency for creating their own curriculum and pedagogy. Although the WLA allows teachers to create their weekly plan based around the students' interests and developmental needs, the creators of the program insist that their program is 'best practice' based on 15 years of research and that it must be implemented in the prescribed manner (see Walker, 2011; Walker & Bass, 2011). In other words they have positioned themselves as 'experts', and reject attempts for teachers to critique or engage in dialogue with them about the particular needs of different contexts.

Interestingly, several of the Banksia Bay teachers and I had all attended an information session about the WLA between PLZ 5 and 6, and this topic was raised in discussion in PLZ 6. It was interesting to see that the teachers were able to recognise that the issues raised in our earlier discussion about the formulated approach of Early Years were equally problematic in this new program. The teachers were able to articulate why they did not agree with all aspects of the program, pointing out several contradictions between the stated theoretical framework and their own experience or the theoretical concepts we had been discussing in the PLZ. However, Jen's main concern was that the WLA contradicted the Victorian Essential Learning Standards (VELS) and she could not reconcile how she could write reports if she was not teaching the curriculum set out in the VELS documents.

Jen's rigid adherence to VELS and reporting had also been raised in an earlier session. In PLZ 4 when the teachers worked in planning groups to try to create some new learning activities, Ian had been canvassing his idea of creating a maths unit about the Melbourne Cup – looking at statistics, probability, odds etc. Ann was becoming quite animated about this possibility and began extending the idea into other curriculum areas beyond maths – the social ramifications of gambling, the roles of other careers in the racing industry etc. Kay, Mike and Fiona also started suggesting ideas, but suddenly Ian raised a concern:

IAN: I understand what you are saying, but the integrated curriculum [referring to school planning documents based on VELS] has said that we are looking at History at the moment.

MIKE: That's what I'm saying, that we are tied down to that History and that's really boring, whereas if we start thinking outside of the box…

JEN: But VELS says we HAVE to do it, so we have to spend some time on that. Or we have to change and completely re-jig our reporting system.

IAN: And that's the other problem…

MIKE: …Can't we be creative? What's the topic?

FIONA: Yeah, lots of that would fit in VELS anyway.

Here Ian and Jen, the most recent graduates in this group of teachers, were having real trouble with the idea that a teacher could just choose their own topic and create an integrated curriculum unit around it. They were very stuck to the idea that VELS dictated what they must do each term, whereas the other teachers, who had all taught through the 1980s and early 1990s when there had been no formally mandated curriculum in Victorian government schools, were much more open to the idea that teachers could create their own curriculum and could recognise that the VELS could still be covered even if through a different topic than that prescribed by their existing planning documents. Ann also raised an interesting observation:

ANN: But the thing is it's exciting for you too.

FIONA: Yeah.

MIKE: That's right.

ANN: It's exciting for you too. You know, you're not just bringing out sheet number 21 because it's Week 3 of Term 4 and you've done that for the last 10 years. And it brings YOU some fun in the learning yourself.

Later she also added:

ANN: But you see how excited we were all getting about that one idea? That you could do this and make that, ... And interestingly, even if you did a similar thing the following year, because you've got a different set of kids, and they're asking different questions, you might actually go in a completely different direction and take a totally different approach than you did last year, because the kids will take you that way. (Ian makes a face that suggests he has never thought of this before.)

The introduction of increasingly prescriptive curriculum policies and uptake of commercial curriculum programs (which obviously require significant financial investment by schools for resources and training) had significantly reduced the teachers' sense of agency to make curricular decisions for their own classroom. VELS and commercial programs are deferred to as THE authorities for curriculum planning, even though these could be regarded as guidelines that still allow significant authority and agency for the teacher to make curricular decisions. This seems to link in with aspects of the theory/practice divide – that teachers are seen

merely as technicians who implement the programs and policies created by theoreticians. The trouble is that not all policies and programs are developed from sound theory, and in the case of cultural-historical theory it is impossible for 'best practice' programs to be developed that would be applicable to the needs of every school. For schools to adopt a cultural-historical approach to curriculum development *requires* teachers to have agency and imagine new possibilities that will best suit the developmental needs and interests of their own students. This can of course be done within policy guidelines, but only if policies are regarded as a shared authority rather than the *only* authority (Floden & Chang, 2007). Teachers must be allowed to believe that they are the ones who know their classroom best, and of course they can only really know their class of students best if they are also willing to share their own authority and listen to what their students have to say.

In my follow-up interview with Ann six months after the final PLZ session, she explained that Kay and Jen had continued to develop their team teaching situation and were making significant changes to their practice. Most notably they were allowing students to take significant responsibility, not only for their own learning by encouraging them to set and monitor their own learning goals and providing greater choices of learning activities, but also for looking after their learning environment:

ANN: It's just fantastic. They've built in a lot of negotiation, they've built in a lot of choice for the kids, and the kids have taken on huge responsibility. Even, I know this is just a minor thing, but a symbolic thing, I can go in there at 3.31 into that room, into that space, and it looks like it's been cleaned by the cleaner. It just shows that they are so respectful of that space and they've taken on ownership of the space.

Teacher authority however has not been abdicated or withdrawn, and Ann was able to explain at great length how each teacher works with her particular strengths to take clinic groups for explicit teaching of identified group needs. She also explained that the enthusiasm and new expertise of Kay and Jen, which they have shared regularly with the rest of the staff, has also inspired Ian and Fiona to form a collaborative partnership and investigate new ways of structuring their classrooms into a team teaching environment:

ANN: Anyway, towards the end of last term they [Ian and Fiona] came to me and said they really want to change the structure of their two rooms. They wanted to move their desks into the middle section, you know how there's a middle section between the two rooms, so that they could have an office together. Because that's what they do in the new building and that's what Kay and Jen do, and they find that their conversations are flowing more easily and they're getting more professional with their discussions. So they've moved, they've moved their desks out of their two separate rooms, into the middle room. Planning, working really well together and utilising their strengths and making it like a double room, shared space. So I'm RAPT with that! Absolutely RAPT with that.

While these examples of change represent a growing sense of agency and imagination of new possibilities amongst the teachers in the school, they also highlight the role of shared experience in providing the 'material' for development of professional practice through discussion, reflection and interaction in shared events. This need for shared experience will be discussed further in the next section.

"Shared experience and understanding" – The role of intersubjectivity

Another critical incident occurred during PLZ 3. I was explaining the Lemonade Learning Model (LLM, see Appendix A) developed in my Master of Education thesis to the teachers, and then tried to start up a discussion about whether they could see any relevance to their practice:

HELEN: Does it help you rethink what you are doing? Does anyone want to share an example of either something that they've seen that sort of fits with that (referring to LLM) and why it's worked well, or can you think of an example of an activity you often do in the classroom and you realise it doesn't really fit with that and we can work out a way to make it more authentic or...?

(There is a long pause of more than 10 seconds. I smile at Deb and she gives a nervous giggle)

ANN: You could talk about investigations Deb. That sort of fits in there.

I remember feeling uncomfortable during the long pause, but was deliberately utilising 'wait time' to give participants a chance to think of a response. By the time I smiled at Deb though, I was beginning to worry about what I would do next if no one came up with an example, and was very relieved when Ann came to the rescue by providing a prompt for Deb. It was not until I watched the video back though that I realised that I was unable to provide a prompt because I had no knowledge of the teachers' practice. Ann was able to provide this prompt because she had some experience and knowledge of what went on in each teacher's classroom, but as an outsider I had not been privy to this shared experience.

In re-analysing all of the video tapes, I noted several examples (particularly in the early sessions) where Ann provided prompts for specific teachers when she knew that they had a particular experience that was a good example of the theoretical concept we were discussing. In an ordinary classroom, teachers constantly draw upon their knowledge of the students or the shared experiences of the class to make connections between the academic content of the lesson and the children's lives, but as an outside facilitator this was very difficult for me to do with the teachers. As the sessions went on it became easier in that I could at least refer back to experiences and discussions we had shared in previous sessions to help stimulate new discussion, but it was still difficult to get teachers talking about what was actually occurring in their classroom. It can be speculated then that most teachers expect outside PD presenters to simply stand up and deliver their prepared spiel without incorporating the particular needs and interests of their audience into their delivery. It is virtually impossible for outside facilitators to do otherwise, unless they have had an opportunity to spend a significant amount of time in the shared context of the teachers they are working with.

Working from a cultural-historical perspective of learning and development (as outlined in Chapter 2) it becomes evident why it was so difficult to be effective in actually changing teachers' practice. The required intersubjectivity between teacher (in this case, facilitator or presenter) and learners (the participant teachers) for creating the necessary conditions for truly developmental learning, simply cannot be established in the absence of shared experience.

Fleer (2010) defines two dimensions to intersubjectivity:

Conceptual intersubjectivity When a teacher has gained knowledge of the everyday concepts of children,
Contextual intersubjectivity When a teacher has gained knowledge of the everyday practices of children across a range of contexts (e.g., home, centre). (p. 218)

These different dimensions of intersubjectivity were also evident in the PLZ data. While the last transcript example shows my lack of contextual intersubjectivity with the teachers (no knowledge of the teachers' everyday practices), the earlier transcript where the teachers were complaining about the term 'cultural-historical' shows my lack of conceptual intersubjectivity (no knowledge of the teachers' everyday concepts). The teachers were using an everyday understanding of the words cultural and historical whereas I had imbued the term with a completely different meaning. Without conceptual intersubjectivity it was like we were talking in two different languages, although even more problematic because we all initially *thought* we were understanding each other.

Further, the failure of conceptual intersubjectivity was highlighted in the final PLZ session when I asked the teachers to construct or draw their own 'image of the child'. I was quite shocked that many of the created images were along the lines of empty vessel, sponge, blank page etc., completely ignoring any possibility of children having their own agency in their own learning or development. I realised that it was no wonder some of the teachers were having trouble seeing how the theoretical principles I was espousing could be implemented in their classroom practice.

This had been evident in PLZ 6 when I asked the teachers to share anything new they had tried out in their classroom since the last session. Eve explained that she had visited Fiona's classroom to have a look at the reading activities Fiona used with her middle primary students, but that she was still finding time to create simplified templates for each activity as she didn't feel that her younger students would be able to complete Fiona's activities independently.

EVE: I'm still sort of working it out, because what I'm trying to do is organise, sort of like what Fiona's doing, but it has to be simpler for our kids. ... It has to be much more simple because it's not (sighs), they need so much direction, they just can't, like it's been such a struggle to get them to do their own thing for investigations, and they're fine now on that, so we're looking at the next step. So we're looking at giving

them more options when they're doing their reading group activities, along the 6 Thinking Hats style of things. But at the same time, for our kids who need a bit of structure, trying to give them some sort of proforma to give them an idea of how things are set out under different headings. But it's taking a bit of time to work it out.

DEB: That's OK. We've got plenty of time. Next year.

KAY: What about if you sent a couple of your kids to Fiona's room…

EVE: Some of them would just fit right in, but some of them…

DEB: Some would just be lost.

KAY: But the ones who fitted in, send them …

HELEN: That's a great idea!

KAY: … and then they come BACK…

DEB: … and show the others.

HELEN: Exactly.

ANN: Great suggestion.

EVE: Yeah, but they'll come back and show the others, and some of the others will just never be able to get it anyway. (Some laugh, others disagree)

HELEN: But don't underestimate them, because look at the stuff they're doing in investigations. … If you had them working in multi-age groups, working together …

FIONA: They're already doing investigations, so if you gave them a book and said, "Here's this book. What sort of investigation could you do about this book?" They'd come up with heaps of ideas.

EVE: Well we've come up with quite a few. We've got heaps of ideas, so we've written them down … but we HAVE to give them sort of an example of what each one would look like, because the kids, some of them can't even READ to read the idea.

HELEN: But maybe you could introduce each activity one at a time to all of the reading groups for a couple of weeks.

DEB: Till they get used to it.

HELEN: And then they can choose which ones they want to do. And if they're working with other kids who have got the idea…

DEB: And lots of them with big brothers and sisters have got lots of ideas. And sometimes it's the younger ones, who are the younger ones in the group, but they'll get there. And we'll get there too Eve!!

EVE: Yeah, we will. We're working on it.

Here Eve was really struggling with the idea that young children could be capable of making choices about their own learning. Even though she was toying with the idea of providing different activities for the children to choose between, she wanted to set things up so that each choice was carefully structured and controlled by the teacher, effectively only giving children a choice amongst the teacher's choices. She also doubted that children could learn from each other as Kay was suggesting, insisting that it was necessary for the teachers to do all of the preparation of examples and proformas so that the children would know exactly what they were expected to do. She was also fixed on the idea that the activities needed to be able to be done independently by individuals and would not take up my idea of the children working together on tasks.

I wrote this comment in Nvivo as I analysed the video of this incident:

Eve's inability to imagine new possibilities for action stems from her theory/image of children and what they are capable of. It was in reflecting on this session that I realised it was important to discuss their images of the child. Their current theories were limiting their practices. A lack of intersubjectivity in our understandings of children meant they could not see the relevance of the practices I was suggesting for their students.

It was after this incident, when I realised that Eve still did not share my own view of learning as a social process which occurs in collaboration with others, that I decided to set up the 'image of the child' activity in the final session. I wrote this 'sticky note' on my desktop:

I'd like to get teachers thinking about what they value and what concepts they have of children's development so that they can begin imagining what a community of learners really looks like and what different actions they might need to take to make it happen. I get the feeling many teachers are still working from a maturational development/deficit view of children and I'd really like to use some arts-based types of activities to make these assumptions visible so we can problematise them.

A few days after the final PLZ session I rediscovered this sticky note and wrote this in my journal:

Reading this sticky note of my intentions and comparing it to the reality of the images of children they constructed is interesting. I was obviously right about them working from a deficit view and yet I was still shocked to see the number of models that expressed the empty vessel/sponge/blank canvas image! I suppose the real problem is I hadn't worked out how I was going to problematise these images. I don't think they saw a problem with these images at all, although after some discussion they did agree that the models did not represent everything they know about children. I'm not sure how I could have built the discussion further, to move beyond just talking about it, to working out what consequences this has for their practices. My point has always been that they need to do that work for themselves, and yet I know that they obviously need some help to be able to do that. Most fundamentally though is that perhaps they just don't see any need to change what they are doing. Who is saying that what they currently do is wrong? Ann is, but they don't necessarily value her opinion and therefore feel no motive to do the work to make a change. If their representations of children really do represent their beliefs then they are probably right to insist there is no need to change. Who are we (me, Ann, the Regional Consultants) to say what they are doing is wrong? My intention was never to say that their present practice was wrong, but to help them see alternative ways of thinking about children, learning and teaching and then to help them critically analyse which views make more sense to them and what the

implications for their practice would then be. I don't feel I have been able to do this very successfully. I think it would have been more successful to just work with a small team who already share their practice and to get them to bring real examples to the group for analysis. I suppose I did try to get them to share examples that we could all discuss, but without the shared experience of the situation it is difficult for everyone to understand the links and connections being made. They also seemed to have real difficulty finding examples from their practice to demonstrate the concepts I was introducing. Is this because they were not listening or because they did not understand what I was saying or just that they saw the gap between theory and practice as either too insurmountable or too irrelevant to bother with?

Theory is something they believe they must sit through when 'experts' come and tell them how they should do their job, but they are weary of doing what they have been told to do by 'experts' only to have the same people tell them in 5 years time that THAT was wrong and it should be done THIS way. I don't believe I have tried to do that. I think I have encouraged them to look at their practice and what they know about children and to look at whether theory helps to explain what they see and then to recognise what implications these understandings have for their practice. This is surely relevant to any theory that might come along, not just mine! Also I'm not saying that this means you must do x, I'm suggesting that they examine what they do in light of what they know now, and collaboratively create whatever practices will be most appropriate for this particular circumstance.

While I probably shouldn't have been surprised at the types of images that were produced, I was still disappointed that the concepts we had been talking about throughout the series of sessions had evidently not been internalised at all. As I watched the video of the teachers playing with the goop in that same session, I was suddenly struck by the similarities between the teachers talking about their work with students, and my own work with the teachers. The goop had ended up runnier than I had intended and was not holding the shapes that teachers were moulding it into. As they released pressure on their blob of goop it would just run back to its original form. I jotted down these notes as I analysed the video:

Why did I not think about this goop metaphor applying to the agency teachers bring to their learning too? - Well I did, but I was thinking of the positives of what the

teachers would bring to the PLZ and how that would help BUILD something, but instead I feel our PLZ is more like this runny batch of goop - just running away and going off back to their original form rather than holding a newly co-constructed shape. Perhaps this runny goop is actually a more apt description of the PLZ than the slightly mouldable form I had in mind as a metaphor of teaching/learning! Things don't go as planned. You work with what you've got while you've got it, and it changes the experience of the participants in that moment, but you can't control what happens as you leave it - and in most cases it just goes right back to its original form! Have I had no effect at all? Still perhaps traces of the experience remain - dirt picked up off someone's hands remains embedded in the goop - and over time the effects of the environment continue to determine its consistency.

Six months after this session, Ann answered this question:

HELEN: Has anything from the PLZ stuck? Do you think it was worthwhile in any way?

ANN: I think it was worthwhile in the sense that it gave them, well the fact that they had to participate. You know, the expectation was that you actually participate [rather than sit and listen passively], cos I know some of them were quite reluctant to do that, and you could tell that. They were uncomfortable with that.

HELEN: Mmmm (in agreement).

ANN: But that set off the idea of, we do have professional development and there is the expectation that we all contribute and take everything on board. And in fact we've written protocols about 'How to act in meetings', and 'What team planning looks like' and 'How to give feedback' and all those sorts of things. So that's sort of in their face. And that's grown from those sessions I think – the notion of professional discussions. And it wasn't ME doing it, and that set up the pattern, and over that time, see if it was just a one off it wouldn't have worked.

HELEN: No, that's right.

ANN: But from my perspective, it's allowed us to continue that ... It set the scene that the expectation is that they do have professional discussions and there is reflection

involved.

HELEN: That's good!

ANN: And I know Kay and Jen have taken on lots of those little activities you did too. They're really open to that sort of stuff as well. So that's made perfect sense for them, but from the whole staff perspective it's given the notion that we do talk like this and there are now set sessions. They are, those Wednesdays, are professional development meetings now, not staff meetings, not anything else, "We're going to do something *today."*

So perhaps, even if a lot of the content did not 'stick' with most of the staff, the process of creating a collaborative professional learning group did actually have some benefits by providing a new structure for the ongoing professional development of the group.

Conclusion

This chapter has presented data from Phase 1 of the research study to answer the first research question and illustrate the three main themes that seemed to crop up repeatedly throughout the analysis of the PLZ session videotapes and my journal notes during this time. In the next chapter I will discuss the cultural-historical concepts that arise from these themes and outline a preliminary model of the system of necessary conditions for effective development of professional practice. I will also outline preliminary models showing the difference between traditional PD practice and a proposed new practice of professional development that takes into account what has been learned through analysis of this phase of the project.

Chapter 6: Discussion of Phase 1

LEARNING ABOUT, AND REPREPRESENTING,
THE PRACTICE OF PROFESSIONAL DEVELOPMENT

"… what if some kinds of knowledge about a phenomenon can only be discovered
from confronting the problems of attempting to form the practice, rather than trying
to describe what others are doing?" (Chaiklin, 2011, p. 243).

Introduction

This chapter builds upon the presentation of data in the previous chapter to discuss
how analysis using relevant concepts from cultural-historical theory can suggest a
theoretical basis for understanding the institutional practice of teachers' professional
development. The research question to be answered in this discussion chapter is:

*2) What is the system of essential relations revealed by analysing my participation in
transforming the institutional practice of professional development at one particular
school?*

Theoretical analysis of the institutional practice of professional development

As shown in the previous chapter, three significant themes emerged during analysis
of the Phase 1 data. These themes, when discussed in relation to cultural-historical
concepts of development, provide significant insight into the conditions that need to
be present in the institutional practice of professional development in order for
effective development to occur. However, it must be understood that each of these
themes and their related concepts are closely interrelated with each of the others,
creating a dynamic system of relations, as shown in Figure 6.1.

Although this system must be regarded as an integrated whole, it is obviously
necessary to turn momentary attention onto each term used in the diagram in order to
be able to discuss how each element relates to each of the others.
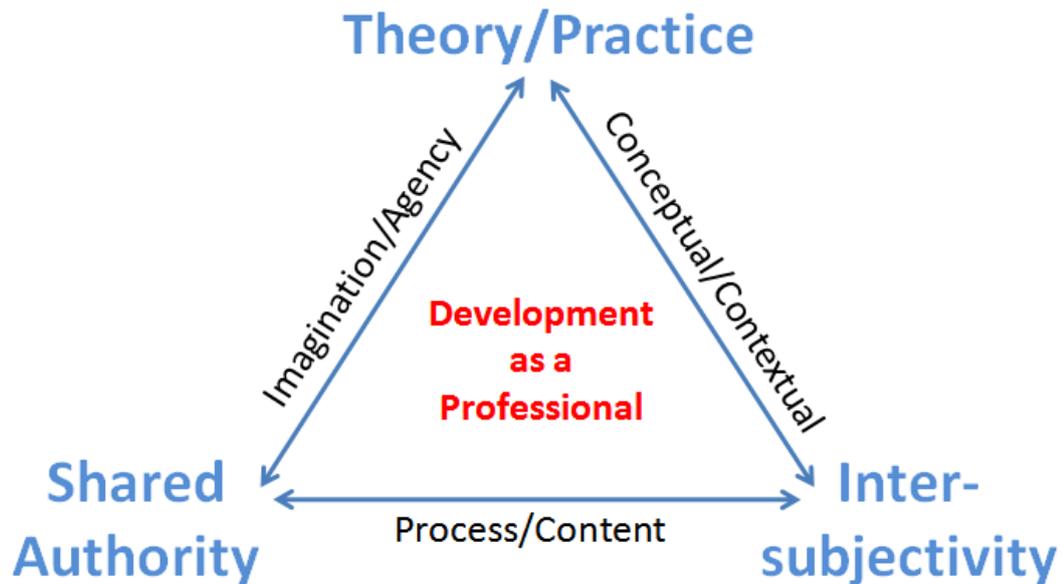
Figure 6.1 System of essential relations showing necessary conditions for effective professional development.

Development as a Professional

This term, in the centre of the diagram, refers to the product that is being created in the institutional practice of professional development, that is, the development (qualitative change in competences and motives) of teachers as professionals (which AITSL defines as incorporating professional knowledge, practice and engagement (Australian Institute for Teaching and School Leadership, 2011)). This definition of this product of the practice must be read in conjunction with the meanings of development, professional and practice being used throughout this thesis (as outlined in Chapters 1 and 2), and particularly refers to the development of new psychological formations (teachers' unified concepts of teaching/learning, children's development and/or subject matter) which transform the way teachers are able to participate in and contribute to the variety of professional practices they work within.

Theory/Practice

The process of attempting to create collaborative professional learning activity in the Banksia Bay PLZ highlighted that many teachers still regard theory as the domain of academics in universities, with limited relevance to their work as teachers. This attitude was prevalent across both older and younger teachers. Jen, Ian and Eve tended to dismiss theory as "stuff we did at uni" which they had not found useful to

their practical work as teachers; while more experienced teachers, Gary, Deb, Liz and Cath seemed to be weary of the constant changes in theory and policy that they had been exposed to across their careers and tended to treat new theories as just a new set of 'labels' to be applied to their existing practice. Over several occasions, each of these teachers made comments that indicated they would simply wait out this 'latest educational fad' and continue to do what they had always done.

However, other highly experienced teachers such as Ann, Beth and Fiona, did show interest in trying to understand Vygotskian explanations of teaching, learning and development and yet continuously grappled with how they could create and implement new teaching practices reflecting these theoretical principles. Kay and Mike, on the other hand, were openly disdainful of theory and yet managed to implement significant changes to their practice over the course of the project. While they refused to buy into the theoretical language presented in the PLZ sessions, they clearly seized upon the opportunity opened up by the project and Ann's commitment to provoke and support change, to examine their current practice and make changes.

All of the above responses by the teachers show a difficulty with regarding theory/practice as a unified interrelationship, in which theory and practice mutually constitute and inform each other. As stated many times throughout this thesis, my intention was to always present theory in terms of its relationship to practice and vice versa, but for all the reasons outlined in the previous chapter, this proved almost impossible to achieve when the PLZ was, in both perception and reality, removed from the teachers' classroom practices.

This rather long quote from Lenz Taguchi (2010) explains this common dilemma well:

> The dominant notion in the field of education is that there is a gap between what is understood as theory and practice. Theory and practice can also be said to constitute a binary opposition in the way we often think. For some this binary assumes the image of a visionary, rational, logical, clean and flawless theory, on the one hand; and on the other, a 'messy', 'dirty', disorderly practice, in need of being organised, cleaned up and saturated by the rationales and visions of theory. Proponents of the latter view would argue that the best and most appropriate theories should be applied to make practice better. If this is dominant thinking among many researchers and teacher educators, another line of thinking is sometimes just as dominant among

practitioners. According to this line, practice constitutes a kind of truth in itself, based on unformulated, unwritten experiences and tacit knowledge, owned and embodied by the practitioners themselves. Proponents of this view would say that no theories can formulate and represent the truth of tacit knowledge in practice; therefore, what we need is to bring out that tacit truth from practice itself (Polanyi, 1997). What both of these notions fail to acknowledge is that practice is already and simultaneously theoretical and material, and that theory is totally dependent on experiences and fantasies of lived material practices. (p. 21)

Vygotsky's explanation of concept development, outlined in Chapter 2, helps us understand theory/practice as a dialectical unity in which both tacit knowledge obtained through everyday experience and consciously obtained academic or 'scientific' knowledge interweave and inform each other to create a 'unified' concept rich both in meaningful context and conscious awareness of how it can be generalised to other contexts. These are the types of concepts we must be aiming to develop with teachers in the institutional practice of professional development.

Smagorinsky et al. (2003) have shown that many graduate teachers leave their pre-service courses with complexes or pseudoconcepts, (pre-conceptual modes of thinking, as discussed in Chapter 5 of *Thinking and Speech* (Vygotsky, 1987)), rather than properly developed concepts of teaching, learning and development. They argue that the structure of teacher education institutions is often not conducive to the development of concepts and that only if these graduate teachers happen to find themselves in an especially supportive and conducive work environment will they be able to effectively develop mature, unified concepts.

Likewise, Ellis (2011) has raised an interesting observation, arguing that often CHAT researchers take practitioners' everyday concepts of their work as the starting point for practice-development-research, rather than the possibility that practitioners may be working with "illogical or improperly organised categories of thinking". However, his comment that in this type of (poorly-informed) research "change becomes a matter of negotiating alternative concepts on a rational basis rather than as, possibly, the growth into concepts from the pre-conceptual" (p. 3) indicates that he is viewing everyday concepts as fully formed concepts (but formed through everyday experience), rather than, as Blunden (2012) continuously reminds us, as a particular *process* or particular line of concept *development.* So, while Ellis is in fact

correct to say that researchers often need to work with helping practitioners to develop concepts from the pre-conceptual formations made from everyday practice, and that this is not a negotiation of an alternative concept, his premise for making this observation could be regarded as faulty if we take the view that everyday and scientific concepts are lines of concept development, not fully formed concepts in themselves.

However, I believe it is also important to acknowledge that many experienced teachers may indeed be working with well developed concepts that are based on alternative theories than those being presented in contemporary PD activities. For example, eight out of the twelve teachers at Banksia Bay completed their pre-service training before the early-mid 1990s and would not have learnt about Vygotsky's theories, but would instead have been taught Piaget's theories of child development. Their own current concepts of teaching/learning have therefore developed as the intertwining of the formally introduced Piagetian concepts and their everyday practical teaching experiences informed by these concepts. Surely it is possible that over considerable time and with considerable real-life experience and additional formal training that reinforced these concepts that at least some of these teachers have developed mature 'unified' concepts based on these theories?

Therefore, while Ellis and Smagorinsky et al. may be right in saying that many practitioners' development of concepts about teaching, learning and development is still at the complexive or pre-conceptual level, it should not be assumed that change does not ever involve the negotiation of alternative concepts, because, particularly in the cases of older and highly experienced teachers such as Liz, Deb and Kay, it often does. However, even then, new concepts do not simply replace old concepts but build upon existing concepts (Vygotsky, 1987), strengthening what is consistent and causing reinterpretation of what is contradictory. Liz in particular often tried to articulate to the group how the new ideas and terminology being presented in the PLZ sessions related to her previous understandings and terminology (see Chapter 5). Thus, a paradigm shift between different theoretical perspectives does not involve a complete replacement of old concepts, but rather utilises newly learned information to restructure and continue development of teachers' existing concepts until the concepts provide a more plausible, consistent and meaningful explanation for phenomena teachers see occuring in their practice. Concepts, are therefore never

fixed, but are continually open to development as advancements in knowledge (of both individuals and the field as a whole) occur.

Conceptual/Contextual

This pair of terms is used between the main themes of *theory/practice* and *intersubjectivity* to signify that both conceptual and contextual intersubjectivity between teachers and the facilitator is required in order to effectively help teachers develop concepts that integrate theory/practice as a dialectical unity. Further explanation of these terms is provided in relation to intersubjectivity under the next heading.

Intersubjectivity

Analysis of the data relating to shared experience in the PLZ (see Chapter 5) highlighted the significance of two forms of intersubjectivity in effective professional development. Conceptual intersubjectivity occurs when participants understand each other's held concepts (at whatever stage of development they are at) (Fleer, 2010). They do not necessarily have to share or agree with the concepts held by each other, but they must at least have an understanding of the perspective of the other participant in order to achieve conceptual intersubjectivity. This conceptual intersubjectivity can only be achieved through interaction with each other, and is most effectively achieved through collaborative problem solving in joint activities where concepts are enacted, negotiated, co-constructed, debated and consequently developed (Tharp, et al., 2000).

Contextual intersubjectivity occurs when participants have an understanding of the various social or institutional practices which each other participate in and which lead to the development of particular concepts (Fleer, 2010). Teachers develop concepts of child development not only through participating in formal training or reading contexts, but also through observation and practical experience with their students in the classroom, and also possibly with their own children and/or the children of relatives, neighbours and friends outside of the classroom. Each of these contexts provides the setting for social interactions in which we learn practical and theoretical knowledge that contributes to the development of 'unified' concepts that reflect the dialectical unity of theory/practice.

Obviously, the easiest way for all participants to develop contextual intersubjectivity is within a shared social practice. While I was hoping that the creation of the PLZ would be a suitable shared practice for developing contextual intersubjectivity, in reality, in the short number of sessions we had together, it was difficult to create and share enough suitable experiences to be able to discuss theoretical concepts in relation to our shared practice. Also, while I had assumed that teachers would be able to share incidents from their classroom practice as examples if we had been unable to create adequate shared experience, in actual fact the teachers found it very difficult to link the theoretical concepts introduced in the PLZ with their own classroom practices and, as discussed in Chapter 5, not being familiar with their individual classrooms, I was unable to effectively provide prompts to help them.

Hedegaard (2002) refers to this linking of theoretical learning and thinking with situated learning and thinking as 'The Double Move' in teaching. In this approach, teachers choose situated problems which have meaning for the students but which also incorporate the central concepts of the subject-matter being introduced. Through engaging in solving these situated problems (with the assistance of the teacher and others) the students acquire understanding of the system of concepts and are then able to use this to find and solve their own problems in the subject area. The teacher must create and guide the learning activity by understanding the perspective of what the students will find interesting and meaningful in relation to their everyday lives, but also keeping in mind the subject-matter concepts and methods that they want the students to acquire. Obviously, to take this double perspective requires the teacher's deep knowledge of both the subject area and the students' everyday contexts and concepts, (i.e., intersubjectivity).

Although I was aiming to create the 'Double Move' approach in the PLZ, my lack of understanding of the teachers' everyday contexts and concepts made it very difficult for me to choose appropriate problem situations that could effectively link the teachers' situated knowledge with the theoretical concepts that I was introducing. However, the higher level of discussion that occurred in PLZ 6 after the majority of participants (including me) had attended the Walker Learning Approach seminar, provides a good example of the positive benefits of shared experience for creating both conceptual and contextual intersubjectivity.

Process/Content

This pair of terms is used between the main themes of *intersubjectivity* and *shared authority* to signify that both the process and the content of the professional development practice must be collaboratively created by teachers and the facilitator in order to effectively share authority and create intersubjectivity. Further explanation of these terms is provided in relation to shared authority under the next heading.

