Collaboration Between Teachers and University Educators In a Professional Development Context: Shared Situated Cases

by

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A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

in

THE FACULTY OF GRADUATE STUDIES
Curriculum and Instruction
FACULTY OF EDUCATION

We accept this thesis as conforming to the required standard

THE UNIVERSITY OF BRITISH COLUMBIA

July 1994

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Date 26 July 1994

DE-6 (2/88)
Abstract

Using ethnographic research methods this case study examined how a group of teachers and university educators analyzed teaching for the purpose of enhancing students' involvement in their learning. Data were collected from weekly meetings and interviews over a period of two school years.

Three research questions guided the study: 1) How does a collaborative group of teachers and university educators, who meet regularly in order to improve teaching practices aimed at increasing students' active learning, evolve over a period of two school years? 2) What is the nature of the conversational dynamics of this collaborative group? and 3) In what ways can the nature of the discourse in this collaborative group be described and represented?

In this study, the group deliberations are described in terms of reflective conversations (Schön 1983; 1987; 1991). While Schön has used this term metaphorically to refer to an individual's "conversation" with a problem setting, this study extends this term to refer to the dialogue occurring among a group of professional colleagues.

Shulman (1992) argues that written well-crafted cases serve as an important springboard for a critical analysis of discussions of educational practice. In this study, the participants' stories were represented in terms of shared situated cases. The purposes of these cases were: to provide the language and context for educators to discuss teaching; and to serve as a method to accumulate the shared repertoire of these colleagues. The group deliberations became the common ground in the context of a supportive group for discussions of private theories about teaching. Thus, this community of professionals developed a shared language and an accumulated repertoire of teaching strategies.

This study provides insights about teachers' professional development, and the role within it of collaboration between university and school educators.
Building on the study, researchers might explore the implications of collaborative groups on school culture, and the possibilities of using such groups to help beginning teachers in their professional growth.
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Acknowledgments

I would like primarily to thank the participants in this study. Their interest in and commitment to collaboration between school and university, and teachers' professional development have made this study possible. The insights, comments and questions of both teachers and university educators were an asset throughout the study.

Members of my family also deserve thanks: my husband and children for being patient and tolerating the months I was preoccupied even when I spent time with them, and my extended family for their continuing interest and support from a distance.

The committee members have been of great help to me in grappling with the ideas and words which make up this dissertation. Gaalen Erickson encouraged me to pursue my interests and questions around teachers' professional knowledge. His participation and interest in the project, and his criticism have assisted me to clarify and reorganize my thinking on many of the issues discussed. Allison Tom provided the inspiration and model for ethnographic research. Her careful comments have pushed me to examine and explain my choices about the methodology and the analysis of the data. John Willinsky continuously challenged my interpretations and forced me to justify and illustrate my claims. The committee meetings have always been stimulating and have shaped my understandings and analysis of the data.

I am also indebted to friends and colleagues at the University of British Columbia who spent time with me to discuss questions about this research. Finally, I would like to thank Nadine Binkley for her endless support in discussions of ideas, meticulous reading, and detailed commenting of the many drafts of this dissertation.
Chapter One
Introduction To The Study

The Problem

Teachers' professional growth has been conceptualized in recent years as an on-going, long term endeavour which begins with pre-service training and continues throughout a teacher's professional career (Bowman, 1990; Fullan, Connelly & Watson, 1990). Teachers' professional development and growth has been examined from different perspectives, some looking at its structure, others at its substantive content, and yet others focusing on factors enhancing or constraining the opportunities for such professional development (for example, Fullan & Hargreaves, 1991; Huberman & Miles, 1984; Lieberman & Miller, 1991; Little, 1986; McLaughlin, 1991; McLaughlin & Marsh, 1990; Rosenholtz, 1990). Collaboration both among teachers and between teachers and university educators has been one of the possible approaches for nurturing teachers' professional development (Bell & Gilbert, 1993; Cole & Knowles, 1993; Cuban, 1992; Erickson, 1991; Hollingsworth, 1992; Huberman, 1990; Hunsaker & Johnston, 1992; Richardson, 1990; Sirotnik & Goodlad, 1988). From the perspective of this approach, then, gaining insight into the process of collaboration between teachers and university educators is an important step in understanding teachers' professional development.

The above mentioned studies examine collaboration in a professional development context and analyze what makes these collaborative endeavours work. They examine settings and roles within these projects. They also analyze those factors that contribute to collaborative professional development endeavours, and those factors which confine them. However, there is a need for a
long term study which documents the dynamics of a group of teachers and university educators over time. This study discusses a collaborative project in which teachers and university educators meet regularly to examine teaching practices that encourage students to become more actively involved in their learning. It analyzes the nature of the discourse in these meetings and how it evolves over more than two school years. A study of this long term project provides the opportunity to examine gradual shifts and progressions in the development of a community of professional colleagues.

The Study

The following sections describe the study under the headings: the purpose, background, research questions, significance, method, analysis, and limitations of the study.

The Purpose of the Study

This study focuses on how teachers and university educators mutually construct an understanding of what good learning and teaching entail. It is a longitudinal study that follows a group of secondary school teachers and university educators from the initial stages of the formation of the group. An in-depth longitudinal study of the evolution of a group of teachers and university educators discussing teachers' practice has implications for the literature on staff development and for the literature on teachers' knowledge. Its significance is in enriching the knowledge about the dynamic processes that occur in such a collaborative setting.

The aim of this study is to provide a comprehensive description and analysis of a specific process of collaboration between teachers and university educators, by analyzing the circumstances that led to the formation of such a
group and the way it evolved. Examining the contents of weekly meetings and interviewing the participants provided an understanding of the unique characteristics of collaboration between teachers and university educators. An analysis of the discourse in these meetings provides insights about teachers' knowledge and how this knowledge is enriched through conversations with other professionals who share similar understandings of what good teaching and learning entail.

Background of the Study

Between 1987 and 1988, Sullivan (B.C. Ministry of Education & Sullivan, 1988) conducted The Royal Commission Study of the British Columbia School System and concluded with a list of recommendations. As a result of that study the B.C. Ministry presented a mission statement: "The purpose of the British Columbia school system is to enable learners to develop their individual potential and to acquire the knowledge, skills, and attitudes needed to contribute to a healthy society and a prosperous and sustainable economy" (B.C. Ministry of Education, 1989, p.6). This started a process of defining terms and producing documents under the title Year 2000. The key principles in these documents deal with learning and the learner, curriculum, and assessment and evaluation. The three key learning principles are: 1) learners ought to actively participate in the learning process, 2) learning is done in a variety of ways and at different rates, and 3) learning is both an individual and a social process (B.C. Ministry of Education, 1989, pp. 9-10). Implementation of the new program was gradual, beginning with the primary grades. But, at the beginning of this study, three years ago, teachers in secondary schools felt the pressure to start to implement the program. They had the general direction and expectations provided by the policy documents but very few details as to how they should proceed. Teachers
were searching for avenues to pursue the new directions put forth in these documents. Finding solutions within the local and specific context of a school was a way to address these new directions. It was within this general educational context that teachers from a secondary school approached the university educators. The university educators extended an offer to the teachers to collaborate and focus on developing teaching approaches and strategies which encourage their students to become more independent and responsible learners. This evolved into an ongoing collaborative project of teachers and university educators.

This study examines what this group of teachers and university educators has done to better understand and improve teaching practices aimed at increasing students' active learning. The participants1 in the group shared an understanding that learning is an active process that involves the learners (Baird & Mitchell, 1987). They perceived teaching as a process which includes and involves the learners in decisions both about structure and content of learning. The participants also shared the view that curriculum design is a complex process stemming from specific problems, involving reflection and decision making in a group (Schwab, 1983). The group deliberations produced practical solutions to problems and concerns. The participants perceived the teachers' role as essential in implementing new curricula (Ben Peretz, 1988).

**Research Questions**

The purpose of this study was to describe and analyze the dynamic processes that occur in deliberations between teachers and university educators.

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1 The term participants refers to both the teachers and the university educators who participated in the group.
when they discuss teachers' practice. The research questions focus on the complex and intricate phenomenon of collaboration between teachers and university educators. Thus, they examine both the form and content of the conversations that occur in the meetings.

- 1. How does a collaborative group of teachers and university educators, who meet regularly in order to improve teaching practices aimed at increasing students' active learning, evolve over a period of two school years?
- 2. What is the nature of the conversational dynamics of this collaborative group?
- 3. In what ways can the nature of the discourse in this collaborative group be described and represented?

Significance of the Study

Many studies about change processes within school tend to refer to elementary schools (Goodlad, 1984; Lieberman & Miller, 1986). Moreover, many existing studies describe the difficulties and complexities of bringing about change within the school and end up by summarizing the factors that need to be taken into account (Fullan & Hargreaves, 1991; Huberman & Miles, 1984; Little, 1986; McLaughlin & Marsh, 1990; Rosenholtz, 1990). However, because these factors are interwoven and dynamic, simply identifying these factors and attempting to take them into account has not always resulted in effective changes. The focus of the research pertaining to change has moved from descriptions of attempts to implement change through changing specific factors to looking at professional development of teachers as a way to make changes happen within the school setting (Lieberman & Miller, 1991; McLaughlin, 1991).
Thus, there is a shift in the research literature from making lists and predictions based upon these lists to detailed descriptions and analyses of processes within schools which incorporate attempts at staff development.

Only recently have studies examined the culture of the secondary school and how it might influence changes in curricular structures or classroom practices (for example, Fullan 1990b; Little 1990a). Taking into account the unique characteristics of secondary schools is crucial to understanding how to go about changing intricately connected components within that complex setting.

Consequently, this study has implications for the literature on staff development and change in secondary schools, and also for the literature pertaining to teachers' professional knowledge. Studies of teachers' knowledge have tended to focus on the individual teacher and on the process of becoming a teacher (Carter, 1990; Elbaz, 1991; Grimmett & MacKinnon, 1992; Shulman, 1987; Tom & Valli, 1990). These studies have focused on the development of teachers' professional competencies, or on descriptions of the nature of teachers' professional knowledge base. Schön's (1983; 1987) discussion of practitioners' knowledge describes and analyzes the components of practical knowledge and how it is used in order to address problems in a practice setting. He focuses on the personal construction of professional knowledge. Analysis of the data in this project extends this notion of professional knowledge further by analyzing the group deliberations in terms of reflective conversations between the participants.

Since teachers often use stories when they describe their teaching and these stories are situated in particular learning settings (Brown, Collins & Duguid, 1989), it seems appropriate to discuss teaching in terms of cases (L. Shulman, 1992; J. Shulman, 1992). However, the data from this project call for a new definition of the kinds of cases that were the product of the group's
conversations. These cases were useful in describing the discourse the participants used in this collaborative group.

An in-depth longitudinal study provides a detailed description of this staff development and collaboration endeavour. Learning about teachers' and university educators' interests and concerns while participating in group meetings sheds light on the process of discussing stories about teaching and learning. An analysis of the deliberations among the participants in this group allows a number of claims to be formulated regarding the ways they created a language to discuss and share teachers' professional knowledge. This analysis also enhances the understanding of the ways teachers' professional knowledge is constructed and developed throughout their conversations with colleagues. An understanding of the nature and the dynamics of the conversations in a collaborative group of teachers and university educators, may be meaningful to other teachers seeking to collaborate with colleagues. Analysis of the discourse is helpful for teachers and university educators who are interested in teaching strategies that encourage students' independence and responsibility. The analysis and description of this study provide some insight for other practitioners about ways to start and sustain collaborative endeavours, while being aware of its difficulties, advantages and weaknesses.

Analysis of the data from this study also provides insights for the value of Schön's (1983; 1987; 1991) notion of reflective conversations, and of Shulman's (1992) discussions of the use of cases in education. However, the use of these terms is expanded for the purpose of the analysis in this study. Reflective conversations demonstrate the dynamic nature of the deliberations among the participants. The use of shared situated cases, as a way to represent and analyze teachers' professional knowledge, is unique to this study.
Research Methods

This study is a case of collaborative professional development that occurs in the context of a secondary school. The two primary methods of data collection were participant observation and interviews. The researcher's participant observation in the study consisted of a variety of activities in the school including participation in: weekly meetings; staff meetings in which the group was discussed; professional development days for the staff; and a full day workshop for the group participants. Participant observation also entailed providing summaries of meetings and learning strategies, and included informal meetings at the school.

In addition to participant observation, semi structured interviews were conducted (Mishler, 1986; Spradley, 1979). The interviews took place at the beginning of the weekly meetings and at the end of the first school year. All the participants in the study were interviewed twice, and in addition the principal was interviewed with regard to his perception of the project. All the meetings and interviews were tape-recorded.

Data Analysis

The tapes from the group meetings and the interviews were transcribed and analyzed. The analysis of the data was based on grouping and coding the transcripts according to topics and themes. After a first round of coding, the groupings were examined, at times new categories emerged and at others some groups were integrated into larger topics (Lincoln & Guba, 1985; Miles & Huberman, 1984; Wolcott, 1990). Decisions about the codes and groups were made on the basis of the literature about teachers' professional knowledge, and literature about collaboration between teachers and university educators in a professional development setting.
In an attempt to address the potential problems of this method of analysis of the data (for example, biases and misinterpretation of the data), and to verify the categories, coded and themes, there was a process of member checking. I discussed the framework of the analysis with the participants on different occasions, and some of them read and commented on early drafts of the dissertation.

**Limitations of the Study**

The limitations of the study stem both from the methodology and from the researcher's role. Since this is a case study it examines one setting in depth. The study describes and analyzes the dynamics that occur when a group of secondary school teachers volunteer to meet with university educators on a regular basis in order to discuss teaching. Consequently, an in-depth description of such a group cannot be generalized to all teachers or even to all the teachers in that school. The teachers who volunteered to participate in the study may not be representative of the rest of the staff in that school or in any other setting. Although the circumstances in that school are unique, they can still inform us about some conditions necessary for creating a support system within the school where teachers can discuss their own practice to improve it.

In addressing this type of limitation, Lincoln and Guba (1985) suggest using the concept of transferability (replacing the concept of external validity) in order to discuss the ability to learn from one context to another. They suggest that having "thick descriptions", as Geertz (1973) uses the term, allows us to make informed decisions about the similarities and differences between different contexts. Detailed description, encompassing layers and interactions within a specific culture, taking into account multiple voices and different
perspectives allows us to learn from this study and to transfer this knowledge to different sites taking into account both contexts and their complexities.

The second limitation stems from the researcher's role in the study. Since the researcher simultaneously participates in the group and describes and analyzes the processes as they occur, questions of objectivity surface. The problem of participating in the process and at the same time describing and analyzing these processes must be addressed.

Taking a feminist perspective to qualitative research and adopting Harding's (1990; 1991) notion of strong objectivity helps to address this limitation. Strong objectivity includes the ability to see the "other", the participants, and to be able to recognize the "web of interrelations", without completely becoming participant or completely staying observer. This dual stance, which is incorporated with a self reflexive and critical perspective, is at the core of strong objectivity. Being aware of the social setting of research, and not claiming value neutrality, allows researchers to "abandon notions of perfect mirrorlike representations of the world ... yet still apply rational standards to sorting less from more partial and distorted belief" (Harding, 1991, p. 159). The essence of strong objectivity is viewing the researcher and researched with the same critical "eyes". Having reciprocal relationships which include critical and rational evaluation between researcher and researched, is essential to this perception of the researcher's role. Adopting this stance enables the researcher to make claims about the participants as well as the researcher's role and involvement in the study.

Organization of the Chapters

There are seven chapters in this study. The first three chapters lay out the foundation upon which the study was based. They include the introduction
(Chapter One), literature review (Chapter Two), and method (Chapter Three). Chapter Four focuses on the development of the project and how it evolved over time. It examines the development of the project, analyzing both the structure and substance of the meetings and how they were reshaped over time. Chapter Five defines and examines the nature of the reflective conversations among the participants when they discussed teaching strategies which were aimed at enhancing students' active involvement in the learning process. Chapter Six examines the stories teachers shared in the meetings. These stories are analyzed and compared with cases that are often used in teacher education. There are recurring thematic topics that are revisited time and again in the meetings. These themes are represented in the form of implicit cases which are unique to this collaborative endeavour of the teachers and university educators. Lastly, Chapter Seven discusses the conclusions and insights from this project and suggests implications for further research about collaborative endeavours.
Chapter Two
Review of the Literature

This chapter examines and analyses three bodies of literature which pertain to the study: teachers' knowledge and reflection; teachers' professional development through collaboration; and the role of cases as a part of teachers' professional growth and development. The literature in these three areas enhances the understanding of the dynamics that occurred when a group of teachers and university educators met in order to discuss teaching and learning practices.

Teachers' Knowledge and Reflection

One of the assumptions embedded in this study is that teachers develop a type of "craft knowledge" (Grimmett & MacKinnon, 1992). Another assumption is that teachers construct understandings about their practice based on their prior experience (Hollingsworth, 1991; Richardson, 1991), and that they continue to do so throughout their professional careers. Reflection as an integral and pertinent component of this craft knowledge is emphasized both in this study and in the literature. In this section I will discuss different notions of teachers' knowledge as conceptualized by Clandinin (1986), Clandinin and Connelly (1992), Connelly and Clandinin (1988), Elbaz (1981; 1991), Grimmett and MacKinnon (1992), Schön (1983; 1987), and Shulman (1987).

Elbaz defines teachers' personal practical knowledge:

While teachers' knowledge may be largely unarticulated, teachers do have a broad range of knowledge which guides their work - - knowledge of subject matter; of classroom organization and instructional techniques; of the structuring of learning experiences and curriculum content; of students' needs, abilities, and interests; of the social framework of the school and its surrounding community, and of their own strengths and shortcomings as teachers. (Elbaz, 1981, p. 47)

This definition articulates the specifics of what is involved in being a teacher in the most practical way. Clandinin (1986) Clandinin and Connelly (1992), Connelly and Clandinin
elaborate on this notion of teachers' practical knowledge, claiming that though it is tacit, teachers' practical knowledge determines what is happening in a classroom. Connelly, Clandinin, and Elbaz claim that by listening to teacher's stories about their teaching they are able to reveal teachers' untapped knowledge. They look at teachers' metaphors, rhythms and images in order to learn about teachers' personal practical knowledge (Connelly & Clandinin, 1988; Elbaz, 1981). Elbaz (1991) argues that this practical knowledge is broadly based on experience. Teachers use this practical knowledge in order to handle problems that arise in the context of their school work. This practical professional knowledge is explored further by examining practitioners' practical knowledge in different fields (for example, Schön 1983; 1987).

Schön (1983; 1987; 1991) sets out to explore the development of professional knowledge and what that knowledge entails. His assumption is that practitioners (teachers included) know, in many cases, more than they are able to articulate. Trying to identify practitioners' unique professional knowledge has led Schön to examine the nature of the practice, and the context within which practitioners function. Schön describes the practice context as follows: "the changing character of the situations of the practice - the complexity, uncertainty, instability, uniqueness, and value conflicts which are increasingly perceived as central to the world of professional practice" (Schön, 1983, p. 14).

Schön's definition of practice utilizes terms very similar to those Schwab (1969) uses. Practice is complex, changing, unpredictable, and non-linear. Schwab perceives curriculum to be embedded within practice and thus he uses similar terms to describe the process of teachers and university educators making decisions with regard to curriculum. Schwab (1969; 1971; 1973; 1983) calls for unique strategies and techniques that take into consideration the practical characteristics of curricular decision making in order to solve problems.
Schön (1983) claims that practitioners go through a process of "reflection-in-action" in order to come up with alternative solutions to specific and unique problems. He describes how practitioners make sense of their practice:

The practitioner has built up a repertoire of examples, images, understandings, and actions. ... When a practitioner makes sense of a situation he (sic) perceives to be unique, he sees it as something already present in his repertoire. ... It is, rather, to see the unfamiliar, unique situation as both similar to and different from the familiar one, without at first being able to say similar or different with respect to what. The familiar situation functions as a precedent, or a metaphor ... an exemplar for the unfamiliar one. (Schön, 1983, p. 138)

Schön does not specifically discuss teachers in this citation, nonetheless, one can see the relevance of Schön's interpretation of the processes practitioners go through in teaching. Teachers make sense of a "messy" situation in a classroom where many factors influence the setting simultaneously. Each situation is on the one hand unique, and on the other has had resemblance to other similar instances. Teachers rely on their past experiences, images and metaphors in order to make sense of a particular situation and act within it.

Schön uses the notion of a "reflective conversation" to describe the relationship between the practitioner and the practice setting (1983; 1987). He describes these conversations as internal, personal and in many cases subconscious. Reflective conversations occur between a practitioner and a problem situation that needs to be addressed. The reflective conversations with the situation are "an experiment in reframing. From his repertoire of examples, images, descriptions, he [the practitioner] has derived (by seeing-as) a way of framing the present, unique situation" (Schön, 1987, p. 68). Schön argues that these reflective conversations are experimental in nature:

When the practitioner reflects-in-action in a case he perceives as unique, paying attention to phenomena and surfacing his intuitive understanding of them, his experimenting is at once exploratory, move testing, and hypothesis testing. The three functions are fulfilled by the very same actions. And from this fact follows the distinctive character of experimenting in the practice. (1987, p. 72)
Schön maintains that decision making in a practice setting is complex. The practitioner mentally experiments with options regarding the problem, and hypothesizes about alternative explanations and solutions.

When discussing reflective conversations, Schön describes an inner and individual process. However, I argue, this process can also be seen in a larger, social context. Expanding Schön's notion of a "reflective conversation" to include conversations between practitioners about the practice can be seen within the framework of Schwab's (1973; 1983) conception of curriculum planning and implementation. Marrying Schwab's account of curriculum design as a group process, with Schön's notion of reflective conversations can provide an interpretative frame for analyzing the deliberations within the group in this study. As both Schwab and Schön point out, the purpose of these reflective conversations is to find solutions to practical problems. Understanding the group deliberations in the context of reflective conversations among practitioners will be explored further in Chapter Five. The conversations among the participants may be analyzed in terms of the hypotheses the participants make about a specific problem, the process of framing and reframing problems based on past experiences, and finding mutual ways to discuss the practice. This analysis brings forth insights about the dynamics of these conversations.

Analyzing reflection in- and on-action is only a partial description of teachers' knowledge. Another perspective of this discussion of teachers' professional knowledge is used by Grimmett and MacKinnon (1992). They propose that teachers have craft knowledge, which entails judgments that teachers make with regard to their students and subject areas. Teachers' knowledge manifests itself in teachers' abilities to understand the dilemmas of teaching. Teachers' knowledge relies on intuition and caring for students. This unique knowledge allows teachers to create situations that will foster meaningful learning experiences for students. This type of craft knowledge is based on what
Schön calls "the accumulated repertoire", and it allows teachers to make decisions and judgments based on their past experiences. Grimmett and MacKinnon (1992) describe teachers who have craft knowledge. Although they do not analyze the processes teachers employ in constructing this craft knowledge, Grimmett and MacKinnon (1992) argue that craft knowledge may be used as a framework to teachers' collaborative explorations with students about how learning occurs.

Shulman (1987) also, sets out to identify the sources of a knowledge base for teaching, and then looks at the implications of that knowledge for teacher education and reform. The categories of teacher knowledge that Shulman identifies and discusses are: content knowledge; general pedagogical knowledge; curriculum knowledge; pedagogical content knowledge; knowledge of learners and their characteristics; knowledge of educational contexts; knowledge of educational ends, purposes, and values, and their philosophical and historical grounds (Shulman, 1987, p. 8). He maintains that whether explicit or implicit, teachers' knowledge consists of specific content of various subject matters, and pedagogical knowledge. Using the four commonplaces of curriculum; teacher, learner, subject matter, and milieu (Schwab, 1969), Shulman (1987) specifies the multiple layers of knowledge that teachers possess. Understanding the content areas, having a deep knowledge of learners, being familiar with educational purposes and goals and linking all these pieces of the puzzle to knowledge of the circumstances and specific contexts of the learning process all make up teachers' knowledge.

Schön's theory of the reflective practitioner is applicable to the description of the inner processes that are involved in teachers' understanding and knowledge as they address their practice: teaching. Shulman categorizes the components of teachers' knowledge, portraying a detailed picture of that knowledge. Grimmett and MacKinnon
link teachers' craft knowledge to its implications towards learners and learning. They point out how teachers utilize their craft knowledge when they interact with students. In this study I address these notions of teachers' reflection and craft knowledge when analyzing the deliberations of teachers and university educators who discuss teaching. Following the threads of conversations between the participants provided insights about the kinds of thinking and sharing that occur when teachers and university educators make sense of specific incidents from the classroom. These conversations serve as a tool for professional growth. Therefore, I will now examine the literature pertaining to teachers' professional development.

**Teachers' Professional Development**

Teachers' professional growth has been studied from the initial stages of pre-service and teacher training programs to in-service programs for experienced teachers. Kagan (1992) claims that teachers' professional growth is both behavioural and conceptual. Examining pre-service teachers, she proposes a model of teachers' growth that consists of five components: 1) an increase in metacognition; 2) the acquisition of knowledge about pupils; 3) a shift in attention from self to pupil; 4) the development of standard procedures and routines; and 5) growth in problem solving skills, which are multidimensional and context specific (Kagan, 1992, p. 156). Proposing such a model poses many questions regarding the development of teachers' professional development in stages. As Grossman (1992a) points out, there are contradicting data regarding this conceptualization of a model. Grossman argues that the focus in teacher education programs ought not be skills that are immediately necessary for beginning teachers. The focus ought to be on helping beginning teachers to ask worthwhile questions about their teaching. In spite of this critique, there is merit in examining Kagan's developmental model of teacher education. Kagan (1992)
sheds light on the components of teachers' knowledge. Setting aside questions like what develops first and if one thing leads to another, she discusses the substance of teachers' knowledge. When teachers grow professionally they go through a process of change. The literature on school and teacher change is vast, and I will discuss that literature which is relevant to ways of enhancing change through teachers' collaboration and professional development.

The perspective proposed in this study suggests that there are links between understanding school culture (Fullan, 1990a; Sarason, 1982; 1990), understanding teachers' practice, and the importance of staff development as a way to bring about meaningful change (Fullan, Connelly & Watson, 1990; Huberman & Miles, 1984; 1986; Lieberman & Miller, 1986; Little, 1990a; 1990b; McLaughlin & Marsh, 1990; 1991). The claim is that teachers are empowered when they are involved in the process of change. The notion of professional development, in this study, is of a process within the structure and culture of a school which encourages teachers to examine their practice. This is not an "in-service", "one-shot" workshop, whereby an expert comes to the school to teach teachers a new technique or curriculum. Professional development is an ongoing, long term process that is closely linked to the notion of collaboration. Teachers learn the most from their own experience and then from colleagues (Lortie, 1975). In order to be able to learn from colleagues, teachers need structures within the context of school that will allow this collaboration. School becomes the key unit of change, and the focus of the process of change becomes developing and encouraging communities of learners in the school (Barth, 1991; Cuban, 1992).

Different studies examine the pertinent role staff development plays in change plans within schools. For example, Doyle (1987) maintains that effective staff development should be based on the teachers' culture and the way they
perceive their work. Griffin (1987) focuses on staff development and collaboration of teachers as an on-going developmental and reflective process. These studies express similar views to those maintained in Lieberman and Miller's (1986; 1991) study of change, to Little's (1986; 1990a; 1990b) analysis of the process of professional development, and to Rosenholtz's (1989; 1990) description of school improvement attempts.

Lieberman and Miller (1986; 1991) survey the different studies on change. They claim that earlier studies are concerned with conditions that enable change whereas later research focuses on the quality of teachers' knowledge as related to issues of change. Lieberman and Miller suggest that although there is no one model that will fit all teachers and all circumstances, the teacher maintains the key role in the process of change and implementation of an innovation. Moreover, they suggest that there is a need for teachers' support systems in the form of networks that will "provide informal settings as legitimate places where we [teachers] can share resources, gain new knowledge, be supportive of one another, and participate voluntarily" (Lieberman & Miller, 1986, p. 107). They continue to stress the importance of staff development in the process of attempting to change. Staff development is seen as a way to develop teachers' culture, which will allow teachers to inquire into their practice both individually and, more so, collaboratively.

Little (1986; 1990a; 1990b) examines professional development programs and, in particular, analyzes collegiality among teachers. Her assumption is that there are gains to professional development when teachers are working collaboratively (Little, 1990a). Little identifies six dimensions of school support that are needed in order to maintain collegiality among teachers: 1) rewards for cooperative work, making the sources of interdependence clear; 2) school level organization of staff assignment and leadership; 3) latitude of influence on crucial
matters of curriculum and instruction; 4) time to meet; 5) training and assistance; and, 6) material support (Little, 1990a, p. 183). Little argues that staff development is most influential where it ensures collaboration adequate to produce shared understanding, shared investment, thoughtful development, and the fair rigorous test of selected ideas. It is beneficial where it requires collective participation in training and implementation. Staff development ought to focus on crucial problems of curriculum and instruction. It should be conducted often enough and long enough to ensure progressive gains in knowledge, skill and confidence. When there are norms of collegiality and experimentation, staff development is more effective (Little, 1986, p. 35). The close description and analysis of the project in this study (see Chapter Four) provides insights to how these conditions play out in a specific setting of one secondary school.