Shared authority

I have found Oyler's (1996) description of shared authority between teacher and students a useful concept for describing the collaborative nature of learning interactions in the ZPD, and (remembering that the PLZ is actually a professional learning ZPD) is therefore equally applicable to the collaborative interactions between facilitator and teacher participants. While I could have just as easily used any of the terms: *obuchenie* (as described in Chapter 2), collaborative improvisation (Sawyer, 2004b, 2006) or joint productive activity (Dalton & Tharp, 2002), to describe this collaborative interaction between teacher and students or facilitator and participants; I discovered that the Banksia Bay teachers actively resisted using these unfamiliar terms and struggled to understand the alternative notion of teaching/learning that they represented because they would not engage with the terminology. When I came across Oyler's book a few months after the conclusion of the PLZ, I realised that her description of shared authority was exactly the idea I was trying to get across to the Banksia Bay teachers, but in much more accessible terminology.

Teachers are already familiar with thinking that they need to be *in* authority in the classroom, so while the notion of *sharing* that authority requires substantial rethinking of the *nature* of the teacher/student relationship, at least the terminology is still familiar, making the concept accessible for teachers to engage with. Moreover, Oyler's recognition of the two dimensions of authority provides a simple tool to deal with thinking about the complex nature of teaching:

> As Peters (1966) noted: A teacher is *an* authority regarding some aspect of culture and is *in* authority to accomplish the task of teaching. Essentially, the former side of authority is a content dimension – what counts as knowledge

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and who is a "knower"; whereas the latter is more of a process dimension – controlling the flow of traffic and of talk in the classroom. … These, of course, are interwoven and interdependent. (Oyler, 1996, p. 21)

Oyler also recognised that if teachers could *have* authority in both of these dimensions then, logically, authority in both of these dimensions could also be *shared*. Thus, the one concept of shared authority allows teachers to reconsider their (and their students') role in both *what* is learnt and *how* it is learnt; challenging teachers to allow students to share in decision making in both of these dimensions.

This notion of shared authority is equally as applicable in a professional development practice organised according to cultural-historical principles as it is in a classroom teaching practice, and requires just as significant a rethink of the nature of the facilitator-participant relationship that is typical in most PD activities. My intention in setting up the PLZ was to act as a collaborative participant with the teachers to co-construct new understandings and practices. While I acknowledged that I had theoretical knowledge that the teachers did not share, I in no way saw myself as an authority on how these theoretical ideas should be implemented in a classroom. I was curious to see not only *what,* but also *how,* we would be able to collaboratively create innovative practices and felt that I would be learning at least as much as the teachers by participating in the process. I would share what I knew, but equally allow the teachers to share what they knew and to be involved in creating the process of how we would do this.

However, the change in the nature of the PLZ that occurred when I agreed to work with the whole staff of one school cast me in the familiar role of a visiting expert lecturing at a staff meeting, and initially made it difficult to renegotiate a different and unfamiliar set of expectations where authority would be shared amongst all participants rather than reside with me as the facilitator. Over time the teachers did begin to realise that this professional development activity required *a new way of participating* and it is interesting that Ann has been able to continue to extend this sharing of authority in professional development meetings beyond the length of the project (see Chapter 5).

Imagination/Agency

This pair of terms is used between the main themes of *shared authority* and *theory/practice* to signify that both imagination and agency are required to collaboratively share authority to create educational innovations that are effective instantiations of theory/practice. The importance of this imagination/agency relationship became particularly clear through analysis of the data collected during the teachers' collaborative discussion about Ian's plan to create a unit of work inspired by the Melbourne Cup (see Chapter 5). Ian's imagination of what he could do in the unit to try and incorporate the theoretical features we were discussing was being stifled by a lack of agency for creating his own curriculum. He was evidently unused to creating his own curriculum units and usually relied on implementing the pre-planned units that had been developed by the staff over several years to follow the VELS curriculum. As the more experienced teachers' started to make increasingly imaginative suggestions, Ian and Jen became more and more uncomfortable and resistant to moving away from the VELS guidelines. As Kemmis and Smith (2008) point out, the current political/social climate has encouraged rule following rather than professional agency:

> What is at stake when practice becomes rule following is the *moral agency* of the educator. At some point, hemmed in by rules, the educator may become no more than an *operative* of some system – the organisation they work in. This distinction between being an agent and being an operative is at the heart of our concern for educational practice and *praxis.* Our capacity to live with, live by, interpret, extend and sometimes creatively trouble or avoid the rules of organisations is one of the things that give us our identities as educators. (p. 5)

The data collected at Banksia Bay certainly indicated that many of the younger teachers viewed themselves as operatives rather than agents, so a major goal of the PLZ was to try and get teachers to challenge this identity. Floden and Chang (2007) use the metaphor of a jazz score to suggest that policy and curriculum documents should be regarded as providing an overall structure or guideline for what must be taught, but also allow significant flexibility for teachers to improvise their performance and express their creativity within this given structure. As discussed in the previous chapter, the experienced teachers at Banksia Bay had no trouble regarding the policy documents from this perspective and were clearly delighted to

be given Ann's sanction to re-embrace this attitude towards policy; whereas the graduate teachers seemed to see policy documents as a script that must be followed without deviation and were confused by the (perceived) conflict between mandated policy and professional creativity.

In the current political climate of many Western countries (e.g., United States, United Kingdom and Australia), standards-based curricular policy is increasingly regarded as a mandated script, and consequently teachers' creativity is severely stifled and constrained (Floden & Chang, 2007; Sawyer, 2004a). Teachers in these systems are treated as technicians who implement the provided curriculum, rather than as agentive professionals who create curriculum. Floden and Chang's jazz score metaphor (regarding teachers as interpreters of a given structure) is an attempt to find a balance between complete freedom (regarding teachers as composers) and total regulation (regarding teachers as script readers).

This balanced approach is what Ann was trying to advocate at Banksia Bay. She acknowledged that there were government policies they were compelled to operate within, but she also insisted that teachers are capable of making professional decisions about how these policies can best be implemented to meet their students' needs. The practice of professional development thus needed to provide the necessary support and structure for teachers to utilise not only their agency (their capacity to control their own actions), but also their imagination, to create new possibilities for practice.

According to Vygotsky's conceptualisation of imagination, as discussed in Chapter 2, new creations are always combinations of ideas drawn from previous experiences or knowledge of others' reported experiences. Therefore, innovations in practice can occur when teachers are introduced to new theoretical ideas or reports of others' pedagogical strategies and then combine these ideas with their own previous experiences to create novel approaches which can be realised in concrete practice. This is what Ian was attempting to do, but he still had difficulty accepting that the policy actually allowed him to share some authority for making these curricular decisions. It took significant support from Ann and his colleagues to exercise his agency and imagination to develop and implement new practices.

Agency and imagination are not only necessary for creating changes in practice, but also for the further development of theory. As discussed earlier in the section describing theory/practice, theoretical concepts are not fixed but are always open to further development as new knowledge comes to light. For this reason, Blaise (2006) argues that teachers should be positioned as 'theory makers' who critically question and wonder about a range of ideas drawn from formal and informal sources, trying out and reflecting on the success of various strategies and explanations to develop understandings of what is most appropriate for the particular students in their own care.

Teachers at Banksia Bay clearly did participate in this type of theory making (e.g., in the P-2 team's trial, adaption and critique of aspects of the Walker Learning Approach), although this type of activity was rarely consciously recognised or regarded as being associated with theory. In hindsight, I could have done much more to make the teachers consciously aware that the types of discussion about practice generated in the PLZ were in fact just as much about theory. Although I constantly challenged teachers' perceptions of theory as irrelevant to practice, and encouraged them to think critically about different theories and policies to work out for themselves the explanations that made most sense for them in their particular situation, I realise now that I missed the opportunity to explicitly point out that this was in fact 'theory making'and that this was not the sole preserve of researchers or academics. In other words, while the PLZ encouraged agency and imagination to co-construct new understandings of existing theory and to utilise these in the creation of new practice, it did not reach a level of development that encouraged agency for teachers to *consciously* reposition themselves simultaneously as makers of new theory (even though, referring back to the Lenz Taguchi (2010) quotation given earlier, when practice is seen as inherently theoretical and vice-versa, this is actually inevitable – yet often remains mostly unconscious).

For this reason, imagination and agency are placed on the diagram between the elements of *shared authority* and *theory/practice* (see Figure 6.2, as a segment of Figure 6.1), not only because they are required in the creation of the link between these elements, but also because it is each of these elements that provide the necessary support for teachers to utilise imagination and agency. That is, shared authority between policy developers, researchers and practitioners allows for unique

innovations to be created that instantiate the theory/practice unity in the teachers' own particular context; while shared authority between facilitators and teachers allows for the mutual sharing of both theoretical and practical knowledge and skills, enabling development of teachers' conscious awareness of their capacity for acting and theorising in newly imagined ways.
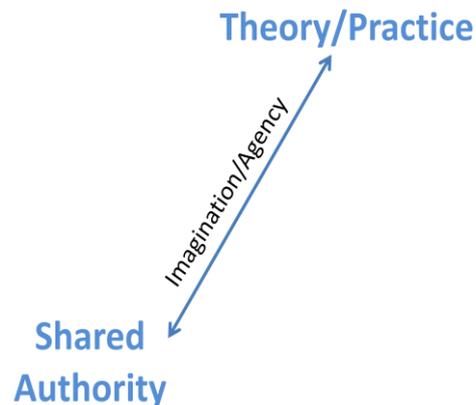
Figure 6.2 Segment of Figure 6.1, showing imagination/agency dialectic as link between shared authority and theory/practice.

Representing the institutional practice of professional development

The triangular diagram provided in Figure 6.1, and explained in the sections above, represents the necessary conditions for interactions between teachers and facilitator that analysis of the PLZ suggests are important for effective professional development. However, professional development does not take place in a vacuum, and it is important to represent the other elements in the broader context that also affect the institutional practice of professional development. Traditional PD which occurs outside of teachers' classroom practice is represented in Figure 6.3, but the following notes must be read in accompaniment with the figure:

- Teacher circle includes: Values, Beliefs, Understandings, Skills, Experiences, Interests – i.e., professional identity

- Environment includes : Societal expectations, Government policies, Registration requirements, Principal's vision and directives, Institutional traditions, Parental expectations, Students' needs and interests, Colleagues skills and interests,

Exposure to new ideas from access to research and new personnel, Available facilities, resources and time etc.

- This environment actually also encompasses the teacher, the PD and the teacher's practice (represented by the solid green rectangular border). Therefore the teacher, environment and practice are not actually separate from each other (hence the broken lines to show they each intermingle and co-constitute each other) but it is impossible to represent them otherwise.

- The Social Situation of Development is created in the interactions between the teacher and the environment.

- Motives for attending PD also arise in the interaction between the teacher and the environment. There are 3 possible motives for attending PD:

Motive 1: **To merely attend the PD** – to meet registration requirements, because they have been directed to by the principal, to have a day off school, to get a free lunch, to hear favourite speaker etc.

Motive 2: **To change practice** – desire to improve student learning, dissatisfaction or boredom with current practice, interest in new innovation etc.

Motive 3: **To develop as a professional** – which includes developing competences and motives to transform the way they participate in and contribute to all of their professional practices (see Chapter 2 and Figure 2.1).

Inside the figure:

Social Situation of Development

Teacher

Environment –
Affordances & constraints

Motive 3 cannot
be met because
necessary conditions
for development are
not present.

motive 1, 2 or 3

P.D.

Motive 1 is met.
There are no changes
to teacher's practice
or development.

Necessary conditions
for effective development
are difficult to achieve in
PD removed from practice

Motive 2 is unlikely to be met.
Changes to practice are
difficult because conditions
for developing changes to
practice are not ideal.

Teacher's
classroom
practice

Figure 6.3 Model 1 – Traditional PD occurring outside teachers' practice.

It would appear from analysis of the video data that most of the Banksia Bay teachers attended the PLZ with Motive 1. That is, they were there because the principal had told them they had to attend weekly staff professional development meetings. While some teachers' utilisation of the provided resources and activities that could be photocopied or used directly in their classrooms indicated that they also *hoped* I would provide them with material that would be useful in their practice – it was the principal's expectation that they attend, rather than this faint hope of usefulness, that actually made them turn up to the sessions. Therefore, mere attendance met the motive and there was no necessity for anyone to actually make any changes to their practice in order to meet this motive.

On the other hand, Beth expressed a very clear motive to change her practice, which had primarily emerged through the new demands placed on her with the P-2 team's move into the open-plan BER building and the expectations of the principal and regional consultancy team to create a new pedagogy. However, the necessary conditions to help Beth achieve successful changes in practice, as identified in the triangular model (Figure 6.1) and represented in Figure 6.3 as the red triangle, were

extremely difficult to create when the PLZ occurred outside of the teachers' classroom practice.

Although Mike was able to share changes he had made in his practice during the PLZ sessions, and several other teachers have since made significant changes (particularly Kay and Jen as the 5/6 team), I have suggested in Chapter 5 that these were primarily due to the changes in the *process* of professional development established in the PLZ, rather than the actual *content* of the material presented in the sessions. In other words, while the collaborative and long-term nature of the PLZ (which was considerably different to a traditional one-off PD workshop or seminar; the typical form of PD attended by these teachers) has shown benefits for some teachers, analysis of the data highlighted several factors that would need to be addressed in order to successfully meet either Motives 2 or 3 for the majority of teachers involved.

The problems highlighted by analysis of the Phase 1 data (as discussed in Chapter 5) all relate to the fact that the PLZ was outside of the teachers' actual classroom practice. Several teachers identified this problem themselves in the evaluation activity in PLZ 5, stating that they needed to *see* how the theory worked in a classroom, because they couldn't work out how they were supposed to apply the theoretical ideas in practice. My argument that this is exactly what the aim of the project was, to work it out together, met with a cold reception because this did not meet the teachers' expectations of what PD was (i.e., to listen to an expert who has already worked it out and can tell them exactly what they need to do).

Although I had implemented as many of the suggestions found in the literature around professional learning as possible, that is, ensuring that the PLZ was ongoing, collaborative, school-based, reflective, focussed on improving student learning, research-based, etc. (Hawley & Valli, 1999; Hoban, 2002; Leadership and Teacher Development Branch, 2005), these features, although an improvement on traditional one-off, out-of-school PD seminars, were still not enough to *create the necessary conditions* for effective professional development. By analysing the PLZ data using a cultural-historical conceptualisation of development it became apparent that the missing factor seemed to be *joint activity* between facilitator and teacher *within* the

teacher's classroom practice, so that the necessary intersubjectivity, shared authority and links between theory and practice could be created and sustained.

Subsequently, I developed a new model (Figure 6.4) to show this proposed change to the practice of professional development:
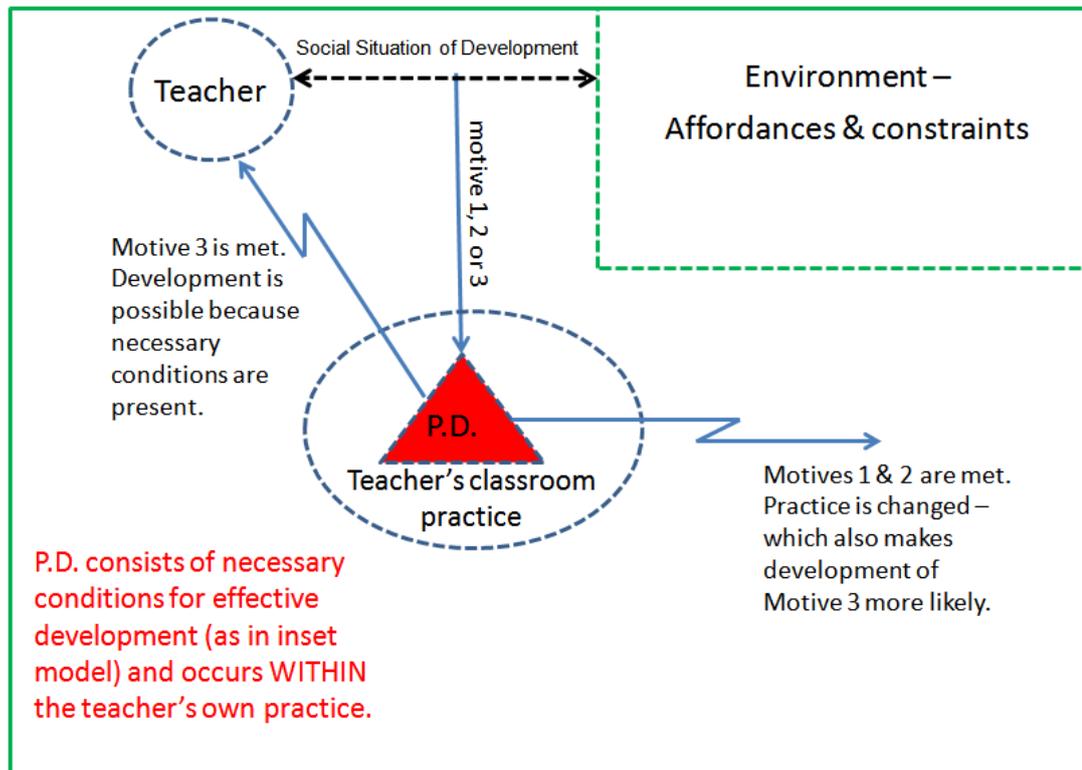
Figure 6.4 Proposed new practice of professional development showing PD occurring as joint activity within teacher's practice.

Building upon Model 1 (Figure 6.3) and referring to the same explanations, this new model proposes that moving PD activity to inside a teacher's classroom practice not only increases the likelihood that the necessary conditions for effective development could be created (as in Figure 6.1), but also increases the likelihood that all three of the possible motives for participating in PD could be met. For example, if the teacher's motive was just to attend the PD because of a direction from the principal or to meet registration requirements (Motive 1), then this motive would still be met, but at the same time there would be changes occurring in the classroom practice (because the facilitator is in the classroom causing change), thus meeting Motive 2 and potentially helping to develop Motive 3 (to develop as a professional) if the

teacher recognises the value of the changes and wishes to sustain and continue to develop them (Guskey, 2002).

Analysis of the PLZ data in relation to cultural-historical concepts of development and motives therefore suggested that professional development activity designed in accordance with this new model may be more effective in achieving change, and thus, could be considered a development of the institutional practice of professional development. After showing the proposed model to several principals (including Ann), who agreed that it was theoretically sound, Phase 2 of this project was devised and implemented to bring this abstract idea to a concrete reality in order to see if the changes I was suggesting really could help develop the institutional practice of professional development.

Conclusion

This chapter has continued discussion of the data collected from Phase 1 of the project to draw together data analysis and theoretical concepts to create a preliminary series of models that represent the system of essential relations that provide the necessary conditions for development of professional practice, and the broader structural context and motives that surround and influence the provision of these conditions. The next chapter will present the data collected from implementation of a new practice of professional development based on this proposed model.

Chapter 7: Data from Phase 2 of the Study

CO-TEACHING WITH SIA

"In order to do something new you have to go out of your way to create an
environment where something new is possible" (Martinez, 2011, p. 100).

Introduction

This chapter provides a description of the new PLZ that was created as the second
phase of this research project. Firstly, I describe the context of Greyrock Primary
School and introduce Sia, the teacher who volunteered to participate in this project,
followed by a brief description of how we structured our collaboration together. The
remainder of this chapter presents an initial analysis of the data (from audio
recordings, emails and my research journal) related to three important aspects of our
collaborative work. As in the previous data chapter, there is again some commentary
to indicate the relevance of data to the research questions, but the primary purpose of
this chapter is to present the data which will be more fully analysed and discussed in
Chapter 8 to answer the third and fourth research questions:

*3) How does conscious awareness of the system of essential relations inform and
continue to develop an institutional practice of professional development in another
school context?*

- Are the identified concepts in the theoretical model important in the new practice?

*- How do the changes made to the professional development practice in the new
context address the issues related to these concepts encountered in the first context?*

*4) Does analysis of the new practice expand the proposed system of essential
relations?*

Co-creating a new PLZ with Sia at Greyrock

Participants and context

Greyrock Primary School is a state government school catering for approximately 250 students in Years Prep-6 (5-12 yrs old). Located approximately 60km from Melbourne CBD and 6 km from Banksia Bay, Greyrock is a coastal township with a large industrial area and several public housing estates. According to figures from the Australian Bureau of Statistics 2006 census, the population of the township is 7616, and the median weekly family income of $905 is below the median weekly family income of the total Australian population ($1171). 89.9% of the Greyrock population speak only English at home compared to 78.5% of the total Australian population. According to the school Annual Report for 2010, 55% of the school's families access government income assistance.

Greyrock Primary School has 16 teaching staff (including the principal and assistant principal) and 6 support staff (administration and integration support). Additional support is also provided by a Primary School Welfare Officer and a School Chaplain, funded by government programs. The Grade 4-6 classes moved into a new "Building the Education Revolution" teaching/learning space (with the same design as Banksia Bay's) in early 2011. The remainder of the classes are housed in two permanent brick wings, and several vacant classrooms had recently been renovated to provide a teaching kitchen and a family access/support room. The administration block is housed in the renovated original school house of the 1870s.

Sia (a self-chosen pseudonym) is 29 years old and teaches a Grade 3/4 composite class of 21 children (14 girls and 7 boys). Her classroom is located at the end of one of the brick wings and is surrounded by the refurbished kitchen, parent room and a classroom used on an irregular basis for the "Good Living" program run by the Welfare Officer. At the far end of the building are some storage rooms and two Grade 2/3 classes. Sia quite enjoys the isolation of her classroom, appreciating the freedom to allow her children to make a bit of noise without worrying that they will disturb other classes. She works in a planning team with the two Grade 2/3 teachers and the Grade 4 teacher (located in the new BER building).

Sia completed a Bachelor of Arts degree in 2003 and then completed a two year Postgraduate Bachelor of Teaching in 2005. In 2006 she worked as a Casual Relief Teacher in various local schools, teaching all grade levels and specialist areas. She has been a permanent staff member at Greyrock since 2007, teaching mostly in the P-2 area. 2011 is her first year in the Grade 3/4 area.

When I contacted the school in June 2011 to ask if they had a teacher willing to participate in this study, Sia had just been invited to join the leadership team of the school and was investigating appropriate Professional Development programs to assist her in this new role. My invitation therefore reached her at an opportune time and she quickly expressed an interest to her principal to participate in this project. An amendment to my ethics application was submitted to the Monash Human Research Office outlining that I would now be working with a teacher *in the classroom* rather than in out-of school time sessions, and I commenced working with Sia in August 2011 (Term 3). A copy of the explanatory statement and consent form given to Sia is provided in Appendix D.

An outline of the content of our meetings, co-teaching and co-gen sessions is provided in Appendix E, but in summary we spent a total of 18.5 hours co-teaching together in the classroom (7 sessions over 3 weeks initially, plus 3 follow-up visits over 4 months), and just over 4.5 hours in discussion recorded for research purposes (1 initial discussion meeting, plus 5 co-generative dialogue (co-gen) sessions, plus 1 semi-structured interview). The initial discussion meeting also used a rubric to collect Sia's self-evaluation of her current use of the ZPD (see Appendix F) and this was repeated in the interview to track changes in her practice. We also had many other informal discussions over recess periods and before and after co-teaching sessions which were not recorded, but nevertheless should be acknowledged as important for helping to build our relationship and our shared knowledge of each others' practices.

Presenting the data

I have chosen three themes to help organise my presentation of the data collected during the second phase of the project. The first theme relates to incidents that contributed to the curriculum innovation we co-constructed and implemented in the classroom and describes the negotiations that led to our shifting understandings on

many different levels. The second theme focuses on one small pedagogical strategy that was introduced and is indicative of not only the importance of theoretically consistent practice, but also of the persistence that is required to transform theoretical ideas into actual change in teachers' practice. The third theme relates to the importance of credibility and shared experience in building a collaborative relationship that can be a source of learning and development.

"Negotiating the contract" – Shifting understandings for mutual appropriation

In our initial meeting Sia suggested that we introduce some sort of learning contract into her literacy program. The whole school staff had recently been working with the Regional Network Leader and regional consultants (including Ness who had attended one of the PLZ sessions at Banksia Bay) on filling in their 'Pedagogical Plan' (a lengthy document developed by the regional consultancy team), and were particularly looking at the idea of 'personalised learning'. Sia had actually trialled using a contract for one week in the previous term but it had not become embedded in her practice even though she felt it had been successful.

HELEN: Why do you think you haven't come back to [using learning contracts]?

SIA: Ummm, I think I've forgotten and just slipped back into the old ways of doing it. Cos it was towards the end of last term and so then I guess I've just -

HELEN: Oh, yeah. Gone onto a new term.

SIA: Yeah, move on, forget. And then we were talking about it the other day because one of the other teachers does something where he puts a whole list of things on the board and they have to get it done by the day. So they can do maths first if they want, rah, rah. And I said, "Oh I did something like that in learning centres," and then WE were talking about it and I thought … yeah. It worked, the kids liked it, it is catering for this personalised learning where they're doing their own thing -

HELEN: and sharing authority, where they've got some choice over what they do and when they do it.

The idea of literacy contracts was also of particular interest to me, not only because I felt this type of pedagogical approach lent itself well to including and illustrating

cultural-historical theoretical principles in practice, but also because it was an innovation I had also experimented with in my own early career teaching practice but had not continued with due to lack of support from my educational leaders and a shaky knowledge of educational theory on which to base its defence. I was therefore keen to see whether my now much stronger understanding of theoretical principles would help us not only to create a better pedagogical strategy but also to be able to analyse and rectify any issues that arose.

We devoted most of our co-gen session in the first week to planning how we could implement a literacy contract for the following week. However, it gradually became apparent during the co-gen that we each had a different idea of what a literacy contract would look like, even though we had obviously both assumed that we were talking about the same type of thing. I am including here a long extract of our transcribed discussion (interspersed with comments in calibri font for explanation) to demonstrate our gradual negotiation and appropriation of each other's ideas as we co-constructed a contract that we were both happy with.

SIA: So should [the activities be based around] a passage, and that's what I said to you over there, or a book? So I'm thinking my top group will have a book that they're going to work from, whereas the lower groups will have a passage or (sighs) maybe I can find something interesting out of some of those plant books to do, to try and incorporate the theme into the literacy groups. But that might be a bit boring. And then something else I wanted to talk about, Oh I wanted to have like one fun activity per group, and do all the different learning styles. So not all writing but something creative and things like that. I wondered if I could use that back area for like a writing centre. I did that a few years ago when I did developmental play with my preps, but then I thought would it be too babyish for grade 3's? I don't know if it would work. I know kids like S [name of child] would LOVE it, but I don't know.

HELEN: I think they would need a purpose for it, so whether you had a letter box or a - Because you're doing letter writing later aren't you?

Sia had given me a copy of her term planner at our first meeting so I had some idea of what literacy topics she was planning to cover for the term. Here I am trying to

find a way to link the planned curriculum with an authentic purpose for using the writing centre.

SIA: Yeah we are, and I can change that (points to a letter box she has up on top of a bookshelf) and they can post letters, it doesn't have to be to ME.

HELEN: Yeah, I've done that before with grade 3s actually and we used to deliver them while we were eating our lunch. I mean you have to talk a bit about what's appropriate and stuff. Yeah, it is good. And when would they be able to use that?

SIA: Well that's what I was going to also question. Yeah, I don't know, because I don't want them all rushing obviously but then I thought it could be one of the learning centre activities that they all got a go in there.

By this point of the discussion I was realising that Sia was thinking of the literacy contract in terms of her usual literacy group practice (which she called learning centres) and I was not sharing her understanding of what she thought the contract would look like. The Early Years Literacy Program (as also discussed in Chapter 5) was only introduced in Victorian primary schools after I had moved to a specialist music teaching position, so the rotating ability groups had never been a regular part of my classroom teaching practice when I was trying to implement learning contracts. I was conscious of trying to co-construct a new practice that retained familiar elements of Sia's current practice, but also challenged some assumptions and allowed room for conscious incorporation of new theoretical ideas. To do this we both needed to have a better understanding of each other's intentions, so I began to ask some clarifying questions.

HELEN: So with your learning centre things, they're already in [ability] groups and they usually rotate or they - ?

SIA: They're changed around each day, yeah because I cater for each - This is what I do. (Opens work plan file and explains a typical week of activities for each group.)

HELEN: OK, so if we're going to do it as a contract type thing, how are you...?

SIA: I'm going to change all that.

HELEN: OK, yep.

(She tries to find the contract she did last term but it was on a different computer)

HELEN: So, would one of the activities still be to do a clinic group with you? Guided reading and an activity sort of thing?

SIA: Yeah.

HELEN: So they might have sometime in that week that they will have to do that when you tell them?

SIA: Yep, yes.

HELEN: Yeah, and then there might be a list of other things that they can CHOOSE from, so yeah, to have a writers' centre then, is a really good idea.

SIA: OH, YEAH! Cos that will work, won't it, cos they won't actually have to GO in their group!

HELEN: No, that's right.

SIA: Yes, perfect.

Here, not only am I realising that some of Sia's usual practices which she values can be retained within the structure of a contract, but Sia is also beginning to realise that she does not have to be restricted to keeping the children in their ability level groups for all literacy activities. New possibilities start to appear in our thinking.

HELEN: So only one group at a time will be working as a group. The rest will be doing individual things.

SIA: Yes, that's going to work perfectly. And the computers, I know they will all fight for one of those.

HELEN: We might have to work out some sort of sign-up system or something like that?

SIA: Yeah, yeah, that will be good. And then I think I'll keep a dictionary thing in there because they need to do some more stuff on that.

HELEN: Uh hmm. So you might have, the requirement is that you have to come to Miss S's group, and you have to complete this dictionary task or worksheet or whatever you are doing and then you might have 3 or 4 more choices and you have to do 2 or 3 of those choices, like computers, writing centre. What other stuff could you do?

SIA: Umm. See I wanted to do something a bit arty, so -

HELEN: Mmm (positive inflection).

SIA: Last time I, what I did last time was every activity was about that passage of writing. So once they've been with me they can go and do like, I think last time they did a word search, not that that's arty, but that was to make it a bit fun for them.

HELEN: Make a poster advertising the book, or?

SIA: Oh, yeah, I did that. What else did I do? Oh, a wanted poster for a character in the book and things like that.

HELEN: Yep, Yeah!

SIA: So, I'll try and get through the groups quite quickly in the first couple of days, maybe half an hour with each group on the first two days, to get them set up.

HELEN: So that they've got something to work from.

SIA: Yep. Do you think that will work?

HELEN: Yeah, I think so. And you can make rules about, you know, no more than 5 in the writing centre, or something, so if there's already 5 people there you have to go and find something else to do.

SIA: From the list. Yeah, I think it will be good. I think they'll enjoy that.

Here I have drawn attention to thinking about the practical management issues, as from my past experience I am very aware that this is where my own attempts at innovation floundered – Not necessarily because the idea didn't work in practice, but because I had probably not thought through the practical issues of how I would manage the changed dynamics of the classroom.

HELEN: Yeah, but I think it is important to put in something that is a bit arty or creative that they can work at their own level at.

SIA: Yeah, and if they're not having a good day or something like that and they don't really feel they can do that activity today, they can do something mind-numbing. Not, you know, word searches and, they still really enjoy that and I guess it's doing some sort of skill. But, yeah, that way they've got something a bit fun and just a bit [of an] easy way out. Cos not every day you feel like doing all the really -

HELEN: Yeah, and comprehension questions can -

SIA: Yeah, get a bit - So, we'll do something like that in them. Even if they make up their own word search or something so that they're writing the words out. A word search using homophones or something like that.

HELEN: That's right.

Here I am attempting to get Sia thinking about how we can make sure that some of the activities are open-ended so that the children can work at their own level, rather than sticking to the typical closed-answer comprehension type worksheets that she usually uses in her rotating ability groups. I realise that she is thinking of creative activities as fun and easy rather than as possibilities for extending learning but decide not to challenge this notion at this stage and am just pleased that she is willing to include these activities that will provide an opportunity for raising this issue in a later discussion.

SIA: Yep. OK, so I'll do something like that. So we've got the writers' room,

HELEN: And it might be that they can work on a story of their own choice, or –

…(We detour into a discussion here about how writing pedagogy has changed from 'process writing' to 'genre-based' and that children rarely have an opportunity now to choose what sort of writing they like to do, before returning to the discussion about the writing centre.)

SIA: Yeah, that could be part of that writing centre.

HELEN: Yeah, they can write a story or write a letter, or write a procedure -

SIA: Write a procedure, anything they know about, a recount -

HELEN: Yeah, just a free writing centre.