Rosenholtz (1989; 1990) pursues an investigation of staff development as a means of implementing change. She identifies two distinctive school cultures: "stuck" and "moving". In the "moving" schools teachers work together towards mutually agreed upon goals. These schools have norms of opportunities for continuous improvement and career long learning. She argues that several structural features implicit in the innovation account, at least in part, for its initial success. Rosenholtz elaborates on these features stating that when teachers are given considerable task autonomy and discretion both to formulate and to implement, their commitment is higher. That is, because teachers collectively construct the plan, it has shared meaning and value. Teachers should be involved in defining their needs and in setting the agenda for staff development to meet their specific needs. In the study discussed here teachers and university educators decide the direction and content of teachers' professional development. Though this study does not examine in depth the structural features of the school that allow for such collaborative professional development to take place, it does
analyze the internal features, both structural and substantive, which enhance teachers' growth.

Teachers are seen as the key to educational change and thus are the focus of many studies of change. Many of the studies mentioned point to teachers' collaboration and staff development as critical in the process of change and implementation of new curriculum. Little (1990a) describes four kinds of collegial relationships among teachers: (a) scanning and storytelling, (b) help and assistance, (c) sharing, and (d) joint work. She claims that there are different levels of collegial relationships between teachers starting with merely telling each other anecdotes, through helping novice teachers, sharing prepared materials and strategies to jointly working to construct teaching materials. Close examination of transcripts from the meetings in this study indicate how gradually over time teachers and university educators learn to jointly discuss and deliberate upon teaching in order to improve it.

Hargreaves (1992) explores the notion of collegiality and collaboration of teachers in relation to teachers' cultures. He describes four possible scenarios that characterize the relations among teachers within schools, and which indicate different cultures among teachers: 1) individualism: in which teachers develop a culture of working alone in their own classrooms; 2) balkanization: in which the culture is made up of separate and sometimes competing groups; 3) collaborative culture: in which teachers are more united than divided, sharing both successes and failures in order to help and support each other; and, 4) contrived collegiality: in which the culture is characterized by a set of formal procedures designed to increase joint planning and consultation of teachers with other teachers.

Hargreaves points to the possible problems with collaboration (i.e. balkanization and contrived collegiality) stemming from the structure and culture within some schools. He maintains that one should not automatically assume that under the
title of "collaboration" there is real sharing and striving towards mutual goals where teachers support each other both in times of success and failure. Hargreaves claims that identifying teacher cultures focuses on defining teacher norms, values, beliefs and practices. Understanding these cultures, he claims, will help understand the dynamics of change in school.

Examining teachers' cultures and different kinds of collaborative endeavours has been at the forefront of many studies. Such studies not only put the teacher at the centre but focus on collaboration and staff development as effective methods to enhance change within the complex setting of school.

**Teacher Collaboration and Professional Development**

One of the earlier attempts at professional development and collaboration as a way to bring about changes into schools was peer coaching. Joyce and Showers (1988) and Showers (1985) describe and analyze peer coaching. Coaching teams are organized and designed to enhance the understanding and use of a teaching strategy or curriculum innovation. The team studies the rationale, sees the new skill demonstrated, practices it, and learns to provide feedback to one another. The members of the group learn to observe and give feedback which is accurate, specific, and nonevaluative. The purposes of peer coaching are: 1) to build communities of teachers who continuously engage in the study of their craft, 2) to develop a shared language and a set of common understandings necessary for the collegial study of new knowledge and skills, expanding the repertoire of teaching skills with the help of colleagues, and 3) to provide a structure to follow up and train teachers in the new skills and strategies. Sparks and Bruder (1987) studied peer coaching programs in two schools in order to see if peer coaching affects implementation, and encourages collegiality and experimentation with new materials. They found that teachers became
comfortable with the process of peer coaching and found it useful. The study indicates that an entire school, with the proper support, can implement peer coaching that results in an increase in communication about and experimentation with teaching techniques.

Hargreaves and Dawe (1990) critique peer coaching. They claim that attempts at peer coaching are insufficiently attentive to the meanings and understandings, the doubts and disagreements that different teachers bring to the training process. They continue to say that peer coaching, as it is proposed by Showers and Joyce, does not tackle the issues involved in teachers' difficulties with and resistance to change. Peer coaching underestimates the importance of contextual problems when teachers are trying to apply new skills and it ignores political and ideological forces within the structure of the school. They add that the scope of peer coaching is narrow, and the time demands are great. In summary, Hargreaves and Dawe state that peer coaching amounts only to contrived collegiality, which might be useful only as a preliminary phase in the move towards more enduring collaborative partnership between teachers.

Examining peer coaching in light of the perspective proposed earlier, it seems that though the rationale of peer coaching entails a greater involvement of teachers in the process of implementing new strategies, the procedure that is used is rigid and limits the teachers' ability to influence it. Furthermore, teachers are not empowered through this process, since they are not active in planning or developing materials, and they do not take full responsibility for the process of implementation. Though it is a step in the direction of opening classroom doors and encouraging teachers to work together, teachers should be more involved in every stage of the process to achieve true collegiality and a sense of ownership.

Ellis (1990) examines the notion of collaboration among teachers and its impact on improving teaching (in other words, on teachers' change). She studied
thirteen experienced volunteer teachers from five elementary schools who were all working with teacher assistants. Her focus was on conversations between experienced teachers and their assistants. The data show that teachers' discussions were associated with teachers' implementation of innovative programs. Ellis describes and defines collaboration in terms of supportive supervision, observation and feedback between the teachers and their assistants. She shows that close supervision from experienced teachers, which was highly structured, forced them to articulate their knowledge to others and encouraged them in their attempts at change.

Ellis' perception of collaboration is different from the peer coaching that is discussed earlier. Ellis (1990) describes a situation whereby issues of power are critical since the study examines attempts of collaboration between experienced teachers who are considered "experts" and assistant teachers. Other studies (for example, Fullan & Steigenbaur, 1991; Lieberman & Miller, 1986; Little, 1990a; 1990b) show that in order to discuss professional development and collaboration, one should strive for collaboration among teachers who have a vested interest in the specific change and are involved in the process. One should also be aware of hierarchical differences between the collaborating participants.

In recent years there have been many studies (for example, Bell & Gilbert, 1993; Cole & Knowles, 1993; Cuban 1992a; Erickson, 1991; Hollingsworth, 1992; Hunsaker & Johnston, 1992) examining collaboration between teachers and university educators. University educators have shown growing interest in collaborating with teachers and studying their collaborative endeavours. Teachers are perceived as inquiring professionals who mediate ideas, construct meaning and act upon these constructions. Their practice is influenced by interacting with and reflecting upon different situations and theories about teaching and learning (Richardson, 1990). When teachers and university
educators work on mutually agreeable interests and agendas of inquiry, it leads to creating collaborative partnerships (Richardson, in press). Following is an analysis some of these partnerships between schools and universities.

**Collaboration Between Teachers and University Educators**

Arends (1990) opens the discussion about possible links between university and schools with the traditional contact where universities train the new generation of teachers. He moves on to claim that there should be new avenues of collaboration between teachers and universities. Collaboration, according to his definition, requires not only joint projects but also joint dialogues between teachers and university faculty. Goodson (1992) also encourages this kind of collaboration, but points out its difficulties. He focuses attention on the inequality in relations between teachers and professors and warns that the nature of collaboration might be characterized by inequality unless special attention is drawn to this concern.

Collaboration, as I perceive it, is a process of mutual construction of knowledge. It is a process in which goals, procedures, and evaluation are defined jointly by all the participants and are negotiated time and again throughout the process (Hunsaker & Johnston, 1992). In an interaction between teachers and university professors whereby teachers basically describe their practical experience and university professors mainly share their "scientific" knowledge, there isn't necessarily a mutual creation of knowledge. However, when the purpose of the meetings is to understand and mutually discuss teaching, where each partner contributes from his or her expertise and experience to new understandings, there is collaboration.

Cuban (1992a) acknowledges the potential for collaboration between professors and teachers, however, he understands its difficulties. Cuban shows that university and school determine "valued knowledge" in different ways. University culture prizes scientifically produced research, whereas school cultures value practical knowledge that
prepares new teachers for their job and helps solve practical concrete problems. Cuban proposes that teaching is the common activity joining these two communities together. Since teaching requires similar qualities, no matter at what level one is teaching, this can be the bridge between university professors and teachers. Cuban describes teaching as an activity that:

requires making concrete choices among competing values for vulnerable others who lack the teacher's knowledge and skills, who are dependent upon the teacher for access to both, and who will be changed by what the teacher teaches, how it is taught, and who that teacher is. (Cuban, 1992a, p. 9)

Cuban suggests that these characteristics of teaching (the practical, and moral coping with dilemmas) can join the cultures of the university researchers, the professors in the school of education and the teachers. He maintains that a re-emphasis on the moral nature of teaching can become a basis for creating intellectual communities of scholars and practitioners, who will construct shared standards for their mutual practice - teaching. Cuban's notion of the commonalties between teachers and university educators brings teachers and university educators together around dilemmas of teaching. Collaboration becomes a method of finding solutions to similar problems stemming from similar dilemmas that both teachers and university educators face.

Clandinin and Connelly (1992) and Elbaz (1991) in their later work acknowledge the difficulties of relationships between teachers and researchers of teachers and teaching. Connelly and Clandinin claim that although in the past only the researcher did the writing, the researcher's voice did not appear in the discourse, or at least did not appear explicitly within a conversation with the teachers. The researcher's role was to listen and record, to be intentionally detached from the process to secure "objectivity". Connelly and Clandinin propose a new kind of collaboration, whereby the text is created by teachers, researchers, and learners (1992). Elbaz (1991) also points to the complex relationships between researchers and teachers. She calls for the creation of communities of teachers and researchers working together.
In the many studies of partnerships between university and school (for example, Bell & Gilbert, 1993; Cole & Knowles, 1993; Cuban, 1992a; Hollingsworth, 1992; Huberman, 1990; Hunsaker & Johnston, 1992) there is an attempt to understand the nature of collaborative relationships, and their roles. One role of such partnerships focuses on establishing professional development schools that provide preparation for student teachers (for example, Dixon & Ishler, 1992; Lasley, Matczynski & Williams, 1992; Winitzky, Stoddart & O'Keefe, 1992; Zeichner, 1992). Another role of such partnerships focuses on school restructuring and creating major changes within schools (for example, Heikkinen, Bucci & Reitzammer, 1992; McDevitt & Stone, 1992). A third possible role of such a partnership focuses on teachers' professional development. Since this study is an example of such collaboration, an analysis of studies in which collaboration plays a similar role is in order.

Hollingsworth (1992) describes a project in which a group of beginning elementary school teachers met with a researcher, who is also a teacher educator, in order to talk about the meaning of learning to teach. The meetings took place once a month in an informal setting and continued over several years. Hollingsworth describes the meetings as non-evaluative conversations. She describes how her role has changed from facilitator/researcher to a participant in the dialogues. Hollingsworth claims that this setting, of long term non-evaluative conversations, becomes the support structure within which collaboration between university educators and school teachers can occur and by which all the partners experience growth. She emphasizes how her role and her perception of her role evolved over time. She started by telling teachers what she knew and checking if they learned it, and then she worked with the teachers as a co-learner though their collaborative conversations.

Erickson (1991) discusses another study of collaboration. He describes and analyzes a project involving science teachers and university educators. Just as Hollingsworth (1992) described changes throughout the project, Erickson points to shifts
in the project as a result of collaboration between university educators and teachers. Erickson (1991) reports on the way they began with the expectation that the university researchers would generate "diagnostic techniques" and lists of teaching strategies for the teachers to try. As the project evolved, teachers started playing a more fundamental role in the development phase as well as in the implementation. Teachers needed to construct their own "diagnostic techniques" in order to respond to the complex and unique situations they encountered in their practice. Erickson suggests that one should differentiate between teachers' purposes and university educators' purposes in the same project.

Collaboration calls for significant interactions where the participants negotiate goals, purposes, roles and routines as a part of their collaborative endeavour. The purposes and goals of both teachers and university educators should be explicitly expressed as a part of the deliberations. Collaborative relations should allow participants to reflect, take risks, share both successes and failures, and take a critical stance toward issues related to teaching.

The PEEL project (the Project for Enhancing Effective Learning) is another study of collaboration between university and school. Since there are many parallels and similarities between PEEL and this study, I will examine it in more detail. PEEL's aim was to discover ways to improve learning and teaching in school (Baird, 1986). The accepted educational "product" was an effective, independent learner. Teachers in a secondary school in Australia, who were voluntarily involved in the project, met on a regular basis in order to discuss their practice and, in particular, to focus on ways to bring about effective learning. This project showed links and parallels between processes teachers went through and those students went through similar to those Fullan (1990a; 1990b) discussed. The PEEL project shows that in order for teacher change to lead to student change it requires: 1) on-going support within the school, in the form of
meeting time as a part of the timetable; funding for substitute teachers in order to allow longer meetings for teachers involved. 2) support from tertiary members (university educators who participate in the meetings), 3) regular interaction with colleagues, and 4) gradual introduction of new ideas. Staff need time to develop their personal meaning of innovations in their classroom. The teachers are a part of trying out, initiating, developing ideas, materials and strategies, and hence, they become independent action-researchers within their classrooms (Mitchell, 1986a, 1986b).

The PEEL project brings forth teachers' professional development as long-term and collegial. PEEL is constructed in a way that takes into account the existing structure and culture of the school although it includes support from tertiary (university) sources. University educators participated in the regular group meetings and brought in different perspectives to teachers' attempts at change. The university educators were a source of continuous support and positive reinforcement to the teachers (Baird and Mitchell, 1986). They also saw their goal as constantly linking the conversations to examination of theories of learning, and to the initial goals of the group.

This form of collaboration which includes both teachers and university educators adds new dimensions to the partnership. A reciprocal relationship develops, where university educators may add the perspective of current research on the one hand and an external view to the discussions on the other, and the teachers may make the connections to their classroom practice. Moving from sharing of ideas, procedures and strategies of teaching, to making links between new strategies and theories of learning and teaching expands the discussion. University educators also benefit from such a collaborative endeavour. They become more in tune with the classroom reality through participation in such partnerships.

These three studies demonstrate the advantages but also the difficulties in collaborative relations between university educators and teachers. Difficulties of time and
place, mixed and unclear agendas, assumptions and pre-conceived notions about the partnerships and the inequality of power relations may hinder partnerships between teachers and teacher educators. The studies emphasize the possibilities of using these relations as a means of mutual growth and as a tool to encourage teacher development that will bring about change. Though one should secure teachers' equal voice in such collaborative relations, these studies show that it can be done. Collaboration, in all the above studies, entails negotiation of the aims and methods, the procedures and the evaluation between all the participants throughout the process. The next section examines three models which analyze the interactions in collaborative partnerships between university and school. Analyzing these models provides the basis to analyze the collaborative process in this study.

**Models of Teachers' Professional Development in a Collaborative Setting**

Kagan (1991) defines collaborations as "organizational and inter-organizational structures where resources, power, and authority are shared and where people are brought together to achieve common goals that could not be accomplished by a single individual or organization independently" (p.3). She surveys different collaborative endeavours, and then she proposes that collaboration should be discussed in five developmental stages: formation, conceptualization, development, implementation, and evaluation. In the first stage the participants become aware of a problem and they perceive collaboration as a means of solving it. The second stage is one of defining objectives. In the third stage the participants move from theory to practice. The fourth stage involves implementation, in which the participants work together within agreed structures to achieve the agreed upon goals. Stage five involves assessment of and reflection upon the collaborative process. As a result of that stage there is a decision either to terminate the process or to enter another stage of collaboration. Kagan (1991) adds that these stages are
affected by four mediating variables: a) goals; b) resources; c) power and authority; and d) flexibility (pp. 18-26). She argues that since collaboration is complex, complicated, and with multiple layers, it is difficult to define precise success criteria. Consequently, it is difficult to determine success. However, Kagan (1991) lists the conditions in which collaboration works best: a) when there is a fertile context, that is a setting where there is a history of successful collaboration; b) when the goals are clear, although in many cases they are revisited and modified; c) when the structure matches the mission; d) when the mandate is facilitative and not restrictive; e) when the participants are really invested; f) when resources are available; and, g) when the process and policies are clear (pp. 74-82).

Cole and Knowles (1993) propose a second model to examine collaboration between teachers and teacher educators. They examine examples from studies that they conducted with teachers focusing on phases of research activities and the roles of the researchers and teachers. Then they also explore the phases of the research and the scope of the partnerships. Cole and Knowles define teacher development as a continuum through teachers' professional lives. "Teacher development represents emerging and on-going, individual and collective, professional and personal development "(1993, p. 475). Looking at many collaborative endeavours between teachers and researchers, Cole and Knowles propose that research should address the complexities of partnerships. They share the understanding that "each partner in the inquiry process contributes particular and important expertise, and that the relationship between the classroom teacher and the university researcher ... is multifaceted and not powerfully hierarchical" (1993, p. 478). They maintain that partnerships between teachers and teacher educators entail four phases: planning and preparation, information gathering, interpretation and representation, and reporting. Cole and Knowles (1993) claim that each of these four phases is influenced by technical, personnel, procedural, ethical, political and educational
issues. In their paper, Cole and Knowles (1993) analyze projects where the researcher studies one or two teachers and their classroom practices. Questions like who sets the agenda, whose voice is heard, and how is it represented are core dilemmas that need to be addressed in such studies. Whether it is done in phases, with shifting focus over time, seems less crucial than the actual addressing of these dilemmas. Though Cole and Knowles (1993) claim that there are no hierarchical differences, it seems that questions of control and power need close examination when analyzing partnerships between teachers and university educators.

Bell and Gilbert (1993) propose the third model of teachers' professional development. Their model is based a collaborative project between experienced science teachers and a university educator that exemplifies a form of professional development. The assumptions underlying the model are that teacher development is a process of empowerment. It should focus on new teaching activities. Its purposes are to help teachers feel better about themselves as teachers and to improve teaching and learning outcomes in classrooms. Teacher development is enhanced through conversations about classroom practices. Support, feedback and reflection are key components of teachers' professional development. The process of professional growth entails addressing prior ideas, beliefs, concerns and experiences of the teachers with regard to teaching science. One critical part of professional development is for teachers to acknowledge that there is a problem in a specific area in their teaching that they will be able to address and change. The teachers should be allowed to decide the pace and nature of changes they are making. The university educator serves as a participating facilitator in this project (Bell, 1993). Bell and Gilbert (1993) maintain that teacher development has three main features: professional, personal and social. They add that each feature has three phases that develop over time. The phases of the social development entail: seeing isolation as problematic, valuing collaborative ways of working, and initiating collaborative ways
of working. The phases of professional development entail: trying out new activities, developing ideas, and initiating other development activities. The phases of personal development entail: accepting difficulties in one's teaching, dealing with restraints, and feeling empowered. Bell and Gilbert (1993) argue that there are many possible combinations for a teacher to locate one's self within the model. A teacher may be in one phase of professional development and in another phase of social development. Though they do not discuss the hierarchical characteristics of their model and the values embedded in it, they maintain that teachers need to be aware of their difficulties and then they can proceed to improve in those specific areas. Although university educators are involved in the collaborative endeavour, their role is one of facilitation. There is no account of any change process that involves the university educators. The phases in the model address only the teachers who participate in the professional development. This raises questions about the nature and definition of collaboration in this case. Is there a shared partnership in which the agenda, the direction and purposes are negotiated through the project, and do the teachers and university educators have equal power over these decisions? Though Bell and Gilbert (1993) acknowledge the importance of teachers' input they do not attempt to examine the nature of the collaborative relationship between university and school. The model may be useful in analyzing teachers' growth through professional development, but it does not sufficiently capture the multifaceted inter-relations between both sets of participants.

Based upon examining different kinds of collaborative endeavours between university and school, the next section focuses on cases and stories as a valuable means to capturing and discussing teachers' professional knowledge.
Cases and Teachers' Knowledge

When teachers discuss teaching they often use stories in order to capture the complexities of the classroom reality. Elbaz (1991) maintains that telling a story is the most adequate way of presenting teachers' knowledge. However, she cautions that it is critical to adhere to teachers' genuine voice in those stories, since only by placing the stories within their specific contexts, does one ensure that the teachers' "real" voice is expressed.

Willinsky (1989) critiques the personal practical knowledge perspective on two grounds: methodological and conceptual. Methodologically, Willinsky states that since the researcher and teacher look for a shared single voice in publication, the teacher's voice is heard mostly through interpretations of the researcher. As Willinsky phrases it: "teacher's voice is kept distinct and subordinated in indented blocks or inverted commas" (Willinsky, 1989, p. 235). One may claim that Connelly and Clandinin (1992) address this issue of multiple voices in their later work, where they propose collaborative work and writing. Connelly and Clandinin claim that the researcher's voice is not heard, whereas Willinsky (1989) suggests that we actually hear only the researcher and hear of the teacher through the researcher.

Researchers interpret conversations with teachers and report teachers' stories, thus, the researchers' voices are again heard. Until there is co-authored writing, the different voices of teachers, researchers, and learners will not be equally heard. Even when a text is co-authored there are questions of how it was written, how decisions were made, whose voice we hear, and as importantly, whose voices we don't hear.

The main concern with teachers' stories is that the stories may become more therapeutic than critical, and thus the ability to learn something that is not idiosyncratic is limited. Teachers' stories move beyond the idiosyncratic when teachers reflect upon their practice and analyze it. Regardless of the possible limitations of teachers' stories, they provide many advantages. Since teachers'
stories evolve around questions of learning and accepting the perception that learning is situated (Brown, Collins & Duguid, 1989), cases and stories are the appropriate medium to discuss learning. Stories help teachers to talk about teaching, which is an ill-structured domain (Grossman, 1992b). Stories are concrete, specific and embedded within a certain context (L. Shulman, 1992) and thus may capture situations in a classroom. Teachers' stories become cases when these stories serve a specific purpose beyond telling a certain incident in the classroom. When teacher educators use cases, their purpose may range from providing a setting for a discussion of theoretical questions, to providing vehicles for reflection and the development of specific strategies, to addressing certain situations, and to providing insights about values (J. Shulman, 1992).

Cases have been used in teacher education for many years both in the initial and continuing training of teachers. However, there has been growing interest in the use of cases over the last decade, both with pre-service teachers and with experienced ones (Grossman, 1992b; Kagan, 1993; Kleinfeld, 1992; Merseth, 1992; J. Shulman, 1992; L. Shulman, 1992). These cases are carefully crafted to be an educational tool for the users, either in preparation programs or in professional development projects. The advantages to using cases are that teachers are encouraged to discuss, share, and refine their beliefs, perspectives, values and skills about specific teaching and learning questions. Cases point to the complexities of the reality of the classroom, and since they pose a problem they are intellectually engaging (J. Shulman, 1992). Lee Shulman (1992) points to the difficulties of using cases, arguing that they are time consuming and difficult to produce, and they are hard to organize and structure, particularly with large groups of teachers. Grossman (1992b) adds another limitation to using cases in teacher education. Cases are narratives and as such are linear, whereas real life situations in the classroom are seldom linear. The stories described in
cases may be used for teaching purposes but may not be taken as portraying the classroom as it is. Cases, like stories, have narrators who give a certain point of view and perspective. The reader ought to remember that there are other possible points of view to the case.

In spite of their disadvantages and limitations cases have great merit for teachers' deliberations about their practice. Transcripts of the conversations in this study emphasize that teachers talk and remember their practice through stories. Though the literature argues that cases ought to be carefully crafted and designed with a purpose, this study shows that teachers and university educators create cases through their discussions of teaching and learning. When a group of teachers and university educators talk about teaching and learning there are themes that recur. These recurring thematic topics shape cases that are situated and shared by the participants. They are unique to the specific context in which they are embedded, but they also touch on general issues and questions. These shared and situated cases allow the teachers and university educators to recall instances they discussed earlier and link them through themes and cases to new occurrences in their practice. Chapter Six provides a close analysis of these shared situated cases.

**Summary of Chapter Two**

In this section I briefly analyze the relevance of the three bodies of literature reviewed in this chapter for this study. When Schön (1983; 1987; 1991) discusses reflective conversations, he refers to an "inner conversation" between a practitioner and a problems setting. In this study this construct is broadened and refers to group conversations of teachers and university educators who discussed teaching and learning. Reflective conversations among colleagues around issues
of teaching and learning as shaped in this study in the form of shared situated cases will be examined in later chapters (see Chapter Five and Six).

The literature discusses collaboration between teachers and university educators as an important method of teachers' professional development. Kagan (1991) lists the conditions that enhance collaboration. In Chapter Four, I examine these conditions in the context of this study. Cole and Knowles (1993) examine personal, individual processes teachers go through while discussing and analyzing their practice with researchers. In this study, the focus is on a group of teachers and university educators who were involved in and committed to an ongoing process of professional development. However, the issues of voice and representation, setting direction and negotiating purposes are germane to collaborative endeavours examined in this study. Acknowledging the different kinds of expertise and experiences the players have and bring to the partnerships is also important. Bell and Gilbert's (1993) model focuses on teachers' developmental stages in their professional development. However, it is also beneficial to examine and analyze the dynamic nature of the collaborative conversations (for a detailed comparison between these models and this group see Chapter Four). The next chapter focuses on the methodology used in this study and how it links to the research questions.
Chapter Three
Research Methods

The purpose of this study was to describe and analyze the dynamic processes that occur in meetings between secondary school teachers and university educators when they discuss teaching and learning. The research questions focus on the ways in which a community of professional colleagues evolved over a period of two school years, and on the dynamic nature of the group deliberation. Thus, qualitative methodologies best answer the research questions (Geertz, 1973; Goertz & LeCompte, 1984; Wolcott 1988). The primary research task was to provide a detailed understanding of the processes that evolved within the group in the context of the school. This in-depth description called for a case study approach using qualitative methods.

Sources and Settings for Data Collection

The school

The site for the study is an urban, public secondary school. It has approximately one thousand students, and is located within a large city, in a middle class neighbourhood of a large city, with a relatively homogeneous population. For most of the students English is the first language. However, there is a growing population of English as a Second Language students (10% to 15%) which is changing the makeup of the school. It is a grade eight to grade twelve secondary school, in which many students take provincial examinations at the end of grade twelve. About 60 - 70% of the students go on to post-secondary education. There are fifty-five staff members. In an interview, the principal characterized the staff in the school:
Actually it's a changed considerably in the last couple of years. We've got a fair number of young staff. ... So I would say the average age [of the teachers] is declining and there's a lot of energy amongst this group. I think we have an excellent staff. (Interview, 23.6.92)

Many of the parents are academically oriented, and they have specific interests and requests regarding the acquisition of learning skills.

The Participants

Both teachers and teacher educators were involved in the study. Initially there were nine teachers in the project who each had four years or more teaching experience. There were four English teachers, two social studies teacher, a psychology teacher (who also taught English), a science teacher, and two teachers in the Alternate school where they teach all the subjects. Seven of the teachers are females and two males. After the end of the first school year, one of the teachers left the school and consequently left the group. Throughout the second and third years of the project three teachers left the group and two others joined.

There were four university educators in the group, which included myself as the person who was documenting and analyzing the process. The four university educators had previously been secondary school teachers of humanities and science. Two are males and two females. At the end of the first school year two left the group because they left the country. The other two remained involved in the group meetings throughout the project.

I briefly introduce the participants at this point so that it is easier for the reader to follow the analysis chapters that contain transcripts from interviews and meetings and refer to the participants. There were four English teachers in the

2 The alternate school is also called a satellite school. There are different feeder schools to it, but mainly the school in which this study is conducted. The students are mainly low achievers who did not accommodate to secondary school for a variety of academic and social reasons.
group: Alice, Ann, Pat, and Susan. Alice is an English and drama teacher. When the project started it was her fourth year teaching, and her second year teaching at this school. She teaches English, drama and writing in grades eight to twelve. Ann teaches English to grades nine, ten and twelve. She is also involved in plays that the school theatre puts on. She has been teaching for thirty five years, five of them in this school. Pat is the head of the English department and has been at the school for five years. Before that she taught in different schools. Pat teaches mainly in the upper grades. During the third school year she gradually stopped attending meetings. Susan, an English teacher, was on the professional development committee and thus was involved in initiating and setting up the project. She taught English in different grades. Prior to coming to the school four years ago she taught in England. At the end of the first year she left the school and thus was not involved in the research.

Karen teaches psychology, and she is also a counselor at the school. In the second year of the project she also taught English. She teaches grades eight to twelve. She has taught at different schools and was involved in different forms of professional development.

Barbara and Nelly both teach social studies. Barbara is the head of the social studies department at the school. When the project started she was in her first year at the school. She teaches history, law, business education and social studies, working mainly in the upper grades. It is Nelly's fourth year at the school. She has been teaching for twenty three years. Nelly teaches social studies, accounting, and keyboarding to grades nine through twelve. Nelly came only to one meeting in the first year of the project, but joined the group during the second year.

\footnote{All names used in the dissertation are pseudonyms except for my name.}
Mark was the only science teacher in the group. He has been in the school for many years, teaching science and physics to the upper grades. He stopped coming to the meetings regularly in the middle of the second year.

Melissa and Doug taught in the Alternate school. Melissa is a counselor. She taught counseling and life skills at a college and then took the position of a teacher in the Alternate school. She teaches all the subjects to students of varied secondary school ages. Though she teaches all the subjects she feels more comfortable teaching humanities. Melissa gradually left the group meetings in the second school year. Doug also teaches in the Alternate school. When he joined the group it was his seventeenth year teaching. He taught at different schools and in various countries and then took the challenge of teaching at the Alternate school.

Jim and Gary, the university educators, had both been science teachers in the past. Jim was one of the initiators of the Learning Strategies Group (LSG) project. He also initiated similar groups in Australia, serving as a facilitator of those groups. Gary is a university professor interested in math and science education and in teachers' professional development. Janet is an English teacher, however, when the project started she was serving as a university advisor and came to the project as one of the initiating university educators. Janet was involved in similar teachers' professional development projects in Australia. At the end of the first school year, both Jim and Janet left the project, returning to Australia. I (Gabriella) joined the group as one of the university educators interested in collaboration between teachers and university educators. Prior to that I taught humanities for fifteen years at secondary schools in Israel. Both Gary and I have participated in the project from its initial stages till today.

All the participants in the group were there voluntarily, and of their own initiative. Participants shared an interest in participating in a project that entailed
long term professional development focusing on learning and teaching. The meetings were open to all the teachers on staff regardless of their commitment to the project. Thus, there were some who came only for a limited time. No one was rejected from the group. During the second year a consultant (former teacher) from the central board office joined the meetings for a few months.

All the participants were aware that I was studying the project, and they all gave their consent to participate in it. All meetings were tape recorded and transcribed.

**Group Meetings**

The main source of data was the dialogue within weekly and later bi-weekly meetings of the group. In the meetings the participants established their routines and agendas, and discussed issues of learning and teaching. The participants deliberated on specific problems and dilemmas that teachers presented in the meetings. They discussed methods and strategies that enhance students' involvement in the learning process. The goal was to collaboratively find ways to encourage students to become independent learners. The meetings included deliberations on a variety of issues of learning and teaching: (a) subject specific strategies, like how to teach a specific novel; (b) generic learning strategies, like how to summarize or paraphrase; (c) assessment and evaluation strategies that link to the strategies discussed in meetings; (d) finding links within subjects, between subjects, between students' lives and school; (e) involving parents in meaningful ways in the learning done at school; and (f) finding creative solutions to addressing the wide range of students' abilities.

At the end of the first school year there was a full day meeting in order to examine the direction the group was heading the following year.
Staff Meetings

At several points in the project the participating teachers decided to discuss the group meetings and their contents with the rest of the staff in the school. They arranged for time at staff meetings to present the substance of the project. The purpose of the presentations was twofold: to let the staff know about the group and what the group participants were grappling with; and to recruit new members. The group discussions in which the participants decided how and when to present the Learning Strategies Group to the staff were included in the data collection. The preparation for these presentations became a tool to clarify the purposes and roles of the group to members as well as to non-members. My role was mainly one of support to the presenting teachers.

Conference Presentation

In the second year three teachers and I decided to make a presentation about the project at a professional conference. Preparing for the presentation, discussing how to present the group and the content of the meetings, became valuable data for the participants. It was an opportunity to explain, deliberate and reflect upon the project.

Methods of Data Collection

Two main methods of data collection were employed: interviewing and participant observation. In the following sections I discuss each of them.

Interviews

Interviews are widely used in qualitative research. An interview is defined as a unilaterally-led conversation with a purpose. The purposes vary from obtaining information, construction of the setting by the participants,
reconstruction of the past by the participants, to obtaining interpretations of the setting from the point of view of different participants (Lincoln & Guba, 1985, p. 268; Marshall & Rossman, 1989, pp. 82-83). The interview allows the participants to take the time to reflect upon the issues discussed and observed in the study. Conversations and interviews are discourses, in which both the researcher and the participants try to make sense of a situation and mutually create meanings (Mishler, 1986a; 1986b).

In this study, the interviews were relatively open-ended and non-directive (Hammersley & Atkinson, 1983). The interviews were semi-structured (Mishler, 1986, Spradley, 1979) allowing for standard questions to be asked of all the interviewees, while allowing unique directions to be taken, if necessary. The questions were general and their intent was to encourage the interviewees to engage in a conversation around their participation in the project. The purpose of the interviews was twofold: to clarify the motivations of the participants in joining the group, and to discuss the perceptions of the participants about the implications of the group meetings on the teachers' practice.

Hammersley and Atkinson (1983) propose the term "reflexive interview":

The main difference between the way in which ethnographers and survey researchers ask questions is not, as is sometimes suggested, that one form of interviewing is 'structured' and the other is 'unstructured'. All interviews, like any other kind of social interaction, are structured by both researcher and informant. The important distinction to be made is between standardized and reflexive interviewing. Ethnographers do not decide beforehand the questions they want to ask, though they may enter the interview with a list of issues to be covered. Nor do ethnographers restrict themselves to a single mode of questioning. On different occasions, or at different points in the same interview, the approach may be non-directive or directive, depending on the functioning that the questioning is intended to serve. (pp. 112-113, italics in the original)
The researcher responds to the comments made by the interviewee and those comments shape the direction of the conversation. The interview is regarded as a social interaction, in which both participants shape and structure the event. The respondent is encouraged to explore thoughts, beliefs, and concerns that may or may not be phrased in the questions. Following what may seem to be a tangent in a certain response may lead to new avenues of explorations of the interviewee's understanding and perceptions of the study. However, the researcher does orient the interview questions towards addressing the research questions that are guiding the study (Goetz & LeCompte, 1984).

All the participants in the group were first interviewed after their initial decision to join the group. This first interview examined the reasons why the participants joined the group and their expectations of the meetings. There was a second interview after five months (towards the end of the school year, June 1993). This interview focused on the interactions and dynamic processes within the group as seen by the participants. There were questions about roles of teachers and university educators, the substantive and structural content of the meetings, the perceptions of the implications of participating in the group meetings on teachers' practice and on other staff in the school.

The interviews were the opportunities for the participants to voice their views about the group. Though there were some discussions in the meetings about group dynamics and direction, not everyone was active in these deliberations, and thus they used the interviews to express their views. Both teachers and university educators were interviewed in order to gain insights into the various perceptions of the project. The principal was also interviewed in order to examine his perception of the group meetings as a form of professional development of the staff, and his understanding of the role the group played within the larger school setting. There was a total of twenty five interviews.
ranging from 30 minutes to three hours in length. They were tape-recorded, transcribed, coded and analyzed.

**Participant observation**

A main "tool" the researcher uses in qualitative research is observation. Ethnographic observation takes place within the setting and it is usually over an extended period of time ((McMillan & Schumacher, 1989). The researcher's role is to record, interpret, and analyze what is observed and thus construct meanings of the phenomena. Observation provides a "here-and-now" experience of the setting through the lenses of the researcher.

Observation...maximizes the inquirer's ability to grasp motives, beliefs, concerns, interests, unconscious behaviours, customs, and the like; observation ... allows the inquirer to see the world as his subjects see it, to live in their time frames, to capture the phenomenon in and on its own terms, and to grasp the culture in its own natural, ongoing environment; observation ... provides the inquirer with access to the emotional reactions of the group introspectively - that is, in a real sense it permits the observer to use himself as a data source; and observation ... allows the observer to build on tacit knowledge, both his own and that of members of the group (Guba & Lincoln, 1981, p.193).

Using participant observation, the researcher is involved in a setting both as a participant and as an observer. Researchers are expected to observe and participate as well as record, compare and analyze, moving back and forth from participating to observing (Wax, 1980). Hammersley and Atkinson (1983) claim that in order to keep both roles, the researcher should maintain a relatively marginal role in the setting. This allows the researcher to simultaneously maintain the two roles of a participant, and of a detached observer.

There has been a shift in the conception of the notion of participant observation in the social science research traditions (Lincoln & Guba, 1985). The naturalistic paradigm sees the influence of a participant observer on what is observed. "Observation not only disturbs and shapes but is shaped by what is observed" (Lincoln & Guba, 1985,
Eisner (1991a) develops this point further stating that one observes through the lenses of one's theories. Jaggar adds that:

Just as observation directs, shapes, and partially defines emotions, so too emotion directs, shapes and even partially defines observation. Observation is not simply a passive process of absorbing impressions or recording stimuli; instead, it is an activity of selection and interpretation (1989, p. 154).

Jaggar discusses the role of the researcher as an interpreter who is actively involved in reciprocal relations with participants and with what is observed. Clifford summarizes the basic notion of participant observation as a continuous interaction of "inside" and "outside". He maintains that:

"Participant observation" serves as shorthand for a continuous tacking between the "inside" and "outside" of events: on the one hand grasping the sense of specific occurrences and gestures empathetically, on the other stepping back to situate these meanings in wider contexts (1988, p. 34).

Feminist theorists claim that participant observation is a unique tool for obtaining data and rapport with participants, being aware at the same time of the problematic issues evolving from the role of the researcher as a participant observer. They emphasize issues of power, authority, voice, representation and exploitation (Hollingsworth, 1992; Jaggar, 1989; Roman & Apple, 1990; Stacey, 1988; Britzman, 1990; Lather, 1991). They discuss the contradiction between portraying participants as they would portray themselves, as opposed to describing the participants in ways they could not see by themselves (Britzman, 1990).

Stacey (1988) claims that the researcher's notion of an "insider" is an attempt to be authentic, and as much a part of the setting as possible. At the same time, the researcher tries to maintain a role of a remote "outsider". Stacey uses harsh terms to describe this ambivalence in the relationship. She claims that researchers may "exploit" or use the information that participants share with them. Though there are researcher-researched relationships that can be described as leaning more towards reciprocal than exploiting, both researchers and participants should be aware of the range of possible relations and caution against leaning toward exploitation. Focusing the attention to the
possible benefits for all participants from any research they participate in, and moving away from the notion that only researchers gain from research, may create a more balanced relationship between the researcher and the participant. Making the research agenda explicit, sharing thoughts and the analysis with participants, allows movement towards a collaborative relationship between the researcher and the participants.

Lather (1991), Stacey (1988), Reinhartz (1979), and Harding (1991) discuss the difficulties with this role of "insider" and "outsider" involved in participant observation. They are concerned with the possibility of the "abuse" of the "tool" and even more so with the "abuse" of the relationships that develop between participants and researchers. Thus, they encourage researchers to be open about their ideology (Harding, 1990; 1991; Grumet, 1989; 1990; Reinhartz, 1979); and suggest that they become self-reflexive about their research (Lather, 1991; Roman & Apple, 1990; Stacey, 1988; Hollingsworth, 1992). Again, the way to address these concerns is through acknowledging them, being explicit about the research agenda, taking into account the researcher's preconceptions of the study, and sharing the analysis of the data with the participants.

As a participant observer I participated in the meetings that initiated the project. I participated in the two professional development days for the entire staff, was involved in composing, administering and analyzing the questionnaires that led to the creation of the group. I participated in the weekly and bi-weekly meetings since the inception of the group. I was also a participant observer in staff meetings where the Learning Strategies Group was discussed. Over the last three school years there have been more than forty meetings, which were all tape recorded and transcribed. One of my participatory roles was to supply the minutes and the written summaries of strategies and procedures tried out by the teachers. However, I have not been an active participant in the meetings in suggesting new procedures or variations of strategies already tried. As a
participant observer, I was involved in a variety of activities in the school including the following:

- Participation and observation in weekly meetings of the group.
- Participation in staff meetings which discussed the group.
- Participation in organization of questionnaires to the staff in order to determine and prioritize interests and concerns.
- Participation in organization of two professional development days for the staff.
- Participation in organization of a full day workshop for the group participants at the end of the first school year.
- Providing minutes and summaries of strategies discussed in group meetings.
- Meeting informally with participants who were interested in conference presentations and in writing about the project.
- Discussions with administration about the group.

In all these different activities, I wrote extensive field notes focusing on the guiding research questions. I started the field notes with descriptions of the site (the room where the meetings took place), the participants in the meetings, time of arrival, sitting arrangements, roles played in the meetings, order of speaking, and topics covered. I tried to capture as much information as possible. However, later, when I had a better understanding of the nature of the dynamics of the conversations, I could be more focused in my observation and in my reports in the field notes. The next level of field notes occurred after the meetings, when I started to make sense of what I was observing. I added beginnings of interpretations to what was occurring in the meetings. Then, I linked these interpretations to the research questions and to further observations. I wrote questions I had, and specifically focused on deliberations about situations that were more difficult to explain. These became the foci of further observations and analyses.
Data Analysis

The purpose of the data collection was to have data that enabled "thick description" as Geertz (1973) suggests. The interviews and observations ought to create an in-depth "thick description" of the ways this group of teachers and university educators functioned when they met on a weekly basis, and what kind of discourse was created amongst the participants. Specifically, the analysis of the data led to an understanding of how the participants used reflective conversations, represented in the form of shared situated cases, to capture, reflect and deliberate upon teaching.

Data analysis is a synthetic process (Lincoln & Guba, 1985) of making sense of descriptions, transcripts of meetings and interviews. In order to understand and analyze the data, codes and categories were used (Miles & Huberman, 1984; 1986) based on the research questions and the literature that informed the study. Using the constant comparative method was a means for deriving grounded theory. The analysis entailed four levels of transformation of the data. The first level of transformation was the transcripts and field notes from the meetings and interviews. The second level of transformation entailed identifying categories for coding the data and "chunking" a sample of the data to experiment with the categories. The initial codes were based on the literature of teachers' professional development and collaboration between teachers and university. The focus of these coded units was to establish routines and roles, and examine factors that enhanced or hindered collaboration in that school setting. After the sampling, I omitted some of the categories, and added others. The third level of transformation was a close examination of the discourse in the meetings, analyzing themes that emerged over time. Themes were defined as topics or stories that the participants referred back to over time. These thematic
deliberations were examined drawing upon Schön's model of reflection-on-action and reflective conversation. The fourth level of transformation was examining the themes beyond one meeting, analyzing the ways recurring stories were represented in shared cases that the participants drew upon in their deliberations. In this level there were also claims made about teachers' professional development and collaborative endeavours between university and school.

All four levels of transformation are reported in the following chapters. Chapter Four, demonstrating how the group evolved and developed over time, reports on a level two transformation. Chapters Five and Six, discussing the reflective conversations and the way shared situated cases are created, draw upon levels three and four of transformation. Chapter Seven, discussing the conclusions from this study and its implications to teachers' professional development, also reports on level four transformation.

Generalizability of the Data Analysis

The case study method is useful for understanding different perspectives and for clarifying processes within specific contexts (Firestone, 1993). The question I face in the analysis of this case study, of the nature of the dynamics of conversations between teachers and university educators, is the ability to generalize from the findings. Eisner (1991b) defines generalizing as an act of learning, or transferring information. He argues:

The content we generalize is ideas couched not only in linguistic form, but also in skills and images. We generalize skills when we know how to apply them in situations other than the ones in which they were initially learned, and we generalize images when we use them to search for and find features of the world that match or approximate the images we have acquired. Images can function, just as propositions can, as categories that enable us to seek and sort the world we encounter. They are devices through which our experience is construed. (p. 201)
Thus, in order to be able to transfer, generalize, or learn from this case study, the reader ought to have "thick descriptions", as Geertz (1973) uses the term, to make informed decisions about the similarities and differences between different contexts (Lincoln & Guba, 1985). The emphasis on a detailed description, encompassing layers and interactions within the Learning Strategies Group, taking into account multiple voices and different perspectives, allow the reader to learn from this study and to transfer this knowledge to different sites. Firestone (1993) refers to this extrapolation as case-to-case transfer, and Lincoln and Guba, (1985) use the term transferability.

However, generalizability may also refer to expanding theory. As Eisner (1991b) claims: "...what we generate through inquiry into educational matters are ideas that contribute to the development or refinement of conceptual frameworks, perspectives, or metaphors through which the world is viewed" (p. 210). Generalizing to theory, or analytic generalization, is providing evidence that supports theory or links between theories and specific cases (Firestone, 1993, p. 8). The analysis of the Learning Strategies Group provides insights and evidence to Schön's (1983; 1987) notion of reflective conversations, and to Shulman's (1992) discussions of the use of cases in education. However, the analysis of the Learning Strategies Group provides new insights for these perspectives. Reflective conversations and cases are defined and exemplified in new and broader terms, thus expanding the initial theoretical perspectives.

**Timeline of the Research**

The project described in this study has been an on-going collaborative endeavour between a group of secondary school teachers and university educators. The data for this study were gathered from meetings and interviews that took place in the first two school years. However, the university educators
(myself included) continued to participate in the meetings and support them. Consequently, when there were instances that occurred in the third year and had implications to claims made earlier, these were used in order to support the claims.

The project started with initial contacts from the school to the university in October 1991. There were two initial meetings, between the professional development committee, department heads, administration, and the university educators to discuss possible venues of working together. Following these meetings, the university educators were introduced at a staff meeting, and then devised a questionnaire to the staff to prioritize their concerns and interests (see appendix I). On the basis of this questionnaire the university educators conducted a professional development day for the entire staff in December 1991. Subsequently, another questionnaire was distributed to determine staff interest in continuing to explore the issues of teaching and learning from the first professional development day (see appendix II). Based on the results from that questionnaire, a second professional development day was held by the university educators in January 1992, for interested teachers. The group of interested teachers started meeting with the university educators on a weekly basis through June 1992. In February and March 1992, I conducted the first set of interviews. In June 1992 a full day workshop was run by the university educators, and the second set of interviews was conducted. At that time I also interviewed the principal. In September 1992 the group resumed its meetings with some changes in personnel. By January 1993 the group moved to bi-weekly meetings. In March 1993 representatives of the group presented at a professional conference. The regular meetings continued till the end of that school year and on to the following school year. In those meetings, the group presented to the rest of the staff several times its purpose and how it worked.
### Table One: Summary of Research Timeline

<table>
<thead>
<tr>
<th>Month</th>
<th>Year</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>October</td>
<td>1991</td>
<td>Initial contacts</td>
</tr>
<tr>
<td>November</td>
<td>1991</td>
<td>University educators present at staff meeting. Meeting of department heads, administration, and university educators. First questionnaire</td>
</tr>
<tr>
<td>December</td>
<td>1991</td>
<td>Professional Development Day Second questionnaire</td>
</tr>
<tr>
<td>January</td>
<td>1992</td>
<td>Professional Development Day Learning Strategies Group is formed and meets regularly on a weekly basis</td>
</tr>
<tr>
<td>March</td>
<td>1992</td>
<td>First interviews</td>
</tr>
<tr>
<td>June</td>
<td>1992</td>
<td>Full day workshop Second interviews</td>
</tr>
<tr>
<td>September</td>
<td>1992</td>
<td>Bi-weekly meetings continue in the second school year</td>
</tr>
<tr>
<td>March</td>
<td>1993</td>
<td>Conference presentation</td>
</tr>
<tr>
<td>June</td>
<td>1993</td>
<td>Meetings continue End of data collection</td>
</tr>
</tbody>
</table>

### Summary of Chapter Three

This chapter laid out the research methods used in the study both to collect data and to interpret it. This study analyzed the deliberations of a group of professionals. Qualitative methods best suit this study that focuses on multi-layered and multi-faceted dynamic conversations. Thick descriptions and their analysis provide the tools to understand how a professional community is created and developed over time, and what the nature of their discourse is.

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4 This table focuses on the timeline of the research particularly the data collection. However, the project continued over a longer period of time and will be discussed in Chapter Four.
Group meetings and interviews were the main sources of the data. The research tools, participant observation and interview were discussed both in general terms and within the specific context of this study. The methods of analysis and interpretation of the data were brought forth and so were the levels of transformation of the data. A discussion of the significance of the study and its generalizability both to other cases and to theory followed. The last section gave an overview of the timeline of the research and the data collection. The next chapter examines the development of the collaborative endeavour in the Learning Strategies Group.
Chapter Four

The Development of the Process of Collaboration Between Teachers and University Educators

This chapter lays out the development of a collaborative endeavour between teachers and university educators from the preliminary steps of negotiations between the participants to the formation of the Learning Strategies Group and its evolution over more than two school years. The description of the project entails the initial negotiations, the reasons the participants joined the group, the roles of the participants, the substantive and structural contents of the meetings and the way they shifted over time.

Chronology of the Project

The project was initiated by a secondary school professional development committee who wanted to explore possibilities of a professional development day for the staff. This evolved to an examination of the interests and concerns of the staff and led to two professional development days around issues of learning and teaching. The university educators planned and conducted these two days. The initial contacts took place between October 1991 and January 1992. The result of the second professional development day was a decision to form the Learning Strategies Group. The group met regularly for over two school years, starting with weekly meetings and then moving to bi-weekly ones. At the end of the first school year the participants met for a full day to discuss the direction the group should take in the following year. Over the second year some members of the group prepared a presentation at a conference to discuss the project. In the third year the teachers decided to recruit more teachers to participate. They also considered meeting with other professional development groups of teachers from different schools.
Table Two: Timeline of the Project

<table>
<thead>
<tr>
<th>Month</th>
<th>Year</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>October</td>
<td>1991</td>
<td>Initial contacts</td>
</tr>
<tr>
<td>November</td>
<td>1991</td>
<td>Meeting of department heads, administration, and university educators.</td>
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<tr>
<td></td>
<td></td>
<td>First questionnaire</td>
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<tr>
<td></td>
<td></td>
<td>University educators present at a staff meeting</td>
</tr>
<tr>
<td>December</td>
<td>1991</td>
<td>Professional Development Day run by the university educators</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Second questionnaire</td>
</tr>
<tr>
<td>January</td>
<td>1992</td>
<td>Professional Development Day run by the university educators and geared for interested teachers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Learning Strategies Group is formed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Weekly meetings</td>
</tr>
<tr>
<td>June</td>
<td>1992</td>
<td>Full day workshop for the participants run by the university educators</td>
</tr>
<tr>
<td>September</td>
<td>1992</td>
<td>Bi-weekly meetings</td>
</tr>
<tr>
<td>March</td>
<td>1993</td>
<td>Professional conference presentation by three teachers and a university educator</td>
</tr>
<tr>
<td>June</td>
<td>1993</td>
<td>The participants decide to continue meeting the following school year</td>
</tr>
<tr>
<td>September</td>
<td>1993-present</td>
<td>Bi-weekly meetings</td>
</tr>
</tbody>
</table>

**Preliminaries to the Formation of the Group**

The project evolved from an initiative of the professional development committee at the school that examined possibilities of professional development to incorporate university educators and teachers. In October 1991 the teacher educators met with the school professional development committee, administration and department heads to determine the teachers needs and expectations. The participants in this meeting tried to articulate the teachers' concerns based on the mission statement of the school. As a result of that meeting the staff completed a questionnaire (see appendix I) in order to identify and prioritize their concerns about
learning and teaching. On the basis of that questionnaire the university educators planned a professional development day focusing on specific strategies to encourage students to become active learners. Subsequently, the university educators devised a second questionnaire (see appendix II) in order to determine teachers' interest in pursuing the issues raised in the first professional development day. The second questionnaire also detected any concerns and objections of the staff concerning the formation of a group within the school that would focus on enhancing students' involvement in their learning. The university educators clarified to the staff that they saw the professional development days as a possible first step in a collaborative professional development project. Out of the total number of respondents to the questionnaire, fourteen teachers did not object to the project but were not interested in taking part in it, four teachers were committed to participating in an on-going group even before the second professional development day, and eleven teachers were interested in a second professional development day in order to decide about their participation in the group. All of the teachers who were not interested in joining specifically stated that they did not object to having such a group in the school. At the end of the second professional development day, a group of nine teachers and four university educators formed the Learning Strategies Group (LSG) to begin exploring ways of enhancing active learning through weekly meetings where teaching and learning were discussed.

The Participants' Reasons for Joining the Group

The teachers had a variety of reasons for joining the group. The most common one was the need for a place to share their ideas and to give and receive support on a regular basis. Several teachers linked this need of support and sharing with a focus on encouraging students to become active and independent learners.
In the interviews some teachers stated other reasons for joining the group. Mark said that he liked to try out adventurous new things in his teaching and after the professional development days the ideas of quality learning seemed to him to fit well with his teaching. Melissa said she had been a counselor for many years and now that she was back in the classroom she was seeking support from colleagues and a place to share new teaching strategies. She added, that active learning was a key component of her teaching, and she considered it as the right way to prepare kids to live in modern society. Barbara added another dimension, to her decision to join, relating it to being involved in staff activities and finding her place among the staff as a new person joining the school:

I joined the group for many reasons, three of which are: One, I'm new in the school. It's my first year here, so it's a way to find out what's going on and to, I feel, to be with teachers who are really interested in raising standards and trying something innovative. The second reason is, because of the course work I'm doing at the university, it ties in very nicely. And the third reason is that we are looking at Curriculum 2000, which is a brand new curriculum, so I'm sort of seeing how I can use what I am learning in this group at a professional level. So, it's real selfish reasons. (Interview, 9.3. 92)

Though Barbara did not, at first, give reasons similar to other teachers, she talked about ways in which she could use the group both in her socialization within the school and in her practice.

The university educators joined the group because of their interest in teachers' professional development as an on-going, long-term process and as a result of their belief in the part collaboration between teachers and university educators can play in the professional development process. Two of the university educators had previously been involved in a similar project and saw the LSG as another way to foster teachers' professional development. Jim and Janet were interested in exploring teachers' professional development through
collaboration with university educators in a new context. Discussing his reasons for joining the LSG, Jim said:

I can see changes occurring in a school. Another reason I do it is that I get all these new ideas for my own classroom, it enriches my own working knowledge. And a third reason is ... to have an on-going relation with the schools. (Interview, 12.3.92)

When Gary talked about his reasons for joining the group he focused on the importance of teachers' professional development through collaborative relationships between university educators and teachers:

I was looking for ways of getting teacher groups potentially started while they [the two teacher educators from Australia] were here to draw upon their expertise. And the second [reason] is that it does indeed seem to me like a reasonable model of teacher development. A more of a school based model where the teachers have more control and more responsibility for their professional development, at the same time recognizing the important and critical role of support structures that need to be in place in order for that to happen. (Interview, 16.4.92)

My reason for joining the group was my interest in teachers' professional development. I wanted the opportunity to closely study a collaborative endeavour from its initial steps and through its later development, believing that collaboration between teachers and university educators may lead to the creation of a community of professionals who focus on improving teaching.

Although the participants had different motivations for joining the group and attending the meetings, they all shared the view that they may benefit from discussing teaching and learning. All the participants had a common understanding that sharing, deliberating and reflecting upon teaching strategies was worthwhile. They all viewed teachers' professional development as a long term endeavour, that enriched all of its participants' professional knowledge.
The Goals of the Project and How they Shifted

When the participants joined the group they had a list of concerns that they identified and prioritized:

- How do we encourage independent learning and critical thinking as opposed to rote learning?
- How do we encourage higher level thinking such as critical and reflective that will lead to self-assessment and self evaluation?
- How do we "harness" the students' verbal activity and energy in a positive way to focus on thinking and learning?
- How do we promote students' attitudes that value intellectual challenge as opposed to "Make me learn!" or "Is it for marks?" types of attitudes?
- How do we design learning activities that encourage active learning?
- How do we develop evaluation measures to match the types of learning we seek?

The participants composed this list of concerns on the basis of the school's mission statement (that many of the teachers had been involved in creating) and on their perception of their weaknesses as teachers, and those of their students. These concerns became the goals of the Learning Strategies Group. They wanted to encourage independent learning, and thinking that led to self assessment. They wanted to promote student attitudes that value intellectual challenges, and sought to develop evaluation measures to match these types of learning.

There were very few explicit discussions about these concerns (except for the meeting on 6.3.92). However, in the full day meeting (17.6.92) the participants examined the strategies in relation to these goals. All the strategies the teachers brought to the discussion matched these initial goals, and all the goals were addressed. When the participants were considering the second year, they maintained that they wanted again to focus on these goals. However, they
could define them in more specific terms, since they had a clearer understanding of the group deliberations.

In the second year the participants decided to emphasize integration between different subjects, focusing on links both through themes and skills. They wanted to inform staff and recruit more people to join the group. They were looking for ways to link school work to students' lives. The participants also wanted to encourage parents' involvement in the students' learning. Linking became a thread that wove the concerns and goals of the second and third years of the project.

The Development of Roles Within the Group

As the meetings started (January 1992) the university educators suggested that the group nominate a chairperson, who would prepare the weekly agenda, and liaise with the university educators. The teachers reacted immediately to that suggestion and decided that they wanted that role to be shared and rotated among them every four weeks. One teacher volunteered to be the first chairperson and then the role rotated alphabetically through the teachers. Teachers chaired the meetings and took responsibility for the agenda. Although there were different styles of chairing, there were some elements common to all the chairpersons. Whoever chaired set the agenda, ensured that everyone who wanted to share got "air-time" in the meeting, and encouraged teachers to participate in the discussions. After chairing for four weeks, the teacher who chaired was more aware of the participants' needs and concerns.