SIA: Yeah, just free writing. I'll have to do a bit of a discussion before we set all this up obviously, but they'll enjoy that. Get all different kinds of paper in there and I've got fancy scissors.

HELEN: Yeah! Make a book.

SIA: Yeah. Oh yeah! Of course.

HELEN: Actually, that's something I've done before - make a little book that will fit in a matchbox.

SIA: (Laughs) That's cute!

HELEN: Tiny textbooks. Although, that's a problem, you don't have matchboxes these days. They could MAKE a box. Actually you could have a procedure -

SIA: Aah, perfect!

HELEN: Beautiful!

Again, I am trying to link the curriculum that her plan says must be covered (procedural text) with an authentic purpose for reading and writing.

SIA: Procedural text to make a box and then they've got to make a story to fit!

HELEN: Yeah.

SIA: Yeah, that's cool.

HELEN: So there you've got your reading.

I was actually referring to reading the procedural text, but I think Sia took me to mean that the guided reading groups were another activity.

SIA: Yeah, they're still getting that small group work with me. I'm still going to listen to them read, they're still doing that fun activity. Umm, what else? Maybe I can find a plant activity [to tie in with the Science unit]. (She looks for next week's work program to see if there is anything else to tie in) Oh, very blank for next week!

(She starts working out the logistics of fitting the literacy contract into her week and decides that she can fit it in an hour each day) Yep, that'll be fine. (Starts filling in work plan) That's enough to get me going anyway. I've got an hour off on Friday so I can do some more. I've got some matrixes and stuff I can get some ideas off that I've collected along the way. They could even do something to do with their spelling words during that week; you know if they feel they haven't done enough homework on them. We could do a creative activity with their spelling words.

Mmm, I think I need to, my last time I just really focussed on the activity from the text. I didn't even THINK about giving them all these other activities to choose from. I guess they don't really NEED to do everything from that same text all week. You know, if they feel that they haven't done, if they need some more work on their spelling words, that's their choice. They don't HAVE to do it do they?

There is a definite breakthrough here in Sia's thinking. She has realised that her previous attempt at trialling a contract had not really broken away from the teacher-controlled structure she usually followed in her normal literacy program – she had included some fun activities on the list of things they HAD to complete about their group's text and allowed them to choose the order in which they would be completed, but she hadn't really allowed them to make choices between different activities or provided any choice within an activity like she was doing with the writing centre this time. She is becoming more conscious that we can allow children to share authority for their own learning by providing opportunities for children to make decisions about the types of activities they will complete.

HELEN: Yeah, and it will be interesting to see how they cope with that sort of freedom.

SIA: Mmmm, I think a few of them will probably be a bit lost, but I think most of them will really run with it and enjoy it.

HELEN: And it's interesting, like when I am standing around, they go to write something and think "I'll just check that. Helen, is this...?" you know, and they really would be able to do it themselves, but it's like there's an extra available person. So they will have to be a bit more independent and you will have to set up rules about when you're working with a group that they are not to interrupt.

SIA: Oh well they know that one anyway, but I'll reiterate that.

HELEN: So, you know, "What do you do if you don't know what to do?"

SIA: I have a thing, ask 3 before me.

HELEN: Yep. Beautiful.

SIA: Mmm, alright, that will be good. ... That's it. And if they don't want to do something they don't have to.

HELEN: No, so long as they go and do something else!

SIA: So long as they're doing something else, yes exactly!! (Laughs) We might actually make some class rules. I might get them to help me make up the rules instead of me saying these are the rules. That way they can have some ownership of that.

Sia is initiating ideas now and thinking about practical issues in ways that are theoretically consistent, rather than teacher controlled. She is beginning to realise further possibilities for sharing authority with the class.

HELEN: That's right, good. Yes, just say, "We're experimenting with a different way of working. We really want to make it work. What are we going to need to do to really make this work well?" And you know we can evaluate it at the end of the week. Did it work well? What do we need to change? So it will be good that I can come in for the next couple of weeks so I'll be floating around to help those who are struggling to move onto something else. I'll be like the sweeper! Sweep up all those people who are a bit lost!

SIA: That's it. That'd be perfect while I get it all established.

HELEN: Yeah, and then you'll have a couple of weeks while I'm away to keep refining it and see how it works and then if I come back in the last week of term...

SIA: It will be a well oiled machine!

HELEN: That's right! That's good, and that's the sort of thing you can reflect on - Do they all keep working? Are they working well because they're engaged, because they have that choice? Or are there kids who just cannot work out what to do and

are they lost or do we need to have a bit of a compromise between that much freedom and like how do we still get to the learning bits and make the learning, I mean it's a bit like the honey joys, yes they do it and yes they did learn things, but if they don't know what they are learning then -

SIA: Yeah.

This last part is in reference to an earlier conversation we had after the Honey Joys lesson about whether the children were actually aware that they had been learning about procedural texts. To test this out I asked Sia to ask them the following day what they had learned during the lesson and they provided 12 suggestions mentioning cooking, ovens, the stickiness of honey etc. and only one suggestion (after prompting from Sia) that had anything to do with procedural texts!

I am also emphasising that our plan will no doubt need modifying once we try it out. I actually have no idea whether the children will be able to cope with the freedom we are allowing them. These are ideas I have been reading about for the past five years of postgraduate study but have yet to actually attempt to put into practice myself. I expect there may be issues that will arise but am also hopeful that we will be able to solve these in theoretically consistent ways.

H: Yeah, I think that's really important that at the end of each session come back on the floor -

SIA: Have a little reflection?

H: Yeah and ask what did you LEARN?

SIA: While they eat I think I'll do that.

HELEN: Yeah, that's a good idea.

SIA: You know that's something I always used to put into my planner, and I do it with maths and stuff, but it's, "Oooh, quick pack up, get your play lunch."

HELEN: That's right. It's always the thing that disappears.

SIA: Yep, cos you just run out of time, so if you actually, if I actually make a conscious note of it.

HELEN: Yep.

SIA: Reflection time while eating (adding it into work program). And see I like to show them this in the morning too so they know what's coming up for the day, and so hopefully someone will remind me! I'll tell C or S [names of children]. They'll remember! That's good. I'm happy with that.

HELEN: Mmm. So some of the activities can be individual activities and some can be ones they do -

SIA: Ah, with a partner. Yeah, that's a good idea. And it doesn't have to be a partner from their group either.

HELEN: No.

SIA: Cos that would get a good mix.

Here I've suddenly realised that we need to be consciously aware of including opportunities for both reflection and collaboration if we are intending to base this innovation on cultural-historical principles. I had been thinking about the types of things I used to do in my own practice rather than thinking about how I would do things differently knowing what I know now about how children learn! I felt like I had fallen back into my habitual practice of having planning conversations with a fellow teacher and then, as the conversation appeared to be drawing to a close, I had to consciously remind myself that drawing on my old experiences was not enough and that I needed to be checking that what we were planning was also incorporating my new theoretical knowledge and expanding our understanding of practice.

… (We are interrupted here by a child entering the room to ask Sia for his medicine. The topic of collaboration was forgotten about when he left and we closed our conversation.)…

This long extract shows the process of how we gradually came to negotiate a shared understanding of what a literacy contract might look like and co-construct a new idea

based not only on appropriating each other's previous individual teaching experiences (Sia's use of guided reading groups and my use of open-ended creative activities) but also incorporating theoretical ideas that neither of us had routinely used in practice before (sharing authority, working in partners, reflecting on learning etc.). Downing-Wilson, Lecusay and Cole (2011) have described this approach to intervention as *mutual appropriation*, where "hybrid activities" arise through the collaboration and negotiation between each of the research partners as they seek to support both their joint and individual goals:

> Not only do the partners in this project *mutually appropriate* the activities and the activity system in ways that further their own goals and the overarching goals of the program …, but the participants also strive to act in ways that are *mutually appropriate*, and that support, or at very least do not subvert, the efforts of the other players. Through mutual appropriation, so conceived, a yours–mine–ours activity system is able to spawn hybrid activities that neither of the original players could have conceived on their own. (p. 666)

While our joint goal in negotiating the literacy contract was to introduce a pedagogical strategy that would improve the learning experiences of the children in the classroom (see Appendix G for a sample contract), both Sia and I had other individual goals that were equally interesting to each of us, but not shared by each other. That is, Sia was also looking for strategies that she could share with her teaching team to help her carry out her new leadership role, and I was carrying out research goals of collecting and understanding data about the practice of professional development. Although these individual goals were complementary to each other, and supported by each other, they were not shared, even though they could both arise out of collaborating in the joint activity. Our collaboration however required us both to contribute our unique skills, knowledge and resources to create a hybrid activity that neither of us could have either conceived or produced alone.

However, the ultimate goal of the project was not simply to create this hybrid innovation but to create an environment which would encourage the development of all participants. The innovation was primarily a means, not an end in itself, to involve Sia in the process of thinking about and discussing her professional practice with the goal that she would develop a motive to continue this process beyond my

direct involvement. Sia did acknowledge in our follow-up interview (3/10/11) that this was happening:

SIA: Yeah, it's mainly just my literacy has just COMPLETELY turned on its head, but it's also made me look for more things. So I found this book that I'd picked up from the school library ages ago, never actually looked through it, and I was cleaning out my office and it is PERFECT for what we're doing. All Multiple intelligences and Bloom's taxonomy and stuff in it. So it's made me do some more research on my own as well for different things. ... I'm looking at [this book] in a different way than I would have before. I don't know why I picked it up in the library to be honest. I'm definitely looking at it in a different way.

During my visits, our shared experiences in the classroom (particularly watching children choosing to work together on a homophone worksheet that Sia had originally intended to be for individuals) gave rise to co-generative dialogue discussions about the role of shared authority and collaboration in the ZPD and in particular Kravtsova's (2008) notion of the Zone of Potential Development and Fleer and Richardson's (2004, 2009) cultural-historical approach to assessment (an issue we were still struggling to successfully implement at the end of the project phase). However, during our follow-up interview (3/10/11), the changes in Sia's understandings of learning and development became really clear to me when we were discussing the necessity of making sure activities provide an opportunity for children to do more than they can already do by themselves, and this dialogue occurred:

HELEN: I think it's pretty usual to think that, "That's a really good lesson, cos they can do it all."

SIA: Mmm, you've got push them.

HELEN: Yeah.

SIA: Otherwise it's practice, and we talked about this in a curriculum day. They [a regional coach] said you know, "It's alright for the kids to be practising if they're not working with the teacher." I think he was using a maths example. Like when you have the groups who are not working with the teacher it should be a bit easier for them, and it's like this step thing. ... It really made sense and it was really

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interesting. You have the staircase and this is the top step where you are working with the group and that's the zoped. And then this group you give them [work which is] one step lower and it's practice. They're consolidating what they know and it's not too hard because you're working with that other group.

HELEN: Yeah, that does make sense (hesitantly).

SIA: I thought that was really interesting and it fits in with all that [referring to ZPD]...

HELEN: Well that's an interesting point, because certainly in that group you're working with, you definitely want to be -

SIA: pushing them

HELEN: - making that your real teaching time. Um, but yeah, that's an interesting question. Can the other kids still be learning, or will they only be practising?

SIA: Yeah (thoughtfully). Well, actually I think the things that we've been doing [in the literacy contracts] are not just practising things. I think they're still learning. It's learning in a different style, like it's not the practice worksheet kind of thing, and I don't know if that's what [the coach] was [referring to], I guess it wouldn't have been because that's not what he would advocate. (Unsure) You know when you've got the, (with renewed vigour as she realises something important) Well they're all meant to be working in mixed ability too aren't they when they're not working with me?

HELEN: That's right!

SIA: And so that's how we really went with working with each other. Remember someone said, "Do we have to work with someone from our group?" And we're like, "No, no you don't." Mmmm.

HELEN: Yeah, so I think there, because you're doing open-ended activities, WITH other people -

SIA: It works, yeah.

HELEN: Then there still can be an opportunity for learning.

SIA: Yeah, definitely.

HELEN: So I think that's a step beyond what [the coach] was saying.

SIA: Mmmm.

In this interview Sia was demonstrating that her idea of learning had changed from something that required the control of the teacher to something that occurred in interactions with others. Additionally, she was becoming aware of how her new theoretical knowledge and our shared experiences in her practice could help her question and critique not only her usual practices, but also the practices that were being recommended by the regional consultants. Although she had great respect for this coach and had talked about how 'smart' he was, she suddenly realised that she didn't need to just accept his information at face value because he was in a position of authority, but that she also had the authority to draw upon her own experiences to question and build upon the ideas being presented to her.

Likewise, I was always mindful of trying to present information to Sia as 'suggestions' that made sense to me in terms of my own experience but not as fixed 'facts' that should be universally accepted without question. Through co-generative dialogue we were able to discuss real examples of previous and shared experiences that supported cultural-historical theory, or that could be better understood through application of this theory rather than other theories, but I always tried to make it clear that our understandings are still developing and are open to change as new facts come to light. Most importantly, we were building on each other's knowledge and experience to co-construct new understandings and practices that were appropriate for this particular situation (these particular children, with this particular teacher, in this particular time and place) and with no attempt to claim that our product would be suitable and applicable for anyone else.

Sia quickly realised that the value of this professional development practice was actually participating in the process rather than just creating a 'product' to share with other members of her team. Sia worked quite closely with the Grade 4 teacher, so of course had eagerly shared the literacy contract with her colleague and suggested that she try it too. However, in the second week of implementing contracts Sia mentioned to me that she had been over in the Grade 4 room and was quite critical of the way

the teacher and her visiting pre-service teacher were implementing the strategy. Later, in our co-gen session (24/8/11) we had this conversation:

SIA: But you see that's what happens when you do things like this. ... You pass it on, and I probably shouldn't have passed it on until I'd talked to them properly about it.

HELEN: Hmm, so what is it, what are the things we talked about that are going to be important for them to know why it works?

SIA: Um. I think we need to look at the way we've structured it. The beginning rules; I don't know if I really talked to them about that. And then the reflection afterwards; I don't know if they're doing that. Um, the way we've set it out.

HELEN: Yep, and I think it's really important that with every thing you plan on the contract, you're thinking about what the actual learning is that's coming from it.

SIA: And the learning from it, not just having a busy activity that's fun.

HELEN: That's right, I mean even the puppets and stuff [on this week's contract], I mean that looks fun, but what's the purpose behind it?

SIA: Which is the oral language part of it wasn't it.

HELEN: That's right, exactly, and thinking about the characters and all of that stuff too. ...

SIA: So, yeah I just think they got the finished product and thought well lets run with that, changed a few bits to fit what they are doing but not really, yeah, I think, yeah. But that's what happens when you pass things on to people. I'll use this, but not knowing the thing behind it all. Cos we didn't just make it up like that, we had a lot of discussion.

HELEN: Yeah, and we talked about making sure that there was learning involved and that it was building on other learning and in the zone of proximal development.

SIA: That's right, and catering to all that.

HELEN: And I suppose one thing to look at is, like in each week while you are roving around or whatever, picking up on what they need more help on or what they need more experience with or whatever and then building that into the next week's

contract. So that you are using your observations to inform your planning for future learning.

SIA: And documenting those observations as well. That's something I've got to talk to them about too. Incorporating that into it too.

Sia has recognised that having conscious awareness of the theory behind a practice makes a big difference to how you carry it out. She was worried that because her colleagues did not understand the purpose and reasoning behind each part of our co-constructed practice they would not realise the importance of including particular aspects (e.g., reflection or developing the children's independence and responsibility for record-keeping etc.) and possibly neglect to implement them or implement them in ways that were not in keeping with the cultural-historical theoretical principles we were trying to use. In this co-gen session, held just two weeks after our initial negotiation of the contract strategy reported earlier, we can see that her understanding is changing significantly. I particularly noticed that she now made a distinction between having an activity on the contract just because it would be fun, as she kept insisting on in our first negotiation, and now realising that a fun activity should also have a learning purpose and that this could be made explicit to the children so that they were conscious of the learning that they were engaging in and help develop their learning motive.

Our discussion also highlighted the complexity of the innovation we had co-constructed (i.e., that there were many aspects to consider in carrying it out and that each of these had a theoretical basis that could not easily be ascertained by just looking at a paper copy of the week's activities). Sia did continue to work with the Grade 4 teacher however, and together they continued to develop the literacy contracts to suit the needs of their classes. I noticed on my follow-up visit (10/11/11) that the contract for that week had been modified to allocate different amounts of points for each activity in recognition that some activities demanded significantly more time and effort than others. This suggestion had been made by the Grade 4 children during one of their reflection sessions. This openness to adopt the children's suggestions signifies a move to greater sharing of authority between teachers and children and recognition that the development of the innovation is ongoing and never complete.

While the literacy contract discussed in this section was the main innovation that we introduced into the classroom, my observations of Sia's teaching practice and our co-generative dialogues about cultural-historical theory also led to other transformative pedagogical changes. The next section focuses on one of these pedagogical strategies.

"Circling it up in 3/4S" – Creating a community of learners and interrupting habitual practice

After the very first session in Sia's classroom I went home and wrote a lengthy reflection in my journal about the 'Cooking Honey Joys' lesson. While thinking about the whole-class teaching segments of the lesson I noted:

Also, interesting that the questioning was very IRE [Initiation-Response-Evaluation] formula. Kids were only giving one word answers to questions that the teacher already knew the answer to (e.g., How hot did we have the oven? What do we call this type of text? etc.). How can we encourage actual discussion rather than rapid fire question-response? Maybe there is a practical issue here too – how do kids hear each others' responses? Does sitting in a circle help? (Research journal, 8/8/11)

The children were sitting on the floor facing Sia who was sitting on a chair at the front of the room. I was sitting at the back of the group of children and noticed that, while I could easily hear Sia's questions, I struggled to hear many of the children's responses – particularly from children at the front of the group – and children from the front of the group were chosen to respond the majority of the time. The children at the back of the group rarely raised their hands.

The following week in our co-gen session Sia made a comment about watching the questions I asked the children and how they tended to get the children to think in deeper ways.

SIA: Like when you were asking them about what they thought they were learning with making the mobiles. I thought, "Well that's a good question." I wouldn't have even thought to ask them that. So just changing the questions I'm asking them as well.

I used this opportunity to bring up the issue of IRE questioning and how this did not engender any discussion between children, whereas if we believe that children learn by interacting with others then we should be trying to get children to build upon each others' ideas and respond to each other rather than only replying directly to the teacher. This also gave me the opportunity to bring up the idea of sitting in a circle:

HELEN: So think about trying to ask genuine questions… I mean obviously in every class there's going to be some place for checking what they do know and you want to know if what you've been saying has gone in, but at other times think about how can we actually set up a conversation so it's not so much firing backwards and forwards at the teacher, but they're actually sharing ideas with the whole class so they are learning from each other. And I think – you're very conscious of saying, "big voices," because the other kids can't hear –

SIA: No, some of them are so quiet in here.

HELEN: Very quiet. So, I'm even wondering maybe if sometimes they sat in a circle-

SIA: Oh yeah, that's a good idea!

HELEN: - rather than facing you, because you're asking the questions and they're firing the answers back at you and perhaps if they're in a circle it's more like a conversation with the whole class.

SIA: That's actually a really good idea, because we did some circle stuff the other week and I did find that they talked more to each other than straight at me. So you're right, that's vey true. We just did a circle time sort of thing. I just don't think about doing that. It's like come to the floor, bang, here we are. Mmm.

HELEN: Yeah, that's right. So maybe next time when they are coming to the floor say, "Let's make a circle today," and see if it changes the level of conversation.

SIA: Mmm …

HELEN: I just wonder whether a circle changes the dynamics of the conversation.

SIA: I think it would. I'll definitely try that tomorrow.

HELEN: Let me know how it goes!

SIA: I will!

However, when I visited the classroom on Friday and then again on the following Monday I noticed that the children were still sitting in a large group facing the teacher every time they came to the floor.

After the session on the Monday of my third week of visiting I asked Sia if she had had a chance to try sitting in a circle, to which she replied, *"Oh yeah, I keep forgetting to do that! It's just such a habit for them to come and sit straight on the floor that I don't even think about asking them to move."* On the Monday afternoon I wrote the following comment in my journal:

*Am still worried about the fact that classroom discussion is all aimed at the teacher rather than at each other. I think this is something that will need considerable time to really embed in practice. Next time **I** might ask them to make a circle. It's always the same kids who get chosen to give answers and it's pretty impossible not to choose C [name of child] every time when she is right there in your face. The boys always sit at the back almost under the tables and rarely contribute.* (Research journal 22/8/11)

On the Wednesday, I again noticed that the children came to the floor and gathered in a group at Sia's feet, but this time I said, "How about we make a circle today?" Sia immediately agreed, admitting to me that she kept forgetting to try it out, but that actually doing it with the children would help her to remember. The subsequent discussion in the circle (an introduction to the Science lesson, reviewing what had been covered in previous lessons) engendered much greater participation from a far wider range of children. Every child could be seen and heard by every other member of the class and this did encourage building upon each others' ideas. At the end of the lesson we again asked the children to sit in a circle, and after the session Sia and I had the following dialogue:

HELEN: And how did you find the circle?

SIA: Oh, much better. I think now that we've done it a couple of times it will be in my head to do.

*HELEN: That's right. It is one of those things that you just do automatically –
"Come to the floor."*

SIA: Yeah, and then because they sit there I don't even think, you know, automatic.

HELEN: But it did make a difference to how they spoke to each other and that they could all hear.

SIA: Mmmm.

HELEN: And you know, I don't think I realised that as a teacher, cos you're up the front and the kids are speaking to you, but yeah sitting at the back of the group I'm like, "No wonder kids tune out. You can't hear."

SIA: Can't hear, so true.

HELEN: And it's not directed to them.

SIA: Yeah, it's like, "They're telling the teacher, so I don't care."

HELEN: That's right. Cos even the other day, I thought that was really good, when E[name of child]had been away and when you were explaining about the contracts you got one of the kids to explain it rather than you explain it. I thought, "Oh that's really good," but he explained it to YOU, rather than to E.

SIA: Oh, yeah.

HELEN: Because you asked the question, so he's [answered you]. Whereas if they were sitting in a circle...

SIA: He probably would have looked at E.

HELEN: Yeah.

SIA: Yeah, that's true.

HELEN: So I think it would be good if you encouraged them that every time they come to the floor they sit in a circle, and then if you do need them in close for something then say, "Oh, you can move in today." But if their automatic thing is let's make a circle, we'll see if it makes a difference.

SIA: Yeah. I think it will, I think even their voices were projected a little bit louder as well.

HELEN: Mmm, good.

SIA: And I can see everyone who's not participating. It's probably a bit easier to watch them isn't it?

HELEN: And I think it did, I think it gives the expectation that everybody is expected to participate, and I think more of them were starting to put their hand up and...

SIA: Yep, yep, giving them that little bit longer thinking time rather than choosing the first person as well.

HELEN: Yeah, I did notice that too. That you gave them 'wait time' we call it.

SIA: Yeah, wait time. Cos, it's always just the same kids.

I emailed Sia a week later:

How's your week been? Have you been sitting in circles? :)

To which she replied:

Yes we have been circling it up in 3/4S this week!!

In our follow-up interview a month or so later, we were congratulating each other on the fact that she had been able to maintain all of the changes we had introduced, when the topic of circles came up again:

SIA: And even without you being there I'm still doing everything.

HELEN: That's what I want. No, that is amazing. But I did notice that I think it really did make a difference that I was there [in the classroom, and not just discussing it in an out-of-school PD].

SIA: Absolutely.

HELEN: And knowing that I was coming back, because even things like the circles and stuff, when I listen back to the tapes, that was quite a few sessions earlier, and you'd agreed "Yes, that's a really good idea, I'll do that tomorrow," and yeah you get busy -

SIA: and forget –

HELEN: Yeah, and so I had come in the next week and thought, "Hmm, she's not making a circle, will I say something yet or will I wait?" So, it just does show though that even when you can intellectually say, "Oh, yeah that makes sense. That's a good idea," it doesn't just drift automatically into practice.

SIA: And just change straight away. No.

HELEN: No.

SIA: But now it's become like a routine. The kids know, come and sit in a circle.

The data set about circles exemplifies a number of important points about this phase of the project. Firstly, the notion of teachers and students sitting together in a circle is quite symbolic of the community of learners that teachers are trying to create when they implement cultural-historical principles into their classroom practice. The circle formation is actually about much more than the practical issue of all participants being able to hear each other. It also creates a feeling of inclusion and opportunity for active participation in the discussions that take place. A teacher in the US OC school, which has a philosophy based on cultural-historical principles, comments:

> The kind of listening and thinking required in circle goes hand in hand with a collaborative learning model where students build on one another's ideas and a student may benefit by contributing. … In this kind of circle, no one is allowed to be just a face in the crowd, passive and voiceless. … Even if the circle participants have nothing to say, they still have a unique position in the circle, face to face with those who are speaking and leading. Even though some may choose to only follow along at the moment, they still have an equal chance to impact the group because they share an equal position with the others. Maybe most important is the notion that on the floor, in circle, each participant is a learner and a teacher. Children and adults have parallel expectations of each other. (Bradshaw, 2001, pp. 111-112)

The equality of everyone's position in a circle lends itself to the idea of sharing authority; the idea that everyone's contributions are valuable and will contribute to the learning of the whole group, rather than this being the sole responsibility of the teacher. The lack of places to hide (behind others, or under tables at the back of the group) provides an expectation that every child will be noticed and may be called upon to offer their opinion at any time. Participants are able to address the whole group rather than directing responses directly to the teacher, which not only

encourages the building upon of each other's ideas but also provides opportunities to disagree and offer alternative views.

Of course, it takes time to change the level of discourse in a classroom, and this is definitely still a work in progress in Sia's classroom. In my follow-up classroom visits (10/11/11 and 14/12/11) I observed that the children were still mostly responding to the teacher's questions rather than directly to each other's comments like in a conversation, but Sia was now not only conscious of allowing several people to give responses to each of her questions, rather than taking just one answer and then moving on to the next question, but also in the final session was consciously redirecting the children to respond to the whole group rather than just to her. The circle formation opens up opportunities to continue to develop these types of discussion further, whereas the old formation did not.

Secondly, the episodes recounted here also demonstrate the persistence required for theoretical ideas to become embedded into practice. There were significant delays between me first thinking that it might be a good idea to suggest making a circle, to when I first raised the idea with Sia, to when I finally initiated it in practice and Sia began implementing it on a regular basis and the practice became regarded as routine. Similar delays also occurred in implementing use of partner activities, and rephrasing reflection questions to focus on what was learnt, rather than children recounting what they *did* in the lesson. This is presented graphically in Figure 7.1.

In the case of each of these three strategies (making circles, working with partners, and class reflections, shown in each row of Figure7.1), simply introducing the strategy in discussion (represented by green speech bubbles) was not enough for Sia to actually implement it in her practice, even though each time she agreed that it sounded like a good idea and said she was keen to try it. I usually gave Sia a session or two after we had discussed the strategy to see if she would implement it of her own accord, but then I would make a determined effort to find an opportunity to initiate use of the strategy (represented by yellow stars) in an appropriate way which would not appear to undermine Sia in front of the children. I usually did this by making a suggestion out loud, for example in a whole class activity (on the 15/8) where Sia was choosing individual children to tell her a sentence containing a spelling word, about half way through the list of 12 words I suggested, "How about

Dates	4/8	8/8	10/8	15/8	17/8	19/8	22/8	24/8
	Initial meeting	Week 1 sessions		Week 2 sessions			Week 3 sessions	
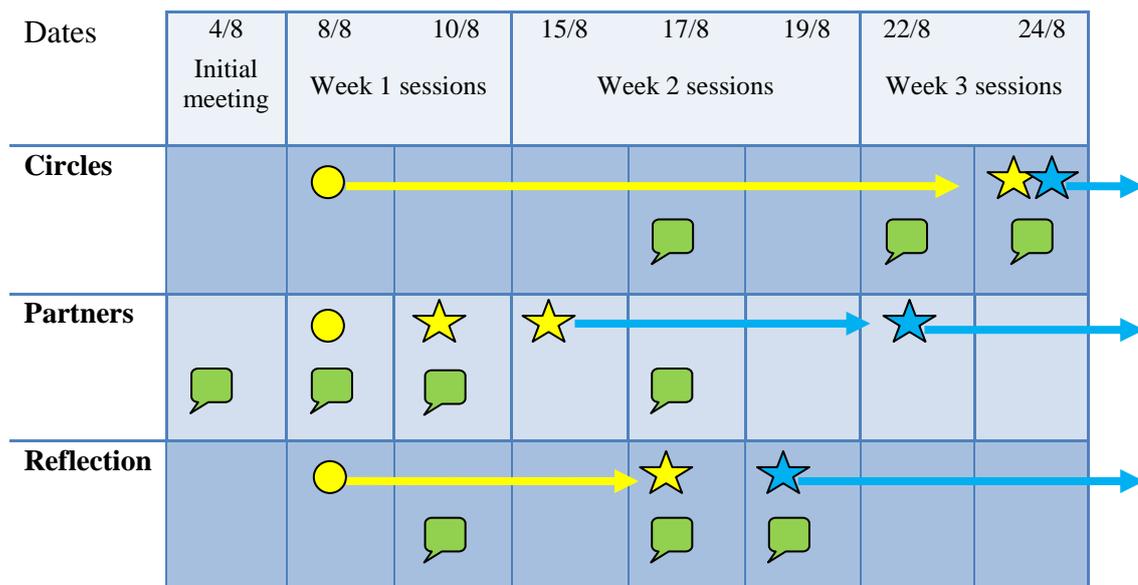
Key:
⚪ Helen observes strategy is not used in classroom

💬 Strategy is discussed together in co-gen session

⭐ Helen initiates strategy in classroom

⭐ Sia initiates strategy in classroom

➡ Continues

Figure 7.1 Time delay between observation, discussion and implementation of pedagogical strategies.

this time everyone tells a partner their sentence?" Sia quickly endorsed this suggestion and the children rapidly sorted themselves into pairs and swapped a few sentences before Sia asked them to share interesting sentences they had heard.

This simple change to the activity dramatically changed not only the level of participation (now every child had an opportunity to share a sentence at least with their partner), but also the quality of the sentences that were contributed (as the children had a chance to try out a number of sentences with just a partner before picking their favourite one to share with the whole group). Sia agreed after the session that this small change had made a big impact on the level of participation in the activity. The following Monday (22/8), Sia self-initiated discussing the spelling words and creating sentences with a partner (represented by a blue star). I also noticed that she planned and implemented many more partner and group activities in

the literacy contract and the Science lesson for that week (represented by an arrow to show that she had continued the practice).

Clearly, the fact that I was co-teaching with Sia inside her own practice, as well as discussing the relationship between theoretical ideas and practical strategies for implementing them, made a big difference to her actual implementation and consolidation of new practices. Sia also recognised this during our final co-gen session (10/11/11) when she explained to me that she had shared the circle strategy with other members of her planning team, but had doubts that they were implementing it effectively:

SIA: I discussed it all and I gave them a copy of that sheet that we made up in the holidays. But, I asked them two weeks ago, "Are you still doing circles?" And they're like, "Yeah." But I don't think they're doing it to the extent that I would like for them to do it.

HELEN: And can you see why that might be?

SIA: Umm, I think it's because they probably would forget, you know like I would forget in the beginning as well. And then also I think they're all in their routines and it's just something that's not high on their priorities because they haven't done all the discussion and thing that we've had, and like I tried to do a bit on it at planning day and they're like, "Oh, yeah," and they were going to do, I didn't want them to change their learning centres but they were going to incorporate a little bit of stuff that we'd been doing. So I should ask them about the learning centres. I haven't actually asked them about the learning centres part, but the circles they're like, "Oh, yeah." But I think, "Mmm, I don't know if you really are."

HELEN: But you think that, we discussed it several times before you actually did it.

SIA: Yeah! So if I keep doing it.

HELEN: Yeah, but even, I mean the thing that made the difference was one day when I was here I said, "How about we make a circle today." You're not IN their classroom to do that so it would be just the same as if I'd kept discussing it but never actually said, "Let's do it."

In their early work on co-teaching, Roth and Tobin (Roth, 2002; Roth & Tobin, 2002) drew upon Pierre Bourdieu's notion of *habitus* (systems of structuring dispositions) as an explanation for why and how teachers act in the way they do and why it is so difficult for teachers to change their practice. However, in later work (see Tobin & Roth, 2006), Roth acknowledged that he had since realised that his early understanding of Bourdieu's concept of habitus was rather underdeveloped and had moved away from using the term. Nevertheless, his early comments about the origins and effects of structuring dispositions remain valid regardless of the term or theoretical framework used to label them.

Roth (2002) argues that these structured dispositions are formed through a long experiential process as we inhabit the world with others, but are not static, as new experiences will continuously either reinforce or modify the existing structures. This is therefore a dialectical construct as it embodies the contradiction of being both a conserving force and enabling change. Our patterned and structured ways of acting in response to particular circumstances can either be reinforced over time or modified as we participate in experiences in which others act differently and we start to adopt these behaviours (like picking up an accent when speaking amongst foreign speakers).

Likewise, Rogoff (2003) and Fleer (2003) have referred to Shotter's writing to discuss the fact that our actions are shaped by our participation in social institutions, often leading to routine practices that are "taken-for-granted" as 'the way we do things here':

> [R]ather than any very precise innate foundations for the structure of human exchanges, there are precise foundations to be discovered in the *institutions* we establish between ourselves and others; institutions which implicate us in one another's activity in such a way that, what we have done together in the past, *commits* us to going on in a certain way in the future (Winch, 1958, p.50). But of course, the members of an institution need not necessarily have been its originators; they may be second, third, fourth, etc. generation members, having 'inherited' the institution from their forebears. And this is an important point, for although there may be an intentional structure to institutional activities, practitioners of institutional forms need have no awareness at all of the reasons for its structure – for them, it is just "the-way-things-are-done". The reasons for the institution having one form rather than another are buried in its *history*. (Shotter, 1978, p. 70)

Many teaching practices, such as the way children sit on the floor facing the teacher at the front of the classroom, or the way known-answer questions are asked to test knowledge, are examples of these 'taken-for-granted' institutional practices and have been perpetuated for generations of students and teachers. When children are asked to come and sit on the floor, they automatically do it in the way every teacher in their past has asked them to do it, and when one of these students grows up to become a teacher, they frequently continue this practice without even being aware that there could be alternatives.

However, Roth (2002) acknowledges that routine actions can be deliberately changed through conscious awareness and reflection on practice, but he also explains that it is not an easy or fast process, particularly when the impetus for change (for example, a professional development seminar or workshop) is restricted to *talk about action* (for example, raising awareness of new pedagogical strategies and forming intentions to implement them) rather than *enacting new actions* in the actual situation that usually sets their routine practice into motion. Typically all that changes under these circumstances is the teachers' language used to account for practice, rather than practice itself:

> Because [institutionally structured dispositions] continue to make them perceive and act in particular ways in particular situations, the teachers continue enacting old practices although their discourse suggests that they want to change them. Nevertheless, intention does not necessarily lead to action. (Roth, 2002, p. 53)

This phenomenon could be clearly seen in Sia's difficulty in implementing the circle strategy, and then subsequently in her team members' difficulties too. In our first discussion about the possibility of trialling sitting in a circle, Sia definitely saw the potential value of this strategy and enthusiastically formed an intention to implement it the next day. However, the conserving force of institutional structures and traditions made it difficult for her to enact this intention, because as soon as she was in her familiar situation the patterned responses arose and both she and the students acted in the usual ways (i.e., in the rush of packing up at the end of a lesson Sia asked the children to come to the floor and they all came and sat gathered around her feet). Intentions formed in an after-school discussion, removed from the myriad of demands on attention that occur in a bustling classroom of children, simply could not

outweigh the routine actions produced by the conserving force of habitual practice formed over a long time within that same (or similar) situation.

However, once I interrupted the classroom routine by initiating the circle strategy myself, it was easier for Sia and the children to see that there was an alternative way of acting in the situation and that they could adopt these new actions for themselves. Change was not just limited to the level of talking about doing something different, but was actually experienced by all of the participants in the situation, interrupting the expected patterns of action and allowing for conscious awareness of trying something new. This is not to say that the discussion of the strategy was not important too – as discussed in the previous section, Sia did indeed value the importance of discussing the theory behind the decisions we made and strategies we introduced so that she understood why the changes were important – but discussion in itself is clearly not always sufficient for helping teachers disrupt the institutional structures and traditions and actually change their practice.

It must be noted that obviously habitual practice affected me too and probably explains why we were unable to successfully implement a new system of documenting assessment observations. It was relatively easy for me to suggest and initiate forming a circle for whole class discussions because circles were a regular feature of my past practice as a music teacher; however the types of assessment documentation I was suggesting to Sia were new to me too and were definitely not a part of my routine practice as a teacher.

Although I could intellectually see the value in documenting children's interactions to assess their learning needs and potentials, once I was actually involved in interacting with the children as they worked on learning tasks I found myself acting in the habitual ways I had as a classroom teacher, that is, work with a child or group of children to solve a problem or answer a question, quickly scan the room to monitor whether children are on task, deal with any noticed problems, then respond to the next child or group asking for attention, and so on. There was no room in this routine to stop and make notes of my observations, and even if I carried around the observation proforma sheet and a pen to try and remind me to make notes, I would still move directly from one interaction to the next, scanning as I went and then immediately becoming involved in the next interaction. Inevitably I would get to the

end of the session and realise that, despite my best intentions, I hadn't managed to write down anything again. I was unable to interrupt this habitual way of acting for either myself or for Sia despite the number of times we discussed it and tried to think of alternative ways to manage it.

Despite this set-back, the introduction of circles, increased use of collaboration and emphasis on reflecting on learning have all been sustained in Sia's practice beyond the end of the project (personal communication with Sia, 13/12/11 and 28/3/12). While there were no doubt several factors that affected the success of Sia's take-up of practices that I suggested, one of the most notable was that Sia believed I had credibility, not just because of my theoretical knowledge gained through postgraduate study, but also because I had also been a primary school teacher and because I was actually right there sharing the experience of teaching with her. These aspects are discussed in the next section of this chapter.

"The credibility trifecta" – Being a real teacher, being there and being knowledgeable.

At the end of my second week in the classroom (19/8/11), I commented to Sia that it was an interesting experience to be able to come into a classroom and just be able to focus my thinking and actions on the quality of teaching and learning, whereas a real teacher has so many other things that they have to be thinking about and getting done, that it was very difficult for them to have time to reflect on and modify their teaching. Sia responded:

SIA: Well it's really good having someone else's eyes and ears as well, especially someone who has been a teacher. I think what's a big difference is sometimes you'll go to PDs and people haven't been in a classroom either ever or it's been a really long time and you just think, "How realistic is that? You don't really understand what it's like being in a classroom." So I think you actually being in here makes a big difference to it all as well.

HELEN: Yep. I can't say something that I'm not prepared to do myself. I mean I can say stuff but think, "Yeah, but I don't know [how to actually do it,]" like with the assessment and stuff. I know I want to be doing that, but I can see how difficult it is,

and I'm thinking, "If I can't make myself do that and I haven't got all those other things to think about that you do, then no wonder teachers don't do that."

SIA: It's hard.

HELEN: Really hard.

The fact that I had been a teacher gave me great empathy for the enormous demands that were placed on Sia and I tried to always check with her that I was not making her job even more difficult, not only when I requested her time for interviews, journaling and reading, but also that what I was encouraging her to do in the classroom would be achievable and beneficial for both her and the students. As stated in the above transcript, my presence in the classroom made it imperative that I be willing to at least try out anything I suggested. I had to be willing to "walk the walk" and risk failing if I was wrong, but I was willing to do this because I was curious to see what worked and what didn't too. While most suggestions did work, our attempt to implement ongoing assessment by documenting learning interactions (as discussed in the previous section), proved to be practically impossible for either of us to implement successfully, and it is still a puzzle we are yet to solve.

This openness to fallibility was an important aspect of our sharing authority with each other; that we were learning together, calling upon my knowledge of theory and her knowledge of her classroom to create new strategies together. We had a joint responsibility to make a strategy work to the benefit of each other and the students, rather than responsibility for failure lying with me for not understanding the realities of teaching, or with Sia for being incapable of implementing it.

My experience as a teacher provided several opportunities for me to support Sia's suggestions (e.g., the writing centre and students writing letters to each other) with anecdotes from my own classrooms. I also had a number of resources that I had found useful in my own practice and was able to bring these in for Sia to use as well. I believe that my willingness to share my past experiences as a 'real teacher' gave me a certain credibility of someone who 'knows what teaching is really like' that Sia evidently did not extend to other leaders of PD activities who possibly don't have time or opportunity to share such anecdotes.

Most importantly though, I believe that being in the classroom was crucial for establishing the intersubjectivity to be able to demonstrate the inter-relationship of theory and practice in our discussions. Being able to discuss shared experiences removed the distance that is often present in discussions of theory and helped build a comfortable ease with each other that assisted our discussion of such matters. In our follow up interview (3/8/11), I mentioned that the teachers in the first phase PLZ seemed to have difficulty engaging in discussions of theory and particularly complained about some of my theoretical 'jargon'. I asked Sia if this had been an issue for her:

HELEN: Have you found I use words that you go, " WHAAAAT?"

SIA: Not really, no. It's been good for me to have these professional conversations because you don't really do it with other teachers. You feel a bit silly if you use big words to each other. (Laughs) But I think we need more professional discussion like we're doing. There's definitely a place for it.

*HELEN: But also when **we're** talking about these sorts of things we can relate them to direct things that happened in the classroom, and to particular kids doing something in particular. ... Because we've shared experiences, we can talk about things in relation to something that we both know what we're talking about.*

However, Sia also valued my theoretical knowledge as well as my practical experience (past and present) and this became evident when in the same interview she started talking about the principal's proposal for one of the leading teachers currently in the school to step out of a classroom position next year and take on a coaching role similar to what I had been doing with Sia. While I was quite approving of the principal's recognition that professional development needs to be ongoing and inside teachers' classroom practice, Sia was concerned that this teacher was not necessarily the right person for the position:

SIA: I don't know if she's got enough (pause). She's a very experienced teacher. She's very good literacy wise. I don't know, a lot of teachers are feeling a bit like, "I don't really want someone that's in the school." Like, they'd prefer an outsider.

HELEN: Aah.

SIA: Mmm. Yeah, I don't know. It'll be interesting, cos she's a lovely lady. It will be interesting to see how it goes. I don't know if she's got the knowledge that you sort of have with it all though. I think, yeah, I don't know if she's got that knowledge base to be able to come in. Like, I couldn't have had this type of discussion with her, I don't think.

...[bit more discussion about the value of teachers learning from each other, but that it tends to be mostly about practical knowledge]

HELEN: I suppose what I have been able to do differently is to also bring that theoretical knowledge and then to inter-relate the two together [theory and practice]. Yeah, and I really don't think it's enough that teachers just go on practical knowledge.

SIA: No.

HELEN: I think you have to understand 'why'.

SIA: Yes. I might question that you know. Just when it gets rolling, I might question the theory, how much knowledge she has. You know, I've got this experience to base it on now, so I can be like, "Well, what about this?"

I think it is interesting that Sia can see the value of theoretical knowledge now that she has had the experience of relating it to her practice. She recognised that I was able to bring something new to her thinking about teaching and learning, even though she was certainly familiar with many of the concepts we discussed from her relatively recent university studies. The difference was that now we were discussing them in direct relation to our shared practice, whereas at university students can only discuss them at a distance and often forget about or dismiss theory when they enter their own professional practice. This phenomenon has been discussed at length in the literature (Allen, 2009; Roth & Tobin, 2002; Smagorinsky, 2010; Smagorinsky, et al., 2003; van Manen, 1995) but was also admitted by Sia when she was talking about sharing her new knowledge with her teaching team:

HELEN: Well, I think these are all things you can talk about with your planning group without [them necessarily] doing contracts.

SIA: Yeah, I will, absolutely. Yeah, getting that [ZPD] back. [The graduate grade 2/3 teacher] will be very familiar with that from uni.

HELEN: Yeah, but probably not something she's thought about.

SIA: No, she probably hasn't. And I know I haven't really thought about it until I spoke to you. So, yeah that'd be good. And I wonder if they know about the Potential development and the Actual?

HELEN: Yeah, maybe not.

SIA: I might even discuss that.

HELEN: I'll draw a diagram for you [on the sheet of notes we were making].

Sia's recognition that theory has a vital role in developing teaching and professional practice contrasted greatly with the general perceptions of theory by the teachers at Banksia Bay. I believe that this was primarily due to the changes in approach that I made due to the lessons learned from the PLZ at Banksia Bay, and this will be further discussed in Chapter 8 in relation to Edwards' (2005, 2010; A. Edwards & D'Arcy, 2004; A. Edwards & Mackenzie, 2005) concept of relational agency.

Conclusion

In this chapter I have introduced Sia and her context at Greyrock Primary School and outlined the process of co-constructing a new practice of professional development. I have presented analysis of data under three different headings which will be further discussed and compared with the data from the first phase in Chapter 8 to propose that co-constructing the practice of professional development *within* Sia's practice created the necessary conditions (i.e., presence of theory/practice as a dialectical unity, shared authority and intersubjectivity, as discussed in Chapter 6) for development of Sia's professional competences and motives. However, the analysis of data from this phase also highlighted some additional issues that also need to be considered about the facilitator's role in developing a practice of professional development. Awareness of the important roles of mutual appropriation, interruption of habitual practice and credibility only arose out of our collaborative joint activity within Sia's classroom teaching practice.

Chapter 8: Discussion of Phase 2

*DEVELOPING FURTHER UNDERSTANDING OF THE PRACTICE OF PROFESSIONAL DEVELOPMENT **WITHIN** TEACHERS' PRACTICE*

"To know something, one must personally participate in the practical struggle to change reality, to change that something, for it is only through participation in the practical struggle to change reality that you can uncover the essence of that thing and comprehend it" (Roth, 2002, p. 164).

Introduction

This chapter begins by drawing upon the data and discussion presented in the previous three chapters to discuss how the practice of professional development co-created with Sia in Phase 2 of the study was a development of the PLZ created at Banksia Bay in Phase 1. This part of the discussion seeks to answer the third research question and subquestions:

3) How does conscious awareness of the proposed system of essential relations (i.e., the preliminary models developed after Phase 1) inform and continue to develop an institutional practice of professional development in another school context?

- Are the identified concepts in the theoretical model important in the new practice?

- How do the changes made to the professional development practice in the new context address the issues related to these concepts encountered in the first context?

This section is then followed by more detailed discussion of the analysis of the Phase 2 data in order to answer the fourth research question:

4) Does analysis of the new practice expand the proposed system of essential relations?

The analysis of the three themes presented in the previous chapter uses cultural-historical concepts to provide further understanding of the facilitative role of co-teaching/co-generative dialogues as a strategy for developing an effective practice of professional development. Expanding upon these existing cultural-historical concepts, a new concept is introduced to help explain the role of the co-teacher in

disrupting habitual practice. Finally, the simultaneous development of the researcher is also discussed.

The viability of the preliminary models in Phase 2

The proposed system of essential relations in the institutional practice of professional development was discussed in Chapter 6 and is shown again here in Figure 8.1:
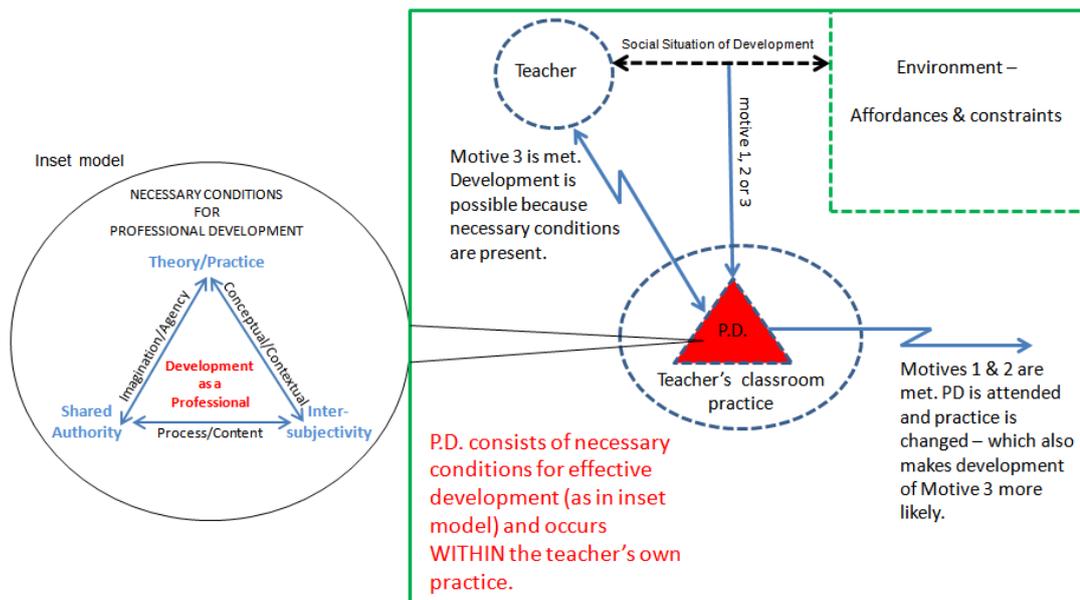
Figure 8.1 Preliminary proposed model for an effective practice of professional development (with inset model showing system of essential relations).

Each of the concepts in this model was selected in order to address issues that were highlighted by analysis of the data collected in Phase 1 of the study. As discussed in the methodology chapter (Chapter 4), co-teaching and co-generative dialogues (co-gens) were chosen as a suitable strategy for creating a practice of professional development that could potentially incorporate all aspects of this preliminary proposed model, and hopefully overcome several of the issues and problems that arose in the Banksia Bay PLZ.

As can be seen in the data presented in Chapter 7, the concepts identified in the proposed model (Figure 8.1) did indeed prove to be important in the practice of professional development co-created with Sia. Our negotiation and implementation of the literacy contract provided an ideal context for creating the necessary conditions of *shared authority, intersubjectivity* and *theory/practice unity*. As discussed in the previous chapter, Sia valued the theoretical discussions that we were

able to have in relation to actual classroom incidents we experienced together and frequently commented that this theoretical insight was important for understanding how and why our innovation was supporting the students' learning and development. She also recognised that this element of our practice was difficult to replicate when she shared the innovation and other pedagogical strategies with the other teachers in her planning team, and had led to limited success in their uptake of the same strategies.

Sia's team meetings more closely resembled the form of the Banksia Bay PLZ, in that they took place after-school, outside of the teachers' classroom practice, with Sia presenting information, and therefore reproduced the same difficulties in creating shared authority, intersubjectivity and theory/practice unity as had been experienced at Banksia Bay. Clearly, the location of the new PD practice *within* Sia's classroom practice through co-teaching was crucial in providing the context for creating the necessary conditions for Sia's effective development of professional practice.

The concepts of the *social situation of development* and *motives* were also clearly important in this Phase 2 context, even though they took quite different forms than they had in the Phase 1 context. Sia's social situation of development was created primarily through her recent promotion into the leadership team of her school. This leadership role created a new 'social position' for Sia (Bozhovich, 2009), determined by new demands from her environment (the historical, institutional demands of leadership roles) and from the people around her (the principal who wanted to assist Sia to further her career prospects, the other leaders who wanted her to take on some of their responsibilities, her team members who relied on Sia as a conduit for information to and from the leadership team etc.). This interaction between the environmental and relational demands, and Sia's own personal experiences, skills, beliefs, understandings, values and desires, created contradictions and needs (i.e., a social situation of development) which developed her motive for seeking out PD to help her develop as a professional to meet the demands of this new social position.

In comparison, the teachers at Banksia Bay were also experiencing a new social situation of development created by the arrival of Ann as their new principal and (at least for the Grade P-2 and 5/6 teachers) the relocation into new open-plan learning spaces. Ann was quite openly pushing a change agenda and actively challenging

teachers to disrupt traditional methods of teaching. She was also using the new buildings as a catalyst for exploring new ways of organising teaching/learning environments and pushing teachers out of their comfort zones. These changes in their work environment were causing considerable discomfort and anxiety for many of the staff, raising many new contradictions between social and external demands and their own personal needs and desires. However, as discussed in Chapter 6, the motives to attend PD arising from this social situation of development varied between different teachers, with several merely attending the PD in order to fulfil Ann's requirements for them to attend PD meetings, while others were genuinely interested in changing their practice and/or developing as professionals.

As shown in Figure 6.3 in Chapter 6, while a motive to merely attend PD is easily met through attendance at any PD activity, this motive is unlikely to have substantial effects on a teacher's practice or long-term development as a professional, unless the PD is able to stimulate a new motive for change or development. Unfortunately, as was shown both in the Banksia Bay PLZ and with Sia's reports of her team, it is very difficult to create the necessary conditions to either meet or create motives for change or development when PD occurs outside of teachers' practice. Sia, however, was able to meet her motive of developing as a professional (and in fact her understanding of what this development could entail expanded considerably during the course of the project) because our co-created practice of professional development was able to create the necessary conditions for this to occur.

At the beginning of the project, Sia's goal was to improve her teaching practice so that she could pass this new knowledge onto her team members (i.e., she saw development of leadership skills as ability to achieve good practice and transmit this to others). However, over time she realised that her understanding of teaching and learning was developing in unexpected ways and realised that her own development as a professional was very complex and could not be easily transmitted to others. She was able to critically question the value of providing (and being provided with) what she called "end products" as she recognised that the value for a teacher's development lay in understanding the reasoning behind new teaching strategies rather than simply on the ability to implement them. Thus her own motive for

development developed as she gained a new understanding of what professional development meant.

This development of Sia's motive for development was only possible because the co-teaching/co-gen context provided the necessary conditions of shared authority (to realise that she had an active role to play in the development of practices and understandings, not merely to be a passive recipient of provided knowledge but an active contributor and co-creator), theory/practice unity (to experience theory in practice and practice in theory), and intersubjectivity (created through shared experience which allowed for the other elements to exist). These were all factors that were missing in the Banksia Bay PLZ because the sessions were removed from the teachers' practice. However, the Banksia Bay teachers' request for me to give some demonstration lessons so that they could see the theory in practice would not have helped to provide the other two elements of shared authority or intersubjectivity in the planning process, which, as Sia pointed out, was crucial for understanding the reasoning behind teaching innovations and led to development as a professional and not merely changes in practice.

Therefore, even though Sia's original motive for participating in PD was more likely to have generated greater engagement in the project than many of the Banksia Bay teachers had, the actual form of the new PD practice within her own classroom practice not only provided the necessary conditions to meet the motive of developing her practice as a professional but also actually expanded her understanding of what this motive really was and how complex leading the change of practice and development of teachers really is. This was an unexpected development of the practice of professional development in Phase 2 and suggested that, although all the elements identified in Phase 1 were also seen to be important in Phase 2, there were still other elements not previously identified in the Phase 1 analysis that could also be crucial in successful professional development. The three themes of *mutual appropriation*, *disruption of habitual practice* and *credibility* presented in the previous chapter will now be discussed in relation to cultural-historical theoretical concepts to expand upon the preliminary proposed model.

Expanding the models using analysis from Phase 2

In the remainder of this chapter I will explain how and why my work with Sia highlighted two additional elements that need to be represented as part of the essential relations for effective professional development. These two elements are *joint activity* and *conscious awareness.*

Joint activity

Analysis of the Phase 2 data showed that the three new themes of mutual appropriation, disruption of habitual practice and credibility all relate to *joint activity* with a facilitator (as a co-teacher) in the teacher's practice. Joint activity is crucial for two main reasons: Firstly, because interaction with others is regarded by Vygotsky as the source of human development (as discussed in Chapter 2, and also in the later sections of this chapter discussing disrupting habitual practice); and secondly, because the combined capacity of two or more professionals acting together creates expanded understandings and instantiations of work practices (referred to as relational agency, A. Edwards, 2005, 2010; A. Edwards & D'Arcy, 2004; A. Edwards & Mackenzie, 2005).

The mutual appropriation developed by Sia and myself as we negotiated our hybrid activity of the literacy contract (see Chapter 7) is a perfect example of Edwards' description of relational agency as

> a capacity that emerges in a two-stage process within a constant dynamic, which involves:
> (i) working with others to expand the 'object of activity' or task being work[ed] on by recognising the motives and the resources that others bring to bear as they too interpret it;
> (ii) aligning one's own responses to the newly enhanced interpretations, with the responses being made by the other professionals as they act on the expanded object. (A. Edwards, 2010, p. 64)

Sia and I had quite separate motives for working together and were each able to contribute different sets of professional expertise to the innovation, yet it was precisely these differences that considerably expanded our previous individual understandings of what a literacy innovation might look like. By aligning our own responses with the other's response as we acted together to plan and implement the newly created hybrid innovation, Edwards would argue that we created more than

just collaboration, but rather "a strength that is shared between purposeful actors as they draw on their expertise to work on common objects of activity" (A. Edwards, 2010, p. 66). Not only did this relational agency allow us to achieve our common goal of improving the learning situation for the students, but also considerably expanded our ability to meet our individual motives of carrying out research and developing leadership skills beyond what either of us could have achieved individually. Our diverse experiences and skill sets acted to expand the range of possible actions that could be carried out by either of us within the joint activity in a complementary fashion (and potentially to be adopted and/or adapted by the other), rather than limiting us to only acting in shared ways that we either already held (or worked towards holding) in common. In addition, the total range of possible actions was also expanded beyond the sum of our own individual capacities by the co-constructed new hybrid activities and knowledge.

This is represented in Figure 8.2 with the expanded range of total possible actions in relational agency represented by the outside red line, whereas a limited view of collaboration as working with common skills and understandings would limit the available actions to the area marked in green. While the development of common knowledge is important for an efficient collaborative working relationship, it is the recognition, use and valuing of each other's diverse skill sets as potential resources for development (of both participants and the practice) that provide the most immediate benefit for the recipients of the practice (i.e., the students immediately benefit from the expanded range of actions of having two teachers available in their classroom while the development takes place.)
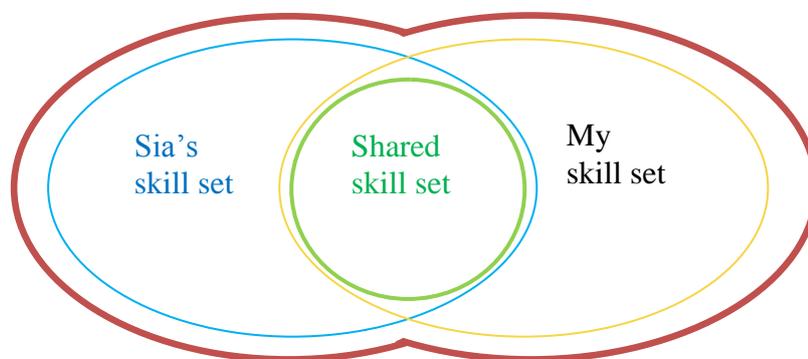

Figure 8.2 Representation of expanded possibilities for action in relational agency.

The issue of my credibility as a facilitator of professional development (see Chapter 7) is also related to relational agency and joint activity. It was clear that while Sia valued the fact that I had a different set of knowledge and experiences that I was willing to share with her in co-gen discussions, she particularly valued the fact that I was willing to put this knowledge and experience into action WITH her, IN her practice, so that she could see the utility of this knowledge and I could experience many of the same affordances and constraints that she experienced. Our expanded range of available actions was able to be experienced together in the actual situated practice of her classroom rather than just limited to talk about it or representations of it. It is easy for teachers to dismiss suggestions made by PD facilitators outside of the teachers' practice as not being realistic for their own classroom situation (as indeed the Banksia Bay teachers did), but it is not so easy for teachers to dismiss ideas when they actually experience the new possibilities working in their own classroom.

While joint activity was implicit in my understanding of the preliminary model that showed PD as occurring within classroom practice, and a key factor in my choice of co-teaching/co-gens as the PD strategy, the importance of this concept, demonstrated in the Phase 2 data, demands that this be included explicitly in the model. Other forms of PD, such as coaching (Costa & Garmston, 2006; Knight, 2007), action research (Kemmis & McTaggart, 1988), instructional rounds (City, Elmore, Fiarman, & Teitel, 2009) or peer observation (Cosh, 1999), do not necessarily require joint activity in teaching practice as part of their strategy, yet could still be regarded as PD within classroom practice and in some cases could also provide many of the necessary conditions identified in the preliminary model. These forms of PD may then be misconstrued as being appropriate strategies that align with my model, yet if they lack the crucial emphasis on joint activity, they will not have the same effect as co-teaching.

Also, co-teaching is explicitly organised as a developmental activity not only for **all** participants (i.e., teacher **and** facilitator, and ultimately for students) but also works to develop both the classroom and professional development practices. Development of the facilitator and the practice of professional development itself is rarely an explicit goal for other forms of facilitated PD. Adding this concept of joint activity with a facilitator as co-teacher expands my model to look like Figure 8.3:

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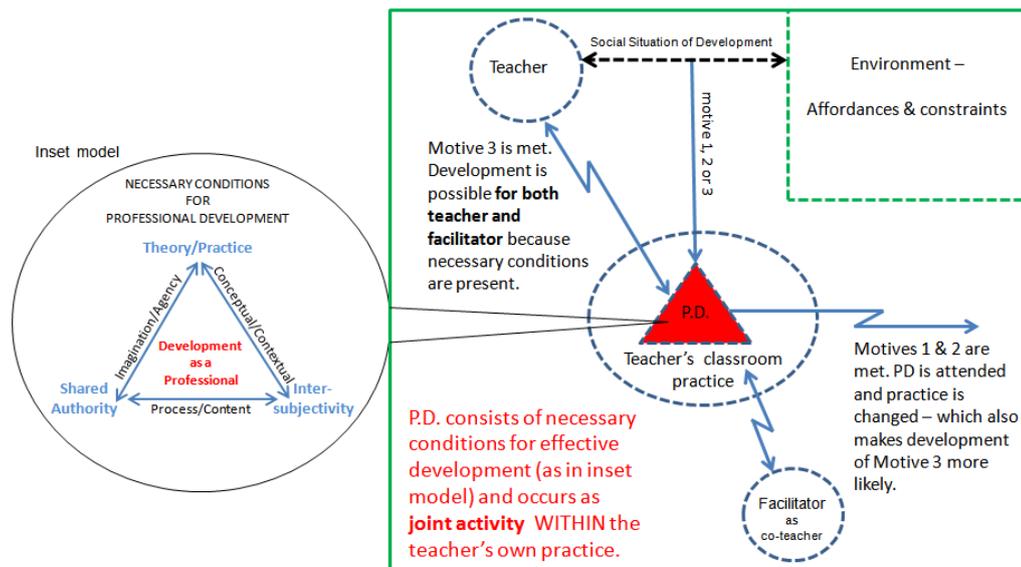
Figure 8.3 Expanded model showing joint activity.

Conscious awareness

Likewise, *conscious awareness* is also not mentioned explicitly in my preliminary model even though it is taken for granted that discussing theory/practice as a unity requires conscious awareness of why and how actions are performed. However, the really unexpected and thought-provoking finding from my experience of working with Sia, was that although conscious awareness of theoretical concepts was helpful for making significant changes to the content and form of new types of curricular activities (such as the literacy contract) which are largely planned and prepared for before entering the classroom situation, it was much harder to change routine pedagogical actions (such as questioning techniques, interaction styles or organisational strategies for students' movement around the room) which largely occur 'on the fly'. Even when Sia had conscious awareness of potential strategies, with theoretical understanding of the reasons behind these and strong intentions to try them out, it was still difficult for her to initiate implementation of them.

Conscious awareness formed during discussing possibilities for action before and after the event is clearly quite different to having conscious awareness *in the moment* that the actions are actually required. The powerful value of co-teaching over other forms of PD (even the other forms of in-practice PD mentioned above which rely mostly on demonstration, observation and feedback) is therefore in its potential for

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using joint activity to disrupt habitual practice which occurs without conscious awareness. This will be discussed extensively in the following section.

Disrupting habitual practice

It is important to discuss three aspects in this section. Firstly, I will discuss the possible origins of habitual practice. Secondly, I will discuss the cause of the difficulty in disrupting one's own habitual practice. Thirdly, I will discuss why cultural-historical theory can be used to explain the effectiveness of co-teaching in creating sustainable changes in practice.

Origins of habitual practice

As discussed in the previous chapter, institutionally structured actions are frequently passed from one generation to another without anyone being aware of the need to examine the reasons behind these, or to check that they are still relevant and adequate for the current members of the institution and to the wider societal interests the institution serves. As Shotter (1978) remarked, "The reasons for the institution having one form rather than another are buried in its *history*" (p. 70).