Thus, since the role rotated between the different teachers, they all became very sensitive to each other's needs, concerns and requests from the meetings. Finding data to substantiate this claim has been difficult as the change observed was not only expressed in verbal comments. On many occasions the people who
had already chaired waited longer in the meetings before they brought to the discussion stories and problems from their classrooms. They encouraged other teachers to use meeting time and allowed them priority. Verbal comments that supported that claim were sparse but clear. For example, after Mark finished his turn as a chairperson he was still in tune to the needs of other participants and took the responsibility to ask clarifying questions:

I'm not sure what you're trying to get at, what is the goal you are trying to achieve. (Fieldnotes, 21.2.92)

Later on in that meeting he complimented Barbara for the strategy she shared. After Barbara finished her rotation as a chairperson she, on more than one occasion, still considered the needs of other teachers for "air time" before taking the time herself,

Come on, Karen, please tell us. (Fieldnotes, 8.5.92)

Liaising with the teacher educators was shared among all the teachers. None of the teachers took the responsibility to discuss the agenda with the university educators prior to the meetings. That shaped the advisory role of the university educators. They responded to teachers' requests and wishes and they did not frequently initiate topics. They did not run the meetings, nor did they bring external material unless it was in response to something the teachers brought.

The decision to have a rotating chairperson affected the collaboration with the university educators. In other similar projects (Baird & Mitchell, 1987) the university educators were in close contact with one or two chairpersons. An agenda was decided upon collaboratively and the university educators on occasion provided theoretical elements to the discussions. In the Learning Strategies Group the teachers were clear that they did not want that kind of involvement. When on one occasion a university educator tried to initiate a discussion that seemed somewhat more remote from immediate classroom
practices the teachers resisted (I will examine that incident more in depth when discussing the interplay between theory and practice in Chapter Six).

The weekly meetings of the LSG helped change teachers' perceptions of their roles as teachers. These deliberations provided the teachers with recognition and support. Support for risk taking was particularly important. Recognition by colleagues and by teacher educators was a new experience for most of the teachers. In the first months the group met the teachers focused on strategies that they had tried in their classrooms. However, over time the discussions shifted from focusing solely on each class to issues that linked classes and teachers. The role of the teachers was perceived as extending beyond one classroom. The teachers discussed team teaching, and coming to observe each other teaching. Integration between subjects was done both through themes and learning skills. One example was when Alice and Barbara decided to team teach a unit of mythology (Fieldnotes, 18.11.92) focusing both on English and social studies. Another was when Alice invited Karen to observe her class and provide her with feedback related to the group's deliberation (Fieldnotes, 13.3.92). The teachers saw the benefits of collaborating beyond their own classrooms. Their perception of their isolation as teachers gradually shifted with the discussions about new strategies and with team teaching.

In the early months the teachers focused on their classrooms and did not see the benefit of reaching out whether inside or outside the school. Karen said at an interview:

I don't want to be taken out of my classroom for any kind of professional development in this area. I guess, I really want to keep it in my own time and class. Partly because I hate preparing for subs because it's really hard, and I just, you know, I'm there to be a teacher in the classroom, this is my job. (Interview, 9.3.92)

Over time this changed as the teachers saw the importance of professional development of teachers on staff and in other schools. Towards the end of the
first school year, the participants discussed reaching out to the rest of the staff. Pat argued:

I think it is our obligation to inspire our own colleagues. ... I think we should expand the group .... I think we should make it a goal to try and bring on more people. (Fieldnotes, 17.6.92)

In that meeting Mark considered the possibility of running a professional development day for the staff. In the second school year three teachers and one of the university educators decided to present the project at a conference. The participants acknowledged the importance of discussing their professional development with other professionals. Though the priority in the meetings was finding strategies that enhance students' active involvement in the learning process the teachers saw some merit in involving other staff members and colleagues.

Analyzing the roles the university educators played in the project indicates that these roles developed and changed over time. The university educators took the initial invitation from the school and built on it. Early on they stated to the professional development committee that if there were members of the staff who were keen on joining the project the university educators were committed to supporting it. However, the university educators wanted neither to lead or control the group meetings, nor did they have a clear vision of their direction. Gary described his role in these terms:

I guess, I see our role [the university educators] as being one of beginning to get them [the teachers] to become a bit more reflective about the more general aims rather than the kind of specific instance. (Interview, 6.4.92)

Jim emphasized his keen interest in theory and practice:

The idea is that we're looking for interplay between theory and practice. That to me is a given for my participation in the group. (Interview 12.3.92)

When asked about her role, Janet discussed being a resource person:
That's the kind of resource role. They want to draw on our experience and have some of the strategies explained a bit more, in a bit more detail, I suppose, and have us maybe make suggestions. (Interview, 5.3.92)

At the initial meetings the teacher educators perceived their role as providing the theory behind teaching strategies which enhance active learning, abstracting from teachers' examples, and providing more examples for the strategies the teachers proposed. They saw their role as providing support, recognition and encouragement for the teachers. They drew from their past experience and from research to discuss both the strategies and the group processes they observed in the meetings.

The teachers did not have a clear understanding of the university educators' roles and purposes in the project. Throughout the first school year the teachers questioned the role of the teacher educators. When asked in the interviews about the teacher educators, teachers still wondered about the different roles they played. Mark said,

I think obviously the initial impetus [for the project] came from the university people, so I think it's good. I think they have a lot to contribute. Obviously they are the ones that contributed the germ of the idea, if you like, to begin with and they are helping us to follow that through, so I'm very much in favor of them. But I guess if they drop out at some point, that's fine, because I think the group has got started and I think that it now has some idea where it can go. But you know, .... in a sense the more people are interested in it and can contribute ideas the better. (Interview, 28.2.92)

As time progressed the teachers had a better understanding of the role the university educators played in the project as they saw the kind of input the university educators had in the meetings. Nelly defined the university educator's role:

To me he's [the teacher educator] there as an observer and a facilitator if we need him. (Interview, 27.11.92)

Barbara added about the teacher educators:
We use their expertise. (Interview, 9.3.92)

Susan was more direct in the role she attributed to the university educators:

The contact with Jim and Janet and Gary has given it [the project] another edge. I'm wondering if a group could actually keep going without that external thing. (Interview, 19.6.92)

The university educators took upon themselves organizational duties, particularly with contacting agencies outside the group. At the end of the first school year the university educators planned, organized, and conducted a longer meeting in which the participants reflected on the past meetings and planned the second school year. Since they had more experience and the teachers felt the stress of the end of a school year, the university educators took charge of that event. In that long meeting the routines, roles, purposes and substance of the project were examined and revisited. The participants also discussed the next school year.

My original role was to document and analyze the process of this collaborative professional development. Initially I did not know what that would entail. However, I taped the weekly meetings, transcribed the tapes, prepared minutes and summaries of meetings, and distributed them to the participants the following week. I also wrote extensive fieldnotes and analyzed the accumulating data. Over time I assumed more roles. I interviewed each participant twice, once at the beginning of the weekly meetings and a second time at the end of the first school year. The interviews allowed the participants the time and opportunity to reflect upon the process they were involved in. Interacting with the participants on a long term basis and analyzing the process allowed the participants to get to know me and trust me and the role I played in the project. As Mark said in the second interview:

you weren't there .... in the sense of influencing in one way or the other, but I think your presence is known and welcome, but you don't really try to shape [the project] and design it and influence it. (Interview, 19.6.92)
At the end of the second school year, when the teachers reflected on the project they acknowledged that my role was important (a) in setting continuity and support, and (b) in allowing the participants to set the agenda and direction.

Susan described how she perceived my role:

your service to the group ... you are kind of facilitating and you are definitely keeping out of decisions ... you don't interfere in that sense. It's kind of like a presence. But you have now become very incorporated. We are on a friendship base with you. (Interview, 19.6.92)

When I examined my role and analyzed the fieldnotes it seemed clear that I had a need to be supported too. My main support came from informal conversations after the meetings with the university educators. These conversations gave a new perspective on my thoughts, observations, and analyses of the meetings and interviews. The opportunity to discuss issues in an informal setting, without teachers, allowed me to regain some distance and continue with the analysis.

The Substantive Content of the Meetings

The group agreed to meet once a week before school for forty five minutes. The purpose of the meetings was to provide the teachers with a forum in which they could share with other colleagues, both teachers and university educators concerns about teaching. In that forum the teachers could discuss specific teaching strategies, experiment, plan, and share difficulties in a supportive setting.

From the first meetings, January 1992, the content consisted of issues of organization and structure, and substance. The group made decisions about chairing the meetings, agenda, confidentiality, when and where to meet, how often to meet and for how long. Another structural feature the group discussed was how to ensure that "air time" was divided in ways that addressed all the
participants' needs. There were many discussions at the beginning of the project about forming routines. However, those were not exclusive to the early meetings. The participants revisited some of those issues throughout the two years, elaborating or modifying the established routines in order to meet new concerns and needs.

As early as the first meeting and through all the meetings the teachers shared teaching strategies. An analysis of the substance of the meetings reveals that the participants discussed subject specific topics, generic teaching skills and strategies, meta content (for example, discussions of the relationship between theory and practice), and the process of professional development in which they were involved (see appendix III). The teachers brought to the meetings procedures and strategies that they had tried in class. These were deliberated on and shaped through the conversations among all the participants. During the group deliberations they discussed strategies of learning and teaching that would enhance students' active learning. The teachers adapted strategies presented in the group meetings in order to fit their students' needs and the subjects they were teaching. When the teachers brought to the meetings strategies that they had tried in their classes, the university educators linked them either to other examples from different subject areas or to principles of teaching that encourage students' active learning. The participants asked clarifying questions, and in many cases related the strategies to their subjects and prior experience. These deliberations gave the teachers the opportunity to reflect on strategies that they had used and to decide how they would use them again.

A close examination of the substantive content of the meetings indicates that there are some recurring thematic topics, that is topics that teachers raise time and again to re-examine, re-assess, modify or clarify. The thematic topics are: 1) the variety of ways to visually present materials to students; 2) the techniques
for students to summarize written material; 3) the assessment and evaluation strategies which meet the specific goals of teaching that enhance students' involvement in their learning; 4) the complexities associated with using new teaching strategies; 5) the interplay between theory and practice; 6) the use of models and structure in order to encourage students to be creative; and 7) the use of linking strategies between subjects, within subjects, and between school work and students' lives.

Visual Presentation

When the participants discuss visual presentation of written material they refer to techniques that allow students to represent written material in a variety of ways. Different forms of presentation enhance students' understanding of texts.

Exemplary techniques of visual representation were:

- Sociogram (Fieldnotes, 24.1.92; 3.2.93; 17.2.93)\(^5\)
- Grid (Fieldnotes, 14.2.92)
- Diagram; Flowchart; Concept map (Fieldnotes, 6.3.92; 3.3.93; 25.3.92)
- Chart (Fieldnotes, 28.2.92; 8.5.92)
- Poster (Fieldnotes, 28.2.92)

In these deliberations the participants shared and discussed a variety of methods to present written texts. They emphasized that moving from one method of representation of ideas to another was an important learning skill because it focused on inter-relationships, and enhanced new levels of understanding of the text.

Writing Techniques and Strategies

Writing was one of the topics that teachers from a variety of subjects had in common. The participants claimed that writing skills were pertinent tools of

\(^5\)The dates indicate the frequency of occurrences, but not the time spent on each technique in the meeting.
learning, and thus, discussed a wide range of techniques to teach students to improve their writing.

Exemplary techniques of writing were:

- Modeling and using structures in creative writing (Fieldnotes 28.2.92; 13.3.92; 18.11.92; 25.11.92; 9.12.92; 3.3.93)
- Summary (Fieldnotes, 31.1.92)
- Use of a grid as a basis to writing an essay (Fieldnotes, 31.1.92)
- Journal (Fieldnotes, 8.5.92),
- In class essay writing (Fieldnotes, 23.9.92; 18.11.92),
- Book report (Fieldnotes, 25.11.92)
- Paragraph writing (Fieldnotes, 18.11.92; 25.11.92; 9.12.92,)
- Grammar as a writing tool (Fieldnotes, 6.1.93)
- Writing a chapter review (Fieldnotes, 3.2.93)
- Writing as a thinking skill (Fieldnotes 17.2.93)
- Use of metaphors (Fieldnotes, 25.3.93; 7.4.93)

The participants shared the understanding that writing was an important skill across the different subjects, and thus, they discussed at length possible links and strategies for the different subjects with regard to writing. They felt it was the responsibility of teachers in the different subjects (not just those teaching English) to emphasize and teach writing skills. One way some teachers addressed the need to emphasize writing skills was team teaching of English and social studies.

**Assessment and Evaluation**

The participants perceived assessment and evaluation as an integral part of learning. They wanted students to become more involved in making decisions about what and how to evaluate their learning and the products of their learning. Exemplary techniques of assessment and evaluation were:
• Students determined criteria for assessment and evaluated each other's projects and their own work (Fieldnotes, 13.3.92)
• Teachers modeled how to evaluate oral presentations and then students evaluated them (Fieldnotes, 7.2.92)
• Teachers used assessment criteria negotiated with students (Fieldnotes, 21.2.92)
• Portfolio in their assessment (Fieldnotes, 6.3.92; 27.3.93)
• Assessment of group work and process and not just the final product (Fieldnotes, 20.1.93)
• Interim assessment of progress in long projects (3.2.93)

Assessment became an integral part of the learning experience that involved students' input and decision making.

Complexity of Experimenting with New Teaching Strategies

Since teachers were experimenting with new teaching strategies they observed and discussed its complexities (Fieldnotes, 31.1.92; 7.2.92; 18.11.92). The participants discussed how to learn from these first attempts so that they could modify them in the future. They learned from students' comments and reactions, and from the group discussions both prior to and after teaching.

Exemplary techniques of teaching new strategies were:

• Modeling and using structures in creative writing (Fieldnotes 28.2.92; 13.3.92; 18.11.92; 25.11.92; 9.12.92; 3.3.93; 7.4.93)
• Discussions of new strategies with students (Fieldnotes 28.2.92; 6.3.92; 25.3.92; 27.3.92; 18.11.92; 25.3.93)
• Students learn through teaching (Fieldnotes 8.5.92)
• Risk taking as a part of learning (Fieldnotes, 6.3.92; 13.3.92)
The participants discussed teachers' difficulties when they used new strategies. Teachers, university educators, and students discussed learning, and they started to share a vocabulary to deliberate upon teaching and learning.

**Interplay between Theory and Practice**

In early meetings the teachers emphasized that they wanted the deliberations to be practical. They saw little purpose in theoretical discussions. However, gradually the participants identified the group discussions as processes of theorizing, making sense of practice. Group conversations allowed the participants to evaluate and analyze teaching, and to generate new teaching strategies. As the participants firmed their theories about teaching and learning they explored other theories too (Fieldnotes 6.3.92; 13.3.92; 25.3.93; for a detailed analysis see Chapter Six)

**Linking Between Subjects, Within Subjects, and Between School and Students' Lives**

The participants discussed using linking as a teaching tool. They understood the importance of discussing teaching techniques and strategies. They claimed that using linking was an efficient strategy to enhance students' awareness of and active involvement in their learning.

Exemplary types of linking were:

- Linking between subjects (Fieldnotes 24.1.92; 31.1.92; 14.2.92; 6.3.92; 27.3.92; 17.6.92; 23.9.92; 14.10.92; 18.11.92; 25.11.92; 9.12.92; 3.2.93)
- Linking within subjects (Fieldnotes 24.1.92; 31.1.92; 28.2.92; 6.3.92; 8.5.92; 17.6.92; 18.11.92; 9.12.92; 3.2.93; 25.3.93)
- Linking between students' lives and school (Fieldnotes 6.3.92; 17.6.92; 23.9.92; 16.6.93)
There were many deliberations about techniques that make links explicit to students as a part of their learning. The participants perceived linking as a tool to achieve the goals of students' active involvement in their learning. Therefore, the group specified linking as one of the goals for the second year (see further analysis in Chapter Six).

Other topics that the participants addressed were the important role of discussing the learning strategies with students, thus, developing a language to discuss learning (Fieldnotes 31.1.92; 28.2.92; 27.3.92); the importance of examining the processes within the group and how these processes evolved (Fieldnotes, 21.2.92; 28.2.92; 8.5.92; 17.6.92; 30.9.92; 16.6.93) the students' reactions to teaching with a focus on active learning (Fieldnotes, 21.2.92).

**Shifts in the Substantive Content of the Meetings**

In the first months of meetings, teachers discussed only tested strategies, most of which were successful. They leaned on examples from their past repertoire as teachers. The participants linked the strategies to their subjects and to generic teaching strategies that enhance students' active learning. Gradually teachers added two new dimensions to the deliberations. On the one hand they shared difficulties and failures, and on the other, they used the meeting time for planning. As a result of the development of a supportive and trusting atmosphere, the teachers felt safe to take risks and publicly share their uncertainties with the others. They brought to the discussion "tentative strategies", attempts to address specific learning skills, and not only well tried strategies and procedures. Consequently, in the second and third years (1992-1994) there were both deliberations of successful and unsuccessful strategies, and discussions of planning. In their discussions, the participants searched for links within subjects, between subjects, and to students' life experiences. They were
engaged in conversations around issues of integration between subjects, evaluation and assessment, and generic teaching strategies which enhance students growth toward becoming independent learners. Analysis of transcripts of the meetings indicates that in the later meetings, when the group was well established, the teachers used the opportunity to share in a slightly different way. When the teachers brought forth subject specific strategies that they had tried or had planned, they linked them to the principles of active learning. They did not just share the strategy, but they linked it to other strategies the group had already shared, and to the initial goals of the group.

In the first months of meetings the university educators initiated most of the discussions about the professional development process in which they were involved. They encouraged the teachers to examine the process they were engaged in, relating it to their initial goals and concerns. In one of the meetings (Fieldnotes, 6.3.92) one of the university educators suggested that the group examine the strategies proposed up to that time and relate them to the initial goals. The teachers' responses indicated that they were hesitant. The interviews happened close to that event, allowing me to ask about their reactions. One teacher, who had brought a strategy and samples of students' work to that meeting, felt she did not have enough time to discuss that strategy. She felt that the priority in the meeting should be sharing strategies and not examining the group progress. Other teachers commented that they did not want the deliberations to become theoretical and thus removed from classroom practice (Chapter Six provides a more detailed analysis of this tension between theory and practice).

However, in June 1992, at the end of school year, the participants met for a full day to reflect on their achievements and to plan the group meetings for the second school year. At that time, all the participants found it extremely useful to
analyze the group processes in conjunction with looking at the strategies they had presented in the meetings. These discussions that examined both the structure and substance of the meetings were thought by the teachers to be informative, though they did not link directly to classroom practice.

As I discussed earlier, there were some personnel changes in the second school year (1992-1993). Two university educators and one teacher left. Three teachers came sporadically and one joined the group. The group became more homogeneous with a strong emphasis on humanities. This was a shift from the first year when the group was heterogeneous, having teachers who taught different subjects. Consequently, in the first year the strategies were often discussed in such ways that they could be accommodated in different subjects. The group was aware of teachers need to translate activities from what they heard in meetings to their specific contexts in order to make them relevant. The participants focused on links between subjects though these were not always easy to find. In the second year, when the group was more homogeneous the strategies were more subject specific. The skills were also subject specific and the links between the humanities subjects were easily made.

At the end of the second year (June, 1993) the teachers from the Alternate school expressed the feeling that their concerns were not met and that the translations they had to do from what was presented at the meetings to their reality were huge. This concern was addressed in occasional discussions focusing specifically on the Alternate school and strategies that would apply there (for example, Fieldnotes, 31.1.92; 7.2.92; 8.5.92; 13.10.93). Throughout the whole project the participants have been aware of the need to address all the teachers' needs and realities and share the time in the meetings in ways that benefited all the participants in the group.
Contacts Within the School

In the first year the participants decided to meet on their own time, and had very little contact with people at their school about the Learning Strategies Group. Toward the end of the first school year (June, 1992) the administration approached the participants and offered meeting time within the time-table. The teachers rejected the offer for two reasons. The first was that meeting during the school day would have eliminated the participation of the teachers from the Alternate school. The teachers felt strongly that any teacher who wished to participate in the group should not be excluded. The second reason was that the teachers were concerned that if they met on the time-table they would lose their autonomy. They maintained that meeting on their own time, before school started, or meeting over a weekend allowed them to have complete control over the agenda, the pace of the project and its directions. From the initial meetings the teachers indicated that they wanted to feel responsible for the process they were involved in. They did not want the administration or the university educators to set the agenda or to dictate the direction of the meetings. They maintained that they did not want this group to become "a feather in someone's hat" (i.e. the administration or the university educators) and that they were meeting because of their mutual interest in incorporating active learning skills in their teaching, and in the sharing of professional knowledge. Although there was a specific request, the teachers decided not to distribute the minutes to the administration.

The principal, as well as offering to allow teachers to meet on time-table, found financial support for a full day meeting towards the end of the first school year. The administration did not participate in the group on a regular basis. However, occasionally the principal joined the meetings. Over time, there had been a shift in the attitude of the administration toward the project which may indicate its development. In the early months the administration was passively supportive in
that they allowed the professional development days to occur, and then allowed the teachers to meet. Through the principal came to one meeting (7.2.92) he was not involved in determining the group's direction. Towards the end of the first school year (May 1992) the principal offered to arrange the time-table for the next year to suit the needs of the participants. That indicated that he saw it as positive that the group continued to meet, and saw its role as an important form of professional development within the school.

In the second school year (20.1.93) the principal came to a group meeting to discuss an innovation he was thinking of implementing with regard to assessment. The principal was exploring assessment and evaluation methods that suited cooperative learning and group work. The principal regarded the group as a potential vehicle for change within the school. Discussion of the potential changes and the suggestion that the group participants lead a professional development event for the staff indicated the importance the principal attached to the group. This validated and supported the participants. In summary, though, the principal has not been a leading force in the project, he has been supportive of it.

In a day long debriefing of that year (17.6.92) the teachers expressed a desire to reach out and recruit more teachers to the group. They agreed to share with the staff a booklet that I had compiled of the strategies they had tried and shared in the meetings. These were the first attempts to reach beyond the group. The group continued to reach out to the staff on a few occasions. First, the teachers invited other teachers to present at a meeting (18.11.92). Second, one of the teachers decided to invite her student teacher to the meetings. Third, at the beginning of the third school year (October 1993), the participants presented the Learning Strategies Group at a staff meeting, welcoming teachers to join.
Contacts Outside the School

There were limited influences on the project from outside the school. Occasionally teachers discussed the provincial examinations the students were taking at the end of grade 12 (Fieldnotes, 7.2.92; 14.2.92; 7.4.93; 21.4.93). The teachers expressed the tension between teaching that encouraged students to become active independent learners and one that was geared to external examinations. The teachers considered the possibility of teachers in lower grades focusing on the new strategies. They also believed that teaching that focused on active learning may be time consuming, however in the long run, since students became independent learners, they would be well prepared to take the examinations.

The group had to make financial decisions that concerned external influences. At the full day meeting (17.6.92) one of the teachers brought a proposal to the participants. She said that the group could apply for a Site Development Grant from the Provincial Ministry of Education in order to fund substitute teachers for the participants in the group. The discussion on the topic was long and fierce. Some participants felt they would like the support and recognition, whereas others felt strongly that by accepting such a grant the group would not be autonomous. The result was a decision not to apply for the grant, but to remain autonomous and small in scope. This topic was not raised again that year. However, at the end of the second school year (June, 1993) another suggestion came up in the meeting. Someone from the School Board who occasionally participated in the meetings, suggested that the group apply for a grant. Though the end result here too, was that no application was filed, the reaction was much milder. No one wanted to take on the burden of negotiating for the grant and there was no immediate need for funds, so the topic was dropped. It was interesting to note that the suggestion was met with less animosity.
The Development of the Learning Strategies Group Compared With Other Group Development Models

An examination of the Learning Strategies Group in terms of Kagan's (1991) proposed model indicates both similarities and differences. Kagan (1991) primarily, discusses a professional development model in which the purpose was implementation of a specific curriculum. The Learning Strategies Group's purpose was to create a time and place where teachers could share their practice with colleagues in order to improve it. Thus, the initial phase was different from the one Kagan (1991) presented. The teachers and university educators discussed the characteristics of teaching which enhanced active learning. Then they negotiated how and when they could start the collaborative partnership in order to promote students' active learning. They defined goals, as Kagan (1991) proposes, focusing on teaching strategies which enhance active learning. After the first school year, the participants re-examined their goals and planned the next year of collaborative exploration. They decided to focus on links in subjects, between subjects, and between school and students' lives. They also agreed to invite more teachers to join the group. The third, fourth, and fifth stages that Kagan (1991) proposes melt into the development of the Learning Strategies Group. The Learning Strategies Group did not progress in a linear way as suggested by Kagan (1991). The direction, agenda, and purposes were constantly negotiated and examined.

Cole and Knowles (1993) analyze partnerships between teachers and university educators. They focus on research done both by teachers and by university educators. The phases they propose pertain to research, data analysis and representation, and reporting on the data. The Learning Strategies Group's collaborative relationship focused on sharing the participants' expertise and experience in order to improve their practice. Thus, there was no need to gather information, interpret it, or report it beyond the meetings. However, in the meetings,
the participants did gather information through the minutes and summaries of new strategies. They examined and reflected upon the strategies periodically in order to make decisions about the meetings. Cole and Knowles (1993) analyze the impact of time and place to meet, personnel, confidentiality, and control on collaborative studies. These factors were also observed and analyzed in the LSG meetings.

The development of the Learning Strategies Group is similar to phases discussed in the Bell and Gilbert's (1993) model. For example, the teachers in both studies, saw the value of collaboration as a solution to their isolation as teachers, the teachers tried out new teaching strategies for their classrooms, and the participants dealt with the constraints of the project and found creative solutions to them. However, the overall picture of the Learning Strategies Group is slightly different from the one portrayed by Bell and Gilbert (1993). They propose three sequential phases for the teachers in collaborative projects. In the LSG the teachers did not seem to move from the social to the professional and then the personal phase. That could perhaps be explained by the fact that all the teachers in the LSG knew each other and worked together at the same school, whereas in the project discussed by Bell and Gilbert (1993) teachers came from different schools. Knowing each other may have made the first meetings easier. The teachers knew who they were working with, and though they were participating in a new project of professional development they knew many of their partners. Though the teachers did not know the university educators, they had time to observe them and listen to their views in the two professional development days and developed a positive attitude towards them. Still, at times throughout the first school year, there were small incidents of uneasiness in the group resulting from teachers not knowing the university educators, or understanding their role.

Another important reason for a difference between the development of the LSG and the model proposed by Bell and Gilbert (1993) is that the participants in the
Learning Strategies Group shared a similar understanding of what good teaching entailed. They agreed on the key part active learning played in encouraging students to become independent learners. Sharing a similar theoretical view, though it was not stated explicitly till the end of the first school year (Fieldnotes, 17.6.92), eased the meetings in the project. The teachers joined the project because they were interested in collaboration and sharing their teaching, focusing on active learning. They did not come because they identified difficulties in their practice. Although the participants in the LSG went through some of the phases discussed in the Bell and Gilbert (1993) model, it was not sequential. The Learning Strategies Group evolved over time. Issues that were presented at the early meetings were modified, clarified and expanded in subsequent ones. The teachers gradually felt safe to share part of their practice openly; they found new avenues of sharing and planning in the group.

**Summary of Chapter Four**

Analysis of the development of the Learning Strategies Group suggests that although there were shifts in emphasis in some areas, there was no indication of discrete developmental stages. This professional development attempt can best be described in terms of a process that evolved and unfolded. In every meeting the group discussed substantive content, whether it was generic or subject specific. The focus was both on structure and substance, establishing routines sharing teaching strategies. The participants continuously examined the development of their professional growth, thus self monitoring the group processes. There were, however, shifts in emphasis. In the beginning teachers shared past successes, moving gradually to share teaching difficulties and to address questions regarding future planning. The participants linked the new strategies to strategies they had previously discussed. The group developed a repertoire of strategies that they referred to. The goals were revisited at the end of every school year, and were
refined for the next year. Throughout the project the teachers maintained complete autonomy and control over the direction and content of the meeting. They made decisions about when and where to meet, what to discuss, and what kind of support they wanted from the university educators.

The Learning Strategies Group began as an attempt to create a time and place for teachers to work collaboratively with each other and with university educators in order to improve their teaching. A comparison with the three models of collaboration between teachers and university educators provides parameters to examine this project. The models provide frameworks to discuss factors that influence collaborative endeavours, and phases that structure them. However, the analysis of Learning Strategies Group suggests that collaboration is not sequential. The participants discussed both structural and substantive topics from early meetings and continued to do so throughout the meetings. They developed a language and a repertoire of strategies which served as lenses to examine new problems and strategies. They also evolved in their attempts to reach out, recruit new members, and share the new strategies with colleagues who were interested in teachers' professional development through collaboration between teachers and university educators.
Chapter Five
Reflective Conversations as a Tool for Professional Development

This chapter examines the nature of the conversations between the participants in the meetings. An analysis of the kinds of talk teachers and university educators used when they discussed teaching sheds light on how they developed the conversations into a tool for their professional growth. Using Schön's discussion of reflection and reflective conversations provides a framework to examine and analyze the group conversations.