Sia had no particular reason for gathering the children on the floor to sit at her feet for class discussions, but had just accepted that this is 'the way school is done'. It was what she had done at school as a child herself, and then witnessed as a student teacher, and then perpetuated in her own classroom. It was also my own habitual practice as a classroom teacher, but as a music teacher I had adopted a new practice of always asking children to sit in a circle because so many of the games and activities I used in music lessons required this formation. Therefore, I had experienced an alternative to my previously unexamined practice of gathering children at the teacher's feet, and so when observing some of the problems arising in Sia's classroom discussions it was very easy for me to realise that an alternative formation might make a difference.

It is not surprising however that making circles has not been a regular part of past classroom practice, yet is more common in music teaching. The music room is usually relatively clear of furniture to allow for movement activities, providing plenty of space for making a circle, whereas regular classrooms frequently have tables for each child to sit at and open floor space is often quite limited. Making a

circle in a regular classroom usually either requires moving furniture, or accepting a distorted sausage shape bent around obstacles rather than a circle. This is particularly true in the classrooms of older children as not only is the furniture bigger, but the children themselves are bigger and take more space to form a circle. The structures of different types of classrooms, students, and the dominant activities in these rooms therefore either afford or constrain particular forms of classroom organisation.

However, by raising Sia's conscious awareness through examination of these 'taken-for-granted' practices she was able to realise that there was no particular reason why she should continue this inherited practice (she was even fortunate enough to have plenty of open floor space in her classroom without rearranging furniture) and that there were likely to be strong advantages in experimenting with an alternative. Nevertheless, this conscious awareness of the theoretical reasons behind using a circle formation for class discussion, and a strong intention to test it out, was still not enough for her to disrupt the other conserving structures (i.e., the students' automatic response to being asked to come to the floor) and initiate the new practice.

Before discussing the reason why this might be so, I would like to discuss a second possible origin for habitual practice besides unexamined practices passed on through generations. In the discussion of motives given in Chapter 2 of this thesis I outlined Leontiev's (2009) explanation of how goal-driven *actions* are carried out as part of achieving motive-driven *activities*. However, Leontiev (1978) also outlines that actions which are originally learned consciously (such as learning to shift gears in a car) are transformed into *operations* as they become automated and included along with other operations in new, more complex actions (such as changing the speed of the car).

> Now shifting gears becomes one of the methods of attaining the goal, the operation that effects the change in speed, and shifting gears now ceases to be accomplished as a specific goal-oriented process: Its goal is not isolated. For the consciousness of the driver, shifting gears in normal circumstances is as if it did not exist. He does something else: He moves the car from a place, climbs steep grades, drives the car fast, stops at a given place, etc. (p.66)

In other words, shifting gears, which requires significant conscious attention for the learner driver's first few lessons, gradually becomes a routine operation which a skilled driver rarely has conscious awareness of unless something unexpected or

unusual happens (such as the gear lever becoming stuck etc.). These routinised operations free up attention to concentrate on carrying out other more complex, demanding or unfamiliar tasks.

For teachers, many habitual practices are like these routinised operations – small strategies or procedures which may have been learned consciously and with considerable effort at some point in their career, but, with familiarity and expertise gained over time, no longer require conscious awareness and have become subsumed within broader teaching actions. For example, it is quite common for pre-service teachers to study different questioning techniques at university, and plan the particular questions they will ask at different stages of a lesson in considerable detail; whereas experienced teachers rarely plan lessons in this sort of detail, relying on their developed expertise to automatically ask appropriate questions at appropriate moments.

However, if for some reason their habitual practice does not produce the desired results on a particular occasion, they should be able (in reflection) to draw their conscious awareness to the chosen techniques and use their original knowledge (providing it has not been forgotten) or seek out new knowledge to diagnose and suggest a solution to the problem. Of course, to do this requires a willingness on the behalf of the teacher to take the time for this reflection and recognise that it is possible that their own practice may be at fault or that their original knowledge is no longer appropriate for the evolving situation of today's education for today's children in today's society; rather than resorting to the common tendency to attribute fault with the students (i.e., "This has always worked for me before. What is wrong with this class?") This latter tendency was unfortunately very common with some of the Banksia Bay teachers, impeding their ability to focus on the need for teachers to reflect on and improve their own practice, rather than seeking ways to 'fix' their students.

So now that we have seen that there are two possible origins for habitual practice (unexamined 'taken-for-granted' institutional practices inherited from previous generations, and automated operations which were originally consciously learned but have become routinised) and that both of these types can be consciously examined in reflection to establish a theoretical basis for trialling alternative strategies, it is time

to examine why this conscious awareness in reflection and even planned intentions to implement alternative practices is still not enough to ensure that habitual practices will be overturned and new practices installed.

Pinpointing the difficulty in disrupting habitual practice

After analysing the data of Phase 1 of this project I was quite convinced that the Banksia Bay teachers had made few changes to their practice because the form of the PD did not allow for the necessary conditions for developing conscious awareness of unified concepts of teaching/learning or create the necessary agency for imagining and enacting new practices. Based on my readings of cultural-historical theory, I really believed that if I was able to create these necessary conditions by working with Sia in her practice to show how theory and practice were related in unified concepts of teaching/learning, then externalisation of this conscious awareness would simply be a matter of co-imagining new practices together and supporting her to implement the changes.

> [Vygotsky's] argument was that as we engage over time with the world and come to understand it better than we did, we act on it in more informed ways and in turn change it. It follows that when our engagement is through unreflective following of routines, externalisation is likely to make little difference to practices. But when we act thoughtfully on problems of practice, we bring to bear understandings that may override routines and we may come to recognise unanticipated aspects of the problems. (A. Edwards, 2010, p. 6)

However, while this belief was realised in our implementation of the literacy contract, leading to many thoughtful changes in practice, I was really perplexed that something as apparently simple as asking the children to sit in a circle was so difficult for Sia to enact in practice, despite her conscious awareness of why we wanted to do that.

While discussing and co-constructing the literacy contract in the co-gen sessions we were able to draw upon our shared experiences in the classroom (which I couldn't do with the Banksia Bay teachers), but we were still temporally removed from the actual classroom situation, allowing us time to reflect, think, imagine, reconsider, change our minds, plan and prepare materials. These materials were then explicitly introduced and explained to the children, preparing them to expect that the usual

routine of literacy lessons would be interrupted and that we would all take a while to adjust to a new way of doing things. The presence of new materials (i.e., the contract sheets, and different setting out of activity equipment) and the different lesson organisation (that they could choose what they worked on and who they worked with) interrupted many of the usual institutional structures and expectations, causing conscious awareness for teachers and students that there were new possibilities for action.

In contrast, although the intention to form circles was also made in the co-gen situation removed from the classroom situation, at the very moment that this intention needed to be enacted in practice on my next few visits to the classroom (i.e., in the transition between one activity and another), there was a lot of hustle and bustle in the classroom as children packed up materials, and Sia and I were still interacting with a few children completing the previous activity while also overseeing the packing up etc. When Sia issued the instruction for the children to come and sit on the floor, the usual institutional routines took over – everyone just did what they had always done before – automatically, and without conscious awareness.

For a couple of sessions I allowed this usual routine to continue, wanting to see if continued discussion with Sia in the co-gen sessions would help her to change her practice, but I eventually realised that I would need to step in and interrupt the routine by making a specific request to the children to do something differently. As discussed in the previous chapter, this interruption provided an opportunity for all participants (teachers and students) to physically experience new possibilities for action, but even more importantly my interruption was a form of 'lending' my own conscious awareness, at the very moment that others in the situation were operating without conscious awareness.

The following section will use concepts from cultural-historical theory to explain why co-teaching is a powerful strategy for disrupting teachers' habitual practice and creating opportunities for developing sustainable changes in practice.

Using cultural-historical theory to explain a solution

Vygotsky (1994b) explained that the presence of the 'ideal form' in the environment of the child (i.e., the presence of mature adults) makes child development unique to other forms of human development (e.g., development of society), because the child can witness and interact with adults exhibiting mature forms of functions (e.g., of speech etc.) and eventually develop conscious awareness and mastery of these functions for him/herself. In contrast, it is impossible for human society as a whole to witness and interact directly with future developments of society, in the present society, because they do not exist yet. In these cases the 'ideal form' which development aims to achieve is held as an abstract idea to be strived for, rather than experienced as an already achieved reality by others in the immediate environment as happens in child development. Nevertheless, the development of these 'ideal' abstract ideas still occurs through interaction with and innovation on the ideas or experiences of others, either directly or through books, internet etc. (see discussion on imagination in Chapter 2).

Many aspects of truly transformative developments of professional practice are therefore also like the development of society. In order to thoughtfully develop professional practice, 'ideal' forms can be created as imagined abstract ideas (based on theoretical principles or the reported experiences of others, rather than experienced directly in the existing environment), but they can only be implemented into practice with the deliberate control that comes through conscious awareness of how and why these new actions are required. However, development of practice that requires disruption of habitual practice forms a special case because of the problem of lack of conscious awareness at the very moment that it is required, and therefore more closely resembles the process of child development where the ideal form must be present in the environment before conscious awareness can be formed.

Bruner (1986) has discussed the Zone of Proximal Development (ZPD) as the setting for interactions where the competent adult can erect a "scaffold" for the learner by "lending consciousness" to the child. However, his discussion of lending consciousness is based on his reading of an early translation of Vygotsky's writing about conscious awareness (*Thought and Language*, Vygotsky, 1962). Referring to this text of Vygotsky's, Bruner writes:

About consciousness he says: "Consciousness and control appear only at a late stage in the development of a function, after it has been used and practiced unconsciously and spontaneously. In order to subject a function to intellectual control, we must first possess it" (ibid., p. 90). This suggests that prior to the development of self-directed, conscious control, action is, so to speak, a more direct or less mediated response to the world. (Bruner, 1986, p. 73)

However, as discussed in Chapter 2 of this thesis, Vygotsky (1987) makes a distinction between consciousness and conscious awareness. Activities can be carried out consciously (i.e., we are aware we are doing the activity) but without conscious awareness (i.e., awareness of *how* we are doing the activity is not the *object* of our consciousness). In comparison, the same passage quoted by Bruner above, appears in the 1987 translation of *Thinking and Speech* as:

It is a general law of development that conscious awareness and mastery characterize only the higher stages of development of a given function. It arises comparatively late and must be preceded by a stage where conscious awareness is absent, a stage where there is no volition in the application of a given form of conscious activity. For conscious awareness of a function to be achieved, the individual must first possess what he is to become consciously aware of. If we are to master something, we must have at our disposal what is to be subordinated to our will. (Vygotsky, 1987, p. 189)

Therefore, Bruner's description of "lending consciousness" in the ZPD should perhaps be more accurately described as "lending conscious awareness". As Vygotsky himself says:

Therefore, there is a great difference between the concepts of "unconscious" and "lack of conscious awareness." Lack of conscious awareness is not simply part of the conscious or unconscious. It does not designate a level of consciousness. It designates a different process in the activity of consciousness. (Vygotsky, 1987, p. 190)

Conscious awareness therefore refers to the *act of thinking* about why and how we do something, rather than just the actual conscious act of doing it. However, being able to act with conscious awareness allows us to control and make deliberate use of our actions, rather than just acting in direct response to events or structures in the immediate environment. When the ZPD is perceived as the creation of joint activity in which participants collaborate to achieve more than they could on their own, then it is easy to see that if one participant is able to lend their own conscious awareness

to the activity then this participant's deliberate thought about why and how the activity is carried out will influence the way they act within the activity, which in turn can also transform the way the other participants experience the activity. This new experience of the activity becomes even more developmental as participants master the new activity if the conscious awareness of the original 'lending' participant is also made explicit to the other participants, in effect not just lending conscious awareness to the way the activity itself is carried out, but also to the other participants so that they too can also participate with conscious awareness.

Returning to the example of making a circle in Sia's classroom, it can be seen that my suggestion in our co-gen session that it might be useful to make a circle could be regarded as a lending to Sia of my conscious awareness of how and why a circle formation could alter the dynamics of classroom discussions. Through discussing the theoretical reasoning behind this suggestion Sia appeared to have also developed conscious awareness of how and why this strategy could transform her usual practice and had formed an intention to test this out. However, when it came to the situation in which this intention needed to be enacted, Sia, prompted by all the structuring features of the classroom, the particular situation and its participants, automatically maintained her habitual practice (which occurs without conscious awareness).

It was not until I thought to lend my own conscious awareness to the actual situation in which the habitual practice appeared (by interrupting the children as they actually came to the floor and asking them to make a circle) that Sia was actually able to *physically experience* the changed situation, enabling her to bring her own conscious awareness to the situation and declare, "Now that we've done it a few times, I think I'll remember now!" In line with the quotations from Vygotsky given above, the 'ideal' form needed to be present in the environment, and actually utilised by Sia as a possible action with the support of another, before she could gain conscious awareness of it.

I have decided to call this phenomenon *situated conscious awareness*, as evidently conscious awareness formed *away from the situation* (in reflection after an event or planning before an event) is not easily called into use in situations that are usually dominated by habitual practice, which by definition, lack conscious awareness. While several other long-term professional development initiatives which

concentrate on reflections on practice in collaborative groups (as discussed in Chapter 3, for example, Loizou, 2010; I. Mitchell, 1999; I. Mitchell & Mitchell, 2008; Judie Mitchell, 2004; Sewell, 2006) have shown that it is indeed possible for teachers to overcome habits and change practices, they generally agree that this is not an easy or quick process, requiring sustained collaborative work for many months or years. These notions of *lending conscious awareness* and *situated conscious awareness* together provide an alternative or complementary strategy to relying solely on after-practice reflections and formation of intentions to change practice.

The importance of *situated conscious awareness* can be explained by the cultural-historical concept of *perezhivanie* introduced in Chapter 2. The physical 'lived through' or 'emotional experience' (*perezhivanie*) in the actual presence of others, forming the unity between personal and environmental characteristics that Vygotsky (1994b) regarded as crucial for child development, is qualitatively different from the abstract 'thought experiments' of reflection, discussion and planning. *Perezhivanie* involves emotional-cognitive engagement (Marjanovic-Shane, et al., 2011), creating the ideal social interactions that Veresov (2004) describes as the source of development (see Chapter 2).

By lending conscious awareness directly to the activity by asking the children to make a circle, I not only disrupted Sia's habitual practice but also transformed the experience (*perezhivanie*) of the activity for all of the participants. The changed responses of the children to each other and to Sia created further disruptions to the habitual practice, allowing Sia a chance to develop situated conscious awareness of how the change of formation *actually* (and not just theoretically as discussed in the co-gen session) altered the dynamics of the discussion. Similarly, when I asked different types of questions in the end-of-lesson reflection sessions (lending my conscious awareness of open-ended questioning) Sia was able to develop situated conscious awareness of how open-ended questions can be phrased and the effects that such questions have on the depth of thinking displayed by the children.

This changed experience (new *perezhivanie*) of the participants also helps to disrupt some of the conserving structures of participants' expectations of the habitual activity, so that the next time the activity is enacted these structures have been

weakened, raising questions from participants about whether things will be done in the old or new way and providing another opportunity for participants' conscious awareness to be brought to the practice in which it was previously lacking.

Vygotsky's (1997a) *general genetic law of cultural development* (as discussed in Chapter 2) provides an explanation of the importance of social interactions as the source of development, which gradually become internalised into an individual's psychological functioning before eventually being externalised again in the individual's ability to carry out actions using these psychological processes. While many cultural-historical researchers (including myself in Phase 1 of this project) have interpreted this theoretical law to suggest that collaborative discussion of theoretical principles of teaching/learning is the necessary social interaction which starts the developmental process of teachers gaining conscious awareness of their practice so that they can implement thoughtful and deliberate changes in practice (see for example, S. Edwards, 2007a; Fleer & Surman, 2006; Sewell, 2006), the data collected in this study suggests that this type of social interaction is not necessarily sufficient (or, at least, efficient) for disrupting and overturning habitual practices.

My experience working as a co-teacher with Sia in her classroom has demonstrated that *in addition* to raising conscious awareness in collaborative discussions removed from (although still referring to) practice, it is also important to participate in joint activity within the teacher's practice in order to be able to lend conscious awareness at the very moment that it is required to disrupt habitual practice. This lending of conscious awareness in the very situation and moment that it is required provides an opportunity for the teacher to develop *situated conscious awareness* through *perezhivanie*, where they physically/emotionally experience the changes caused by the transformation in practice, rather than just imagine the consequences of changes discussed theoretically in the co-gen session. Guskey (2002) has argued that change in teachers' attitudes and beliefs occurs after they witness positive changes in students' outcomes due to effective changes in practice, rather than vice versa. Supporting teachers to implement changes in practice, increases the likelihood of teachers receiving this positive feedback, making it more likely they will continue to sustain the new practice.

Regardless of whether the teacher's habitual practice has been inherited through institutional traditions and structures as a taken-for-granted, unexamined practice or originally learned with conscious awareness but has since become routinised and automated and has not been recently examined for its continuing relevance and appropriateness to the current teaching context, the combined strategy of co-teaching and co-generative dialoguing is able to provide the necessary conditions for creating a truly developmental environment for all participants. As will be discussed in the next section, this developmental environment also provokes situated conscious awareness for a co-teacher taking a dual role as a researcher.

Simultaneous development of the researcher

It is important to note that the importance of provoking *situated conscious awareness* is not limited to disrupting the habitual practices of the classroom teacher to enable further development of the teacher's practice. Situated conscious awareness also contributes to the development of the facilitator/researcher because of their unique position as *observant collaborator* (see Chapter 4) in the co-teaching situation. The fact that in co-teaching all participants have the (shared) authority to step in and respond/intervene/disrupt/suggest in order to improve the learning situation (whether they actually do or not) means that their participation in the class events is a lived experience (*perezhivanie*) rather than just a second hand observed experience – and this is qualitatively different – just as situated conscious awareness in practice is qualitatively different from what we could call *desituated* conscious awareness developed and exhibited in reflection and planning.

Roth's (2002) notion of shared authority and responsibility in co-teaching was explained to Sia before we began our work together, so that she understood and expected that I might step in at any moment to contribute or offer a suggestion, and that she should feel free to do the same to me if I was taking the lead in a teaching situation. Although I thought I understood this shared authority and responsibility to step in and intervene whenever I perceived the possibility of improving the learning situation, it was not until my analysis of the collected data and reading accounts of Ken Tobin's recognition of his failure to step-in and take responsibility for improving a perceived fault in his student teacher's lesson (Roth & Tobin, 2002,

2005b; Tobin & Roth, 2006), that I realised that I too did not always fully utilise this shared authority and responsibility.

In Chapter 7 I described a co-teaching session in which I stepped in to make a suggestion that the children discuss possible sentences for their spelling words with a partner rather than sitting passively as individual volunteers were called upon for each word. This was a good example of acting upon the shared authority and responsibility to act whenever necessary to improve the learning situation. However, after suggesting to Sia in a co-gen session that we ask the children to sit in a circle, I allowed Sia to continue with her usual practice for three sessions before I finally intervened and initiated the change myself.

I believe I waited rather than intervened because I expected that our discussions in the co-gens had been enough for Sia to be able to implement the practice and I wanted to give her the opportunity to take control of implementing the change, so I fell back into the role of observer rather than active co-teacher (not realising at that stage the powerful conserving forces of habitual practice and her inability to disrupt this due to lack of conscious awareness in the actual moment and situation it was required). It was only after I eventually intervened and I experienced situated conscious awareness myself of the difference it made to intervene directly, rather than wait until the co-gen to discuss it, that I recognised that this was a significant event in my data and began to search for an explanation for this.

Many cultural-historical researchers who work with teachers have discussed the importance of schools being developmental communities in which all participants at all levels of the school organisational structure continue to develop in order to be able to assist the development of others (see for example, Holzman, 1995; Kravtsov & Kravtsova, 2009; Lobman, 2007; Tharp & Gallimore, 1988; van Oers, 2009).

> In developmental learning, then, the key to being a good teacher is being a good learner in the ways, as Vygotsky has shown to us, young children are. It means doing what you don't know how to do…; it means shaping whatever expertise you do have into a constructing of the joint activity of discovery rather than imposing it in the manner of an authority; it means creating a playful and completive dialogic environment. (Holzman, 1995, p. 210)

By deliberately setting up our co-constructed practice of professional development as a developmental learning environment it is not at all surprising that I should

experience development in my roles as co-teacher and researcher at the same time as Sia developed as a teacher. However, the concept of situated conscious awareness and the role it plays in the process of this mutual development is a new finding that has arisen from the creation, implementation and analysis of this particular practice of professional development.

Ironically, it was my own limited development as a co-teacher that led to this significant discovery about the power of co-teaching. Knowing what I know now from my analysis and further reading, in future co-teaching situations I intend to step in as soon as I recognise that the teacher does not have conscious awareness of their intended action and lend my own conscious awareness to the situation. However, if I had actually done this effectively with Sia I would never have realised the significance of her difficulty to implement the circle strategy – because it would not have been experienced as a difficulty. Nevertheless, if I had not made any development in my role as a co-teacher and remained as an observer, not realising (even if belatedly) that I needed to intervene, then I also would not have experienced situated conscious awareness of the effect of my intervention, which led to new insights into the problem rather than attributing the lack of change to a failure of either Sia or myself.

The crucial dual aspects of co-teaching, when it is used as a research method, are that the researcher *experiences* the teaching/learning situation (and as an observant collaborator makes a special effort to be observant of this collaborative experience), rather than observes the actions of others from the sidelines, **and** that the researcher is charged with responsibility to take necessary actions to improve the learning situation as they see the need, *there and then*, rather than waiting to raise issues later when the moment for action has passed. It is these dual aspects that allow the co-teacher/researcher to both *experience* situated conscious awareness of unified theoretical/practical concepts for themselves and *provoke* situated conscious awareness of unified theoretical/practical concepts for the teacher. Referring back to the quotation by Roth at the very beginning of this chapter, it was only by choosing this research method that required the process of actively participating in the struggle to create change that this difficulty in disrupting habitual practice and implementing an intended action became apparent and could eventually be understood as a need for situated conscious awareness.

Equally, our inability to implement written observations of interactions with and between students for assessment purposes could also only be explained because I experienced the difficulties first-hand rather than as an observer. In this case, we were not able to be successful because neither Sia nor I were able to disrupt our shared habitual practice and gain conscious awareness at the required time to implement the intended action. We needed someone else (or at least an effective mediating artefact) who did have this conscious awareness to be able to disrupt our shared habitual practice and provoke our situated conscious awareness at the appropriate time and situation.

This also highlights the importance of relational agency in provoking situated conscious awareness, in that because our usual assessment practices were similar, rather than diverse, we could not expand upon each other's existing resources by providing alternative actions which could provoke situated conscious awareness for the other. In contrast, we were most successful in disrupting habitual practice and creating change when our practices were significantly different (i.e., different questioning techniques etc.) because the experienced differences provoked situated conscious awareness (for each other) of either the positive or negative effects of the other's practice.

It is these contradictions between different practices that make development possible as each teacher begins to lend and develop their conscious awareness in order to adopt and adapt the successful practices of the other. This finding has also been supported by early research on co-teaching by Roth (1998, 2002) where two teachers working together to teach science in a Grade 4/5 class were both successfully able to adopt positive traits from the other's practices that were lacking in their own practice, but neither teacher was able to change their shared tendency to call on more boys to answer questions than girls. Their similarities in this aspect of their practice served to reinforce their existing habitual practice even though they had formed strong intentions to disrupt this practice and regularly reflected on possible strategies for change. Roth attributes this to the discrepancy between talking-about-action out-of-practice and experiencing action in-practice, but does not make the link to a lack of conscious awareness in action and the ability (or inability) for one co-teacher to lend conscious awareness to the other directly in the activity as I do in this study.

Conclusion

In this chapter I have used discussion of the data collected in Phase 2 to expand the system of essential relations proposed in my preliminary model of effective professional development practice at the end of Phase 1. Analysis of the Phase 2 data showed that joint activity and lending and developing of conscious awareness are critical features of effective professional development that need to be shown explicitly in the model.

Cultural-historical concepts of development, relational agency and *perezhivanie* were used to explain the relationship between joint activity and conscious awareness, and a new concept of *situated conscious awareness* was introduced to highlight the importance of lending conscious awareness in the very situation and moment it is required in order to successfully disrupt habitual practice. Finally, situated conscious awareness was also discussed in relation to providing developmental opportunities for myself as researcher in addition to its role in the development of participants in an effective practice of professional development.

The final chapter will pull together these findings to present a dynamic and multi-dimensional model, showing how these concepts operate within the dialectical activity of co-teaching/co-generative dialoguing, to represent the understandings of the institutional practice of professional development developed throughout this research project. The implications of these findings and suggestions for future research will also be discussed.

Chapter 9: Conclusion

FINDINGS, IMPLICATIONS AND SUGGESTIONS

"Something which is only supposed to take shape at the very end of
development, somehow influences the very first steps in this development"
(Vygotsky, 1994b, p. 348).

Introduction

This chapter draws the thesis to a conclusion by presenting several interrelated
theoretical findings and a methodological finding that have been developed through
the course of this research. It will be argued that these findings provide a significant
contribution to the field of educational research and in particular to the literature on
teachers' professional learning and development. A number of implications that may
be useful for informing future implementation of professional development programs
and/or research on teachers' professional development will be discussed, and finally,
suggestions for future research will be provided.

Theoretical findings

Professional *development* requires teachers to develop unified concepts of teaching/learning, children's development and/or subject matter.

Using Hedegaard's (2012a, 2012b) definition of development as qualitative changes
in competences and motives that transform a person's relations in all of the various
social institutions that the individual participates in (see Chapter 2), it becomes
apparent that it is professional *development* that is required if new knowledge/skills/
attitudes etc. learnt in one institutional practice are to influence the teachers' actions
and participation in all of the institutional practices of the teaching profession.
Analysis of the Banksia Bay PLZ data revealed that professional *learning* in an after-
school professional learning activity can be insufficient for creating sustainable
changes in teachers' classroom practice.

In Figure 9.1 we can see that the institutional practice of the Banksia Bay PLZ was
positioned within the overlapping institutional practices of the school and the
broader educational profession (colleagues in other schools, teacher-educators,
researchers, policy makers etc.), but a primary aim of the PLZ was for teachers to

apply what was learnt in the PLZ by making changes to their classroom practice. This proved to be very difficult, showing that even though some teachers may have *learnt* about new educational theories in the PLZ, this learning did not appear to produce development that allowed new forms of participation in their classroom practices. Nevertheless, as discussed in Chapter 5, the principal of Banksia Bay did feel that the participants in the PLZ did develop new ways of participating in school-based professional development meetings which continue to be held on a regular basis.
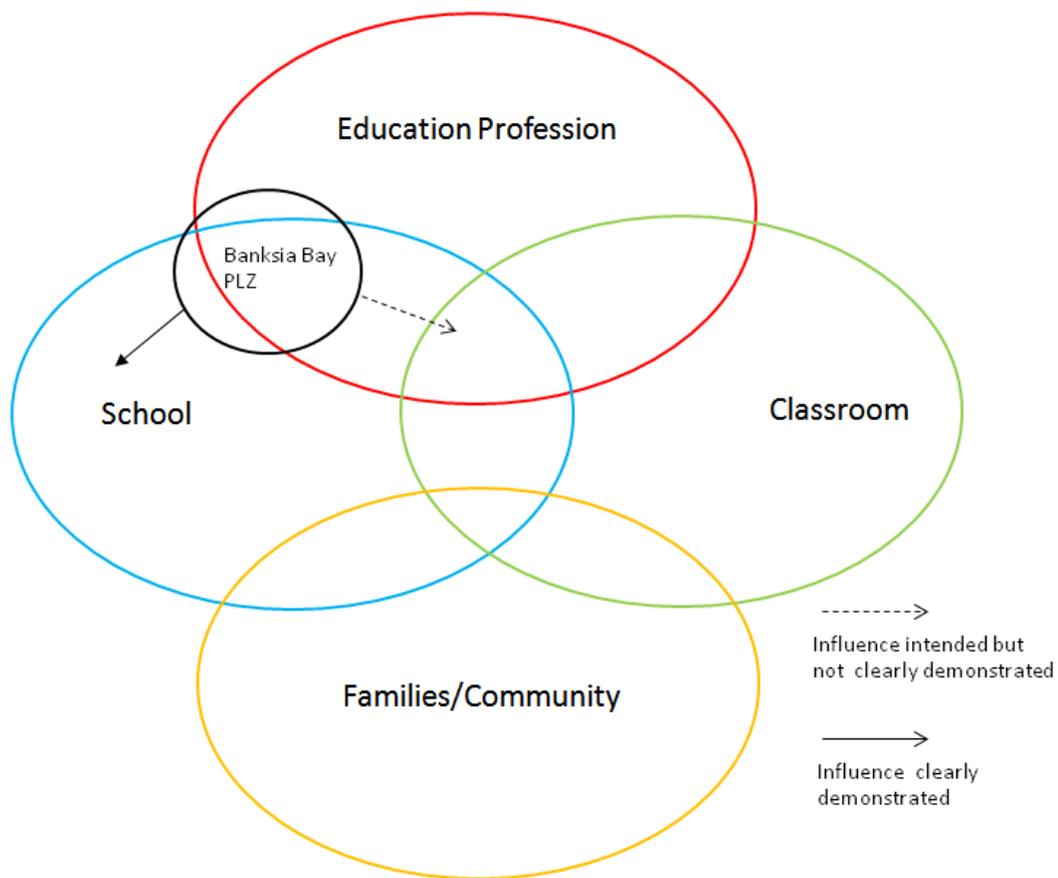
Figure 9.1 Positioning of the Banksia Bay PLZ and its influence on other professional practices.

In contrast, the co-teaching practice with Sia is shown in Figure 9.2 as being positioned well within the classroom practice but also overlapping the practices of the school and broader educational profession. The positioning of this new practice of professional development within the classroom practice allowed for the necessary conditions of professional development to be provided, leading to *development* of Sia *as a professional* which clearly led to qualitative changes in her competences and

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motives to participate in all four practices shown in the diagram. Through our discussions in co-gen sessions, interviews and emails, Sia was able to demonstrate that her new way of thinking about teaching/learning and children's development changed the way she communicated to parents, collaborated with colleagues, read and understood professional literature and, of course, planned, implemented and evaluated her own classroom practice.
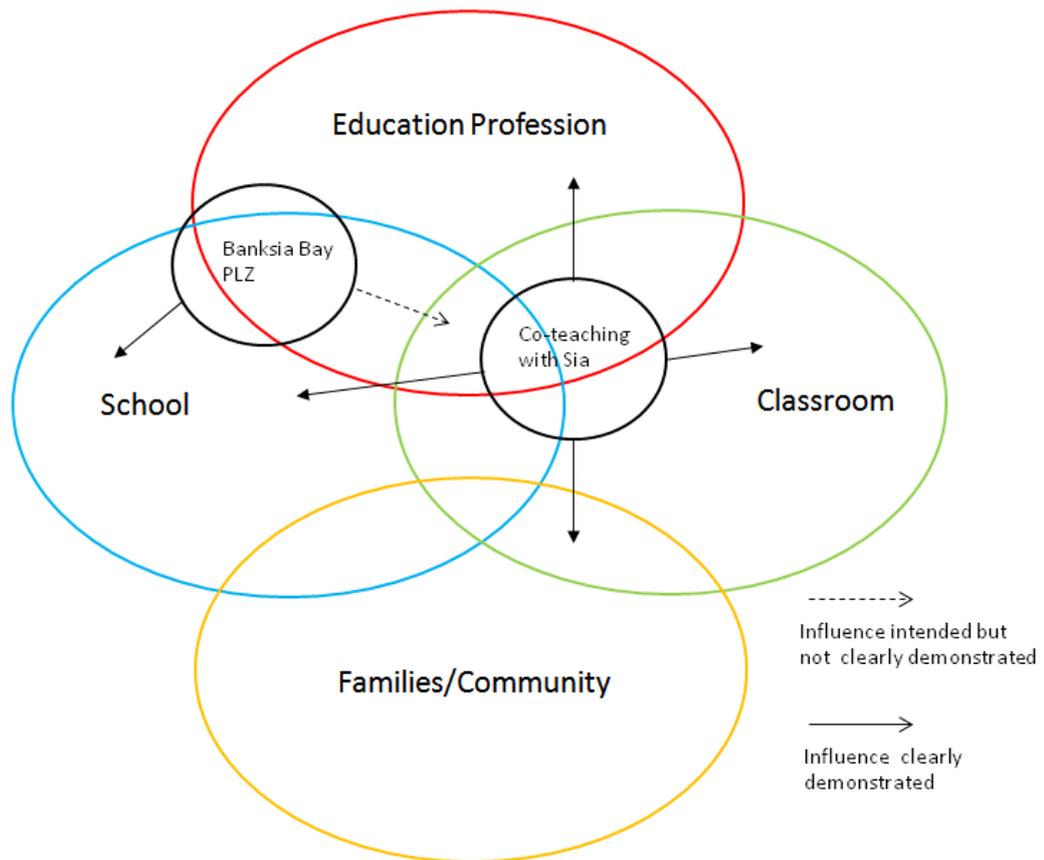
Figure 9.2 Positioning of the WITHIN practice PD with Sia and its influences on other professional practices.