Framing and Reframing of Specific Problems in the LSG Meetings

The teachers brought stories from their classrooms to the meetings. Often these incidents stemmed from specific problems. For example, the participants debated about appropriate methods of assessment; they questioned the best methods to teach writing skills; or they examined methods to actively involve students in decisions about their learning. These discussions were in many cases a result of difficulties in practice. For example, the teachers thought that the writing level of students in the upper grades was not adequate. They shared this concern, and then shared a description of a strategy, which addressed that problem area.

Karen: They don’t know how to write essays.
Alice: It is not their fault. That’s why I started teaching the essay right now [in grade 8]. ... If they learn how to do it, when they get to grade 11 they can write these essays and they can deal with the content and not with the structure. ... and they had the formal language too.
Gary: By formal language you mean?
Alice: Well, my students are doing critical analysis of elements of plot.
Gary: So the language of analysis and criticism?
Alice: Yea, so they are not saying "I", they are not saying "you", they are saying "the reader" and "In so and so's novel...", "the rise of climax is".
Barbara: But the format is there and that counts, and the polish comes later. It is grade eight.
Karen: When they have the inspiration then they will also have the tools to write.
Alice: And they are getting excited about it.
Karen: What I am trying to do with the grade 8 is to get them to learn to write a well developed paragraph, with a topic sentence, a concluding sentence, and details that develop the topic sentence. This is really basic but they can't do it. And so I gave them quite a bit of structure. What we did was we did a little co-op [cooperative] lesson, reading this hilarious little short story called The Ransom of Red Chief by O. Henry. They had to do a few little co-op exercises before we got into this. And they had to share a book, between two people, so they kind of had to work together even when they weren't actively doing co-op. ... They had to write an interim anecdotal report on Bill, [the character in the story] how well he participated with others and Reggie [the second character] on how well he got along with others. And they had to imagine that the audience was the parents. ... They had to look at the character in the story. One of the objectives was to look at characters and analyze a character, and the other thing was to write a topic sentence and then go back to the story. ... I wanted them to go back and find support for their ideas. So when they develop the body of the paragraph, I wanted them to go back to the story and find examples of behaviour that supported their judgment. So first of all they had to judge and then support. And then they had to write a concluding sentence. It was hard for them to write like teachers. The other thing that I wanted them to do was start to look at transitional devises within paragraphs so that they link their ideas. ... They had to write their topic sentence then they had to write a minimum of five sentences. A lot of the kids wrote more and they had to use three transitional devices in the paragraph. What I was really surprised was how much the kids enjoyed doing this, and how much it made them think ... Here are some examples. [she passes them around]. They liked to use the Interim Reports. They are not perfect by any means, but at least they are on the topic throughout the paragraph and they are looking for support in the story.
Gary: They are using the interim reports form.
Karen: I turned the reports into a full paragraph activity instead of just a comment.
Nelly: Sure they liked it.
Barbara: Karen, this is really good. (Fieldnotes, 18.11.92)
In this meeting, the conversation stemmed from a concern Karen raised about the writing skills of the students in the higher grades. The participants explored this concern from different perspectives, discussing the language tools necessary to help students improve their writing skills, and the time and context to address it. Then Karen proposed an example of a strategy that she had used in order to teach students in grade eight to write a paragraph. She explained her goals, the procedures, and the students' reactions. She then, showed the group some examples of students' work. This excerpt is an example of how the participants engaged in conversations about teaching writing skills, in which they discussed new teaching strategies. The teachers reflected on their teaching and on ways to improve it.

When Schön (1983; 1987; 1991) uses the term reflection-in-action he discusses a situation which involves thinking that is embedded in action. Schön claims that over time practitioners develop a repertoire of expectations, images and techniques. They develop an ability of knowing-in-practice which is tacit and over time becomes spontaneous.

Through reflection, he [the practitioner] can surface and criticize the tacit understandings that have grown up around the repetitive experiences on a specialized practice, and can make new sense of the situations of uncertainty or uniqueness which he may allow himself to experience. (Schön, 1983, p. 61)

Schön argues that practitioners allow themselves to experience surprise, puzzlement, or confusion in unique and unexpected situations. He then proposes that practitioners follow a process of investigation of the problem through reflection-in-action. Reflection-in-action is a process in which the practitioner conducts reflective conversations with the situations from the practice. The practitioner sets the problem and understands its uniqueness, framing and reframing it on the basis of past repertoire. The practitioner experiments with
different possible solutions, interprets and evaluates these solutions, and decides on further actions (1983, p. 141). Schön elaborates:

In this reflective conversation, the practitioner's effort to solve the reframed problem yields new discoveries which call for new reflection-in-action. The process spirals through stages of appreciation, action, and reappreciation. The unique and uncertain situation comes to be understood through the attempt to change it, and changed through the attempt to understand it. (1983, p. 132)

Thus, the reflective conversations which Schön proposes happen between the practitioner and the situation, evolve and change in a spiral way. These conversations develop as the practitioner tries out solutions to specific problems that arise. Reflection-on-action occurs when practitioners describe and analyze their actions. In the context of the Learning Strategies Group, the conversations were reflection-on-action. As demonstrated in the above excerpt, Karen described and analyzed a concern she had, and how she dealt with it. She added the reasons she had for choosing that particular strategy. This was an example of one of the ways in which the participants used the meetings to discuss both what the teachers had tried and what they were planning to try. The conversations emphasized explicit discussions of reasons and objectives, and not merely descriptions of strategies.

Schön proposes that the deliberations should result in actions. Although on many occasions the teachers discussed problems that they had already solved (particularly in the first year of meetings), the joint deliberations influenced action at a later point in time and suggest alternative solutions. Whether teachers discussed events that had happened or those that will happen, the group's reflective conversations had an impact on future actions. The group conversations linked reflection-on-action with reflection-in-action.

Giving examples from psychiatry and architecture, Schön analyzes the "anatomy" of reflective conversations of practitioners. The first step of these
conversations stems from a specific problem in the practice. The practitioner tacitly defines the problem, names it, and frames it in a specific context. Framing the specific problem and bringing some structure and coherence to it may bring about new understandings, and thus create new possible options for action. The reflective conversations are usually tacit and spontaneous. However, having to discuss one's practice and one's decision making within a group of colleagues (like the Learning Strategies Group) warrants the opportunity for reflective conversations to become public and thus requires the participants to make explicit their beliefs about and understanding of a practice setting.

Using another example from the meetings, I will illustrate the reflective conversation, demonstrating its components. Susan presented to the group a problem which was embedded within a specific context. She described the problem, defined it and framed it. This allowed her to seek alternative solutions. Comments of other participants were included in the process of framing and reframing, generalizing from one context to another and finding creative options for further action.

Susan decided to use her "air time" in the meeting (Fieldnotes, 14.2.92) to discuss ways to help weaker students in the class. She presented the problem to the group giving some background information:

Susan: With my grade eight we have started a new book called "The Friends" and my main purpose was that some of the weaker students have a chance to sort out what was happening, and I wanted the better students to help the weaker readers in a cooperative learning situation.

She discussed a problem of having students with different levels of abilities and its effect on her teaching. If it were possible to examine Susan's processes of decision making in class, and how she addressed this problem in class it would be examining reflection-in-action. However, when she recalled and retold the situation, discussing it in retrospect in the meeting, it is reflection-on-action.
Susan proceeded to describe her attempt to solve this problem through the use of group work. She gave the groups questions prior to their reading the chapter, in an attempt to direct their reading. They had to fill out a grid on what they knew and what they wanted to know about the characters. From Susan's description of the situation in the classroom and of her goals, it seemed that Susan was trying to achieve several objectives: students' knowledge of the content of the reading material, students' active involvement in the reading, and students' support of other students. Susan did not define these goals explicitly when she presented the problem. Consequently, the comments of the participants varied in their focus and direction. When Barbara heard Susan's description, she asked her to elaborate on the strategy she had used.

Barbara: I notice that you have three points in each grid, was that deliberate?

Susan was not aware of this, and Barbara's comment pushed her to reflect on and explain the technique she used:

Susan: I didn't mind how many points they had, but they had to go back to the book and then link it to what they know about the characters in the book. I am trying to get them to generalize.

In her response, Susan stated her objective. She wanted the students to link their prior knowledge with the new reading. The structure of the grid was not important, however, its use as a linking tool was. She explained why she wanted the students to be able to link one part of the book to another. Susan framed the problem in terms of teaching principles. She was working on generalizing as an underlying principle. Mark took this general statement of purpose from Susan and expanded it further, framing it in a larger and new context:

Mark: Presumably you are giving them insights about themselves because obviously every kid is going to respond in a different way to the book.
Mark took the notion of generalizing beyond the written text and linked it to students' lives. Reframing the initial problem in another light and within a new context allowed a new examination of Susan's problem. Barbara pursued this line of thought further and reframed both Mark's comment and Susan's initial problem.

Barbara: I like that because it takes the students from the first grid to a second grid and to a third grid and you have a situation and it makes the students think about it beyond the original story.

Barbara reframed the initial problem of cooperative learning, students working together on reading, and making links within a literary piece in terms of learning strategies that encourage students to explicitly make links between different contexts within the subject. She moved back to the classroom situation and emphasized the processes of linking and generalizing when moving from one form of representation to another (grid to story to grid). Although Susan is an English teacher, she proceeded to discuss the potential benefits of this teaching strategy in social studies.

Susan: You could do it in history: what do you know about Hitler or the situation in Europe at the end of the war? What does that make you think about...and what would you do?
Mark: And you could add, and what should Churchill have done?
Jim: That is a good question. Picking up on what Mark said you got them to report back, and the kind of thing they reported involved very much their own ideas in speculative, tentative, hypothetical language. I think that underlying a lot of the things that go with our group is that we want the kids to be responsible for their learning and so here they see that their speculative and tentative ideas have value. This is a shift for the kids that when they open their mouth to speak they are not just giving answers. It gives them experience and validates their ideas.

Susan discussed the implications of using grids when teaching social studies. She moved the discussion to the level of learning and teaching strategies, focusing on the importance of asking questions that require students' interpretations and opinions. Mark set the problem in a slightly different context. He emphasized the importance of looking at a particular event in history from different
perspectives. Jim, in his comment, discussed students' benefits from speculating and hypothesizing about the material they had read. Jim's comment about the role of speculation in learning tied to Susan's initial concerns with students. Jim also made an explicit link to the goals and purpose of the Learning Strategies Group.

Tracing the conversation in the above excerpt from a group meeting indicates that each participant framed and defined the problem somewhat differently. The conversation started with a discussion of how to create a situation of cooperation between stronger and weaker students in which stronger students helped weaker ones. It then moved to a discussion of strategies to encourage students to interpret what they had read. The participants emphasized the importance of using grids as a learning tool that allowed students the opportunity to examine issues from different perspectives. They broadened the discussion from one subject to others.

It may seem that the participants were not discussing the initial problem that Susan had raised, but bringing different and perhaps their own agendas to the table. However, each of their explanations and suggestions demonstrated processes of framing the initial problem that Susan had shared. They led to different possible options for action. These strategies shared similar underlying principles of learning and teaching. The solutions may entail integration between subjects with a focus of learning strategies; or involving students explicitly in the learning processes that they are using.

This excerpt illustrates that when the participants in the group reacted to a specific problem that was discussed and framed it in different ways, they broadened their collective understanding of the problem and consequently the spectrum of generated solutions. The process of framing and reframing an initial problem encouraged participants to explore a wide variety of avenues of action.
with regard to the specific situation. The participants in their deliberations, addressed the problem in multiple ways. Thus, through the reflective conversation a problem was framed and reframed and adapted to different contexts. This spiral deliberation engaged more than one teacher in the process of seeking solutions to a particular problem. Since the meetings involved a process of reflection-on-action there was no immediate need for action and there was time to weigh different alternatives and perspectives.

Reflective Conversations in the Learning Strategies Group

This section explores reflective conversations that are not only internal and individual but occur within a group setting. Schön (1983; 1987) argues that reflective conversations are tacit and internal processes. However, he maintains that these kinds of conversations may also take place as a dialogue between a coach and a student when someone is learning to become a practitioner (Schön, 1987, p. 101). In these conversations the student discusses a specific problem with the coach. In the conversation, the coach asks probing questions, they both frame and reframe the problem, and they explore alternative solutions.

Reflection-in-action becomes reciprocal when the coach treats the students' further design as an utterance, a carrier of meanings like "This is what I take you to mean" or "This is what I really meant to say", and responds to her interpretations with further showing or telling, which the student may, in turn, decipher anew and translate into new design performance. The process continues throughout the sequence of design project...though not necessarily in a straight line - toward the student's increasing capacity to produce what she and her coach regard as competent designing. (Schön, 1987, pp. 101-102)

Discussions between a coach and a student are similar to the reflective conversations the expert practitioner conducts with a situation when encountering a problem. In both instances, the practitioners define the problem, identify its unique characteristics, link it to past repertoire, experiment with
possible solutions, which then lead to action. However, in the dialogue between
the coach and student they define, frame and reframe, and experiment together.
Schön proposes that designing and planning are processes of reflection-in-action.
Discussions of these processes are reflections-on-action.

Schön (1987) refers to three types of coaching: 'follow me,' 'joint
experimentation' and 'hall of mirrors'. The 'follow me' type of conversation is
characterized by showing and telling of the expert to the novice. 'Joint
experimentation' takes the form of collaborative inquiry. 'Hall of mirrors' is a
process of reciprocal reflection.

In the Learning Strategies Group there were no coaches or students. The
group consisted of colleagues who were examining teaching. Thus, there were
no coaching relationships. However, there are similarities in the forms of
conversations between the coach-student and the group participants. In the
Learning Strategies Group the deliberations take the form of 'joint
deliberations take the form of 'joint
experimentation' and 'hall of mirrors', that is they are characterized by
experimentation' and 'hall of mirrors', that is they are characterized by
collaborative inquiry and reciprocal reflection. A teacher would bring forth a
problem from the practice. The reflective conversation would begin with a
discussion of possible new experimentation which generated new problems.
These problems could become the material for reciprocal reflection (Schön 1987,
p. 118). The previous excerpts demonstrate how the initial problem may be
shaped, defined and redefined in different ways through the deliberations in the
meeting. The teachers and university educators used the deliberations both to
examine past experiences and to plan future ones. They shared experiences from
the classroom about subject specific learning strategies or generic teaching
techniques and procedures, and they also used the time to plan possible teaching
approaches. The reflective conversations allowed the participants to choose
which problems they were going to address, in which order, and which other
problems may arise from the initial one. They also made decisions regarding past and future action.

Examining these types of conversations in the context of the Learning Strategies Group shows both similarities and differences to Schön's analysis of the reflective conversations between the coach and student. The similarities lie in practitioners' discussing and sharing their practice. Schön discusses three features of the dialogue between the coach and student:

> It takes place in the context of the student's attempts to design; it makes use of actions as well as words, and it depends on reciprocal reflection-in-action. (Schön, 1987, p. 101)

Thus, whether it is a student and a coach or a group of experienced practitioners discussing practice, there are common threads to these conversations. They discuss specific incidents from the practice, they include teaching/designing (action) and discussions, and the participants in both conversations are engaged in reciprocal reflection-in-action.

However, there are four points of difference between Schön's description of the reflective conversations of the student and the coach and the conversations among the participants in the Learning Strategies Group.

The first difference touches on the level of expertise and experience of participants. Schön describes a situation of a student and an expert practitioner, in which the student needs advice and creates his or her professional repertoire through the deliberations. The setting in the Learning Strategies Group is different. The participants in the LSG are experienced teachers and university educators. The purpose of the process of deliberation in this context is to find creative solutions to specific problems in teaching. The conversations take place between practitioners who are all experienced practitioners. All the participants have significant repertoires of past experience they can draw on. Using that varied knowledge and experience-base they find the process of deliberating and
discussing specific problems with colleagues beneficial. They regard it as a reciprocal process. Each participant gains both from sharing problems and from the process of discussing alternative solutions to problems brought forward by other participants.

A second difference between the types of coaching that Schön suggests and the Learning Strategies Group is in the number of people involved in the reflective conversations. In all the examples Schön provides, he discusses reflection that is either internal and tacit or one that takes the shape of a dialogue. In the context of this study, there is a group of about ten people discussing teaching. The notion of a dialogue is expanded to a group conversation. One might claim that having two or ten people converse may be only a matter of quantity, however, comparing the excerpt above and Schön's examples of conversations indicates that when there are more people, there are more opinions and different dynamics. This wide range of opinions, questions, contexts and understandings expands and enriches the conversations. Each participant both contributes and benefits from other contributors. The process of framing and reframing a problem expands and broadens. Schwab (1969; 1971) claims that the process of deliberation and examination from a variety of angles is important to the development of sound practical solutions to problems, and to the development of professional expertise. Therefore, group discussions may facilitate and enrich such a process, as they in fact, have in the case of the Learning Strategies Group.

The third difference between the conversations between an expert and student that Schön describes and the Learning Strategies Group conversations is in the participants. In Schön's example, both the architect and the psychiatrist practice their profession at the time they instruct the novice practitioners in their fields. The situation in the Learning Strategies group is different. The group
consists of both teachers and university educators. Though in the past the university educators had been secondary school teachers, at the time of the conversations they were not school teachers. Having university educators participate added new dimensions to the conversations. The university educators' comments did not come solely from their teaching practice but also from their research practice. They brought examples from other similar groups, from research, and from their past and present experience to the conversations. They were also aware of group processes and brought them to the attention of the group. For instance, after the chairperson asked the university educators if they would also alternate chairing meetings, a discussion evolved around how meetings were run, and Jim said:

Jim: Having seen a lot of groups of teachers work, one of the things that is critical is that, and this group is just being terrific at it, is that everyone accepts that the needs and interests and concerns of people around the group at various times in the project differ. Everyone needs to be sensitive ... my rule of thumb is that over a cycle of two meetings everybody feels they've got something from it and there is a mutual trust that they can say afterward "well, I want to talk about x in the next meeting" ... because otherwise people stop coming. The other point is ... the interplay between theory and practice, because I've seen three attempts to set up groups of teachers which ran ... entirely from what teachers said and each time the group sort of spiraled down into decay. They ran out of new things to say. Now I think what Karen has raised here is an interesting example of ... where does creativity fit on that ... attempt to map thinking. Where does high levels of creativity fit? I mean, that's a pretty hard one to capture, isn't it? I mean, Alice has got some incredibly creative stuff, you know, and how did she do that? I think when kids are tackling a difficult chemistry problem, a good chemistry solution is very creative, how do we do that? (Fieldnotes, 13.3.92)

When Jim responded to the discussion at the meeting he drew on his experience with similar groups. He started off by examining the needs of group participants in general terms. Then he framed the dynamics within the meeting in terms of his past experience. He compared groups of teachers who were only sharing teaching practices with groups who added to this sharing a theoretical discussion
of underlying teaching and learning principles. Jim related specifically to strategies that Alice had presented which required creativity. He then reframed them in another context, moving the discussion from teaching English to teaching chemistry. He focused on creative problem solving as the common element of these subjects. This excerpt illustrates some of the variety of feedback the university educators added to the reflective conversations. They brought in expertise and experience that was different from teachers' experience. When Schön discusses the coach he assumes that he or she has experience and expertise in the areas similar to those the student is involved in. The Learning Strategies Group is an example of the benefit of having a group in which the participants have varied experiences. Having not only teachers but both teachers and university educators in the group provides breadth and depth to the reflective conversations.

The fourth and last difference between the conversations between coach and student and in the Learning Strategies Group is in the purpose of the deliberations. The coach's goal is to teach and train the student in the new practice. Thus, the conversation consists of telling, listening, demonstrating, and imitating. The coach probes the student's knowledge with questions in order to clarify the student's thinking processes. The coach uses questions, instructions, advice, or criticism.

Whatever he chooses to do, the coach experiments in communication, testing with each of his interventions both his diagnosis of a student's understanding and problems and the effectiveness of his own strategies of communication. (Schön, 1987, p. 101)

The Learning Strategies Group had evolved into a group of professional colleagues who discuss teaching. Thus, the comments they make to each other are not geared to teach or train each other. These comments and questions probe the issues under discussion for the purpose of clarifying and understanding
questions about teaching. An examination of comments and questions in the above excerpts indicates that the comments are tools that serve multiple purposes: (a) to allow the presenter to clarify meanings, purposes, and structures within the issue under discussion; (b) to help the listeners make translations from the story told in the meeting to their contexts; and (c) to incorporate other people's ideas in the discussion and thus broaden the scope of the strategy under scrutiny.

Knowledge of the purposes and kinds of questions and comments that probe reflection may be helpful in these conversations. The participants may become more aware of the impact of their comments on the direction of the conversations. Since the Learning Strategies Group is structured so that the chairperson rotates, there is no one participant who assumes the role of a leader. Consequently, when the discussion fades, it is not necessarily the same person who feels responsible to initiate further conversation.

The next section examines the structures of conversations. I analyze these structures and compare them to Schön's analysis of conversations between coach and novice practitioners. The analysis of the conversations in the Learning Strategies Group expands Schön's description of reflective conversations.

**Spirals and Ladders of Reflective Conversations**

In the Learning Strategies Group the discussions evolved around practical questions. The teachers brought to the discussion table stories and incidents from their classrooms, poses questions regarding ways to involve students actively in the learning process and encouraged them to become independent learners. The conversations in the meetings followed similar steps to those Schön discusses with regard to reflective conversations that the practitioner has with the situation.
Karen raised a problem for discussion. She was teaching a grade 11 psychology class where the students had to read a new chapter. Karen felt the chapter was important but dry. She wanted the students to be able to predict some of the content from the headings of the sections, and she wanted to raise their anticipation to the new topic. Karen's description of the procedure she had used in class started the reflective conversation in the meeting.

Karen: In psychology (grade 11) when starting a new chapter dealing with stress I took different events and examples on an overhead, and the kids had to put them in categories/headings. Then they had to figure out which chapter they were going to read.

Jim: How did the kids react?

Karen: Fine, but it took them a while more than I had anticipated. They came up with the right chapter.

Jim: It is great. I found that kids didn't pay attention to headings and titles of chapters but usually looked at the first few words and relied on me to give the topic.

Karen: My text is great but it is dry and I see my part as entertaining them.

Barbara: Categorization of information is very important. In history if you teach chronologically it is very difficult for the kids to move to a thematic division. I'm struggling with that, that different events at different periods of time fall under the category of one theme.

Karen: Do the opposite, ask them to take events studied in the course and categorize them into themes.

Ann: This is like mapping.

Jim: A history teacher asked the students in one of the classes to rewrite their notes from chronological order to thematic division. It was a major project.

Barbara: It could be a group project. What is best is to give them information and ask them to classify or give them categories and they fill in the information.

Karen: It is easier and faster to give them information and they categorize.

Susan: They learn more when they categorize.

Doug: Do a combination, give them some information and they categorize, then go over it, add what they miss, and let them continue. (Fieldnotes, 24.1.92)

After the participants had heard the problem and some information of its context, they reacted to the story. Jim asked about the students' reactions to the strategy. Karen responded, and then Jim shared his experience with the same strategy. In doing that he framed Karen's story in terms a teaching strategy of prediction.
Barbara continued to generalize and linked predictions with categorizing, making a connection between social studies and psychology. Barbara emphasized the importance of being able to organize material both chronologically and thematically. She addressed the difficulties students encountered when they had to move from one way of organizing material to another. In this description Barbara reframed the initial problem in more general terms that reflected certain assumptions and beliefs about learning. Karen continued the discussion and made explicit the links between social studies and psychology, focusing on the learning processes the students go through in both subjects. Ann (who teaches English) expanded Karen's strategy and linked it to teaching English. The English teachers had discussed concept mapping in past meetings. When Ann mentioned mapping she was using "verbal shorthand" and she referred to these early conversations. She then added a title to the strategy (mapping) that linked to other group discussions. Jim added another example of an attempt to move from one way of organizing material to another, relying on his past repertoire. Susan framed those strategies in terms of theories of learning. Towards the end of the conversation Doug proposed new ways to address the problem. He suggested that Karen incorporate the two techniques, start with the students' categorization, check what was missing, and then encourage students to continue the process and generate the new and missing items.

When discussing the structure of reflective conversations between the coach and the student, Schön proposes the metaphor of a ladder of reflection (1987, pp. 114-115). He argues that the four rungs of the ladder are:

4. Reflection on action on description of designing.
3. Reflection on description of designing.
2. Description of designing.
1. Designing. (Schön, 1987, p. 115)
The first rung, at the bottom of the ladder is the design, the action in the practice which elicits the problem. This rung entails reflection-in-action. The second rung is the reflection on that initial action. There are times when the description includes evaluation and appreciation. There are other times when the description refers to the initial reflection-in-action that happened at the first stages. The third rung is the reflection on the description. The coach or the student may reflect on the meaning the other has constructed for the earlier description. The fourth rung is the reflection on the dialogue itself between the coach and student. Moving up the ladder of reflection means moving from an activity to reflection on that activity. Climbing the next rung implies reflection either on the action or the reflection in the previous rung. There are also diagonal moves which "occur when one party's action triggers the other's reflection or when one party's reflection triggers the other's action" (Schön, 1987, p. 115).

This metaphor of a ladder of reflection captures many of the discussions in the Learning Strategies Group. In the example above, Karen's description of what she had done was on the second rung of the ladder. The comments of the other participants were the third rung, in which they commented both on Karen's actions and on the comments other participants had on the initial description. However, this metaphor of the ladder of reflection captures only a part of the conversation. Since in the LSG there were multiple participants who were responding they would all be climbing their own ladders of reflection. This notion of ladder does not take into account two features of the conversations in the Learning Strategies Group. First, it does not account for the inter-relations between the participants. As opposed to the coach and student, where there is direct interaction between two people, in the LSG there are many people responding, broadening the conversation in different directions that are not always accounted for. The participants move up and down their own ladders of
reflection while exchanging views and experiences with the other participants, thus creating an intricate web of reflections. There are layers of ladders of reflection within the conversations. Second, the ladder of reflection describes a specific incident or interaction between two people. However, analysis of the conversations in the Learning Strategies Group ought to consider the accumulated repertoire of the group. Since the same group of people has been meeting for a long period of time they have developed a common repertoire of stories and discussions they refer back to when they respond to new problems. The metaphor of the ladder does not incorporate this feature in it. Consequently, there should be two metaphors in order to capture the complexities of the group meetings: ladders of reflection and spiral reflective conversations.

Some of the shared stories in the Learning Strategies Group take the shape of a spiral. The initial problem is framed and reframed in light of past experience, the participants suggest alternative solutions, the teacher who presented the problem tries alternative solutions and then the deliberations continue. The initial problem is shaped, defined and redefined through the group deliberations (Schwab, 1969; 1971; 1973; 1983). This spiral process not only helps define and redefine the problem, but engages the participants in finding alternative solutions, trying them out and discussing them further. The discussions and deliberations rely on the repertoire of the participants, and their past experiences and perceptions of what good teaching and learning entail. Thus, a richness of alternatives is developed for the participants to tap into in trying to solve the initial problem. Each participant is likely to address problems in different ways. The spiral process of reframing and redefining the problems within a group context adds breadth, depth and wealth of experience that are all intertwined in the process of proposing solutions to a problem.
After the first month of weekly meetings, the group decided to examine the process they were engaged in.

Jim: I think there are two aspects to it: one is how do we go about developing strategies to use in the classroom which help achieve that, and how have our classes changed? Do we see students then becoming more responsible for their own learning? Student change occurs pretty gradually... and you're looking at another good point of teacher change too. What is happening here, people are looking at their own practice and saying well there are some things that I already do which help achieve these and there are things we weave into that.

Mark: What I find I do is I listen to other people or think about what I could be doing and if I hear some things I think that would be applicable to me then I try and use them, other things I perhaps I just go over my head because either I don't see relevance perhaps for me, that doesn't mean to say they are not useful for the person who is giving out those ideas.

Barbara: What I like about the group is that I find it extremely creative and it also gives me ideas to draw on that I could use, ... and also it makes me question this teaching style. Is this teaching methodology really accomplishing anything as far as the students are concerned or are they just there, and passive learning is going on rather than active learning? Is it meaningful to anyone? Is it relevant? Or am I just here for one hour and the kids walk out and maybe have acquired nothing but a rote situation and answering questions. I try to at least once a week do something no matter how small or big it is whereby the students... acquire an ownership or a sense of responsibility for what they're doing.

Doug: I just want to add that what I'm getting out of all of this is... and again it is not making major transformations over night, but what you do is you pick up a piece here and a piece there and I'm trying them. I'm trying to remember all those things but it is just small little details I'm trying to incorporate.

Barbara: It is constantly on your mind, right? (Fieldnotes, 14.2.92)

At the fifth meeting, one of the university educators initiated a discussion about the group processes and the importance the teachers attribute to the meetings. All the teachers stated that the meetings encouraged them to think about their practice. The deliberations encouraged them to try something new, whether large or small, so that they could discuss it in the meetings. Thus, the reflective conversations, which incorporated reflection-on-action and reflections on those reflections were linked to teachers' practice. The teachers found themselves
thinking about those deliberations and slowly incorporating ideas from them into their practice.

Karen: I guess what I get from the group is it stimulates me to think as a teacher and that's the primary benefit I see from it. And I also think teachers don't sit around and talk about their teaching very much, they talk about other things and it's a really productive way to share information with other teachers and have that kind of professional relationship with them that you don't normally have. Gabriella: And can you see specific things that you've used or that you can say that you gained from the group?
Karen: Specific things? [she pauses and thinks] What was it, there was something we were talking about with Barbara when she was talking about bringing notes having the students make notes for her, and they had to hand in their outline for an essay. It was an in-class essay but they could bring an outline. I think that one discussion I found really interesting because we're appealing to higher levels of thought with a lot of the activities but I still think the ultimate expression of higher level thinking has to be in writing. You have to able to articulate your ideas in writing. So for me, the goal still is to teach students to express themselves well in writing. And I think from that discussion we came up with ways of actually teaching kids how to write an in-class essay and how to organize themselves, and not just by giving them a bunch of tips, but by actually walking them through the process and gradually sort of weaning them from having as much teacher input. And that was one of the things that I think next year when I am in the English classroom particularly with English Lit I think I'll use that.
(Interview, 19.6.92)

Barbara also talked about the impact the group had on her practice:

What I like about the group, the LSG it's two things: one is that it makes me feel good about my job because I am working with colleagues that are really doing the most amazing things in their classroom, and it also keeps me on my toes. I think, that this is one of the ultimate ways of professional development. (Interview, 23.6.92)

The participants found the discussions to be stimulating and challenging. Being able to present something in the meeting, and to report on an attempt has become a force that the teachers described as influencing their teaching. In this way the reflective conversations continuously shaped the practice and were shaped by it.
Summary of Chapter Five

The notion of reflective conversations can be applied to a group of practitioners discussing their practice. When a group of teachers and university educators discussed specific teaching or learning problems they followed a pattern that I have argued bears a similarity to Schön's notion of reflective conversations. They framed and reframed the initial problem; they set it in a context; and then they examined alternative solutions to that problem. Through that process of deliberation the problem was shaped and reshaped and consequently so were the solutions.

These conversations described both as ladders of reflection and as spiral conversations. While discussing specific problems or topics about teaching, the participants were engaged in reflection-on-action. They were reflecting both on the action in the practice setting and on their discussions in the group. In other words, they were climbing up and down the rungs of ladders of reflection. However, since there were many participants in the meetings there was an intricate web of ladders, on which the participants climbed. Moreover, the direction was not only up and down or diagonal. The thread of the conversations was also spiraling between the ladders. The participants discussed a topic, framed and reframed it, and proposed possible solutions. Then the teachers tried out the proposed solutions and shared them at later meetings. The participants returned to the topic and reexamined it in light of the descriptions of new practices. Since both teachers and university educators were engaged in reflective conversations there were opportunities to explore a wide range of perspectives. These conversations, which I described as a complex set of spirals and ladders, allowed the participants access to a variety of experiences and possible alternative solutions.
The ladders of reflection focused on deliberations within each meeting. They demonstrated the interactions and reflections within each meeting. The metaphor of the spirals linked different meetings. It emphasized the connections between meetings through recurring thematic topics. The next chapter will examine these thematic topics. It analyzes the stories the participants share when they discuss teaching.
Chapter Six

Shared Situated Cases

Chapter Five presented the analysis of the deliberations in the meetings using elements of Schön's notion of reflective conversations. It focused on the inner structures and content of each meeting. Chapter Six analyzes the structural and contextual nature of the discourse throughout the whole project. It defines cases and stories, analyzing the recurring thematic topics in the reflective conversations. After defining cases and stories in the Learning Strategies Group, I compare them to cases used in teacher education (for example, Kleinfeld, 1992; Merseth, 1992; J. Shulman, 1992; L. Shulman, 1992). Two cases are then presented, one discusses the use of linking as a teaching strategy, and the other addresses the evolving tension between theory and practice in the group meetings.

Stories and Cases in the Learning Strategies Group

The teachers shared their practice through stories that originated from their classrooms. They started with a story that exemplified a strategy. The group then identified and discussed the strategy, its implications and connections to other discussions they had. For example,

Ann: The only thing that I tried out this week is something to do with punctuation. You know I have to teach them the use of the comma, and I have taught them it so many times and so ineffectively so finally I just decided to get them to teach the class. I got them divided into four groups and told each group to do one section of how to use the comma. (Fieldnotes, 31.1.92)

Another example of starting a discussion with a story:

Karen: I started my psychology project and ... I'm trying to cover four chapters in three weeks. And the first thing I did was have them work in groups. I had them work in groups on Tuesday and ...
I asked them to come up with ... what the logical sort of age groupings were for the stages of development. And I wanted them to try and give me things like the main characteristics of people going through that stage, what was important to those people, what caused them to move from one stage to another stage. (Fieldnotes, 3.4.92)

Like other oral narratives, these stories have plots and in many occasions purposes. They often present a dilemma or a difficulty that needs to be addressed (as will be illustrated in the two examples at the end of the chapter). The teachers shared the stories in order to discuss learning and teaching issues. When the participants responded to these stories they used a variety of techniques. They asked questions for clarification, they categorized the main teaching strategy and its purpose, and on many occasions they responded by linking the stories to other stories that had previously been discussed at meetings.

In the above example, after Karen discussed how she had started the psychology unit, the participants asked many questions and made suggestions for teaching the rest of the unit. Barbara discussed what had happened so far in her classroom as a result of the psychology project. Mark and Jim linked the project to the group's discussions, using the terminology and language that the participants shared.

Barbara: It was interesting yesterday in Law, we were discussing engagement and marriage contracts, and one boy [she gives a name] mentioned that it must be difficult to get a divorce when you're in your forties because in psychology we learned the effects of that age.
[The participants laugh]
Mark: That's integration across subjects.
Jim: Yea, it's linking. (Fieldnotes, 3.4.92)

In this way there are different layers of stories that are interwoven. An initial story outlining the problem is presented to the group. It is subsequently modified in the group discussion which follows. The group deliberations create a second layer of the story. In some cases there is no further discussion of an initial
story. However, in others, there is yet another layer. When the teacher reports the follow up to the discussion, when other teachers use the same strategy, or when they refer either to the initial story or to the one created at the meeting, they create the third layer. This multi-layered story, that evolves over time whenever it is recalled and reshaped, is what I am calling a shared situated case.

For the purpose of the analysis of this study, there are no substantive differences between stories and shared situated cases, and differentiating between them may be difficult. I define these cases as stories with multiple layers. It is not simply a story that is retold time and time again. But, it is the accumulated and multi-layered stories of problems around a specific thematic topic that construct a case through the multiple times and the variety of ways it is addressed. The participants shape, modify, define and redefine some thematic topics through the meetings. These multiple layered stories become shared situated cases that represent the mutually constructed repertoire of the Learning Strategies Group. In the LSG, these implicit cases represent one aspect of teachers' professional knowledge. They allow the participant to recall strategies and problems that the group had discussed, and in so doing create a shared repertoire.

In the next section I will examine the literature on cases in teacher education, in order to compare them to the implicit cases constructed in the LSG. Definitions and examination of common features of cases in the literature allow for an analysis of the unique features of the cases that emerged in the discussions of the Learning Strategies Group.

**Common Definitions and Characteristics of Cases**

Cases are stories of here-and-now. They are concrete, particular, messy, and multi-layered narratives (J. Shulman, 1992; L. Shulman, 1992). They invite
discussions which enhance expert practitioners' ways of thinking (Kleinfeld, 1992). Cases are carefully crafted and they raise dilemmas which call for decision making (Merseth, 1992). There are five characteristics of narrative cases: a) they have a plot, beginning, middle and end; b) they are particular and specific; c) they place the events in a frame of time and place; d) they are narratives of action or inquiry, revealing the working of the mind, habits, motives; and, e) they reflect the social and cultural contexts in which the events occur (L. Shulman, 1992, p. 21).

Discussing problems and difficulties and forming alternative solutions are processes which enhance reflection on practice and are a part of training the novice in his or her practice. Kleinfeld summarizes the merits of cases for the novice teacher:

Cases can give novices: 1. vicarious experience with the kinds of problematic situations characteristic of teaching, 2. a model of how an expert teacher goes about framing and constructing educational problems, 3. a model of how a sophisticated teacher inquires about and reflects on such problems, 4. a stock of educational strategies for use in analogous problem situations, and 5. a sense that teaching is an inherently ambiguous activity requiring continuous reflection. (1992, pp. 34-35)

Cases are a valuable tool for experienced practitioners as well. They provide expert practitioners with opportunities to examine and reflect upon their current practice. They may encourage discussions around dilemmas and ambiguities of practice.

**Cases in Teacher Education**

As discussed in Chapter Two, cases are used in teacher education in at least three ways: as instructional material, to bridge the gap between theory and practice, as data in research on teachers' cognition, and as catalysts to promote change (Kagan, 1993). The purposes of using cases are many; some of these include: to teach principles or concepts of a theoretical nature; to share precedents for practice; to discuss morals or ethics as a part of the process of
learning to become a teacher; to teach strategies, dispositions, and habits of mind of teachers and teaching; and to explore visions or images of the possible. Calling something a case makes the claim that a story, an event, is an instance or an example of a larger category. They provide the opportunity to discuss a specific problem or question, and learn from that discussion about similar problems or questions. The assumption is that there is merit in writing and reading about problems that are anchored in a specific context. The merit of using a case lies in the opportunity to examine an incident and the possible solutions to the incident.

Cases provide the occasion to view other practitioners' reactions to an incident and to compare these to your own. Written cases used in teacher education serve as instructional material around which both novice and expert teachers can form communities for discussion or discourse. When interpreted by their readers, cases can exemplify ideas, attitudes, and practices that are brought to the case by the readers (L. Shulman, 1992).

Since teaching is situated within a specific context it has been argued that stories are better at capturing the nature of teaching than other forms of discourse. Grossman cites Spiro and his colleagues who argue that knowledge of ill-structured domains is stored in cases. "This may help us understand why teachers talk in terms of stories, as these stories may both help organize their knowledge of teaching and serve as precedent cases from which they reason about current dilemmas" (Grossman, 1992b, p. 232). Lee Shulman links the narrative quality of stories to the theory of situated cognition and to cases.

Our growing understanding of narrative ways of knowing, of the local and situated character of cognition, and of the conditions needed for the development of cognitive flexibility to cope with unpredictable and fluid domains lend credence to the claims of those who advocate case methods (1992, p. 26).
The narrative case, then, can serve as one of the appropriate tools to discuss, analyze, and reflect upon teaching. Bearing this in mind, I will continue to examine common definitions and characteristics of cases.

**Teachers as Participants in Creating Cases**

Most cases have been written by teacher educators as a method of examining teaching practices in teacher education programs. These cases are products of careful examination of theories that are necessary in teacher education (Merseth, 1992). They provide opportunities for analysis and deliberation of issues pertinent to the field. Recently there has been a tendency to involve expert teachers in creating cases (J. Shulman, 1992). When teachers participate in creating and writing cases they are encouraged to reflect on their practice and to become analytic about it. This analytic process may take two directions: writing cases and writing commentaries on cases. Commentaries raise questions and provide other lenses through which to discuss the dilemmas brought forth in cases. Judith Shulman (1992) describes a collaborative attempt at writing cases and commentaries with teachers and university educators. She maintains that bringing together teachers to write cases begins with a process of trust building and of the development of a support group. "It was fascinating to watch how the narratives of teachers' subjective experiences evolved into 'teaching cases'. ... Case writing itself became the reflective phase of the original experience" (J. Shulman, 1992, p. 136).

Lee Shulman articulates another benefit of including teachers in creating cases: "Moreover, authoring cases may well instill deserved pride in practitioners, especially teachers, whose own professional insights are rarely afforded the respect they deserve" (L. Shulman, 1992, p. 9). Thus, case writing becomes a tool
for teachers to exhibit their expertise, reflect upon their practice, and share it with other practitioners.

The next section analyzes the implicit cases that I argue were constructed by the Learning Strategies Group. It examines and illustrates the unique characteristics of these cases, and compares them to written cases used in teacher education. Then I demonstrate two cases that emerged from the group's deliberations.

**Shared Situated Cases in the Learning Strategies Group**

The literature discussing cases and their use in teacher education assumes that the cases are written, carefully planned and crafted to meet specific purposes. However, I argue that cases can be shaped and generated in other ways. In Grossman's (1992b) critique of the use of cases in teacher education, she questions the ability of a linear narrative structure to capture the complex reality within the classroom. In the Learning Strategies Group deliberations, the participants orally create their own cases through their deliberations.

The stories and cases are not polished, carefully crafted narratives but oral: changing, tentative, evolving and emergent. They are generated from concrete situations in the classroom and they evolve from addressing dilemmas or difficulties. This process of revisiting the stories from different perspectives has shaped them into cases.

Teachers brought oral stories to the meetings. Many of these stories were on thematic topics that had been addressed many times in meetings. The deliberations of these thematic topics, engaging the participants can be represented in cases. The recurring thematic topics are: 1) the variety of ways of visually presenting materials to students; 2) the techniques for students to summarize written materials; 3) the assessment and evaluation strategies which
meet the goals of teaching; 4) the complexities associated with using new
teaching strategies; 5) the tension between theory and practice; 6) the use of
models and structure in order to encourage students to be creative; and 7) the use
of linking strategies between subjects, within subjects, and between school work
and students' lives. The cases are constructed from layers of stories about these
themes. They are shaped through the continued attempts of the participants to
grapple with dilemmas in these areas.

As discussed above, cases are narratives, or concrete stories within specific
contexts. The cases shared in the LSG are also narratives of specific contexts.
However, they also have other unique characteristics. They are shared and
situated. I will define each of these characteristics and illustrate them in the
excerpts from the group deliberations.

**Shared Cases**

One of the characteristics unique to the cases in the Learning Strategies
Group is that they are shared among the participants. They stem from the
participants' talk and question posing related to their stories about teaching and
learning. The cases are constructed from participants' personal recollections of
their teaching practices. These oral stories are told and analyzed in the meetings.
Discussing maternal knowledge and practice in relation to women's talk, Belenky,
Clinchy, Goldberger and Tarule (1986), emphasize the importance of talk as a
learning tool. "Question posing is at the heart of connected knowing. We argue
that women's mode of talk, rather than being denigrated, should become a model
for all those who are interested in promoting human development" (Belenkey et
al., 1986, p. 189). They emphasize the importance of talking and posing questions
as a critical component of human and professional growth. Although Belenkey
et al.
(1986) argue for the importance of women's talk, this kind of talk is not necessarily exclusive to women.

Discussing learning through discussion, Grossman says: "In genuine discussions, there is a shared responsibility for the conversation, just as in learning communities there exists a shared responsibility for learning" (Grossman, 1992b, p. 235). Since the Learning Strategies Group has met over a period of over two school years they have had the opportunity to develop a sense of shared responsibility for their talk. When the participants in the meetings discuss their practice, pose questions, are intrigued by the answers and are willing to pursue them further, they push their professional growth to new limits. This kind of talk, geared toward exploring one's profession in a safe and supportive environment with other practitioners, becomes a tool for professional growth.

Learning ... advances through collaborative social interaction and social construction of knowledge. ...Within a culture, ideas are exchanged and modified and belief systems developed and appropriated through conversation and narratives, so these must be promoted. (Brown et al., 1989, p. 40)

When professionals discuss their practice, particularly when this is done collaboratively, they enhance their learning. Discussions have the merit of crystallizing ideas, trying them out through conversations with colleagues, and reflecting upon actions.

Although the participants receive written summaries of both the meetings and the strategies they have discussed in previous meetings, the deliberations always evolve around the oral stories. Only at summative meetings, like at the end and beginning of the school year, or in preparation for the conference presentation, did the participants review the written versions of the strategies. The stories and strategies become cases through the multiple times they are addressed in the meetings. I will now examine how stories evolve to cases in the meetings.
When a teacher brings a story to the group meeting this story usually stems from a problem on an issue in their teaching practice (Schwab, 1969). In some instances the teacher shares an incident that has happened, highlighting the focus or dilemma, and in other instances, the teacher plans ahead and comes up with solutions for problems before they happen. The participants in the meetings respond to the story. Sometimes they suggest alternative approaches. They also start a process of linking the story to a variety of contexts. The story is linked to different content topics within that subject, to different subjects, to generic learning and teaching questions, to theories of teaching and learning, and to previous discussions within the group. The initial story changes its shape and direction throughout the deliberations and discussions in the group. The initial problem that was phrased by the teacher is now seen in a new light that suggests new directions of action. Thus, the story moves from a specific incident to a case that is shaped by the discussions and shared by the participants.

This characteristic of cases in the Learning Strategies Group, the fact that they are shared among the participants, allows them to be both emergent and generative. These cases emerge through deliberations in which the participants clarify their stories. Questions and clarification also provide opportunities for the participants to find new applications to the teaching strategies in the original story. In this way, the deliberations on stories of thematic topics create cases which emerge from these stories and generate new ones. The new applications occur when teachers modify a strategy that was discussed, or try that strategy in new contexts.

Karen was in the planning stages of a unit in psychology and she brought her initial thoughts to the meeting:

Karen: I have got something I want to do for psych that I'm really nervous about because that's a lot of work. ... So maybe you guys could just tell me if it's going to be too much work. ... I'm doing
three chapters on developmental psych ... I would have them ... before they ever look at the textbook, come up with the number of stages they think people go through in their lives, and what the stages are, what are the significant issues at each stage. And then come up with a class stages of life chart, I guess. So that's my idea. ... My problem is I don't know how I'm going to do it in the sense that I'd like them actually to gather data.

Pat: You could start with the Seven Stages of Man.
Karen: But I want them to start blank.
Jim: Sort of their own life experience.
Karen: Yea, their own life experiences and the people who they know.
Susan: You'll see they have a lot of knowledge, I think you'll find that.
Karen: But how are they going to prove it though? ...
Alice: So you want them to interview?
Karen: Or try and find evidence. Yea, but where am I going to find the people for that?
Jim: What's sort of data will they collect?
Karen: We're going to work this out from beginning to end. So ... they have to figure out what the stages are, they have to figure out what they think their hunches are about what happens in each stage and then they have to figure out a way of testing that hunch. So ... they'd have a survey, maybe it could be a general survey used at every stage.
Pat: What if they took some of the data and made these boxes, let's see old age and then they observed and they told you what their base was?
Karen: Yea
Pat: In other words some kids might go to the mall and because they are looking at kind of mobility and dress and you know.
Barbara: You're looking at methodology too. What type of methodology are you going to use?
Pat: You could divide the class up to groups.
Karen: But that might be a good thing maybe to do. O.K. some of you come up with a survey 'cause that's one way of gathering data, and another pretty good is the community... and set up a situation that you observe.
Pat: What about interviewing elders about the stages they think they have gone through?
Karen: Yea, where would I get the elders from?
Pat: You might get a group of kids together who have access to elders and have them interview their elders.
Nelly: The other thing you could do too is when you first get them to do that they could brainstorm and get their ideas of what the stages are.
Karen: Hmm
Nelly: You could discuss that ... and then you could divide your class, and each group take a stage, and then from that they would
develop the methodology, they're going to decide who they're going to use for their survey within the group. (Fieldnotes, 27.3.92)

The above excerpt emphasizes the generative, emergent and shared characteristics of the deliberations in the group. Karen presented a topic and many questions about it. Through discussions and probing the participants she shaped her decisions about the unit. Karen was able to focus the assignment, discuss areas where she was still not clear, and where she needed to explore further. She used the other participants' experience and expertise in order to help her frame the new assignment she was starting and the methodology she would use. The teachers followed the progress of this unit over a few meetings. In the meetings, Karen started by sharing her questions and dilemmas, posing them to the group and receiving their responses. Karen stated that she was willing to shift and change her classroom practices because of the group deliberations. The teachers' comments ranged widely from questions about the topic, to comments about methodology, to suggestions to work in groups, and to hints about possible sites of data collection. Karen then made decisions and choices about the directions she wanted to pursue with the students. Karen carried out the unit and reported back to the group, refining, changing, and shaping the project in the process. This became an interactive kind of planning process for the participants, which started a new tradition of using meeting time to plan new lessons and not only to share past experiences.

The deliberations and discussions of the psychology project illustrate how talk, and specifically talk among experienced practitioners, both teachers and university educators, plays an important role in the process of framing problems and finding alternative solutions to them. The reflective conversations of the participants shape their stories into cases and build a repertoire within the group. The teachers may use this shared repertoire when they make decisions about their
practice. Having both teachers and university educators participate in the deliberations widens the horizons of the conversations. As Judith Shulman (1992) argues, commentaries of written cases provide multiple perspectives on the same issue, they link it to research, and suggest alternative strategies for action. The collaborative deliberations in the meetings serve the same role. Having teachers representing a range of subjects and having university educators involved in the process enriches the discussions and brings both depth and breadth to the deliberations. The conversations are layered. The first layer is the stories and the other layers are the dialogues, analyses, and alternative suggestions about the cases (Schwab, 1969). The cases in the Learning Strategies Group are shared and collaborative. They are rich in their description of teaching and in the solutions they propose.

The above excerpt illustrates that the implicit cases in the Learning Strategies Group are shared among the participants and are shaped by the group deliberations. The group discussions are embedded in a specific context that the participants are familiar with, and thus, these conversations provide the critical contextual structure to articulate teachers' professional knowledge. The next section illustrates the situated nature of the cases in the Learning Strategies Group.

Situated Cases

Since learning is situated, cases are the appropriate medium to discuss and explore learning, and may be the instrument best suited for teachers to learn about their teaching (L. Shulman, 1992). There is a connection between knowledge, discussion of that knowledge, and action. Thus, cases become a significant form of professional development in which narration of activity and analysis of practice intertwine. "The problem, the solution, and the cognition
involved in getting between the two cannot be isolated from the context in
which they are embedded" (Brown et al., 1989, p. 36). There are links between
explicit knowledge and implicit understanding, and the two are framed within a
specific context. When cases are used in teacher education they are written and
prepared by experts who often do not teach in school. In the Learning Strategies
Group the teachers and university educators implicitly created their own cases.
They discussed difficulties in teachers' classrooms and alternative strategies to
solve them. The participants examined the suggestions in light of previous group
discussions. The stories and cases were embedded in a context that was known
to all the participants. The stories were situated in a specific setting which
influenced them and influences how the participants understood and interpreted
the cases. The fact that the teachers all worked in the same setting and were
familiar with it allowed the suggestions and solutions to problems to be specific
and unique to that school. The cases in the LSG were situated within its specific
setting and, accordingly, so were the alternatives raised by the participants.

The following excerpt is an example of the situated nature of the stories
and cases in the Learning Strategies Group. Doug linked the discussion of
concept maps to the specific context in which he was teaching. He raised the
question of the difficulty of encouraging students within the context of the
Alternative school to read. The participants suggested different solutions:

Doug: I have a question putting it into the context of the Alternate
school. What do I do if the kids do not read the book? How can
they work on those concept maps that assume knowledge of the
content?
Pat: Peer pressure to read.
Doug: Peer pressure is in the other direction.
Karen: Mystery, give the title and ask them to make up the content.
Doug: This is something else, it is creative writing.
Pat: Use short stories.
Doug: You need to find the right book.
Melissa: Last year we read cowboy stories, they got into it and
really read it.
Alice: Buy used books, tear them in half give them to pairs so they read together each reading a half. (Fieldnotes, 24.1.92)

The teachers discussed a variety of ways to encourage students to read. They talked about choosing the topics carefully, ensuring the books were short, to even a unique method for having students read in pairs, where each one reads half the story and describes that half to the partner, thus cutting the reading load in half and encouraging cooperation (Fieldnotes, 31.1.92). Since the context of the Alternate School is unique, the participants had to focus on that context so that the solutions would work. Though the solutions may also work in other contexts, they were geared to the reality for which they were proposed. Doug made the choices about how to solve the problem of students not reading. These solutions were shared and situated within a specific context.

The next section describes and analyzes one of the recurring thematic topics. The participants frequently discussed the notion of linking as an important teaching strategy. They maintained that in order to make learning meaningful the students should be aware of links between concepts within subjects, links between subjects, links between learning and assessment, and links between school life and students' lives. Tracing the value the teachers attached to the importance of "linking" in the group discussions over time, helps illustrate the nature of a shared situated case.

**Linking: A Shared Situated Case**

Linking as a teaching strategy that is geared to building an understanding of school knowledge, focuses on connections either within a specific content area or between different content areas, or between students' lives and school knowledge (Baird & Northfield, 1992). Linking was one of the recurring themes in the group meetings. It was first alluded to in the professional development
days, when the university educators mentioned linking as one form of encouraging students to become independent learners. The teachers tried different forms of linking. They used linking in a variety of ways in the meetings when they wanted students to expand their perspective. At first, the discussions about linking were sporadic. It came as a strategy when the group members thought it could enhance students' understanding. However, gradually the teachers and university educators systematically sought out links in the discussions and the teachers often tries to use them in their classes. Linking became one of the thematic topics that was woven into many discussions. The participants slowly shared and developed a repertoire and a language to discuss linking strategies.

The importance of linking as a strategy to encourage students to become involved in their learning and become independent learners was initially discussed in the first professional development day that the whole school staff attended. Throughout that day the university educators showed examples of linking that were tried by groups of teachers in other settings. In the meetings that followed, the teachers frequently discussed variations of those linking strategies. At first they discussed attempts within subjects and then they expanded it further to links between subjects, and links between students' lives and what they learn in school. For example, Barbara shared an example of using a grid in grade 12 social studies as a method of summarizing a long and difficult topic area. She gave the students the topics of the cells and columns and had them fill in the cells with information from the chapter. When Barbara brought this example to the meeting the teachers elaborated on it.

Barbara: I wanted to make sure that when they compared and contrasted the different countries you could see the slots very nicely.
Karen: Maybe this is like almost training them to use the grid so that eventually they'll create a grid. It might be just a beginning of the whole process.
Barbara: They liked the idea and they said, "Gee, this is a really good way to handle a chapter that is so messy, how to organize it, to make sense out of it".
Jim: I think the grid sounds great. I think, it has similarities to what a biology teacher had the kids do a grid for this purpose. Then they used it to do their essay. That worked well, so I wonder if we're taking this backwards you can now find a couple of essay questions which require the same kind of knowledge of using quite a lot of the cells systematically.
Barbara: I was thinking of that because otherwise it is just an exercise that is just hanging out there without a follow-up.
Karen: If you follow up with an essay then they'll see it as a much more powerful tool.
Pat: Maybe now they only see it as an exercise done in class but if they see it as a way of organizing their ideas so that they can write from them, they'll come up with something different.
Pat: I would like to see if they use it later on their own as a way of taking notes.
Barbara: It's a good learning tool to organize information, and unless the information is organized you can't have access to it, it is one of the pillars that they need to understand the next step.
Pat: It also helps them understand what is going to be on their test.
(Fieldnotes, 31.1.92)

Barbara shared the grid and the participants responded. Jim linked it to another grid in biology and explained how it was used. Pat linked it to organization of material when studying for a test, and Karen suggested using the grid as a springboard for writing an essay. Pat added another dimension, stating that it would be interesting to see if students linked the grid to other learning contexts which required accessing complex contents.

Two meetings later (Fieldnotes, 14.2.92) Susan went back to examine linking and the use of a grid. This time the grid was to be used to represent past knowledge and what students were reading. Susan linked the grid to English. Then the participants encouraged each other to use grids and make the links between the subjects explicit. Mark and Jim demonstrated how students benefited from making links between concepts within subjects and between...
subjects. Mark also added that the links between students' lives and experiences and what they learned in school was important.

Less than a month later (Fieldnotes, 6.3.92) the use of linking strategies was discussed again. This time Ann proposed using the grid in a new way continuing a discussion that Barbara had initiated. She described a flow chart, in the form of a diagram which represented the relationships between characters in a book the class was reading.

Ann: I think a flow chart would really help them to plan and to see why things happened, you know, the causes of events.
Barbara: That's right, cause and effect.
Karen: And then would you mark that?
Barbara: That's probably a good suggestion, I never thought about it. ... They haven't got the devising of the questions, but the flow chart, that would make sense, wouldn't it? That's a good route to go.
Susan: Looking at a sort of the bigger picture of how we can help them link it all together. ... they [the students] weren't making links and I just got them to keep all their work in their writing, I constructed a writing folder, and I was just thinking seeing it all there and seeing a progression through, will be a physical way of helping them to make the links. (Fieldnotes, 6.3.92)

The participants moved from merely examining strategies of grids and links to examining assessment tools that encourage the emphasis of links within school knowledge. Susan emphasized linking within the subject she was teaching through visual demonstration of the progression of what they had studied, linking different segments within the curriculum. Two months later (Fieldnotes, 8.5.92) Karen discussed the use of a chart in her teaching, again focusing on making links explicit.