It is my argument that the positioning of the co-teaching practice WITHIN Sia's classroom practice (WITH the teacher, IN her practice), enabled us both to develop our unified concepts of teaching/learning by intertwining the spontaneous, 'everyday' concept line of development arising through practical experience and informal interactions with students and colleagues, with the 'scientific' concept line of development introduced through theoretical discussions, reading research and formal teacher-training processes. For example, Sia was familiar with the terminology of the ZPD from her university studies, but readily admitted that this

knowledge had not consciously influenced her previous classroom practice in any way. Her 'scientific' knowledge of the ZPD (gained through formal instruction at university and/or through academic reading) had remained separate from her 'everyday' knowledge of effective teaching gained through practical experience and sharing of tips and tricks with colleagues. Vygotsky (1987) regards this as a typical fault of academic instruction which is removed from actual experiences of the concept:

> … [D]irect instruction in concepts is impossible. It is pedagogically fruitless. The teacher who attempts to use this approach achieves nothing but a mindless learning of words, an empty verbalism that simulates or imitates the presence of concepts in the child. Under these conditions, the child learns not the concept but the word, and this word is taken over by the child through memory rather than thought. Such knowledge turns out to be inadequate in any meaningful application. This mode of instruction is the basic defect of the purely scholastic verbal modes of teaching which have been universally condemned. It substitutes the learning of dead and empty verbal schemes for the mastery of living knowledge. (p. 170)

Sia's previous understanding of the ZPD was the equivalent of a "dead and empty verbal scheme" (p. 170), a memorised definition of a theoretical word which had no practical meaning or relevance to her everyday work in the classroom, even though examples of the ZPD did actually sometimes occur in her classroom without her awareness. Through our shared experiences in the classroom and co-gens we were able to develop each other's conscious awareness of how some spontaneous interactions between teacher and students serendipitously created a ZPD, and then use this conscious awareness to carefully plan how these types of interactions could be deliberately manifested in the classroom rather than left to chance. As Vygotsky says, "The scientific concept grows downward through the everyday concept and the everyday concept moves upward through the scientific" (p. 220). This conscious awareness of both theoretical and practical aspects as an intertwined unity led to the "mastery of living knowledge" (p. 170) and the development of a unified concept of the ZPD.

Although I also tried hard to link the discussion of the theoretical aspects of the ZPD with the Banksia Bay teachers' practical experience, our lack of shared experiences made it virtually impossible to create the necessary conceptual and contextual

intersubjectivity (see Chapters 2 and 6) to successfully develop unified concepts. The Banksia Bay teachers' understandings of the ZPD remained theoretical and they found it difficult to imagine how this knowledge could be applied in their own practice. Likewise, any successful 'everyday' strategies they currently used in their classrooms remained unable to be articulated and discussed in theoretical terms to understand the reasons why they worked, and how these could be deliberately planned for and controlled to maximise their effectiveness across many different situations.

It is therefore important to recognise that the critical difference between the Banksia Bay PLZ and my work with Sia, was that our joint activity of co-teaching together in her practice, and then discussing these shared experiences in the co-gens, allowed us to both experience and discuss the same 'full' meaning (the dialectical unity of theoretical and practical aspects) of each of the concepts introduced. Moreover, we were able to experience and discuss the way each of these concepts were interconnected and mutually dependent on each other, creating a system of concepts which contributes to and supports the meaning of each one. Vygotsky regarded this notion of a system of concepts as crucial in concept development:

> In contrast to what is taught by formal logic, the essence of the concept or generalization lies not in the impoverishment but in the enrichment of the reality that it represents, in the enrichment of what is given in immediate sensual perception and contemplation. However, this enrichment of the immediate perception of reality by generalization can only occur if complex connections, dependencies, and relationships are established between the objects that are represented in concepts and the rest of reality. By its very nature, each concept presupposes the presence of a certain system of concepts. Outside such a system, it cannot exist. (Vygotsky, 1987, p. 224)

For Sia and I, the dialectical process of intertwining our practical experience with theoretical conceptualisations transformed our previous everyday and scientific understandings of teaching/learning and development, consequently allowing for conscious awareness and mastery of the way the whole system of concepts could be applied across many different situational contexts and practices. The next sections will discuss theoretical explanations of this dialectical process.

Unified concepts are utilised in two layers of teachers' classroom practice

Throughout this thesis I have argued that the goal of professional development is for teachers to be able to use unified concepts to inform their teaching actions, planning and reflection. When teachers use conscious awareness of unified concepts in their planning and reflection, their conscious awareness is spatiotemporally 'desituated' from the classroom situation (i.e., removed in time and space), even though it still informs, and is informed by, the events that occur in the classroom. In planning and reflection, teachers are able to take time, speculate, reconsider, and modify decisions without this having any instantaneous effect on the actual practice – they are merely imagining consequences of proposed changes in action, and various ideas can be considered and rejected before a decision about future implementation is made. This desituated conscious awareness is important because it allows for thoughtful and deliberate planning and evaluation of pedagogical activities. The fact that this arena is removed from the classroom, meaning that it is not particularly time sensitive, is an advantage for carrying out this thoughtful deliberation. This 'desituated' arena of conscious awareness is depicted in the top layer of Figure 9.3:
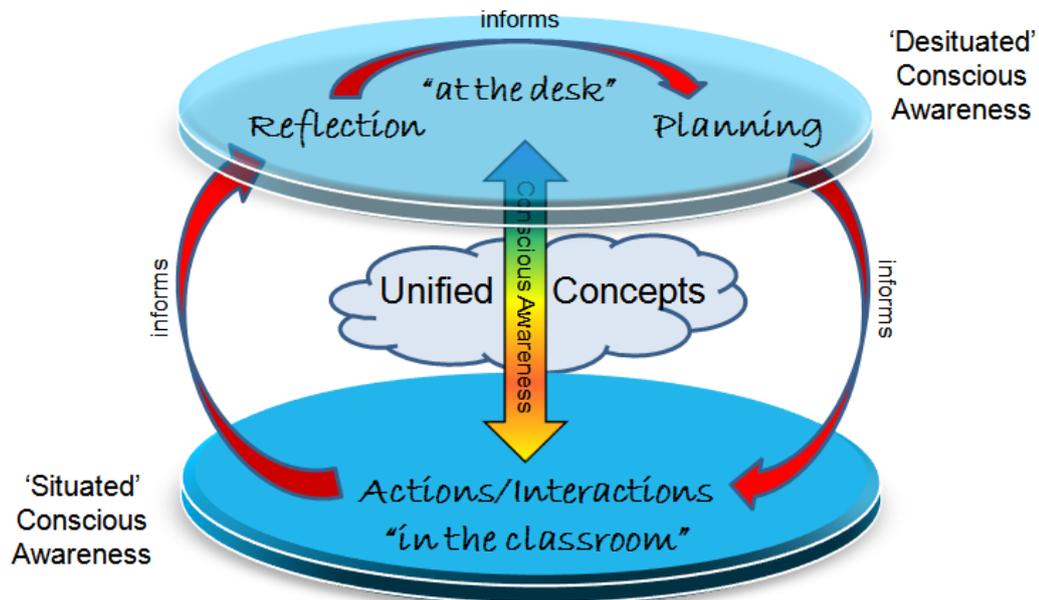
Figure 9.3 The two layers of teachers' classroom practice create situated and desituated arenas for conscious awareness.

In contrast, teachers' conscious awareness of unified concepts in their actual teaching actions and interactions with students (depicted in the bottom layer of

Figure 9.3) is particularly time sensitive because the consequences of these actions are experienced directly and instantaneously by all involved. Conscious awareness in this 'situated' arena allows for constant monitoring and on-the-spot adapting of actions to be informed by unified concepts in order to provide the most effective achievement of the teaching intention. This is qualitatively different to reflection because there is no time-out of the situation available in order to consider various options (Roth, 2002). *Situated conscious awareness* occurs alongside action, not preceding or following action. A teacher operating with situated conscious awareness knows what they are doing and why they are doing it, *as* they are doing it, regardless of whether these actions have been pre-planned or are improvised in response to what is happening in the micro-moments of the situation. It is this type of knowing that Shotter (1993, 2006) refers to as "knowing of the third kind" (see also Chapter 4): not just knowing facts and principles or knowing how to enact practical skills, but knowing how to act in relationship *with* others, taking account of, and being accountable to the other participants within the social situation.

This phenomenon is also evident in Hedegaard's (2002) description of the 'double move' in teaching, where teachers simultaneously hold and take account of the dual perspectives of 1) the students' needs and interests and 2) their own pedagogical intentions. However, it can be argued that teachers are actually holding and balancing many more than two perspectives simultaneously, that is, individual students have different needs and desires that frequently conflict with each other and with the collective needs and desires of the group, plus teachers must respond to societal and policy demands which are frequently in conflict with their own beliefs about the best way to assist the development of their own particular students, and must also balance their own personal needs and desires (for food, relaxation, interest etc.) with professional demands for productivity and accountability.

A teacher who is able to use situated conscious awareness of their unified concepts of teaching/learning draws on ready-at-hand knowledge informing the most appropriate way to act within the context of balancing these multiple demands. This stands in stark contrast to a teacher acting without conscious awareness, either as a direct reflexive reaction to the events or characteristics of the situation (for example, reflexively shouting at a student who is about to cause an accident), or as a result of habitual practice (either unexamined, inherited, taken-for-granted practices or

routinised, automated practices), whose actions are uninformed and therefore unable to be deliberately considered in terms of their appropriateness for the unfolding situation. Effective teaching/learning in such scenarios is left to chance rather than subject to deliberate manifestation. As Shotter remarks:

> Primarily, in acting consciously, we are acting voluntarily and deliberately, as we ourselves require, rather than as our circumstances require. In doing this, we are controlling our own initial spontaneous reactions to events in our surroundings by the linguistic direction of our own reactions. An aspect of our being able to do this is being able to linguistically describe the units into which our actions are partitioned, and to correct ourselves if we seem (in publicly shared terms) to be acting incorrectly: that is, we can 'answer for ourselves', offer 'justifications' and 'excuses' for our actions, 'plan' and 'deliberate' on our actions, 'cultivate a critical conscience', and so on. In short, we can act in both an 'accountable' and 'recountable' manner: that is, we can account to the others around us, in verbal terms, for our actions if so required—thus demonstrating that others can be witnesses to our claims to know what we are doing. (Shotter, 2006, p. 31)

Because teaching/learning is a complex activity involving interactions between agentive humans, it can never be fully prescribed ahead of time – as the responses of each participant are always unpredictable and contingent upon the actions and responses of the others involved. For this reason, situated conscious awareness in each teaching/learning interaction is at least as important as a teachers' desituated conscious awareness during the planning of pedagogical activities if the most effective educational environment is going to be created. However, the quality of the concepts the teacher is drawing upon is also of vital importance. Underdeveloped concepts (i.e., overly reliant on everyday practical experience and trial and error, or poorly understood theoretical principles which remain meaningless and irrelevant to practice) will not provide an adequate basis for informed actions, reflection or planning.

It is important to emphasise that the two layers of practice do not reflect a separation of practice and theory, as a teacher's work in each layer still requires a unity of theory/practice (i.e., work in both layers is informed by unified concepts). The layers are simply two different spatiotemporal arenas, each providing unique affordances and constraints that influence the way a teacher is able to utilise their conscious awareness of unified concepts in different aspects of their work.

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This section has described two different, yet interrelated, arenas for teachers' conscious awareness (situated and desituated) but has not yet explained how conscious awareness of unified concepts is developed. However, by remembering Vygotsky's general genetic law of cultural development (see Chapter 2), in which every function first appears as a social activity between people before becoming internalised as a function to be used individually, we can understand why co-teaching becomes an effective form of professional development. This notion will be further expanded upon in the following section.

Unified concepts are developed in joint activity which allows for the lending and developing of conscious awareness (i.e., a ZPD)

Co-teaching creates an ideal joint activity for development because each participant is charged with responsibility for jointly achieving the goal of improving the learning environment. By also introducing the additional layer of co-gen sessions, (in which theoretical perspectives are deliberately introduced and discussed in relation to the shared experiences in the classroom, and related aspects of the planning and reflection layer of the teacher's practice are also carried out as joint activity), an opportunity is provided for intertwining understanding of practical and theoretical aspects to develop unified concepts. Each participant contributes their diverse knowledge, skills and previous experiences to both the classroom practice and the additional layer of the co-gen sessions, transforming the lone activities of teaching solo in the classroom, and planning and reflecting alone at the desk, into the developmental, social activities of co-teaching and co-generative dialoguing; thus creating a ZPD (as depicted in Figure 9.4).

As explained in the previous chapter, Bruner (1986) states that in interactions that create a ZPD, the more able partner "lends" their consciousness [conscious awareness] to the other participant. He goes on to explain that in the scaffolding experiments carried out by Wood, Bruner and Ross (1976) the tutor provided this "consciousness for two" by controlling the focus of attention, demonstrating that the task was possible, keeping segments of the task to a manageable size and complexity, and setting up the task so that the child could recognise a solution for themselves and then perform it.
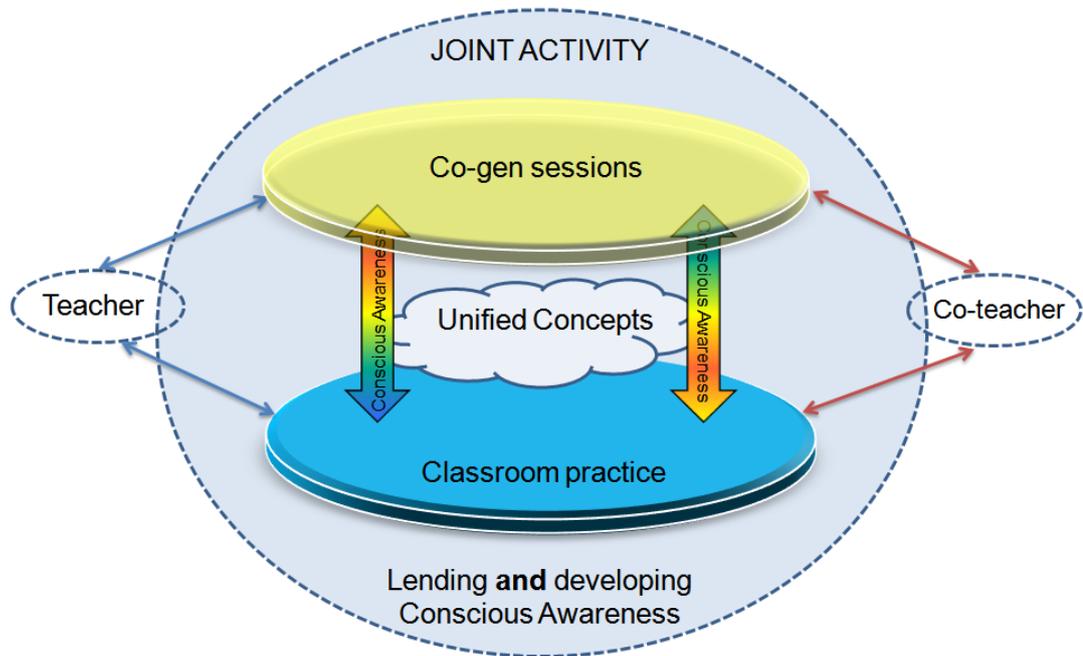
Figure 9.4 A ZPD for developing unified concepts is created through the joint activity of co-teaching and co-generative dialoguing together.

> In general, what the tutor *did* was what the child could *not* do. For the rest, she made things such that the child could do *with* her what he plainly could not do *without* her. And as the tutoring proceeded, the child took over from her parts of the task that he was not able to do at first but, with mastery, became consciously able to do under his own control. And she gladly handed those over. (Bruner, 1986, p. 76)

Although many contemporary researchers have criticised the task focussed, one-sided transmission of skills and knowledge from more able to less able participant depicted in explanations of the ZPD as 'scaffolding' (see for example, Ageyev, 2003; Chaiklin, 2003; Holzman, 2009; Koshmanova, 2007; Levykh, 2008; Moll, 1990; Newman & Holzman, 1993; Scrimsher & Tudge, 2003), Bruner's explanation does provide some insight into the types of interactions that represent a 'loaning of conscious awareness' from one participant to the other for whatever period of time, and in whatever way is necessary, until the learner develops their own conscious awareness by taking over and adapting the actions (both mental and physical) for themselves (remembering, as discussed in Chapter 8, that initially the learner must first 'possess' the new function/concept before they can become consciously aware of it). However, Bruner himself recognises that because the tutor's responses are

dependent on the learner's responses, **and** vice versa, "what is involved is surely not a simple act of will but a negotiable transaction" (p. 76).

In this study, Roth and Radford's (2010) conceptualisation of the ZPD as symmetrical development, and Lobman and Lundquist's (2007) conceptualisation of the ZPD as the simultaneous process and product of co-creating an improvisational environment in which all participants can perform beyond who they currently are and with new ways of relating to others and their environment (as discussed in Chapter 2), were used to ensure that our co-creation of our practice of professional development avoided the typical understandings of the scaffolding metaphor as one-way transmission.

By lending my conscious awareness of theoretical concepts to Sia, and her lending her conscious awareness of the particular needs and interests of the children in her class to me, we were able to develop what Roth and Radford would term 'collective' conscious awareness of an effective approach to take to improve the learning environment. Furthermore, by then experiencing and continuing to discuss the effects of this co-constructed intervention (in effect coming to 'possess' the new concepts for ourselves), we were then both, over time, able to develop our *own* conscious awareness of the concepts that had previously been *loaned* by the other and shared in a collective form (i.e., Sia developed conscious awareness of theoretical aspects and I developed conscious awareness of practical aspects) allowing us to perform our own professional roles in new ways. In other words, what we could initially only perform together with the help of the other, we could eventually begin to do by ourselves, echoing Vygotsky's (1987) words: "What the child [teacher/researcher] is able to do in collaboration today, he [she] will be able to do independently tomorrow" (p. 220).

This does not imply that we became carbon copies of each other, or even that we carried out the same activities as each other in our own personal style. Our new conscious awareness, developed through the lending of each other's different conscious awareness as we participated in our joint activity, enabled each of us to build upon our own current concepts of teaching/learning and development and utilise these in different ways in both our co-teaching together in the classroom, and in our separate roles of facilitator/researcher and teacher/team-leader. Regardless of

whether we were involved in the same activity (planning and implementing the literacy contract) or separate activities (conducting research or leading a team of colleagues), our ability to perform in these activities was enhanced not only when we physically worked together and assisted each other, but also when we continued these activities independently by drawing upon what had been learnt from the other. Our ability to participate in our other professional practices was transformed – indicating that not just learning, but development had been achieved.

Veresov's (2004) account of developmental interactions in the ZPD as 'dramatical collisions' (see Chapter 2) occur when someone or something in the environment introduces a new demand or problem for which previous solutions are no longer adequate. However, it is not the fact that participants in joint activity learn new knowledge and skills from each other in order to now be able to solve the problem independently that is regarded as development, rather it is the fact that acquiring these new competences rebuilds the whole formation of interconnecting functions that make up a person's total development, fundamentally transforming their ability to act in new ways across many situations and practices.

> [I]n the process of development, and in the historical development of behavior in particular, it is not so much the functions, which change (these we mistakenly studied before). Their structure and the system of their development remain the same. What is changed and modified are rather the relationships, the links between the functions. New constellations emerge which were unknown in the preceding stage. (Vygotsky, 1997b, p. 92)

In other words, in our practice of professional development designed as a ZPD, we were able to lend and develop conscious awareness of unified concepts of teaching/learning as we shared, learned and co-created new skills and knowledge to solve the problem of improving the learning situation for this particular class of students. Moreover, these new (or more fully developed) concepts transformed our understandings of the way teaching, learning, development, the classroom environment, the mandated curriculum, the structures and traditions of schooling etc., are all related to each other, fundamentally changing the way both of us are now able to participate in and contribute to our many professional institutional practices.

However, the intention of this research was not to study and explain what the actual concept development of the teachers involved in the project was, but instead to

understand the system of concepts essential to the creation of an effective practice of professional development in which this development of unified concepts can occur. Pasqualini and Chaiklin (2009) argue that without analysis and understanding of the essential structural relations necessary to produce the desired product of a practice, it is difficult to know what it means to develop or improve this practice. Although the literature on teachers' professional learning and development is replete with difficulties and failures of traditional approaches to professional development and optimism for new approaches (D. L. Ball & Cohen, 1999; Hunzicker, 2011), Borko (2004) argues that most studies seek to document the relationship between the PD program and what the teachers learn, rather than analyse the institutional practice of professional development itself (by also incorporating examination of the role of the facilitator and the context in which the PD takes place as essential elements of this practice).

While such studies frequently make some observations about the nature and effectiveness of the professional development practice used to produce the studied outcomes (i.e., the changes in teachers' understandings and practices and, in some cases, subsequent improvements to student learning), the focus of the research analysis is generally on documenting the results of the particular practice of professional development. However, in this study, the focus of analysis was reversed, with observations made of the effectiveness of the particular practice only in order to better analyse and understand the essential features of the practice of professional development in general. The use of cultural-historical theory to analyse the data collected in this study (as discussed in Chapters 2 and 4) and create a theoretical model of the system of essential relations necessary to produce the desired product of the practice of professional development, is therefore a new contribution to this literature.

The system of essential relations required in an institutional practice of Professional Development

As discussed in detail in Chapter 6, analysis of the Phase 1 data collected in the Banksia Bay PLZ revealed the following system of essential relations (shown again here in Figure 9.5) necessary for creating the desired product of an institutional practice of professional development (i.e., development as a professional).
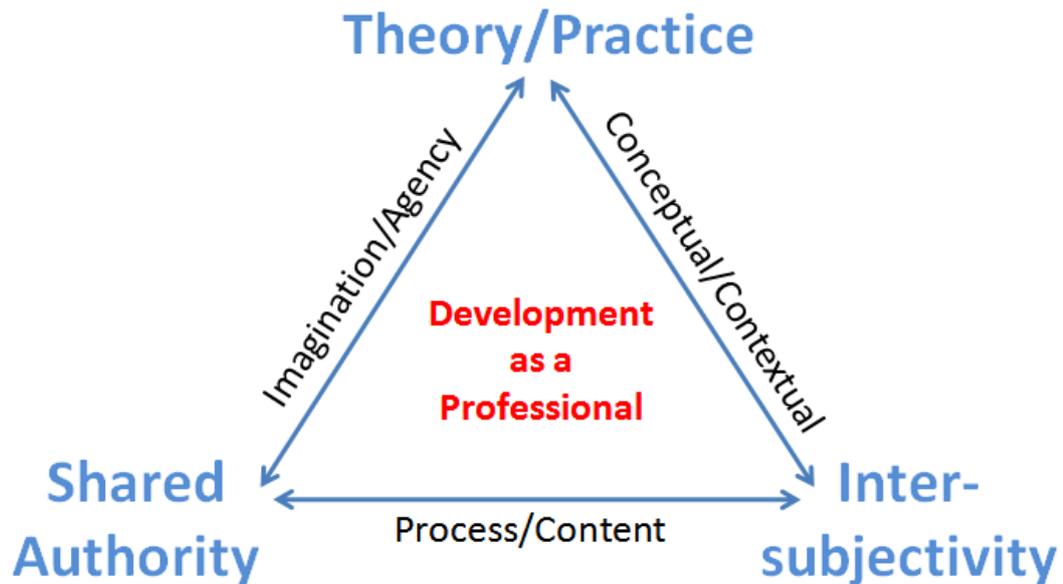
Figure 9.5 The system of essential relations required in an institutional practice of Professional Development. (Please see Chapter 6, for more detailed explanation of all concepts and terms used in this model).

Development as a professional is defined as developing unified concepts of teaching, learning, children's development, and/or subject matter which can be used with conscious awareness in teaching actions/interactions, planning and reflection; and which ultimately transform the professional's ability to participate in and contribute to all of their professional institutional practices. My work with the Banksia Bay PLZ suggested that to create this type of development it was necessary for the facilitator and participants to co-create the interrelated conditions of conceptual/contextual intersubjectivity, shared authority of the process and content of the developmental activity and utilisation of imagination and agency to understand, create and implement new possibilities for acting that instantiate a theory/practice unity.

Moreover, it was revealed that the relationship between each individual teacher's personal and professional experiences, knowledge, skills, attitudes and values, and the demands, expectations, affordances and constraints of the teacher's environment potentially created a social situation of development in which motives to attend PD activity were created. As discussed in Chapter 6, and confirmed by the Phase 2 data presented and discussed in Chapters 7 and 8, in order to successfully meet these motives and create genuine development of the teacher as a professional it was

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argued that the above system of essential relations could effectively be created in joint activity with a facilitator within a teacher's classroom practice (shown here in Figure 9.6):
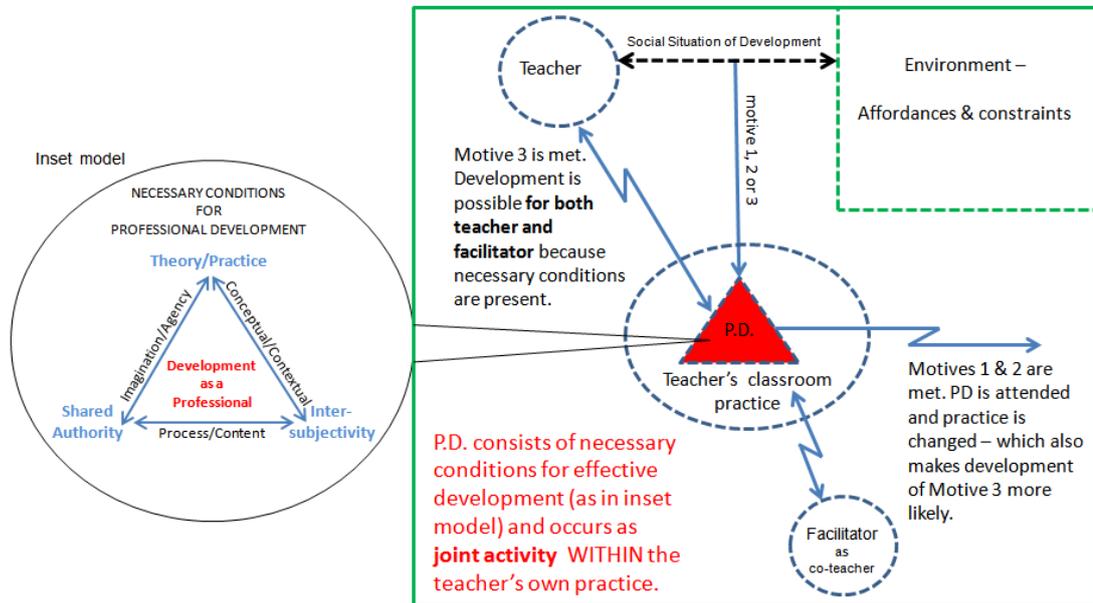
Figure 9.6 Broader context within which an institutional practice of professional development is created. (Please see Chapters 6 and 8, for more detailed explanation of all concepts and terms used in this model).

Analysis of the co-teaching/co-generative dialoguing data of Phase 2 confirmed the viability of the system of essential relations developed in Phase 1, but also showed a need to emphasise the role of joint activity and the importance of lending and developing conscious awareness of unified concepts of teaching, learning, children's development and/or subject matter. By including the system of essential relations for a practice of professional development shown in Figure 9.5, in the model of our joint activity shown earlier in Figure 9.4, a model of co-teaching/co-generative dialoguing as an effective form of professional development is created (shown in Figure 9.7).

Analysis of the Phase 2 data also revealed that lending of conscious awareness is particularly important when it is necessary to disrupt a teacher's habitual practice which occurs without conscious awareness. This is discussed further in the following section, before a final dynamic version of the model is introduced.
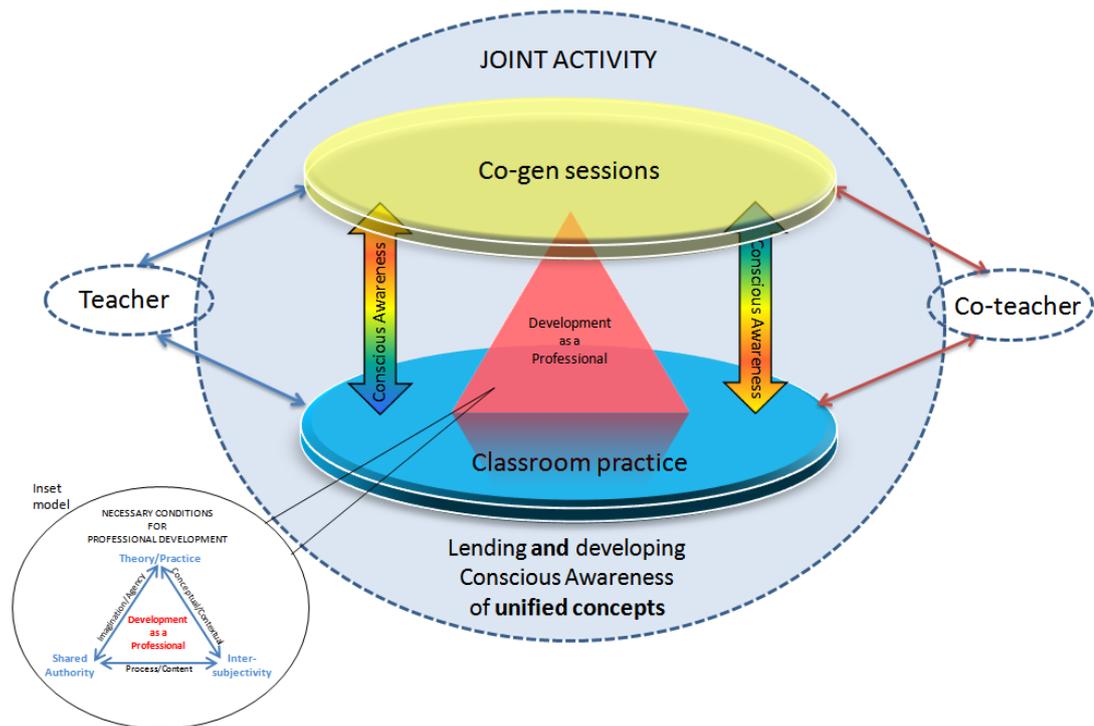
Figure 9.7 Model representing co-teaching/co-generative dialoguing as an effective institutional practice of professional development.

Interventions in situated practice are required to provoke *situated conscious awareness* and disrupt habitual practice

The previous sections (or indeed many other theoretical accounts of teaching/learning), possibly make this process of developing unified concepts which can be effectively used in practice with conscious awareness appear to be relatively straight forward. Yet obviously, given constant reports of the ineffectiveness of typical professional learning/development activities to actually change teachers' practice (M. S. Smith, 2009), there is some particular difficulty in this process that has not been generally accounted for in other professional development approaches.

As discussed in Chapter 1, it was my original belief that if a teacher had conscious awareness of new (or more fully developed concepts) of teaching/learning, then this would have to mean that their teaching actions (and preparation of pedagogical activities) would change in order to align their actions with their understandings. This contention is made strongly in the professional development literature (see for example, Butler, et al., 2004; Costa & Garmston, 2006; Desimone, 2009; S. Edwards, 2007a; McIntyre, 1993; Nilsson, 2012; Osterman & Kottkamp, 2004).

However, analysis of my work with Sia in Phase 2 of this study has shown that insufficient attention has been paid to the reality that teachers' work occurs in two dialectically related layers of practice (i.e., the situated arena of actions/interactions in the classroom, and the desituated arena of planning and reflection 'at the desk'), and that conscious awareness developed in one arena does not automatically transfer and get used in the other arena. Co-teaching occurs in the situated arena of the classroom subject to many simultaneous, emotion-laden, and time critical demands and drains on attention, whereas co-generative dialoguing occurs in the desituated arena 'at the desk', removed from the hustle and bustle of competing demands and allowing time for sustained consideration of ideas. As discussed extensively in Chapter 8, ideas discussed and intentions formed in the desituated arena of the co-gen session were not always effectively transferred into actual practice in the classroom. This was particularly evident when the new action required a disruption of the teacher's habitual 'on-the-fly' actions.