At the end of the school year the participants had a longer meeting to summarize their accomplishments and decide on directions for the second school year. One of the decisions was to emphasize linking between contents within subjects, between the different subjects, and between school knowledge and students' lives. The participants decided to make an effort to use students' links
as a part of their teaching strategy, and to reinforce links in any possible way (Fieldnotes, 17.6.92).

In the second school year the teachers raised specific attempts at linking between subjects. One of the problems the teachers wanted to address at the school at that time was racism. The teachers thought of ways to address this topic in the school. Making links and emphasizing both relevancy and a historical perspective seemed the appropriate ways to handle that problem:

Karen: A nice piece of integration between social studies and literature might be to take an essay by Mowat called The Execution. It is about the Inuits. That might be worth doing.
Barbara: I wonder about a way to make it relevant if you take a look at the Neofascist movement in Germany, the skinheads and what they do to the Polish people and the Vietnamese etc.
Pat: A one week on multiculturalism isn't enough.
Karen: Maybe we should do something across the curriculum, it would be nice if we would be working together particularly in the grade 10. (Fieldnotes, 14.10.92)

In the next meeting (Fieldnotes, 18.11.92) linking between subjects was brought up again. This time the context was different. The participants discussed linking English (Animal Farm by Orwell) and social studies when learning about Russia. They also discussed possible links between keyboarding skills and handing in typed assignments.

Then the discussion moved to links within the English department with regard to book reports. In subsequent meetings the teachers shared experiences of team teaching social studies and English in grade eight, making the links between these subjects explicit to the students. The next mention of links was between science and English:

Gary: Do they talk about other examples of where they [the students] have to use evidence, where they say: in this course ... where they are making those kinds of links that we were talking about.
Barbara: They don't say specifically, but I know the students who are in Lit 12 and I remember our concerns from the beginning of the
year when the students were writing both in lit and history it was
more opinion rather than using concrete examples.
Karen: They had good ideas but they didn't know where they got
them.
Gary: I am just wondering if that spill-over came from the science
courses. That is a fairly important theme and issue in science.
(Fieldnotes, 9.12.92)

Linking in this meeting was through common learning skills. The participants
discuss good learning skills, like using evidence to substantiate claims,
throughout the different subject areas. This attempt to emphasize learning skills
was an example of the commitment the participants made at the end of the first
school year. This was the direction they thought the Learning Strategies Group
should move. Over the next several meetings the teachers brought more
examples and incidents in which they could emphasize learning skills that were
applicable to different subjects. The group deliberations reflected this focus. The
participants had a common language and many past examples to rely upon when
encountering new situations in which linking would be applicable. This has
become one of the emphases in the deliberations and in the way the teachers
presented the stories they brought to the meetings.

As demonstrated above, the notion and importance of linking as a teaching
strategy were woven into many of the meetings. The participants viewed many
of the stories through the implications of these stories to the notion of linking
between content topics within a specific subject, between subjects, and between
students' lives and what they learn in school. I will now analyze the
characteristics of this shared situated case. As I stated earlier, cases in the
Learning Strategies Group are shared and situated, and consequently, they are
both emergent and generative. When the participants in the LSG started to
discuss the strategy of linking it was specifically geared to answer a difficulty of
summarizing a chapter in social studies. The group deliberations provided the
participants with ample opportunities to discuss and try out other kinds of linking. The deliberations generated further strategies and examples of linking that the teachers tried and later shared in the meetings. The participants' view of the role of linking changed over time. It was no longer a single strategy that was tried once, but a thread that connected a large variety of strategies. The participants slowly developed terminology and 'verbal shorthand' about linking. They explicitly discussed in the group and with students the value of making links between contexts, between topics in the same subject, and between school and students' lives. When the group discussed linking they shared and in time modified the purposes of the strategy and its possible applications in new contexts.

The next section describes another shared situated case. The case of the interplay between theory and practice is also woven into the Learning Strategies Group. This case focuses on the group processes and direction and not solely on its content.

The Interplay Between Theory and Practice: A Shared Situated Case

This case examines the interplay between theory and practice in the Learning Strategies Group, in which the participants reflected about theory and its relationship to practice. Theorizing is defined here as a process of abstracting from the particular instance, making sense of that instance based on prior knowledge and then applying it to new situations. Thus, theorizing explains, clarifies and modifies practice.

Although the teachers who participated in the group meetings shared a common view of what constitutes good teaching, most of the teachers claimed in their interviews that they did not want to discuss theory in the meetings (see details in Chapter Four). The teachers sought a time and place within their
professional routine where they could share and discuss their practice. They did not see these conversations about their practice as theoretical. They regarded them as deliberations embedded within a specific practical context.

Karen: I don't want to get all caught up in anything that is too academic, I want to keep this really practical. What I want to take out of the room is something, an idea to use some time or just something for me to think about and store away, you ... are here for a different reason and that's fine, as long as it doesn't become academic for us, it doesn't matter to me, and I'm happy, I like having Jim and Janet here because I think you have a lot of background and expertise. (Fieldnotes 13.3.92)

The university educators, on the other hand, saw the benefits from focusing on the interplay between theory and practice. They expected the deliberations to be more than just sharing of stories. They saw the group as an opportunity to examine theories of learning, change, and collaboration between university educators and teachers.

Jim: I'm not sure that you can run for a year just sharing ideas. What are we trying to do? What problems are we trying to deal with? And, what progress are we making? Do we see changes in the kids? ... It's very exciting, you know. So I think that there's a conception here of what can theory offer to practice. Now everything Janet and I said at the day [the professional development day] tried to indicate the what we saw as the interaction between the two and the value of the two for each other. But it's not something teachers are used to seeing in practice so if we talk about change as involving the four dimensions of conceptions, attitudes, behaviours and trusts then we've got a conceptual change here that needs to be brought about. (Interview, 12.3.92)

Since the teachers did not regard the core of the meetings as theoretical there were only a few explicit discussions about theory in the meetings. However, a close look at the list of topics discussed in the meetings and who initiated them (see appendix III) indicates both teachers and university educators discussed external theories. However, in the meetings there were many instances
where the teachers and teacher educators theorized about teaching and learning. There were theoretical assumptions and claims in what the teachers brought to the meetings and in their reactions to what other participants brought forth. Furthermore, at the end of the first school year in a full day meeting (Fieldnotes, 17.6.92) and in the interviews, the participants discussed the notions of theory and practice more explicitly. In an interview, Susan elaborated on teaching with an underlying theoretical view of teaching and learning:

Metacognition gives some kind of a framework, a direction, a purpose, and what we do [in the group meetings], sharing practice, is supported by this umbrella of metacognition. (Interview, 11.3.92)

Though there were no explicit discussions of theories in the deliberations about practice, the stances the participants took in specific questions, and the ways in which they approached practical dilemmas implied certain theoretical perspectives. The group discussions provided an opportunity for the participants to examine teachers' practice through their, at times, implicit theoretical lenses. The deliberations about practice are theoretical, though they are anchored in the teachers' practice.

The participants theorized about learning, teaching, change, and their group processes of collaboration. Following are examples of group discussions that emphasize how teachers and university educators theorized.

Discussions of the notion of learning evolved around questions of what learning entails, and how one learns. Discussions about learning focused on the notions of learning from mistakes, making links between prior knowledge and the new material, making links between different subjects learned in school, making links between school work and students' lives, and learning through teaching.

The following excerpt from a meeting provides a focus to a discussion of the process of theorizing that the teachers engaged in. The teachers spent many
of the group meetings discussing the importance of teaching students to use structures and models. The teachers had long discussions about the interplay between providing structure and encouraging creativity. In those discussions the teachers were theorizing about teaching and learning though they did not frame the deliberations in theoretical terms. The following excerpt from a meeting illustrates how one teacher described a poetry project she had tried. The teachers' theories about learning and teaching were evident through their probing and questioning.

Alice: I've been doing poetry with my writing 12 class, which is nothing particularly interesting in itself.
Karen: Well, why did you do what you did?
Alice: The class is run like a writing cooperative ... so I started the poetry after the prose term and I said ... do whatever you want, ...well it didn't work because they had no structure. So then I.. said, "Well, we're going to do poem structure and this is meter and I invented all these patterns they had to write to and they had to play with the syllables and it got better and it got better. So then I decided to have them pattern... I had them patterning after Robert Frost, because I wanted them to write about things outside of themselves. I wanted them to go to nature,... and I wanted them to write in metaphor. They did a lot of group together analyzing it and talking about it and finding the patterns and we read the other two "Road Not Taken" and "Acquainted with the Night". The assignment was they had to choose the structures, ...and follow them...I'm finding that by putting the structure, I think the results were fairly remarkable.
Janet: Fabulous.
Jim: It's incredible.
Susan: So the sort of active part of this is the fact that they are doing the writing.
Karen: But also they had to understand first, they had to take a poem
Susan: But the making of it has helped them understand.
Karen: And I think that helping them analyze the poem has helped them to make it, because they couldn't make it on their own before.
Alice: Well, ... the reason I brought this in [to the meeting] is because this Robert Frost assignment seems to be producing consistent excellence throughout the class ... as soon as I started imposing structure, I gave them 4-5 assignments to get to this one.
Karen: I think it is really good, you said it, it is a good way, it illustrates that this kind of structure and teaching of a technique frees kids. It gives them something, we sort of think "be creative","
and they go in a vacuum, and they can't do it. They need to be taught the technique and then they are free to do wonderful stuff. And I think that's what you've done.

Barbara: They can spring away from there.

Karen: And the other thing, ... they had to create their own structure and it just goes to show how they've internalized what they've done with the imposed structure (Fieldnotes, 28.2.92)

In this excerpt the teachers made some implicit theoretical claims about learning and teaching: creativity is enhanced through the use of a model or a structure, group discussions and deliberations among students prior to individual work enrich their work, and analysis of structure allows students to use it creatively in their writing. These theoretical claims underlie and direct the deliberations in the meetings. The way in which Alice presented the poetry project to the class was in itself embedded in theory about writing. When Karen asked Alice why she had presented it to the class in that way Alice began to explore her perceptions of teaching and learning and to reflect upon her actions. She maintained that before she had taught students to impose structure their writing was limited. She assumed that teaching students some of the structures of poetry freed them to be creative within a given structure. The teachers' comments and deliberations about the relationship between structure and creativity indicated that they held similar theoretical views about the advantages of teaching students structures and models on the one hand, and encouraging them to be creative on the other. The participants assumed that when students learned a "tool" they would find new contexts in which to apply it.

In another interview Pat linked the theory of active learning with its practical implications. Pat added to the discussion about how to teach using active learning strategies and how to enhance higher level thinking skills of students:

Pat: As I said I'm coming away [from the meetings] with thinking about how I'm going to design activities that make kids make connections between their prior knowledge and the new things
they are learning, and between concurrent classes so that their learning may be easier for them. (Interview, 23.6.92)

The participants theorized about collaboration between teachers and university educators. Barbara described the merits of the group meetings saying:

One thing I like about the group is that it is really practical. I like the group [because] I'm questioning more what I'm teaching, I am questioning if there is a better way to go, is this really necessary or what direction should I be trying to take the kids in. All right, so I like the group for that reason, it keeps me on my toes. (Interview, 23.6.92)

Although Barbara called the group "practical" she described a process of theorizing about teaching and learning. She maintained that through the group discussions the teachers reflected upon their practice and learned from it, so that the decision making process was active, conscious and, to some extent, done in the group meetings. Susan provided another example of the group collaboration and how it shaped her practice:

Well, I did that [a strategy of how to summarize a passage while reading it] with much more purpose and direction, because I have seen that it was worthwhile. So that what I've done was directly in response to the group. (Interview, 19.6.92)

The teachers claimed that they theorized by looking at the similarities and differences of the strategies and procedures other teachers brought to the meetings, and thus predicted how these would work in different settings, with different students. They modified, changed, translated and developed the strategies to their needs and to the students' needs.

When discussing collaboration between the participants some teachers saw the university educators as providing "external" theories, and early on some felt that they did not want or need "external" theories brought to the meetings. After seven meetings Jim consulted with the chairperson of the meeting and suggested that they might try mapping the strategies the group had already discussed on a grid of active learning that was based on research about active
learning (Baird & Mitchell, 1987; Baird & Northfield, 1992) (Fieldnotes, 6.3.92). This kind of activity was foreign to the group discussions. In previous meetings, the teachers brought instances from their practice and reflected upon ways to improve their practice by moving towards teaching that encourages students to use high level thinking skills. The deliberations focused on those practical instances, elaborated on them, compared them or contrasted them with other instances. Jim was suggesting that the group might examine the suggestions about those instances in light of a specific theory of learning. The teachers in the group were not prepared for this shift in focus.

This suggestion from a teacher educator produced a subtle tension in the meeting. The reason for this tension was twofold: the fact that the group had never examined teaching in that format before, and the fact that one of the teachers was disappointed because she could not share with the participants examples of students' work which she had brought to the meeting in order to illustrate a procedure. That teacher left the meeting with a feeling that priority was given to an "external" theory brought in by the university educators. She did not perceive an immediate benefit from such a theoretical discussion, moreover, she felt her needs were not fulfilled by the group. In some of the teachers' eyes, theory (brought in by university educators) took priority, in this instance, over what seemed more practice-oriented needs of a teacher.

In interviews held later that day, some of the teachers expressed the opinion that perhaps there were teachers with different needs in the group: those with a "theoretical orientation and interest", and those with a "practical orientation and interest". These teachers were even willing to consider separating into two discrete groups. It was surprising to note that not all the participants perceived a link between the grid proposed by the university educator for the purpose of examining the teachers' suggestions and their teaching. In spite of
that tension the meetings proceeded. However, the participants agreed that different participants had different needs and interests at different points in the process and these needs should be addressed. In other words, when a teacher came with material to share and did not have time to do so, it was the responsibility of the participants to allocate time for that teacher in the following meeting. Only at the long meeting at the end of the first school year did the university educators subsequently initiate any external procedures to examine the group's progress.

A year after this incident four of the participants prepared a conference presentation about the project. To prepare for the conference the teachers theorized about the project they were involved in, the group evolution, learning, and teaching. In a discussion about theory I pointed out that these teachers were now theorizing in a way similar to the way proposed a year earlier by Jim. This slow shift in the perception of the interplay between theory and practice may have been a result of the weekly meetings. The teachers could see the benefit of using theory for the purpose of reflecting upon practice. Although the university educators were initially perceived as bringing "external" theories to the group meetings, as time went by the teachers appreciated the potential benefit of theory in their attempts to improve their practice.

In one of the meetings (Fieldnotes, 25.3.93) Gary developed the notion of using metaphors in science. He described a situation where a teacher brought to class a black box with a funnel at the top and a spout at the bottom. The teacher asked the students to tell him about the box. Then the teacher asked students to predict what would happen if clear liquid was poured into the funnel. The students predicted different possibilities. The teacher poured in the clear liquid into the funnel and red liquid came out of the spout at the bottom of the box. The students were then asked to create a theory or a model for what was in the
box. Before pouring some more liquid in the funnel, the teacher had the students make another prediction. This time blue liquid came out. They re-examined their initial theory in light of what they had seen. When Gary shared this story with the group he emphasized that the box was a type of metaphor of student theorizing, of making sense of what they saw and relating it to what they knew, and of being forced to re-examine what they knew when they encountered contradictory information. The students were theorizing about the box by looking for similarities and differences within a specific context.

When the teachers heard about the above demonstration they quickly made a connection to the group processes. Karen said, "this is a metaphor for the group" (fieldnotes, 25.3.93). Nelly and Karen said that the way the teachers in the group operated was similar to the description of the students. They said that the participants were theorizing and speculating on learning and teaching. They were trying out new strategies and then re-examining them in light of their reflections in the meetings.

In the second year, the teachers started to share their conceptions and understandings of learning and teaching. The teachers appreciated the important role of theorizing in order to make sense of teaching. However, they did not perceive "external" public theories (which they linked to the university) as relevant. Public theories are written and become a part of the discourse within the discipline. Private theories are usually in the form of reflections and do not become public.

However, all the participants used grounded theory to explain the group processes, to account for the changes in the perceptions of teaching towards active learning, and to explicate what constitutes learning and teaching. The teachers "judged" public theories according to how distant these theories were from their practice. Public theories were general, abstract understandings about
learning or classroom management, and in many cases these theories were attached to a specific name of a researcher or a school of thought.

The teachers distinguished between "external", public theories and their own private theorizing. They perceived external theories as distant from their practice, but their group deliberations they perceived as a type of theorizing which was directly applicable and influential in their practice. When asked to expand on the distinction they focused on theories that were immediately linked to their practice. Thinking about and deliberating on the "craft of teaching" and "the philosophy of teachers" are processes of making theory. Theory here serves as a tool to make sense of specific instances of practice and link them to further practical instances. Karen discussed this issue:

>This is a different kind of theory. These are my thoughts and explanations of what had happened, they don't come from a book or a journal. They are not Theory in capital letters. They are my own explanations. (Fieldnotes, 23.2.93)

Theorizing means going through a process of abstracting from the particular instance. It provides the language and concepts with which to describe and analyze phenomena. Theory consists of generalizations and ideas about inter-relationships between concepts. Theory is the public discourse which enables an individual to make sense of practice. Hooks (1988) points to the interplay of theory and practice:

>All theory as I see it emerges in the realm of abstraction, even that which emerges from the most concrete of everyday experiences ... Such theory emerges from a context in which there is either an integration of critical thinking and concrete experience or a recognition of the way in which critical ideas, abstractly formulated, will impact on everyday life experience. (p. 39)

Regardless of whether the starting point is practice, experiences in the field, theory, or abstract articulations of concepts, there is an interplay between theory
and practice. Theory informs practice and practice modifies theory. Schön (1987) claims that there is tacit knowing-in-action which entails thinking while doing. Theory becomes a tool, a vehicle which enhances and influences practice. In a similar way, the experiences, the past repertoire of practice informs and modifies theory.

In the early months of the meetings the teachers did not find links between those "external" theories and their practice. What seemed important to the teachers was their process of theorizing about their practice. Thus, private theories and reflections became public within the group setting and were shared by the participants as they were trying to make sense of teaching. After the teachers had discussed and articulated their personal reflections and theories about teaching, the "external", public theories became more accessible and useful to them. The group deliberations became an intermediate stage between the private reflections and public theories.

The shift in the teachers' view of the underlying impact of "external" public theories was evident at the end of the first school year (Fieldnotes, 17.6.92). After five months of weekly meetings the group met for a full day to discuss its progress and decide about its direction for the next school year. On that day the participants examined the strategies the teachers brought to the meetings and mapped them on to the group's initial goals. Though there was hardly any mention of these goals in the five months of meetings, and there were very limited "theoretical" discussions in the meetings, the participants realized that they shared a theoretical perspective. All of the strategies stemmed from a similar perception of what constitutes good learning and teaching. The teachers felt that what drew them together was a need to share their practice and collaborate with others; however, there was another layer of commonality. Though not discussed explicitly at length, the participants shared a theoretical view of the learning
process. During the full day workshop that summarized the first school year, the participants examined the strategies they had discussed in the meetings. The discussion illustrated that all the strategies and procedures shared common perceptions of learning and teaching. The group also shared a theoretical view of the potential for collaboration as a form of on-going professional development.

As this case demonstrates the role and definitions of the interplay between theory and practice evolved over time. The teachers started out claiming that they wanted the primary focus of the group to be on their practice. The university educators encouraged discussions about links between theories and practice for the purpose of enriching the understanding of both theory and practice. However, because of some of the teachers' initial responses to their initiatives the university educators did not often bring theories to the discussions. However, over time teachers perceived the group deliberations as a common ground where they expressed their private theories and reflections about teaching. These private theories became public in the group setting, and were at times shaped through the deliberations. The teachers shifted from claiming to focus solely on practice, to sharing their theories, to examining possible benefits from external theories. Gradually and occasionally they linked their theories to public theories when they felt these theories allowed them to explain problems and difficulties about teaching and learning. As discussed earlier, this case illustrates how the understanding of the interplay between theory and practice was modified through the deliberations. The discussions were situated in the context of this particular group, its needs and understandings. The discussions allowed the participants to revisit their views and re-assess them. The collaborative setting and the fact that the meetings continued for a long time provided the participants with opportunities to examine their perceptions in light
of the deliberations and their practice. The multiple discussions of theories of the participants, discussions of theories of teaching and learning, and discussions of the dynamic processes of these deliberations became the multiple layers of this shared situated case.

**Summary of Chapter Six**

The participants in the Learning Strategies Group discussed teaching and learning over a long period of time. They focused on skills that encouraged students to become independent learners. They discussed a variety of topics, some of which recurred over time. Links between content, a wide range of assessment techniques, actively involving students in the learning and teaching process, the use of different forms of representation, and the complexities of the use of new teaching strategies were all discussed.

I have argued that the stories, teachers brought to the meetings, can be thought of as a type of case knowledge. The participants shaped and defined the stories and carved them into a common discourse. The cases were situated and shared by all the participants. They were constructed from on-going discussions and deliberations which were generative of further discussions and new teaching strategies. The situated shared cases in the Learning Strategies Group had multiple layers. They started with an initial description of a specific situation brought by a teacher. Then they were shaped and defined and framed through the reflective conversations. The next layer was that they were written in the form of minutes and strategies of the meetings. Another layer was the new attempts made by teachers to address questions that had been raised in the meetings. Yet another layer was when the topic was brought back to the discussion table and the group deliberated on it again.
This multi-layered process constructs cases that are shared by the participants, situated within a specific context, rich, generative of further ideas for practice, and evolving over time. The cases are the accumulation of reflective conversations of the participants. When the participants reflected on their practice before joining the group they either did it alone or sporadically with colleagues. The Learning Strategies Group provides a systematic structure in which the participants reflect upon teaching and learning. As the group evolved the participants developed an atmosphere of trust where they could share private theories in a public setting. These shared situated cases allow the teachers to examine their practice in a unique way; they also provide an opportunity for this educational community to use them as a dynamic tool of deliberation and analysis.
Chapter 7

Conclusions, Implications, and Further Research

The conclusions, implications for practice, and possibilities for further research that are described in this chapter are based upon the analysis of the meetings and interviews of the Learning Strategies Group. The chapter is divided into three sections: an analysis of the research questions and the conclusions emerging from them; implications for further professional development endeavours; and possibilities for further research stemming from this project.

Conclusions Emerging from the Research Questions

An analysis of the literature pertaining to teachers' professional development, teachers' knowledge, and the use of case studies served as the background perspectives used for this study. Transcripts and fieldnotes from meetings and interviews were analyzed in light of these bodies of literature. A thick description of the development of the Learning Strategies Group, focusing on the participants' reasons for joining the group, their expectations and roles, the structural and substantive content of the meetings and how the group evolved, served as basis for answering the first research question. The second question focuses on the kinds of talk that occurred in the meetings. Therefore, a detailed analysis of the discourse in the meetings was undertaken to answer that question. The third question examined the overall content of the meetings and how it evolved. Thus, an analysis of thematic topics at different meetings was used to answer that question.

Both Schön's (1983; 1987; 1991) analysis of reflective conversations, and Shulman's (1992) definition and analysis of cases and stories were the tools used to examine and analyze the content of the meetings. I used the terms "reflective
conversation" and "case" for the purpose of the analysis in this study. However, their definitions for the purpose of this analysis are broader than those suggested in the literature. When Schon (1983; 1987) uses the term "reflective conversations" he sometimes refers to conversations in the virtual world, a metaphorical dialogue between a practitioner and the specific situation that needs to be addressed. Although Schon also discusses conversations between practitioners, he does not expand the use of the term "reflective conversation" beyond that of reflection on action between two practitioners.

In this study, "reflective conversations" referred to the deliberations of the participants discussing a specific problem or dilemma about teaching and learning. Using Schon's term allowed me to examine the components of these conversations. Schon argues that reflective conversations include a definition of the problem within a specific context, setting the problem in the light of past repertoire, experimentation with possible solutions, and a decision for action. The data indicated that the conversations in the Learning Strategies Group followed a similar pattern. Thus, reflective conversations provided me with the tool to understand and analyze the structure of the dialogues in the group conversations.

In this study the teachers and university educators went through a process of "reflective transformation of experience" (Schon, 1987, p.25) in their discussions in the meetings. Teachers shared instances from their practice with the other participants in the group meetings. Then they transformed what they heard in the meetings to their own settings. They went through a process of conversing about reflection-on-action of the other participants in the group or on their own past experiences. This is similar to Smyth's notion of "teacher-to-teacher dialogue that constitutes the basis for a departure from the narrow views of reflection (Smyth, 1992, p. 219). Reflection becomes a tool with which teachers
can examine their practice, embedded within their particular context, and thus they create their own "operational" and "local" stories (Smyth, 1992, p. 297). Richardson (1991) also emphasizes the importance of such conversations among teachers and between teachers and researchers:

It means that opportunities should be created to allow teachers to interact and have conversations around standards, theory, and classroom activities. It also suggests that a necessary element of the conversation are discussions of alternative conceptions and activities that in combination with some of the teachers' own conceptions form a view of warranted practice. Research becomes one basis for the development of warranted practices with which teachers may experiment in their classrooms. (p. 18)

The use of cases to discuss teachers' practice has been prevalent in the teacher education literature in the last decade (for example, Grossman, 1992b; Kleinfeld, 1992; Kagan, 1992; J. Shulman; 1992, L. Shulman, 1992). Lee and Judith Shulman (1992) discuss a variety of purposes for using cases. When Lee Shulman discusses cases, he talks about written cases that are composed either by teachers or by university educators. These cases serve as the springboard for educational discussions among experienced and novice teachers. However, here again, the study expands the way the term is used.

In the Learning Strategies Group the recurring thematic topics that the group discussed and the group deliberations created shared situated cases. These cases were oral, generative and evolving. Although the participants did not set out to create cases but to discuss teaching and learning, implicit shared situated cases emerged from the discussions. These cases served two purposes: to provide the language and context for teachers and university educators to discuss teaching, and to serve as a tool to accumulate the repertoire of these colleagues who regularly met to discuss teaching and learning. The cases in the LSG were shared, that is crafted simultaneously and orally by the different participants, and situated within specific contexts,
Question One: How does a collaborative group of teachers and university educators who meet regularly to improve teaching practices aimed at increasing students' active learning evolve over a period of two school years?

When the school contacted the university, the professional development committee was seeking possible venues of collaboration. The university educators expanded the invitation and encouraged teachers to consider an ongoing project of collaboration around a shared interest in learning and teaching. The literature suggests different models to analyze similar collaborative endeavours (Bell & Gilbert, 1993; Cole & Knowles, 1993; Kagan, 1991). However, the data from the Learning Strategies Group did not support these models. The data suggested that though there were shifts in emphasis no stages were identified.

These three models discussed above describe different facets of collaborative endeavours. The analysis of this study does not propose a fourth model. Models, by definition, are arbitrary and externally imposed structures on phenomena. When I analyzed the data from the meetings I found that there was evolution of development, but not necessarily stages of development. There was development in the kinds of stories the teachers shared in the meetings, and in the role theory and practice played in the deliberations. Initially, teachers shared successes from their past experiences, and gradually they discussed difficulties, problems, and planning for future teaching. Teachers' attitude towards the interplay of theory and practice also evolved over time. First, they were adamant that they were only interested in deliberations that were directly geared to their teaching. They wanted to steer away from any theoretical discussions. Slowly, they understood that the group was theorizing when they responded to an individual teacher's story. The participants were making sense of teachers' stories.
They analyzed, categorized, and applied principles from these stories in new contexts. Then, the teachers started to appreciate the ways that theorizing influenced and was a part of their practice. Next, they sought external theories that would allow further insights into their practice and to the group deliberations.

Though there is certainly growth and evolution in the group over time, I argue that using an external model does not capture the intricate nature of the group deliberations. The participants developed a language and a shared repertoire to discuss teaching and learning. The evolution of these topics can be traced to the early group meetings. For example, presenting external theories was not left entirely in the hands of the university educators, and there were teachers who shared failure earlier in the meetings. Thus, a description and an analysis of trends and directions and the way they evolve over time, seem more suitable than a creation of a new model.

The participants established routines and roles from the initial meeting and renegotiated them throughout the project. Chairing the meetings rotated among the teachers, and hence all the teachers, in turn, decided the agenda, ensured participants' needs were met, and occasionally shared the responsibility of contacts with the university educators. The participants discussed confidentiality, agenda setting, and ways to ensure that all the participants' concerns and interests were addressed. They also discussed the support from the university educators. There was no stage in the project in which the participants focused entirely on procedural and structural concerns. From the initial meeting and in all the meetings, the participants discussed specific incidents and stories from the classrooms. In the first months, the teachers discussed successful strategies that they had tried. Later, the teachers shared difficulties and failures in order to find alternative solutions to problems. The teachers also used the time in
the meetings to plan together either for team teaching or for their own teaching. They deliberated on units that were difficult. Consulting with the group before and while teaching a unit allowed the participants to comment on the planning process, and also allowed the teachers to reflect upon the plan and decide how to proceed.