Habitual actions occur without conscious awareness both in the form of inherited taken-for-granted institutional practices (Fleer, 2003), and automated, routinised operations (Leontiev, 1978, 2009). For example, although Sia was able to demonstrate in the desituated arena of the co-gen session that she had conscious awareness of why sitting in a circle would be an effective pedagogical strategy and should replace her usual 'taken-for-granted' practice of asking the children to sit on the floor gathered at her feet, once she was back in the situated arena of the classroom she reverted to her usual practice because in the moment that she asked the children to come to the floor she was operating without conscious awareness. The conserving structures of the classroom environment and the students' responses predisposed Sia to act in her habitual way, and she was not even aware that she had intended to do anything differently until I asked her about it later in the co-gen session.

However, when I intervened one day as the children were making their way to the floor and suggested that they make a circle, Sia's conscious awareness of her intention was provoked because something unexpected had happened and the habitual pattern was disrupted. Sia's physical experience of the results of this change caused conscious awareness in the very situation it was required and this appeared to

make it easier to utilise this situated conscious awareness the next time it was required.

Shotter (2006) argues that joint activity provides opportunities for 'knowing' within 'living actions' that may previously have been beyond the conscious awareness of one of the participants:

> Indeed, we can see here that some of the most important things we can say to another person, if we are to bring about any changes in their ways of being in the world, are 'Stop! Look! Listen!', for it is with these words that we can break into the routine flow of their activity, and can in practice 'deconstruct' (Derrida, 1976) their practices, thus bringing their attention to aspects of their own activity previously unnoticed by them. (p. 28)

He goes on to argue that this type of knowing (formed in response to physically experienced, situated social activity) is qualitatively different to other forms of knowing. Furthermore, the actions and words of the intervening partner that cause a change in action, can later be used by the individual to self-regulate their own future activity:

> Rather than a representational-referential understanding, we have what we might call an understanding of a relationally responsive kind. Here, then, is the crucial way in which words—not dead word-forms or patterns, but spoken words in the course of their being bodied forth by a living speaker—can exert a moment-by-moment 'shaping' function in the sequential unfolding of a person's activities. And what earlier is spontaneously 'called out' from us by others around us, according to their requirements, we can later come to 'call out' spontaneously from ourselves, according to our own requirements. (p. 28)

Shotter's argument, based on readings of Vygotsky, together with the notion of *perezhivanie* (see Chapter 2 and 8) helps explain why the actions of a co-teaching partner to disrupt the other teacher's habitual practice have such a powerful effect that is more likely to lead to sustained changes. The intervention occurs in the very situation and at the very moment it is required to provoke situated conscious awareness, creating a 'lived experience' complete with all of its emotional, relational and situational overtones and structures. As Shotter explains above, this "relationally responsive" understanding has a completely different quality to a "representational-

referential" understanding that is formed in desituated learning activities (such as the co-gen session or other typical PD activities).

Even if concepts learned in desituated activities are not purely abstract/theoretical knowledge but also successfully intertwine practical aspects to create a unified concept, the application of the concept in practice inevitably occurs under different conditions than those of the desituated learning situation, and these situated conditions may severely constrain a teacher's ability to recall and use the concept with conscious awareness in the situation and moment that it is required. However, if through a co-teacher's intervention a concept has been experienced with conscious awareness in a particular situation (provoked through the loaning of the co-teacher's conscious awareness), then *the characteristics and conditions of this situation form part of the teacher's perezhivanie of conscious awareness*, meaning that next time a similar situation is experienced the situated conscious awareness can also be more easily recalled and utilised.

Nardi's (1996) extensive comparison of Activity Theory, situated action models and distributed cognition, as different approaches for studying context, provides a basis for suggesting that all three approaches may be able to mutually inform a dialectical understanding of the above phenomenon. My account of situated conscious awareness and habitual practice builds firstly upon understanding the 'situated action' account of behaviour as arising in the actor's moment by moment responses to the environment/situation (Lave, 1988; Suchman, 1987), and the Activity Theory account of behaviour as being organised by the formation of motives and goals (Leontiev, 1978, 2009).

It must be recognised that while a situation *always* consists of structuring forces (affordances and constraints) for particular actions, conscious awareness of intentions (formed in relation to motives and goals) is *not* always brought to the situation. In some cases the situation lends itself to structuring behaviour that is congruent with what was intended anyway (as in situations where an interaction between a student and teacher serendipitously creates a learning opportunity, even though the teacher was not consciously aware of doing so). However, if the structuring forces of the situation are not congruent with a teacher's intentions (such as lack of time between interactions with students to make observational notes) then

a lack of conscious awareness means that the teacher is not able to deliberately alter either the conditions of the environment or their reactions to these conditions in that very moment that such a change is required in order to support actions which match their intentions.

It is the ability of humans to use culturally created tools and signs to alter their relationship with the environment in order to meet their own needs that Vygotsky regarded as the uniqueness of human development:

> In general, the following may be said about human behaviour: in the first place, his individuality is due to the fact that man actively participates in his relations with the environment and through the environment he himself changes his behaviour, subjecting it to his control. (Vygotsky, 1997a, p. 59)

However, without conscious awareness in the situation, then the deliberate use of these tools and signs to control behaviour remains out of reach. This is the problem that was faced by Sia when she intended to introduce sitting in a circle. It is here that the notion of distributed cognition is very useful. Bringing together facets of my earlier discussions of 'lending conscious awareness', relational agency and the affordances and constraints of institutional structures, distributed cognition refers to knowledge as an entity that is not held by individuals, but is stretched across time and space in the collective members, artifacts and practices of the institution (Cole & Engeström, 1993). Nardi (1996) uses the following quotation to provide a comprehensive definition of distributed cognition:

> [Distributed cognition] is a new branch of cognitive science devoted to the study of: the representation of knowledge both inside the heads of individuals and in the world ...; the propagation of knowledge between different individuals and artifacts ...; and the transformations which external structures undergo when operated on by individuals and artifacts.... By studying cognitive phenomena in this fashion it is hoped that an understanding of how intelligence is manifested at the systems level, as opposed to the individual cognitive level, will be obtained. (Flor and Hutchins, 1991, as cited in Nardi, 1996, p. 38)

However, this cognitive, knowledge-focussed definition ignores the emotional-relational factors which must be inherent in any holistic understanding of human development as a social relation. Nevertheless, the idea that knowledge can be shared across a situation and its participants helps to explain how 'lending *my*

conscious awareness' directly to the activity by intervening and disrupting Sia's habitual practice provides the opportunity for Sia to utilise this conscious awareness 'donated' to the situation and appropriate it for future use for herself. It is important to understand that it is the emotional experience (*perezhivanie*) of *how* Sia relates to the presence of this loaned conscious awareness in relation to her previous understandings and experiences that determines the effect this experience has on her development.

Therefore, the concepts of motive (in relation to forming intentions), situational structures (affordances and constraints), distribution of knowledge (across time, people, artifacts and practices/activities) and *perezhivanie* (emotional experience of an event) are all dialectically related in the phenomenon of provoking situated conscious awareness by disrupting a habitual practice. Once the teacher is able to use conscious awareness in the situation, they are able to take deliberate control of their actions and responses to the shaping forces of situational events and structures in order to realise their intended goals.

This phenomenon of provoking situated conscious awareness in order to disrupt habitual practice is now added to the model presented in Figure 9.7 to completely embody the theoretical findings of this study and represent what I have chosen to call 'WITHIN practice PD: Professional development WITH a teacher, IN their practice', (shown here in Figure 9.8). An animated and narrated slideshow version of this model is also provided on the CD-ROM included with this thesis, in order to more fully portray the dynamic and complex nature of using joint activity in co-teaching/co-generative dialoguing as an institutional practice of professional development.

Of course, it must be noted that when the affordances of the situation outweigh the constraints (or suitable tools/signs can be created to overcome these constraints), then the new behaviour will be relatively easy to sustain even once the original loan of conscious awareness is no longer present in the activity. Although it was surprisingly difficult for Sia to implement the circle strategy before my intervention, once her situated conscious awareness was provoked it was relatively easy for her to continue the practice because not only were the conserving structures of her previous practice relatively weak (this was a previously unexamined taken-for-granted
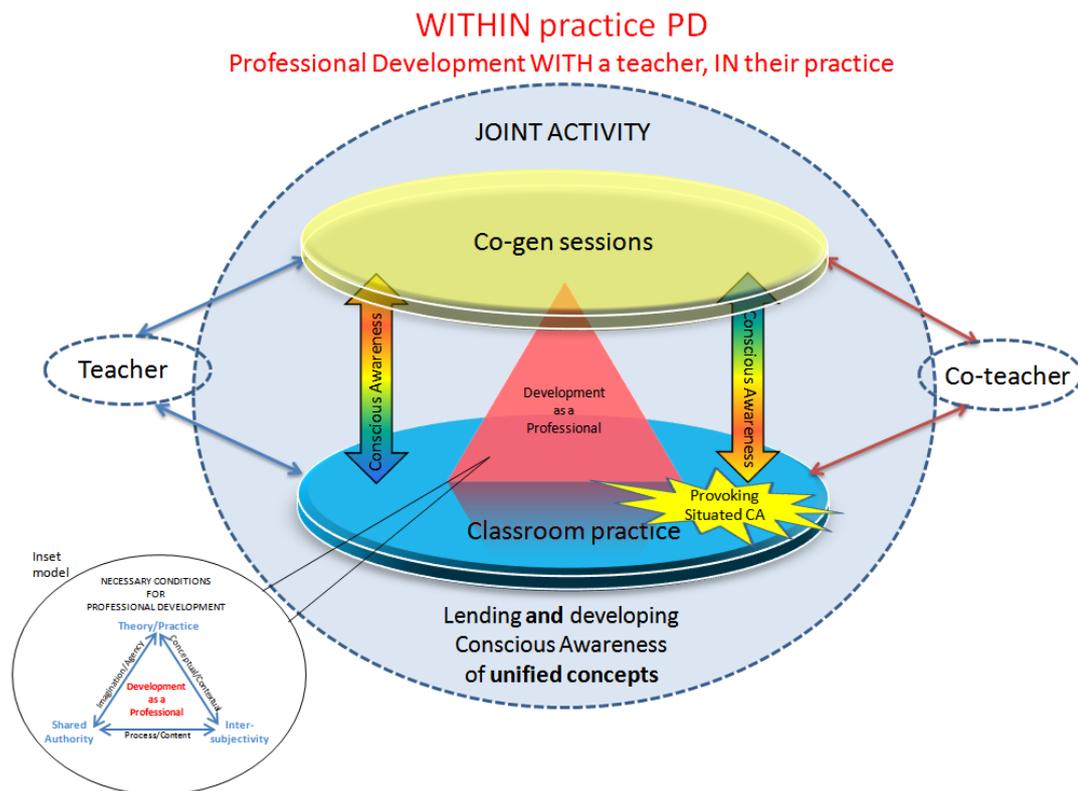
WITHIN practice PD
Professional Development WITH a teacher, IN their practice

Figure 9.8 Complete model of WITHIN practice PD as an effective institutional practice of professional development.

practice that she had no particularly strong ties to), but significant affordances for the new practice also became available in the situation (i.e., the children were amenable to the changed practice once it was actually suggested to them, Sia was able to rearrange her classroom furniture so that there was a large enough space, and the changed levels of the children's participation in discussions provided positive feedback of the strategy's effectiveness).

Guskey (1986, 2002) has proposed that it is this positive feedback in the form of improved student responses and outcomes that is the most crucial indicator as to whether or not a new practice will be retained and repeated. He argues that it is the success of changes in practice that leads to changes in teacher's attitudes and beliefs, rather than vice versa, and therefore professional development activities should focus on supporting teachers to make changes in practice first, rather than on the more usual approach of changing attitudes and beliefs first. The co-teaching/co-generative dialoguing model however, allows both of these facets to develop concurrently and dialectically, rather than seeing one as preceding the other. In this way, changes in

practice and changes in attitudes and beliefs mutually support and strengthen each other.

Sia has been able to continue this new practice of making circles with her new class (in a different grade level) in the year following her involvement in the project; successfully disrupting the new class's previous habitual practice by herself (personal communication with Sia, 28/3/12). However, I do recognise that not all habitual practices will be so easily disrupted, particularly if the conserving and constraining structures are long-held traditions that other participants in the activity actively resist changing. Although this study has identified some success in disrupting habitual practice by provoking situated conscious awareness in joint activity, further research needs to be done in this area to verify and fully understand the complex processes involved in this phenomenon.

Finally, as an extension to the model shown in Figure 9.8, the animated slideshow on the enclosed CD-ROM also depicts how contributing to the joint activity leads to both the development of all participants, and to expansions in the classroom practice that can eventually extend beyond the boundaries of the joint activity. The co-teacher must eventually withdraw from working with the teacher, but it is anticipated that the teacher can continue to use what has been learnt through participating in the co-teaching/co-generative dialoguing to continue to develop their classroom practice (and themself as a professional) in new ways. The co-teacher/researcher also takes away new knowledge and skills which will continue to affect their own development and the development of the next teacher they work with and next practice they enter.

The unique dual role that the researcher takes in not only contributing to this joint activity which leads to this dialectical development of self/others/practice, but also in coming to know about and understand this development is discussed in the following section as a methodological finding of this research.

Methodological finding

The role of the researcher as an 'observant collaborator'

This study has introduced the term *observant collaborator* to more accurately describe the unique stance taken by a researcher using a collaborative, interventionist

methodology (see Chapter 4). Understanding this stance also involves considering the interrelated system of the concepts and dialectical unities discussed throughout this thesis. This role is represented here in Figure 9.9 using the 'Tagxedo' website (www.tagxedo.com) to portray the complexity of this interrelation of concepts. Whether examining the pictorial representation itself or the actual observant collaborator role the picture represents, some concepts are immediately prominent, whereas other concepts remain harder to see, yet all play a function in supporting, structuring and creating the whole picture/role. The more closely the picture/role is examined, the more detail and complexity is revealed.

Figure 9.9 'Tagxedo' representation of the observant collaborator researcher (http://www.tagxedo.com).

The observant collaborator role recognises Vygotsky's (1997a) assertion that development can only be understood by studying it as a historical process, rather than studying the completed products of development. Therefore, as "the method must be adequate to the subject studied" (p. 27), to study development it is necessary to create the conditions in which a developmental process can unfurl in order to observe this process from its very beginnings.

> To study something historically means to study it in motion. Precisely this is the basic requirement of the dialectical method. To encompass in research the process of development of some thing in all its phases and changes – from the moment of its appearance to its death – means to reveal its nature, to know its essence, for only in movement does the body exhibit that it is. Thus, historical study of behaviour is not supplementary or auxiliary to theoretical study, but is a basis of the latter. (Vygotsky, 1997a, p. 43)

Following Vygotsky's *general genetic law of cultural development* (see Chapter 2), in which development of any function always occurs firstly as a social relation, it stands to reason that creating the conditions for development requires creating collaborative social relations (Veresov, 2009). In this project, which aimed to study the development of an institutional practice which coincidently seeks to also provide development for its participants, the necessity of collaborative relationships was therefore twofold: 1) to use collaboration to develop the practice, and 2) to use collaboration to develop the participants of this practice.

By taking a stance as observant collaborator it was possible for me, as the researcher, not only to work with the participants to deliberately create the types of social relations in which learning and development could occur, but also to take special interest in observing these social relations and their effects. In contrast, merely observing an already existing practice of professional development limits the researcher's ability to actively co-create both these developmental social relations and the necessary conditions in which they can occur. This leaves the researcher only able to describe what happens to occur in the existing practice (which may or may not be successful examples of what is intended to be studied), rather than able to *create* the process that is the subject of study. An observant collaborator therefore carries out *tool-and-result* research (Newman & Holzman, 1993, see Chapter 4) in which the tool for studying development (i.e., co-creating a developmental environment) is simultaneously the desired result of the study (i.e., produces development).

Through relational agency and mutual appropriation (see Chapters 2, 7 and 8), the researcher and participants are able to co-create a developmental environment which embodies the dialectical contradictions and unities shown in Figure 9.9. A relationship of mutual trust and respect is established, and while the researcher's credibility is important for helping to establish this relationship, it in no way overshadows the contributions that other participants bring to this collaborative effort. The researcher is regarded as a co-learner, even if what is being learnt is different for each participant.

Stetsenko's (2008b, 2010a, 2010b, 2012; Vianna & Stetsenko, 2011) explanation of the *transformative activist stance* also emphasises the dialectical relationship

between knowing, acting and being/becoming, as individuals contribute to collaborative projects in order to transform themselves, others and their world (i.e., develop self/others/practice). This stance has radical implications for how research about development must therefore be conducted:

> In this sense, Vygotsky's project invites a vision for a unified human science that brings together the question of acting, being/becoming, and knowing on the one hand, and the question of values and commitment to transformation on the other. That is, it brings together the questions of what is, how it came to be, how it ought to be, and how all of this can be known—with each question foregrounding the other questions (i.e., being answerable only in light of the others, and with the question of 'ought' taking the center stage). (Stetsenko, 2008b, p. 485)

The role of observant collaborator therefore involves a unique ethical dimension in that 'how it ought to be' must be mutually negotiated between participants and worked towards together as a collaborative project. It is through 'acting' in collaboration with others to reach the joint goals in this project that the researcher takes special responsibility for coming to 'know' what (and who) is being developed, and how this is occurring.

The fact that the researcher 'lives' the experience of co-creating the developmental environment, rather than just watches others, provides a unique insight into the process. As discussed in Chapter 2, Vygotsky's (1994b) notion of *perezhivanie* is the dialectical relationship between an individual and the environment – the way a person emotionally experiences an event:

> An emotional experience [*perezhivanie*] is a unit where, on the one hand, in an indivisible state, the environment is represented, i.e., that which is being experienced … and on the other hand, what is represented is how I, myself, am experiencing this, i.e., all the personal characteristics are represented in an emotional experience [*perezhivanie*]. (p. 342)

While the notion of *perezhivanie* makes it clear that the way *I* experience an event will be different to the way other participants experience the same event, it nevertheless provides a unique understanding of the events because they are directly and emotionally experienced. The researcher experiences the same environmental affordances and constraints as the other participants, but also emotionally

experiences their own sense of frustration, satisfaction, anxiety, relief, joy etc. as they act within the shared situation.

The sense of agency, in having authority to actively contribute to and shape the unfolding events, provides an opportunity to understand firsthand the possibilities for action that actually exist. As Roth (2002) states:

> My interest in coteaching/cogenerative dialoguing is partially related to the new roles that are made possible for researchers, supervisors, methods teachers, and evaluators. Individuals in these roles no longer have to stand on the sidelines, objectifying students, teachers, and their lifeworlds, but participate in the activity to enhance student learning. At the same time, they view teaching from the inside, granted that they take part in the collective responsibility for scaffolding student learning. From this perspective, in praxis, they can appreciate and understand the particular practical constraints that are characteristic of teaching praxis. (p. 166)

Rather than just watching an unfolding situation and thinking, "She should…," or even, "If I was her, I would…," the researcher has the authority to actually step in and attempt these actions for themselves – often then realising that what appears in thought to be an obvious solution is often not as easy to carry out in reality. The observant collaborator is then able to analyse their own response to the situation, rather than just wonder about why another participant acted, or failed to act, in a certain way. This is not to say that making interpretations of others' behaviour is not still necessary, but rather that the availability of the researcher's personal experience provides an *additional*, and often important, perspective for further understanding of the situation.

Finally, because a collaborative co-construction of the research situation is regarded as developmental for all participants, the researcher's own development as an observant collaborator provides unique opportunities for learning from mistakes and inadequacies, highlighting or exposing crucial elements that may not have been so obvious had everything run smoothly. Because the co-created situation is ongoing and evolving, there is an opportunity for less than satisfactory events to be analysed and alternative approaches thought of and tried out, leading not only to the development of the researcher's ability to facilitate the collaborative practice, but also offering additional insights into critical elements of the practice.

Rather than regarding difficulties, disappointments or mistakes in the research process as personal inadequacy or failure, the observant collaborator recognises these as developmental opportunities and the source of fruitful insights and understanding. This stance requires flexibility and openness to the evolving opportunities that present themselves as the project unfolds, but can be crucial when working within complex social institutions such as schools, in which so many unanticipated difficulties can arise.

This section has outlined key arguments for redefining the role of the researcher in collaborative interventionist research based on Vygotsky's experimental-genetic method for studying development, as an *observant collaborator.* The complexity of this role is represented in Figure 9.9 to demonstrate that this methodological stance can only be understood in relation to the whole system of interrelated concepts of cultural-historical theory. However, it is argued that this complexity allows for the simultaneous creation and examination of development, a unique perspective and enhanced understanding due to the researcher's personal lived experience within the shared situation, and potential for the researcher's own personal and professional development in addition to the intended development of other participants and the shared practice.

Summary of findings showing related concepts

Table 9.1 provides a summary of the findings presented above. The right hand column of the table shows the relevant concepts introduced with each finding, although it must be noted that this list is cumulative, with each finding building upon the concepts introduced in the previous finding so that the last finding actually draws upon all of the concepts listed. The sources listed beside each concept are representative of the authors discussing the concept, rather than exhaustive. New concepts introduced in this thesis are marked with an asterisk (*).

The next section will firstly discuss the broader implications of these findings for the field of professional development research, and then discuss several suggestions arising from my experiences in this study that may be useful for other researchers or facilitators wishing to base future professional development activities upon the theoretical and methodological findings outlined above.

TABLE 9.1 *Summary of Findings and Related Concepts*

Findings	Concepts and representative sources *new concepts introduced in this thesis
Professional *development* requires teachers to develop conscious awareness of unified concepts of teaching/learning, children's development and/or subject matter	• Development (Hedegaard, 2012b; Vygotsky, 1997a) • Conscious awareness (Vygotsky, 1987) • Unified concepts (Smagorinsky, et al., 2003) – theory/practice unity – intertwining of everyday and scientific concepts (Vygotsky, 1987)
Unified concepts are utilised in two layers of teachers' classroom practice (see Figure 9.3)	• Situated and desituated arenas of teachers' practice* • Situated conscious awareness* • Knowing of the 'third kind' within 'living actions' (Shotter, 2006)
Unified concepts are developed in joint activity which allows for the lending and developing of conscious awareness (i.e., a ZPD)	• Joint activity – ZPD (Holzman, 2009; Vygotsky, 1987) • Lending conscious awareness (Bruner, 1986)
The system of essential relations required in an institutional practice of Professional Development is presented in Figures 9.5 and 9.6	• Practice (Chaiklin, 2011) • Professional (AITSL, 2011) • Intersubjectivity – conceptual/contextual (Fleer, 2010) • Shared authority – process/content (Oyler, 1996) • Imagination (Vygotsky, 2004b) • Agency (Stetsenko, 2005) • Social Situation of Development (Bozhovich, 2009; Vygotsky, 1998) • Motive (Leontiev, 1978, 2009)
WITHIN practice PD is represented in Figure 9.7 as an example of a practice which contains this system of essential relations	• Co-teaching/Co-generative dialoguing (co-gens) (Tobin & Roth, 2006)
Interventions in situated practice are required to provoke *situated conscious awareness* and disrupt habitual practice	• Habitual practice – taken-for-granted (Fleer, 2003), routine operations (Leontiev, 1978) • Institutional structures (Shotter, 1978) – affordances and constraints (Bang, 2008) • Distributed cognition (Cole & Engeström, 1993) • *Perezhivanie* (Vygotsky, 1994b)
The role of the researcher as an 'observant collaborator'	• observant collaborator * • tool-and-result research (Holzman, 2009) • transformative activist stance (Stetsenko, 2008b) • relational agency (A. Edwards, 2010) • mutual appropriation (Downing-Wilson, et al., 2011)

Implications of these findings for future practice

By drawing upon a cultural-historical theoretical explanation of teachers' learning and development, this research has demonstrated that it is very difficult to provide the necessary conditions for effective development in PD programs that are removed from teachers' practice. Even in ongoing, school-based professional development activities, such as Professional Learning Communities (PLCs) which discuss actual examples from teachers' practice, the spatiotemporal separation from the classroom makes it difficult for teachers to transfer new knowledge into changed actions unless there is additional support available in the classroom too. Although this difficulty is frequently described in the professional learning/development literature, this study is unique in that it provides a robust theoretical *explanation* of why this occurs, and how it can be overcome.

Although co-teaching/co-generative dialoguing is not the only way to provide in-practice support, its advantage over other forms (e.g., coaching, peer observation etc.) is that joint activity is the fundamental characteristic in both the situated and desituated arenas of the teacher's practice. In co-teaching, both participants have a joint responsibility to provide the best possible learning environment for the students, meaning that adjustments and interventions into each other's actions occur in the very situation and moment they are required to provide *situated conscious awareness* rather than noted down and only discussed at a later time. Of course, these incidents in co-teaching are also discussed later in the co-gen session too, but the material for discussion is much richer (due to *perezhivanie*) because the other teacher can also have had a chance to enact the new action themselves, plus the actual *effects* of the adjustment/intervention have been directly experienced, so can also be discussed.

Even though some forms of coaching include occasional use of co-teaching, it is more typical for coaches to either model a lesson or strategy for the teacher to observe, or to observe the teacher's implementation of a lesson or strategy (Knight, 2007). Joint activity in these other in-practice forms is therefore usually limited to the pre- and post-observation conferences (i.e., the desituated arena) rather than the situated arena of the classroom practice. Although these forms offer some improvement over other types of PD, in that at least the coach or peer observer has

witnessed the same classroom events that are the subject of the discussion, in co-teaching it is the joint activity in *both* the classroom and the co-gen that opens up a space for creating the necessary conditions for effective development. The unity of theory/practice is *jointly* experienced *and* discussed; authority is shared in implementing actions in the classroom *and* in planning/reflection; and contextual *and* conceptual intersubjectivity is developed because participants share experiences and conceptual understandings in the same context. This system of essential relations creates a developmental environment for the participants' development of unified concepts – remembering that these represent the synthesis of *all* of a concept's sensuous-practical and ideal thought-form aspects (see Chapter 2) – and for development of their capacity to use these unified concepts with conscious awareness to create and implement deliberate and thoughtful expansions of classroom teaching practice.

Of course, the major barrier to implementing WITHIN practice PD (co-teaching/co-gens) as the professional development activity of choice is that it is very time and personnel intensive, and therefore expensive. However, it is my contention that it is a worthwhile investment if it actually is effective in not only creating changes in teachers' classroom practice, but also in helping teachers to develop a motive for continuing their development as professionals beyond the duration of the intervention. Currently thousands of dollars are spent each year in every school sending teachers to PD that has limited impact on their practice (Borko, 2004) – money that could be redirected if educational leaders prioritised effective development.

Another important implication of this research is that it demonstrates the dialectical and continual nature of development, understanding, theory and practice. Professional development is never mastered, by either teachers or researchers. There is always more to know, more to improve, more to understand, more to share. Similar to Stetsenko's *transformative activist stance* discussed earlier, Roth (2002) describes the infinite nature of this knowing/acting/becoming dialectic as an answer to the problem of the relevance of research to practice:

> Knowledge begins with practice, and theoretical knowledge is acquired
> through practice, but must return to practice. ... The only way to solve the
> problem of relevance is to redirect the knowledge constructed through critical

hermeneutic analysis to social practice. It is only when theory allows us to achieve the objectives we have in mind that it shows its usefulness. But if social practice is changed, further research is required for understanding. Social practice paired with cogenerative dialogue is a continuously evolving becoming. (pp. 166-167)

Consequently, research carried out in this vein is inherently simultaneously practical and theoretical, and hence, by logical extension, inherently relevant. Stetsenko (2008a; Stetsenko & Arievitch, 2004; Stetsenko & Vianna, 2009) is very fond of expanding Lewin's well-known maxim, "There is nothing more practical than a good theory," to include, "There is nothing more theoretically rich than a good practice" (Stetsenko & Arievitch, 2004, p. 78), arguing that "knowledge and actions are inseparably blended, enacting and generating each other" (p. 77).

This type of research is therefore a moral endeavour because it aims to make a qualitative difference to the lives and practices of the participants involved, rather than just to those who read the reports of the study. It is relevant for those involved *and* for the broader research community, but it is never complete – even when the researcher withdraws from the research setting and publishes the results. Development of practice and knowledge continues in new collaborations and projects. For instance, when teachers bring new knowledge to collaboratively planning future classroom activities with colleagues or with pre-service teachers they mentor, when students suggest similar activities or routines to their new teachers, when researchers publish findings that influence the work and understandings of others, or they embark on a new project in a new setting; the outcomes of development continue to influence future ways of acting, knowing, being and becoming.

This thesis can only represent what occurred in the particular practices of professional development created with the staff at Banksia Bay and with Sia at Greyrock Primary School at the particular points in history that I actually worked with these teachers. Many events have subsequently taken place in each of these schools and in each of these teachers' professional and personal lives which will also have contributed to the continuing collective and individual development of the participants and their practices. This research project alone cannot take either credit or blame for any practices that are occurring in these schools today, as in such a

complex developmental environment no one factor operates independently of any other, and yet it can still play a role in helping illuminate our understanding of the institutional practice of professional development.

As discussed in Chapter 2, Chaiklin (2011) explains that *specific* forms of institutional practice (e.g., the institutional practice of teachers' professional development) embody the abstract *universal* form of practice (traditions of action that aim to produce products that satisfy collective needs), but are only realised in their *concrete* form as actual instantiations grounded in local historical conditions. Hence, in order to understand the *specific* form of the institutional practice of teachers' professional development (i.e., how it can be organised to meet the generalised needs of the teaching profession), we must examine particular *concrete* instantiations, as this is the only form in which the essence of the practice can actually be experienced and *known*.

When viewed from this methodological standpoint, the particularity of the chosen research settings cannot be regarded as a limitation to providing generalisable theoretical knowledge. Rather, by sharing cultural-historical theory's epistemological understanding that all knowledge is constructed, provisional and open to alteration when future evidence comes to light, it can be recognised that even though these particular concrete instantiations are not the same as *all* instantiations, they can still provide a valuable insight into the system of essential relations that create the specific form of the practice. Although particularity is not regarded as a limitation because it is recognised that it is *only* in the holistic examination of the complexity of particular concrete settings that the general *can* begin to be known, the scope and time limits of any particular study inevitably place boundaries around the extent of knowledge that any one study can generate on its own. This thesis provides a contribution to the field by presenting a theorisation of the practice of professional development, but only as it is known at this point in time from my experiences working with teachers at Banksia Bay and Greyrock, and it is also recognised that further research in other settings will continue to add to and expand upon this knowledge. Suggestions for future research will be discussed later in this chapter.

In addition to the theoretical and methodological knowledge I have gained through carrying out this study, I have also gained practical understandings and skills that I

will carry into future co-teaching projects. Most of these are inseparably intertwined with the theoretical findings, for example, the importance of developing a good relationship with the teacher is dialectically inseparable from sharing authority and developing intersubjectivity (i.e., the relationship develops by building intersubjectivity, and intersubjectivity develops by building a relationship etc.). However, I would also like to outline several other practical guidelines that Sia and I discovered through our experience of working together that may be useful for informing future WITHIN practice PD projects.

Firstly, working on transforming routine procedural practices and ongoing organisational strategies provided multiple opportunities to explore and develop each practice/strategy. For example, because Sia and I chose to reorganise her literacy program by introducing a weekly contract, we had multiple chances to keep learning from and adjusting the strategy each week, and she could continue to keep developing the strategy even after I withdrew from the classroom. In contrast, if we had chosen to work on developing the content of a particular series of lessons, once those lessons were taught they could not be used again with the same class. Judie Mitchell (2004) observed this problem when facilitating a PLC of secondary English teachers, noting that the group worked hard to develop a series of lessons to introduce a text, but the teachers realised that although the series of lessons were successful they would not be able to use the same set of lessons (even with a different text) with the same classes that year.

By focusing on generic pedagogical skills such as questioning, leading discussions, incorporating collaboration etc.; and an organisational strategy, such as the literacy contract, which focused on principles of effective learning rather than specific subject content; Sia and I were able to transform classroom practices that could have ongoing, rather than one-off, effects. Practices such as these, that occur frequently, across curricula areas, and relate to teaching effectiveness, have been referred to as 'high-leverage' practices (Grossman, Hammerness, & McDonald, 2009; Stanulis, Little, & Wibbens, 2012), because working on improving even one of these high-leverage practices is likely to yield substantial benefits for improving teacher effectiveness (Stanulis, et al., 2012). Kazemi and Hubbard (2008) have also noted that working on routine practices enables opportunities for multiple enactments and analysis of attempted changes, which they regard as an important process for helping

teachers connect professional learning with classroom practice. I would argue that this is also a process perfectly suited to co-teaching/co-generative dialoguing, especially as support from a facilitator is available for *both* the enactment and analysis phases, strongly increasing the developmental opportunities for developing unified concepts about these strategies (i.e., intertwining practical and theoretical aspects of knowledge) and their utilisation with conscious awareness in practice.

Secondly, it was interesting to discover that because even small changes in high-leverage practices have ongoing transformative effects, a lot could be achieved in a relatively short time. Working with Sia in the classroom initially for three weeks worked well – a week to get to know the class and collaboratively plan the intervention, a week to introduce the intervention, and a week to consolidate and modify the intervention as necessary. Sia also commented that she liked the fact that I came into the classroom on alternate days in the initial three weeks, giving her an opportunity to reflect and test out ideas on her own between visits.

Having a short time frame forced us to make a firm decision about what we would do and then quickly set about implementing it. By the end of the three week block we had achieved a great deal by implementing the literacy contract, circles, reflection discussions and partner work, and I felt it was important for Sia to have an opportunity to consolidate these strategies before anything more was introduced or she would be overwhelmed. However, it was also important that Sia knew I would be returning for regular visits over the next few months, not only so that she felt a sense of responsibility to try and sustain the changes, but also so that she knew ongoing support and follow-up was available, allowing for further reinforcement and continuations of development. Ideally, I now believe it would be beneficial for the follow-up sessions to consist of another block of sessions across another 2-3 weeks, rather than just to be one-off visits, so that a further cycle of co-teaching/co-gens could be established and build upon previous development. For instance, during one follow-up visit I realised that although Sia had consolidated the circle and reflective discussion strategies introduced in the initial block, it would now be possible to extend the level and depth of discussion considerably further, but that this would require several sessions of co-teaching and co-gens to successfully introduce and consolidate more complex strategies.

Given my earlier comments that development is always a continual process, there is no doubt that the longer the length of time co-teachers work together the more can ultimately be achieved. Nevertheless, our experiences in this study demonstrate that even in short amounts of time significant change can occur, and that periods of consolidation, both between co-teaching sessions within a block of work, as well as between separate blocks of work, are also beneficial for the developmental process. However, it is important for the researcher/facilitator to accept that their work will never be 'done', and that, at some point (whether this be after one or more blocks), the facilitator must withdraw, even though they can still see further opportunities for development. A significant aim for any co-teaching project must therefore be for teachers to develop a motive to continue their own development beyond the direct intervention of the co-teacher.

Finally, it must be remembered that learning through mediation does not only occur in face-to-face social interactions, but also in the use of cultural artifacts (Cole & Wertsch, 1996). By providing Sia with additional books, readings and teaching materials that she could choose to use at her own discretion, she had access to additional resources beyond the limits of what we could share with each other (beyond both our available time together and the extent of our knowledge). These resources not only provided additional material for discussion in the co-gens and further ideas for possible classroom interventions, but also helped Sia develop a motive for continued development as she read about and became more aware of the engaging possibilities that this new way of thinking about teaching, learning and development could open up for her students. While the co-teaching interactions provided evidence that changes could be made in her own classroom, reading of other teachers' experiences helped her realise how much more was possible and to imagine ways she could continue to transform her practice in the future.

This section has discussed the implications that this study has for the field of professional development research and practice in general (i.e., that development requires participation in joint activity situated in the practice that is the primary focus of transformation, and that knowledge about this development can best occur by collaboratively creating and participating in this joint developmental activity), and for future instantiations of WITHIN practice PD in particular. However, it is recognised that the scope and time constraints of this study provided limits to the

knowledge that could be generated, so suggestions for future research will be discussed in the following section.

Suggestions for future research

While it is clear that researching the practice of professional development in different settings and with different participants will potentially provide new insights and further understanding of this institutional practice, I would like to focus this discussion on possibilities for further research using co-teaching/co-generative dialoguing as WITHIN practice PD.

Firstly, as discussed earlier, further research is needed to investigate the phenomenon of provoking situated conscious awareness and disrupting habitual practices by intervening in situated practice. In particular, it would be valuable to examine the effectiveness of this approach in, a) disrupting taken-for-granted practices that are strongly maintained by rigid institutional structures and traditions, to see if structures get changed, or teachers adapt to working around or despite structures, or a mixture of both of these occurs; and b) working with teachers who are resistant to change, to see if experiencing the effects of different actions helps overcome personal resistance.

Secondly, working with teachers with different levels of experience could potentially provide insights into whether particular professional development concerns and motives are typically applicable at different career stages (as suggested by Daley, 2003), or whether these are individual personal or situational factors not directly linked to career stage. For example, Sia had been teaching for approximately six years at the time of her involvement in this project, meaning that she had sufficient experience to have overcome many of the difficulties faced by graduate teachers but still regarded herself as a young teacher with plenty to learn. As suggested by Russell (1988), having spent a few years gaining confidence in her classroom management strategies and knowledge of the curriculum, she was now very interested in tackling new pedagogical concerns, especially how she could increase the children's engagement in learning. Also, her recent appointment to the leadership team had created an additional motive for improving her practice, as she wanted to be able share what she was learning with the colleagues in her planning team. However, it is not known to what extent these interests and motives were directly

attributable to her particular career stage and what significance these had in contributing to the success of the intervention.

A large-scale and long-term study that allowed comparison of both longitudinal data of co-teaching with individual teachers at regular intervals over their career, and cross-case data of multiple teachers at fixed points in time and/or career stage, may provide information about 'critical moments' in a teacher's career when co-teaching appears to be especially beneficial, and whether these are particularly linked to, a) career stage; b) current demands in the broader educational environment (e.g., introduction of new curriculum etc.), or a teacher's specific local environment (changing grade level, catering for the special needs of a child etc.); or c) are purely unique to each individual's development as a professional. Currently most co-teaching research has been conducted with pre-service teachers, and shows strong benefits for this group (see for example, Roth, et al., 1999; Roth & Tobin, 2002; Siry, 2011; Siry et al., 2010), however very little is known about co-teaching with highly experienced teachers, or over what period of time teachers continue to experience benefits from participating in co-teaching. If patterns of critical moments do happen to be found, this information could help direct resources for maximum benefit.

Thirdly, Sia and I shared many common values about education and how it should be enacted (which made it relatively easy for us to negotiate suitable ways for us to co-teach together), but this is unlikely to always be the case if co-teaching became a widespread practice. Further research needs to also document difficult working relationships in which co-teaching partners hold significantly different values, to examine how (or if) these differences can be successfully overcome.

Also, different values (even if shared by co-teaching partners) will affect the manner in which co-teaching is enacted. For example, in a current study with Vietnamese pre-service teachers who were placed in schools in pairs to co-teach together, Dang (2011, 2012) has documented that the educational values common in Confucian cultures (i.e., that the teacher is the source of knowledge and is always correct) can cause conflict for co-teachers who do not wish to correct or contradict each other in front of students, yet realise that their partner is providing inaccurate or confusing information to the students. Torn between wanting to provide an effective learning

environment for the students, and not wanting to cause their partner to lose face, partners had difficulty deciding whether or not to intervene. In contrast, Sia and I were both very open to showing students that we did not know everything, but were willing to learn from mistakes or seek out further information from each other or other sources.

Obviously, the different ways the authority of the teacher is valued in these two settings has an impact on the way teachers interact together in the classroom, and has particular importance for successfully enacting this professional development strategy that relies explicitly on shared authority as an essential element of the necessary conditions for effective development. Further research into how co-teaching can be enacted when values conflict (either between individual co-teaching partners, or between the participants and the inherent values of the strategy) is necessary if co-teaching is to become a useful strategy to assist teachers holding diverse cultural and personal values about education.

Finally, given the expensive nature of any professional development strategy that works 'WITH a teacher, IN their classroom', research is urgently needed to investigate viable models of implementation. Of particular interest is the possibility of investigating the viability of a 'snowballing effect' – where teachers who have worked with a co-teacher then become co-teachers for other colleagues. While this format still requires significant organisational and staffing issues to be resolved within a school, with creative timetabling and flexible grouping arrangements this form of the strategy could become cost-neutral. Research would be required to determine whether co-teaching with a colleague is as effective as working with an outsider, but inherent in the concept of relational agency is the notion that it is the *diversity* of experiences and expertise between participants that is of primary importance, which may possibly be just as easily found within various members of a school staff.

However, the emotional implications for teachers would also need to be investigated as although some staff may feel more comfortable working with someone they already know, as Sia pointed out (see Chapter 7), other teachers may find it difficult to openly express their anxieties and concerns to someone they have to maintain an ongoing working relationship with. Similar concerns have also been shown to exist

for those taking the leadership role in school-based professional development (Jane Mitchell, Riley, & Loughran, 2010). It would therefore be interesting to see if these concerns apply in co-teaching situations which are set up to be very democratic and egalitarian developmental situations for all parties.

These suggestions provide many possibilities for further enriching our knowledge of how co-teaching/co-generative dialoguing can be used to create WITHIN practice PD that can assist teachers at all levels, and in all subject areas, to transform classroom practice and develop as professionals.

Conclusion

This final chapter has presented the findings of this research study and the consequent implications for understanding and improving the institutional practice of teachers' professional development. As I warned at the very beginning of this thesis, gaining understanding of this institutional practice has indeed required jumping backwards and forwards through time and space; from the recent past in my local educational community, to the fledgling Soviet Union of the early 1930s, to the origins of co-teaching in Canadian and US classrooms in the late 1990s; drawing upon and building upon the ideas of others to collaboratively create a new way of understanding a perennial problem of educational practice.

This new understanding does not just *describe* an approach to professional development that has been found successful in a particular context, but seeks to use and create theory to explain *why* and *how* this approach can lead to teachers' development as professionals (i.e., lead to qualitative changes in teachers' competences and motives that transform the way they contribute to and participate in their various professional practices). The current global research focus on what professionals *learn* through participating in PD activities has neglected the difficulties that teachers frequently have in transferring what is learned into changes in actual practice. By using cultural-historical methodology and theoretical concepts (as listed in Table 9.1, and including the newly developed concepts of situated conscious awareness, situated and desituated arenas of teachers' practice, and observant collaborator) the focus has been switched back onto professionals' *development*. Analysis has revealed the system of essential relations that are necessary for providing conditions in which teachers can develop unified concepts

that can be utilised with conscious awareness in the planning, implementation and reflective evaluation of newly imagined ways of acting, not only to transform their classroom practice, but ultimately to also contribute to the development of their students and families, school and colleagues, and the broader education profession.

I would like to conclude this thesis by taking one last trip through time and space by sharing a personal anecdote from my journal. It describes a small incident which occurred on the day, one year into my PhD candidature, when I was to present my research proposal to a panel of academics and colleagues to gain approval to proceed with the study:

> *This morning I told Aidan [my (then) 7 year old son] that I had a busy day ahead because I had to give a big talk in front of a whole room of people to get permission to start my research. He immediately flopped down on the bed and shouted to the sky, "Please, please, please, let her do her research and work out how to FIX school!" (Personal journal, 15/2/10)*

This anecdote reveals the ultimate importance of this study – that what teachers know and do affects our children. My son is now 10, and while I readily admit that I have not managed to fix school yet, I do propose that this research makes a valuable contribution to our understanding of not only how we can assist teachers to 'know and do' better, but also to develop a motive for continually seeking to 'be/become' better. It is only by working together in joint activity to simultaneously be and become better teachers and educational professionals that we will ultimately 'fix' school and make it a better place to be/become a learner – perhaps not in time or in the right place for *my* children, but I hold out hope for *their* children's children …

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Appendix A – Lemonade Learning model (Grimmett, 2008)

LEMONADE LEARNING
A CULTURAL-HISTORICAL CONCEPTUALISATION OF ENGAGED LEARNING

Check that the learning activity . . .

Engaged Learning

Water
Enables Participation
Students are 'willing and able'

Leads Development
creates the ZPD

Has Authentic Value
provides motives for participation

Lemon juice

Sugar
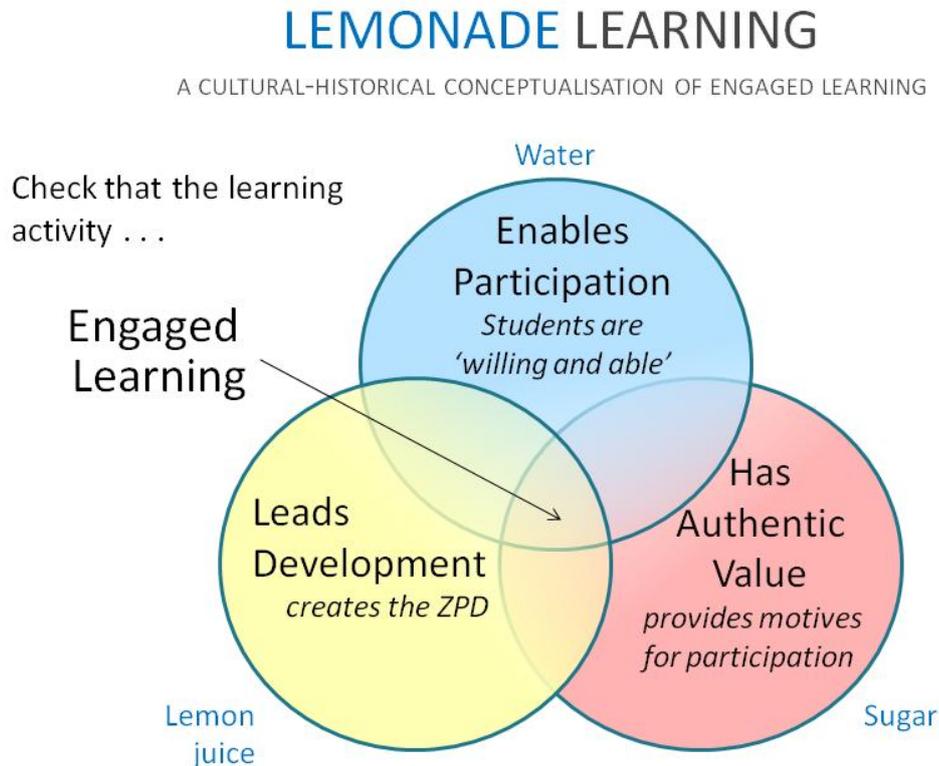
The water part of this model emphasises the need for teachers to:

- understand the emotional and intellectual needs of their students so that they can introduce activities that each child will be 'willing and able' to participate in,
- and/or allow children choice or control of the activity so that each child feels willing/able to participate (i.e. open-ended, creative activities).

However, we only create **engaged learning** if the activity also creates the ZPD (is beyond what they can already do by themselves) AND has authentic value/meaning for each child (is motivating for its own sake, not just for extrinsic rewards or avoidance of punishment).

(Adapted 2010, from Grimmett, 2008)

Appendix B – Ethics forms for Phase 1

MONASH University
Education

19 May 2010

EXPLANATORY STATEMENT - PLEASE RETAIN FOR YOUR RECORDS

Project Title: **Experiencing and Enabling Engaged Learning**

My name is Helen Grimmett. I am a PhD student in the Faculty of Education at Monash University. My supervisor is Professor Marilyn Fleer.

The "Building the Education Revolution" program is providing a shared stimulus for teams of teachers to rethink their pedagogy as they prepare to move into a new teaching space. I am undertaking a study of how teachers' understandings of teaching and learning develop as they participate in collaborative and creative professional learning activity over a sustained period, and any transformations they make to their practice as a result.

The study involves five data collection activities:

1. A short questionnaire (included with this letter) asking for demographic details of experience, training, existing beliefs about teaching and learning etc. This should take approximately 15 mins to complete.
2. A series of professional learning sessions (in Term 3) in which we will collaboratively discuss, explore and create new theoretical and creative approaches to teaching and engaged learning which are afforded by the school's new learning space. Additional follow-up sessions will be held (one per term) for the following three terms to continue to support teachers' efforts to implement ongoing changes to their teaching practice. Each of these sessions will occur in the normal team planning/meeting time (or other mutually agreed time) and will be audio and/or video-taped.
3. A Sakai virtual research environment online community (similar to Facebook) for participants to contribute to throughout the 12 month duration of this project. The virtual research environment (VRE) allows participants (including the researcher) to continue to support each other between face-face sessions through blogs, discussion forums, shared resources, uploaded artefacts of successful lesson plans etc.
4. Reflective journals for participants to make ongoing written reflections about their experiences of participating in this project. Teachers will be asked to reflect on their efforts to change their practice and their developing beliefs about teaching and learning. It is estimated participants might spend up to 30 minutes per week making journal entries and/or contributing to the Sakai VRE.
5. Interviews with individual teachers will be conducted at the conclusion of the project. Teachers will be encouraged to reflect on their overall experience of participating in the project, the changes they have made in their personal beliefs and practices, difficulties they have faced, successes they have achieved, the changes (if any) they have noticed in their students' level of engagement, and the effectiveness of collaborative professional learning activities. Each interview will be of up to 1 hour duration and will be audio-taped.

Written, video and audio data collected from each of these activities will be used for detailed analysis to explore teachers' collective transformations of practice and understandings that have occurred through participation in collaborative and creative professional learning activity.

No payment or reward will be offered to participants, although participation in this project will be able to be counted towards teachers' registration requirements to participate in 100 hours of professional development activity over each 5 year period.

Being in this study is voluntary and you are under no obligation to consent to participation. However, if you have consented to participate, while you may withdraw from future participation at any time, any video or electronic data collected of your previous participation in the group will not be able to be withdrawn from the study.

The online Sakai VRE community is a closed network requiring password access and will only be accessible by the members of the professional learning group. All forms of collected data will be treated confidentially and will only be viewed by my supervisor and myself. Pseudonyms will be used for all participants and their schools in the thesis and any other research reports, journal articles and/or conference presentations generated from this data. Additional signed consent will be sought before use of any visual data in which your identity cannot be concealed is used in public reports. You are under no obligation to consent to public use of visual data and this will not affect your ability to participate in the project. Storage of the data collected will adhere to the University regulations and be kept on University premises in a locked cupboard/filing cabinet for 5 years.

If you would like to be informed of a summary of research findings at the conclusion of the project, please contact me: ███████████████████████████████████

If you would like to contact the researchers about any aspect of this study, please contact the Chief Investigator:	If you have a complaint concerning the manner in which this research <Project Number CF10/0746 – 2010000349> is being conducted, please contact:
Professor Marilyn Fleer **Email:** ████████████████████████████ **Phone:** ████████ **Fax:** ████████	Executive Officer Monash University Human Research Ethics Committee (MUHREC) Building 3e Room 111 Research Office Monash University VIC 3800 Tel: +61 3 9905 2052 Fax: +61 3 9905 3831 Email: muhrec@adm.monash.edu.au

If you would like to participate in this research project please bring along your signed consent form and completed questionnaire to the first session.

Thank you,

Helen Grimmett
PhD Student, Faculty of Education
Monash University, Peninsula Campus

Consent Form

Project Title: ***Experiencing and Enabling Engaged Learning***

> **NOTE:** *This consent form will remain with the Monash University researcher for their records*

I agree to take part in the Monash University research project specified above. I have had the project explained to me, and I have read the Explanatory Statement, which I keep for my records. I understand that agreeing to take part means that:

I agree to participate in the professional learning sessions.

I agree to allow my participation in these sessions to be audio and videotaped.

I agree to complete a short questionnaire providing background information about my qualifications and teaching experience.

I agree to contribute to an online Sakai virtual research environment community and understand that anything I add to the Sakai website can be used as data for the research project.

I agree to keep a reflective journal about my participation in the project and understand that this will be collected by the researcher.

I agree to be interviewed by the researcher.

I agree to allow the interview to be audio-taped.

I understand that my participation is voluntary, that I can choose not to participate in part or all of the project, and that I can withdraw at any stage of the project without being penalised or disadvantaged in any way**.** However, any video, audio or electronic data collected of my previous participation in the group will not be able to be withdrawn from the study.

I understand that any written data that the researcher extracts for use in reports or published findings will not, under any circumstances, contain names or identifying characteristics. Use of any visual data which cannot conceal my identity in public reports will require my additional approval and signed consent.

I understand that video, audio and written data collected from this project will be kept in secure storage only accessible to the research team. I also understand that the data will be destroyed after a 5 year period unless I consent to it being used in future research.

Participant's name

Signature

Date

Appendix C – Questionnaire

Participant's Background Information Questionnaire

Name:

Email address:

Current Grade/Specialist area:

Tertiary Qualifications:

Name of degree:	Institution:	Years of study:
e.g: Diploma of Teaching (Prim)	*Victoria College (Burwood)*	*1986-1988*

Teaching Experience:

School:	Grade/specialist area:	Years:

Are you familiar with the work of Russian cultural-historical psychologist Lev Vygotsky? (Don't worry if you aren't!)

__ Never heard of him!

__ Have heard the name, but don't know much about his work

__ Learnt about his work at university or a PD, but it does not really influence my teaching practice

__ His work is a major influence on my philosophy and practice of teaching

Please write a short paragraph describing your current philosophy of learning and teaching. Feel free to use metaphors if they help, or just write a short description.

What have been the major influences on your philosophy? (e.g. University study, observation of own children, guidance of teaching mentor etc.)

What is your definition of 'engaged learning'?

Appendix D – Ethics forms for Phase 2

MONASH University
Education

29 July 2011

EXPLANATORY STATEMENT - PLEASE RETAIN FOR YOUR RECORDS

Project Title: **Experiencing and Enabling Engaged Learning**

My name is Helen Grimmett. I am a PhD student in the Faculty of Education at Monash University. My supervisor is Professor Marilyn Fleer.

I am undertaking a study of how teachers' understandings of teaching and learning develop as they participate in collaborative and creative professional learning activity over a sustained period, and any transformations they make to their practice as a result**.**

The study involves five data collection activities:

1. A short questionnaire (included with this letter) asking for demographic details of experience, training, existing beliefs about teaching and learning etc. This should take approximately 15 mins to complete.
2. A series of five professional learning sessions in school time to collaboratively create and explore new theoretical approaches to teaching and engaged learning. Additional follow-up sessions will be held if requested to continue to support teachers' efforts to implement ongoing changes to their teaching practice. Duration and time of each session will be negotiated with the teacher. Debrief sessions will be audio taped.
3. A Ning online community (similar to Facebook) for participants to contribute to throughout the 12 month duration of this project. The Ning allows participants (including the researcher) to continue to support each other between face-face sessions through blogs, discussion forums, uploaded artefacts of successful lesson plans etc. It is estimated participants might spend up to 30 mins per week contributing to the Ning.
4. Reflective journals for participants to make regular written reflections about their experiences of participating in this project. Teachers will be asked to reflect on their efforts to change their practice and their developing beliefs about teaching and learning. It is estimated participants might spend up to 30 mins per week making journal entries.
5. Interviews with individual teachers will be conducted at the conclusion of the project. Teachers will be encouraged to reflect on their overall experience of participating in the project, the changes they have made in their personal beliefs and practices, difficulties they have faced, successes they have achieved, the changes (if any) they have noticed in their students' level of engagement, and the effectiveness of collaborative professional learning activities. Each interview will be of up to 1 hour duration and will be audio-taped.

Written and audio data collected from each of these activities will be used for detailed analysis to explore teachers' collective transformations of practice and understandings that

have occurred through participation in collaborative and creative professional learning activity.

No payment or reward will be offered to participants, although participation in this project will be able to be counted towards teachers' registration requirements to participate in 100 hours of professional development activity over each 5 year period.

Being in this study is voluntary and you are under no obligation to consent to participation.

The online Ning community is a closed network requiring password access and will only be accessible by the members of the professional learning group. All forms of collected data will be treated confidentially and will only be viewed by my supervisor and myself. Pseudonyms will be used for all participants and their schools in the thesis and any other research reports, journal articles and/or conference presentations generated from this data. Storage of the data collected will adhere to the University regulations and be kept on University premises in a locked cupboard/filing cabinet for 5 years.

If you would like to be informed of a summary of research findings at the conclusion of the project, please contact me: ███████████████████████

If you would like to contact the researchers about any aspect of this study, please contact the Chief Investigator:	If you have a complaint concerning the manner in which this research (Project No: CF10/0746 – 2010000349) is being conducted, please contact:
Professor Marilyn Fleer **Email:** ███████████████████ **Phone:** ██████████ **Fax:** █████████	Executive Officer Monash University Human Research Ethics Committee (MUHREC) Building 3e Room 111 Research Office Monash University VIC 3800 Tel: +61 3 9905 2052 Fax: +61 3 9905 3831 Email: <u>muhrec@adm.monash.edu.au</u>

Please bring along your signed consent form and completed questionnaire to the first session.

Thank you,

Helen Grimmett

Consent Form

Project Title: ***Experiencing and Enabling Engaged Learning***

> **NOTE:** *This consent form will remain with the Monash University researcher for their records*

I agree to take part in the Monash University research project specified above. I have had the project explained to me, and I have read the Explanatory Statement, which I keep for my records. I understand that agreeing to take part means that:

I agree to participate in the professional learning sessions.

I agree to complete a short questionnaire providing background information about my qualifications and teaching experience.

I agree to contribute to an online Ning community and understand that anything I add to the Ning website can be used as data for the research project.

I agree to keep a reflective journal about my participation in the project and understand that this will be collected by the researcher.

I agree to be interviewed by the researcher.

I agree to allow the interview to be audio-taped.

I understand that my participation is voluntary, that I can choose not to participate in part or all of the project, and that I can withdraw at any stage of the project without being penalised or disadvantaged in any way**.**

I understand that any written data that the researcher extracts for use in reports or published findings will not, under any circumstances, contain names or identifying characteristics.

I understand that audio and written data collected from this project will be kept in secure storage only accessible to the research team. I also understand that the data will be destroyed after a 5 year period unless I consent to it being used in future research.

Participant's name

Signature

Date

Appendix E – Outline of meetings, co-teaching and co-gen sessions with Sia

Orientation meeting – 26/7/11

This was an informal after-school meeting to explain the research and consent process, so that we could both decide if we were willing to go ahead with the partnership. Sia at first suggested that I might be interested in helping her implement the Primary Connections Science program that the whole school were trialling that term, but after some discussion we realised that as the program is very scripted, and the principal was expecting them to implement the units as prescribed, that this really wouldn't allow us to create some new innovative practices together. We agreed that it might be better to work on her literacy program, and she expressed interest in creating a weekly literacy contract.

Initial Discussion meeting – 4/8/11 (47 minutes recorded discussion)

At this after-school meeting we planned what we would co-teach in the following week (Monday- cooking Honey Joys as an example of procedural text, Wednesday – working in pairs to write jokes that used homophones, plus Science lesson from Primary Connections). We also discussed the ZPD rubric (see Appendix F) to establish a shared understanding of areas in Sia's teaching practice she was interested in developing.

Week 1 Co-teaching and co-gen sessions – 8-10/8/11 (5 hours co-teaching + 29 mins recorded discussion)

Monday 9-11am Cooking Honey Joys as an example of following and writing a procedural text.

Wednesday 10-11am Writing homophone jokes, 11.30-1.30 Science, 1.30-2pm Co-gen session with Sia – focussing on planning Literacy contract approach including importance of reflection on learning and working collaboratively.

Week 2 Co-teaching and co-gen sessions – 15-19/8/11 (5.5 hours co-teaching + 53 mins recorded discussion)

Monday 9-11am Introducing this week's spelling words, Introducing the Literacy Contract, discussing rules, explaining activities, Children start working on contracts, reflection.

Wednesday 9.30-11am Continuing contracts, reflection, Whole class procedural text activity, 11.30-12.30 Science, 12.30-12.45pm Co-gen session with Sia – focussing on implementing social learning theories into practice.

Friday 9-10am Literacy contracts, reflection on the week, 10-10.50am Co-gen session with Sia – focussing on ZPD, assessment.

Week 3 Co-teaching and co-gen sessions – 22-24/8/11 (5.5 hours co-teaching + 23 minutes recorded discussion)

Monday 9-11am Introducing spelling words, new contract (Appendix G), working with 2 children to make PowerPoint animations, reflection.

Wednesday 9.30-11am Continue contracts, reflection, Whole class lesson on letter writing, 11.30-1.30 Science, 1.30-2pm Co-gen session with Sia – reflecting on achievements and discussing future possibilities.

Follow up visit – 21/9/11 (1 hour co-teaching)

Class was working in computer lab with a pre-service student teacher.

Interview and co-gen session – 3/10/11 (90 minutes recorded discussion)

A 90 minute interview discussing Sia's reasons for joining the project, revisiting the ZPD rubric to notice and discuss changes made to practice (Appendix F), discussing what aspects she will share with her planning team, and generally evaluating the project and its effectiveness compared to typical forms of PD.

Final Co-teaching and co-gen session – 10/11/11 (1 hour co-teaching + 32 minutes recorded discussion)

9.30-10am Co-gen session with Sia – discussing sustainability of changes, transferability to other classes, difficulties and areas for improvement etc., 10-11am Literacy contracts, reflection.

Follow up visit - 14/12/11 (30 minutes co-teaching)

10.30-11am Discussion about term events and end of year activities, maths activity to work out how a box of candy-canes could be shared amongst class.

Appendix F – Sia's responses on ZPD rubric

The Zone of Proximal Development in practice

	Not Present	Emerging	Developing	Enacting
Teaching and learning as a joint productive activity (shared authority)	I take all of the responsibility for deciding what is learnt. Students work independently on most tasks.	I take most of the responsibility for what is learnt but I also consider students' interests. Students work collaboratively on some tasks.	I allow students to have some choice in what or how content is covered. I adapt lessons according to students' responses. Students work collaboratively on many tasks across most curriculum areas.	I regularly negotiate content and form of learning activities with students. I value what I learn from my students. The students and I work together to produce joint products.
Tasks challenge students beyond what they can already do by themselves	I deliver the curriculum at 'class' level.	I differentiate the curriculum for different ability groups. I include some open-ended tasks.	My curriculum regularly consists of open-ended tasks which allow students to work at their own level.	I design open-ended learning activities that allow students to learn from others (teachers, peers, books, internet etc) to complete tasks beyond the level they are currently able to complete independently.
Assessment as tool for planning future learning activities	My assessment strategies focus on determining the students' current level of achievement, mainly for reporting purposes.	In addition to assessing for reporting I make informal observations which inform my ideas for planning but these are not documented in a consistent way.	Observations of individual students are documented and used to inform my planning.	Observations of groups of students are documented and analysed to determine individual and group learning needs which inform my planning.
Engaged Learning	I expect my students to be mostly passive receivers of the set curriculum.	I make an effort to make set tasks interesting, but my priority is that children learn the curriculum.	I try to ensure my students are actively involved in most learning activities. Student talk is at least as prevalent as teacher talk.	My priority is that children will find learning engaging, and so I ensure all tasks are as authentic, relevant, challenging, active and creative as possible.
Imagination	There are limited opportunities for children to use their imagination in my classroom.	There are opportunities for children to use their imagination in some subject areas (e.g. The Arts, creative writing etc.)	Children are given regular opportunities to use their imagination across many subject areas.	Imagination is a valuable resource in our classroom. The students and I create and share 'imaginative spaces' to enhance learning in all subject areas on a regular basis.

*Sia's responses 4/8/11   *Sia's responses 3/10/11

Appendix G – Sample literacy contract

3/4S Week 6
Learning Centres

I _____ of _____ will complete **at least 4** learning tasks (below) during Learning Centres this week.

Signed _____   Date_____

Options:

☐☐ Work with Miss S with your Learning Centre group when she asks.

☐☐ **Complete the task set by Miss S <u>after</u> your group works with her.**

☐☐ Write a story in the 'Writers Room'.

☐☐ **Use the computer to research and find out 'WHAT WOULD YOU DO WITH A CHAPATTI?' and 'WHERE WOULD YOU FIND A COR ANGLAIS?'**

☐☐ Make a map of one of the farms from 'Fantastic Mr. Fox' for display.

☐☐ **Simile wordsearch with a twist!**

☐☐ Make a puppet from 'Fantastic Mr. Fox' and make up a short scene with a friend or small group.

☐☐ **Make a PowerPoint animation.**

☐☐ Make a 'Wanted' poster for either: Mr.Fox, Boggis, Bunce or Bean for display.

☐☐ **Completely finish your 'Fantastic Mr. Fox' mobile, ready for display.**