There were seven recurring thematic topics that were discussed in the meetings: 1) the variety of ways to visually present materials to students; 2) the techniques for students to summarize written materials; 3) the assessment and evaluation techniques which meet the group's goals of teaching; 4) the complexities associated with using new teaching strategies; 5) the tension between theory and practice; 6) the use of models and structure in order to encourage students to be creative; and 7) the use of linking strategies between subjects, within subjects, and between school work and students' lives. The participants discussed teaching strategies around these thematic topics and occasionally revisited them. The discussions evolved around subject specific and generic teaching strategies.

When the participants reviewed the strategies and their initial goals in participating in the project (Fieldnotes, 17.6.92), they realized that all the strategies that they had discussed shared the same understanding of what good teaching and learning entailed. Though the participants did not often address their theoretical understandings, the strategies indicated that it was shared among the participants.

When the group was more heterogeneous, in the first year of meetings, the strategies and learning skills discussed were more generic in nature. When the participants discussed subject specific strategies they also sought ways to translate them into other contexts and subjects. In the second and third years, with changes in the teachers who participated in the project, the group became
more homogeneous. The strategies and learning skills were more geared towards teaching humanities. The focus of the discussions was on learning skills and links between social studies, English, and English as a Second Language.

The group developed with regard to contacts outside the group. At first, the teachers were not interested in any kind of contacts with other teachers on staff who did not choose to participate in the meetings or with teachers from other schools. The teachers emphasized that they were not interested in participating in any presentations about what they had done in the meetings. Over time, the teachers were more inclined to share with others what they had learned. They initiated presentations to the staff where they discussed the advantages of collaboration between teachers and university educators for their professional development. They encouraged teachers to join the group. The participants also presented insights from the project at a professional conference.

Another indication of the shifts in attitude towards the project may be seen at the administrative level. Initially, the administration was supportive of the project, but was not very involved in it. The principal encouraged the teachers to meet and was willing to plan the timetable accordingly. However, the teachers preferred to meet before school on their own time. Over time, on different occasions when the principal wanted to examine new ideas for change he brought them to group meetings.

Though there were no specific stages of development in the Learning Strategies Group, it did evolve over time. The participants developed trust so that they were willing to discuss and share both failures and successes. The teachers slowly moved from sharing past teaching experiences and particularly successes, to using the meetings in order to plan and reflect upon their earlier attempts. The roles of the participants and purposes of the meetings were defined, examined and negotiated throughout the project. In the second year the participants
sought ways to reach new teachers and to discuss the project in contexts outside the meetings. In the third year the teachers started to discuss their perceptions of the implications of their participation in the LSG on their students.

In this study, the school did not have past experiences of long term collaboration with a university. Thus, the initial stage was one of slowly building trust, and creating a setting. Though the goals were stated clearly from the outset, they were stated in broad terms. One of the on-going assignments of the participants was to unpack the broad goals into specific ones that were revisited and negotiated and renegotiated throughout the project. The mandate of the group was clearly facilitative, geared to improve teachers' practice through discussions. All the participants had vested interests though they varied both individually and over time. Each participant had a clear sense of gain from participation.

**Question Two: What is the nature of the conversational dynamics of such a group?**

The teachers and university educators were engaged in discussions of specific incidents about teaching and learning that the teachers brought to the meetings. After a teacher described an event from the classroom, the participants commented and responded to the story. They asked questions that pushed the presenting teacher to explain the rationale for the strategy. The deliberations shaped the strategy, and the alternative solutions to the dilemmas or problems that were embedded in the teacher's story. The participants linked the strategy to other strategies that they had previously discussed, or to other contexts in which it could be implemented.

The analysis of the group deliberations in terms of Schön's (1985; 1987) discussion of reflective conversations points to the similarities and differences
between them. Reflective conversations, in both cases, describe a process of deliberation and finding solutions to problems of practice. Reflective conversations include framing and reframing of the problem, setting it in different contexts, and experimenting with alternative solutions. In Schön's description and in the Learning Strategies Group, reflective conversations serve as a vehicle to make decisions about the practice. Schön argues that the conversations are internal, taking place between the practitioner and the situation. They bring forth the virtual world in which the practitioner experiments in order to later perform in the practice setting. Although the reflective conversations in the Learning Strategies Group served the same purpose of deliberations about the practice, they were different since they involved a group of people and provided the participants with opportunities to share their expertise, past experience, and opinions about the question at hand. These reflective conversations were not personal internal processes, they allowed the participants to make their reflections public. The reflective conversations in the LSG were the tool to share private thoughts in a more public setting. Building trust was the initial step that allowed this kind of group reflective conversations to take place.

The reflective conversations in the group can be described as spirals and ladders. A concern or a dilemma was raised and then the participants reacted. The presenting teacher was pushed to examine the proposed strategy in light of these questions. The conversation extended beyond the initial concern to new contexts. In these reflective conversations the participants discussed the initial concern, reframed it in other contexts, and explored it in relation to past experience. At the end of these conversations, the participants discussed possible alternatives for action with regard to the initial concern. Thus, using and expanding Schön's (1985; 1987) metaphor, there were ladders of reflection, on which the participants went up and down, discussing both theory and practice.
In these conversations the participants shared concrete and specific examples from the classroom, going up and down their own ladders of reflection. When the participants linked a specific incident to others and to earlier deliberations, building a shared repertoire, they were exchanging ladders. The conversations also evolved in spirals, both examining other extensions of a problem and returning to it. Since the group consisted of both teachers and university educators their experiences and fields of expertise varied, hence the conversations were broad and encompassed a wide variety of examples and perspectives.

**Question Three:** In what ways can the nature of the discourse in this collaborative group be described and represented?

The teachers in the Learning Strategies Group used stories and incidents to discuss questions of learning and teaching. They did not come to meetings and present a general, theoretical question, like "what are assessment tools that involve students in evaluating their work?" or, "what learning skills ought to be taught in grade eight?". However, they addressed these questions in the meetings through discussions of stories from the classroom. The teachers brought to the meetings stories from their teaching that exemplified specific difficulties, and conflicts and they addressed these in their reflective deliberations. Since the initial description was in the format of a story, cases seem to be the tool that will allow description, examination and analysis of the kinds of conversations and their substantive and structural contents.

Cases are narratives, which have a plot, a structure and a purpose. The case is a story of the particular and specific which serves as an example of a larger category. Cases in teacher education are written by expert teachers or university educators, and they serve as a tool to encourage conversations around dilemmas.
They are often used in order to allow novice teachers to engage in decision making processes like expert teachers.

Although shared situated cases in the Learning Strategies Group share many characteristics of the cases discussed above, they also have unique features. Like case studies in teacher education, shared situated cases are narratives that capture situations related to teaching and learning. They too, have a plot, structure and purpose. However, there are some differences between these two kinds of cases. Shared situated cases represent a process of deliberation about a particular topic. They are my representation of the ways in which thematic topics emerged and evolved over time in the group discussions. Thus, shared situated cases portray a process of deliberations, whereas case studies, used in teacher education, represent a product that is carefully crafted. Another difference lies in the purpose of the case. Cases in teacher education serve as catalysts for discussion. They are carefully crafted in order to begin a dialogue, or a process of deliberation about educational issues. Shared situated cases, however, do not serve a function of creating the opportunity for a dialogue. They are a representation of the dialogue, the multi-layered discussions around thematic topics. Their purpose lies in the accumulation of a shared repertoire of teaching strategies and deliberations about teaching and learning. Shared situated cases are not crafted prior to the group deliberations. It was not that one of the participants came with a written case and that opened the discussion. Rather, a teacher started the meeting with an oral report, a story, or an incident from the classroom, and that often evolved into a reflective conversation. These conversations, comments and questions of the participants are articulated in the form of shared situated cases.

When the participants addressed a new story that was presented in a meeting, they sometimes referred back to other stories that they had previously
shared. These comments, modifications, questions, and links to other stories that the participants made were the components of the shared situated cases. The shared situated cases were constructed from the analysis of the group discussions. The initial story was reframed and defined in different contexts, linked to theories and to other stories in the shared repertoire of the group.

Shared situated cases in the LSG represent the layers from each occasion in which the thematic topics were addressed in the meetings. The layers were the different perspectives and deliberations about the recurring thematic topics that were demonstrated in the shared situated cases. These shared situated cases provided the language which the participants in their professional development. The participants created a repertoire of cases which encapsulated the teachers' experiences and the group's deliberations about these experiences. The shared situated cases demonstrated the common language the participants used to explore and reflect upon teaching and learning.

**Implications for Further Professional Development Endeavours**

This section discusses insights from the Learning Strategies Group which may be useful in enhancing professional development endeavours which entail collaboration between teachers and university educators.

**Change at the School Level**

The Learning Strategies Group was initiated at the school level. It did not evolve as a result of a large scale school or district curriculum improvement initiative. Its focus was local, addressing the specific needs of the school. The approach taken was a "grass-roots" approach. Although the university educators knew they were interested in a long term professional development endeavour, and not one in-service day, they did not determine the direction of the project. They had one parameter that guided them and that was their interest in
enhancing active learning. They were clear that they would not meet regularly if the teachers were interested in pursuing other directions. However, the teacher educators left the specific leading and directing of the project to the teachers. This approach increased the salience of the motivations and the relevance of the project to the participants, and may perhaps, explain the longevity of the project and the commitment of the participants. Research indicates (Sarason, 1990; 1993; Winitzky, Stoddart, & O'Keefe, 1992) that many proposed changes do not become the new reality in the schools. Those changes are in many cases superficial and thus slowly dissolve. Fullan and Hargreaves (1991), Barth (1990), and Cuban (1992), call for creating communities of teachers and teacher educators that will support teachers' growth and thus, foster school improvement and change. Similar to the Learning Strategies Group, the focus moves from looking at change as something external and imposed to one where change is viewed as stemming from local initiatives of teachers focusing on their professional development and growth.

Intrinsic Reward System

When a professional development project is local, as in the Learning Strategies Group, participants perceive the project as one which nurtures their own professional development. Thus, the operative reward system is intrinsic. Extrinsic purposes and rewards often lead to value conflicts and to the early termination of projects when those extrinsic rewards cease to exist (Dawn Smith, 1992; Lasley, Matczynsky & Williams, 1992; Haymore, Sandholtz, & Merseth, 1992; Teague Ashton, 1992; Winitzky, Stoddart, & O'Keefe, 1992). Collaboration, as defined in this study, is a process of mutual construction of knowledge. It is a process where goals, procedures, and evaluation are defined jointly by all the participants and are negotiated time and again throughout the project (Cole & Knowles, 1993; Erickson, 1991; Hunsaker & Johnston, 1992). Accountability is
internal to the group and is determined by and for all the participants. The participants felt it was their responsibility and their reward to attend meetings and contribute to them. Even when offered extrinsic support, as in scheduling the meetings on timetable, the teachers felt strongly that they wanted to meet on their own time and not be controlled by anything or anyone external to the group.

Power and Control

Since the Learning Strategies Group was a collaborative project that entailed collaboration between participants from different cultures, teachers and university educators, issues of power had to be addressed. The teachers wanted to meet on their time and thus have "ownership" of the project. They refused to apply for external funding from the Provincial Ministry of Education in order to maintain control. They did not want the administration or the university educators to set the agenda or dictate the direction of the meetings. This became particularly apparent when there was some uncertainty about the direction the group was going (for example towards the end of the first year). They continuously asked the university educators about their roles and interests in the project. The teachers were concerned that their agenda be addressed in the meetings and that there was no "hidden agenda" of the teacher educators. The university educators found ample opportunity to demonstrate to the teachers that their role was that of assistance and support. The teachers set the pace, the agenda, the format of the meetings. The university educators gave examples and supplied theory that was relevant to the discussions, but rarely initiated new directions. The university educators negotiated and explained their roles and purposes throughout the project, making their interests explicit.

Some of the teachers in the group were department heads and some were not. Though there was no visible incident where this issue of authority led to a problem, the teachers in interviews discussed a possibility of tension in such
situations. The hierarchical differences between teachers and department heads has the potential to become a problem, but has not become one in the LSG. Since all the participants perceived themselves as competent, experienced teachers who were experimenting to find ways to improve their teaching, were willing to share both successes and difficulties.

To avoid hierarchical conflicts within the group, the teachers decided to rotate chairing the meetings. The main advantage of this decision was that all the teachers felt a responsibility over the project beyond their specific needs and interests. The teachers ensured that the meeting time was divided so that whoever wanted to present new material could do so. The disadvantage to the group as a result of the decisions to rotate the chairperson was the lack of continuity in contact with the university educators. There were hardly any discussions between teachers and university educators between meetings. They did not discuss the agenda or possible directions to pursue. Therefore, the teachers had full control over the project, its pace, and direction. Hence, the role of the university educators was one of support and not a leading and directing one.

**Sharing a Theoretical Perspective**

The starting point in the project was a shared theoretical perspective on learning and teaching. The teachers who joined the Learning Strategies Group did so after two professional development days that focused on ways to enhance students' active involvement in learning. Early on in the meetings they linked these theories to their practice. Sharing a theoretical view of what good teaching and learning were was at the core of the meetings. When the participants examined the strategies the group had previously discussed, they saw that all the strategies shared a theoretical perspective. Therefore, the conversations in the meetings were not merely sharing stories from the classroom. Sharing had
another purpose. The deliberations touched on the interplay between theory and practice and how one influenced the other and at the same time was influenced by it. Hence, both teachers and university educators could benefit from the discussions and contribute to them.

Interplay Between Theory and Practice

Theory was perceived in the Learning Strategies Group as a generative device for deliberations about teaching strategies. Although the teachers shared an understanding of what good teaching and learning entailed they did not seem to refer back to one specific theory. The group discussions provided an opportunity for the participants to examine teachers' practice through their sometimes implicit theoretical lenses. The deliberations about practice are theoretical, though they are anchored in the teachers' practice. In the meetings, the participants discussed teaching and learning, change, and collaboration in the group. The participants encouraged the teachers to take risks, try new strategies, use the group to debrief their teaching experiences, and to modify the strategies for further attempts. They encouraged teachers to translate and link strategies from one content area to another, and to look for generic learning and teaching procedures. The teachers used the meetings in order to examine their practice sharing stories from their classes.

Schön (1983; 1987) argues that practitioners' knowledge is found both in their actions and in their reflections on those actions. He claims that practice can be characterized as complex, uncertain, unstable, unique and characterized by value conflicts. As Schön maintains, one goes back to one's prior knowledge, claims, and beliefs in order to solve a problem in current practice. This reframing of the problem is a theoretical process that leads to new actions in practice. The teachers used the time in the meetings to share some of this process of examining their practice.
Differentiating between private and public theories is helpful in order to understand the participants' attitudes and views of theory and practice. Whether referring to public theory which stems from research reports and is brought to the meetings by the university educators, or private theory that teachers bring forth through a process of making sense of their practice, theory both influences and is influenced by practice. These deliberations, which are often shaped like cases that provide a dialogue between theory and practice, enrich both the teachers' practice and the participants' understandings of the interplay between theory and practice. The teachers did not see initially the value of external theory. They were seeking concrete practical solutions to problems. However, as time went on, they perceived their discussions as theoretical, expressing both personal and shared theories in the group. The meetings became the common ground to discuss intermediary theories of the participants. These theories were no longer personal, yet were shared only within the group. Gradually the participants linked them to external theories, and were also interested in writing about their own theories.

**Group Dynamics**

Group dynamics had an important role in the development of the project. When the makeup of the group was heterogeneous, encompassing teachers from a wide range of subjects, the focus of the deliberations was on generic teaching strategies. These strategies could be translated from one context to another. Heterogeneity allowed the participants to discuss both a variety of subjects and generic learning skill, using examples from different subjects. However, heterogeneity also resulted in times when some teachers' needs and interests were put aside in order to answer other teachers' needs. It also meant that at times teachers needed to translate and modify what they heard from one subject to their own. When the group became more homogeneous the teachers shared a
common background of a specific field of knowledge. This led to discussions of subject matter that were more topic specific. However, the discussions then sometimes lacked the variety and diversity of different perspectives. Group dynamics influenced the directions of the deliberations, and the content of the meetings.

**Conducting Research on Collaborative Projects**

I joined the project because of my interest in teachers' professional development and collaboration between teachers and university educators. However, my goal was also to conduct research about the project. In order to do that I gathered data from meetings and interviews. Since the meetings were tape recorded and transcribed, I could provide the participants with written copies of strategies and minutes from the meetings. Although the participants did not refer to these documents regularly, they served two important roles. These written documents provided the teachers with a record of the many new strategies of teaching that they could use. They also allowed the participants to examine the direction of the project, and make decisions about future meetings. The analysis of the strategies that had been presented at the meetings was the basis of discussions and decisions at the end or beginning of the school years. The deliberations about goals and purposes of the group emphasized the shared understandings of learning and teaching.

When research is conducted as a part of the project, there is someone who provides written reports, conducts interviews, and analyzes the process and the content of the project. The research provides insights about the project, engages in deliberations about it in comparison with similar endeavours that are reported in the literature, and thus may shed light on the unique characteristics as well as the features that are similar to other projects in the area.
When I presented my research interests to the participants they all agreed to participate in the project as well as the group. Although the research agenda was known from the first steps, as it evolved and changed I shared the analysis with the participants. The researcher is the one who makes decisions about the direction and focus of the research. However, the participants must be able to express their opinions about it. Negotiations of the research agenda need to take place throughout the project. In this case, the teachers and university educators were aware of the analysis directions, and the ways in which I made sense of the data.

A cautionary note to those conducting research in similar projects. The researcher ought to be aware of the biases and preconceptions that he or she may impose on the data. For example, since the teachers discussed in the early stages their resistance to external theory, I assumed that the university educators were those who presented theory in the meetings. With this perception in mind I examined the data. I theorized about the role the university educators played in presenting theories in the meetings. However, a close analysis of the transcripts indicated that both teachers and university educators brought external theories to the discussions. Theories were brought when any participant thought they would enhance the understanding of a certain topic. Though some teachers seemed reluctant to acknowledge the role theory plays in deliberations about practice, they occasionally brought external theories to the discussions.

The researcher ought to examine and analyze the data in a wide range of directions and interpretations. Themes emerge from the constant interplay between the researcher's knowledge of the literature and the data. Awareness of this interplay provides the researcher with opportunities to examine his or her biases with regard to the study. Theorizing about the project, making sense of the data is a dynamic process which evolves and unfolds over time.
Directions for Further Research

There were two areas that emerged from the data that require further investigation and research: the first is to explore the impact of such collaborative groups on the school culture, specifically examining the administration, teachers who do not participate in the group, and students; the second is to explore the possibilities of using collaborative groups as a tool for professional development for beginning teachers.

The Impact of Collaborative Groups on School Culture

This study focused its investigation on the dynamics and development of a group of teachers and university educators within a secondary school setting. It was beyond the scope of this study to examine the school culture and how it was affected by the existence of the Learning strategies Group. Such an examination may be oriented to three possible directions. First, one may examine the relationships between the group and the administration. Though this study refers briefly to the interactions between the principal and the group, it is a topic that warrants more extensive study. The principal has many roles in the school, some of which entail supervision and evaluation of teachers, and initiation of change in the school. When a group of teachers and university educators meet regularly at the school it may affect the relationships between the participating teachers and the principal. The principal’s views of teachers’ professional development may affect possibility to meet on timetable. The principal’s perception of the merit of collaboration may also affect the possibility of occurrence of groups similar to the LSG. The development of the perception of the principal as to the possibilities such a group bringing about change in the school might determine the attitude towards the group.
The second factor to consider in the culture of the school is the rest of the teachers. Since projects like the Learning Strategies Group are long term, the inter-relationships between the participating teachers and the other teachers should be examined. Teachers who choose not to participate in the group probably have opinions about the meetings, their content, and possible influences. Do these change? If so, in which direction, and on the basis of what evidence? How do the teachers who do not participate perceive the group meetings? Why don't they join the group? What makes teachers change their mind and leave or join the group?

At the end of the first professional day, a second questionnaire asked all of the staff if they objected to the project. The university educators wanted to ensure that the teachers who did not join the group did not object to it taking place. Although there were many teachers who did not want to join the group, no one expressed opposition to the meetings. This survey was important so that the group did not meet in a hostile setting. However, the staff was not approached again to see how they felt as the group evolved. Did the staff feel "left out"? Did they feel there was a change among the staff because a group of teachers was meeting regularly? Did they ever consider using strategies from the Learning Strategies Group? Can they benefit from reading cases that evolve from the group? How do these teachers perceive teachers' professional development? These questions may shed light on the impact of the group on the staff, and on the reactions of the staff to the existence of the group. They will allow a glimpse at the culture of the school.

The third component of the school culture that ought to be studied is the students. In this study, the teachers discussed their perceptions of students' change, however, that change was not examined. The teachers brought examples of students' projects and assignments in order to demonstrate the new strategies.
However, the classes were not observed and the students were not asked about their understanding of what their teachers were doing. In order to have a full understanding of the impact of collaborative groups of teachers and university educators one should examine students' achievements, and their understanding of the new strategies and their purposes and goals. Since the purpose of the Learning Strategies Group was to enhance students' active involvement in their learning, one should assess the changes that occur in students whose teachers are involved in such groups. One of the themes that merges was that teachers participating in the group were going through similar learning processes as their students. The participating teachers were experimenting with new teaching strategies. In a similar way, their students were wrestling with new learning strategies and skills. Pursuing this parallel between students and teachers further may help to shed light on the processes of learning new material both in adolescents and adults.

Participation in the group is voluntary and thus there would probably always be teachers who would not participate in them. Students of these teachers may serve as control groups to determine the differences between students whose teachers participate in professional development collaborative groups, and students of teachers who do not participate in such groups.

Collaborative Groups as a Tool for Professional Development for Beginning Teachers

In the second school year there were some attempts to get beginning teachers and student teachers to join the group. All these attempts ended relatively quickly with the new teachers and student teachers deciding they did not belong in the group. In a discussion the beginning teachers claimed that the meetings were too overwhelming. They felt they did not have time to join the meetings. Their work load seemed unbearable. There were too many strategies
proposed and discussed in the meetings. They also felt that the participants shared both successes and failures and that was difficult. As a result of the dynamics that developed in the Learning Strategies Group the new teachers did not want to participate in the meetings. It seems that beginning teachers would benefit at least as much as experienced teachers from the opportunity to discuss their practice: plan, receive feedback about their classroom experiences, and reflect upon their teaching with a group of colleagues. Beginning teachers could also learn from the discussions about theories of teaching and learning as they are embedded and situated within their specific contexts. So why didn't they join the group? What would encourage new teachers to join such groups? How should these groups be structured so that the new teachers feel that participating in such a group does not add another burden to their full schedule but reduce the load? What should be the roles of the university educators if the participants are new teachers?

Such questions ought to be addressed but are beyond the scope of this study. Studies that address such questions may further enhance the understanding of how collaborative groups of teachers and university educators create communities of professionals, who create and share a language to discuss and improve their practice.
APPENDIX I

PROFESSIONAL DAY "FEEDBACK FORM"

From: Professional Development Committee

The purpose of the Professional Development Day on December 13th will be to focus upon teaching strategies aimed at changing types of student learning occurring in classrooms, in ways that are consistent with the school commitments found in the School Handbook.

In an earlier meeting with the University team we identified a number of possible emphases that could be addressed through workshops. We would like some feedback of which, if any, of these emphases are of concern or interest to you.

Please indicate your degree of interest in the following emphases and rank order your top three preferences.

Interest Rating:  L = Low          M = Medium          H = High

Emphases:

_____ (a) How do we encourage independent learning and critical thinking as opposed to rote learning?

_____ (b) How do we encourage higher level thinking such as critical, reflective that will lead to self-assessment and evaluation?

_____ (c) How do we "harness" the students' verbal activity and energy in a positive way to focus on thinking and learning?

_____ (d) How do we design learning activities that encourage active learning?

_____ (e) How do we enable students to be more responsible for what is happening in class?

_____ (f) What happens to weaker students when we emphasize critical thinking in our teaching?

_____ (g) What are the implications of attempting to effect changes such as those above for dealing with racial tension?

_____ (h) What are the implications of attempting to effect changes such as those above for providing for ESL students?
(i) How do we promote student attitudes which value intellectual challenge as opposed to "make me learn" or "is it for marks?" types of attitudes?

(j) How do we develop evaluation measures to match the types of learning we are seeking?

(k) Other ________________________________

(l) Other ________________________________

My order of interest is: (place letter in appropriate box)

1st  [ ]  2nd  [ ]  3rd  [ ]
Table Three: Results of the Questionnaire

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<th>A</th>
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<th>C</th>
<th>D</th>
<th>E</th>
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<td>23</td>
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<td>8</td>
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<tr>
<td>Low</td>
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<td>2nd</td>
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<td>3</td>
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</table>

When the teachers responded to the questionnaire, they prioritized their concerns for the purpose of helping the university educators plan the professional development day. This table indicates that the teachers were concerned the most with involving students in their learning and encouraging them to become independent learners. Teachers were also concerned with changing students' attitudes towards learning. The teachers sought ways to engage students intellectually in their studies. Another concern was to match the assessment and evaluation tools with learning that encouraged students' active participation.

The university educators were interested in active learning and in collaboratively exploring teaching strategies that enhanced active learning. Since the teachers' concerns matched these interests the university educators designed a professional development day to address them.
APPENDIX II

Name: ____________________________

PROFESSIONAL DEVELOPMENT DAYS  December 13th & January 20th

Thanks for your energetic participation last Friday. We would appreciate your speedy and thoughtful response to this so we can plan ahead. Please return to the office by 8:30 a.m. Thursday, December 19.

January 20th will be most valuable if all staff are involved in activities which they find useful. The Pro D Committee hopes that December 13th will lead to the establishment of an on-going group at the school, which will collaborate with U.B.C. in developing ways of improving the quality of learning and teaching at the school in ways consistent with our aims. This group would obviously consist of volunteers, consequently there will be a range of activities on January 20th. In order to plan the day it is essential to know the preferences of the staff. Preferences A and B are intended to be guidelines, not rigid prescriptions. The precise nature of the day will be planned to fit the responses to this survey. Please decide which general preferences best suits you and indicate your more specific interests in the "other issues" sections.

PREFERENCE A

I will probably commit myself to involvement in an on-going group. On January 20th I would like to focus on issues associated with: where and how could I start in my classrooms, and when and how often will we meet. I may try something which is new for me before January 20th and I would like to share and reflect on early experiences with others.

Other issues, concerns or questions of interest to me:
PREFERENCE B

Friday, December 13th addressed issues which are important to me. I may get involved in an on-going group, but, before I make any commitment or deal with issues of "what will we do", I would like some further discussion on issues with whether the time and effort is likely to be worthwhile.

On January 20th I would like to spend some time on the concerns and questions which I have listed below. I will then decide whether I want to attend sessions of the type described in Preference A.

Issues, concerns or questions of interest to me:

PREFERENCE C

I will not be involved in any on-going group and will attend other sessions on January 20th.

My reactions to December 13th were:

My reaction to the possibility of an on-going group at the school is (please check one)

_____ I am disinterested

_____ I do not support it

_____ I support it, but I think it unlikely to be of personal benefit.
I support it and I think I may benefit from the group's ideas.

Out of the teachers who responded to the questionnaire, fourteen teachers did not object to the project but were not interested in taking part in it. One teacher did not support having a group at the school. Four teachers were committed to participating in an on-going group even before the second professional development day, eleven teachers were interested in a second professional development day in order to decide about their participation in the group. All the teachers who were not interested in joining specifically stated that they did not object to having such a group in the school.
APPENDIX III

This table describes the content of the meetings. It indicates who initiated the topics for conversations, and examines the topics discussed. The table differentiates between topics that are relevant to the conversations within the group, and those that discuss issues that contacts external to the group meetings. These conversations were about the following topics: 1) Provincial examinations and how to prepare students for them and still focus on active learning strategies; 2) possibilities of external funds; 3) the principal's role and involvement in the project; and 4) occasional guests who visited the group.

There were five headings to topics of the substantive content that was internal to the group: 1) routine, 2) process, 3) subject content, 4) generic content, and 5) meta-content. The heading 'routines' referred to discussions about the establishment of routines and procedures to run the meetings. Discussions of the group processes, that entailed the direction of the group, and decisions about substantive issues and the developments and shifts in direction were under the heading 'process'. The 'subject specific' heading included strategies that were discussed in the context of a specific subject and focused on specific content. The heading 'generic content' included strategies that could be used in different subjects and mainly focused on specific learning skills. The last heading, 'meta-content', included discussions about teaching and learning. These conversations were not about any specific strategy, but about general issues of teaching and learning and particularly those aiming at enhancing students' active involvement in the learning process.

The table indicates clearly that the variety of headings were addressed from early meetings and continued through the project. There were no unique
stages in which one heading was more dominant, but they were interspersed throughout the meetings. The participants discussed both structure (routine) and substance (both process and content) throughout all the meetings.

Table Four: The Content of the Meetings

<table>
<thead>
<tr>
<th>Date</th>
<th>Internal Content</th>
<th>External Content</th>
<th>Initiator</th>
</tr>
</thead>
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<td>routine</td>
<td>process (reflection)</td>
<td>Mark</td>
</tr>
<tr>
<td></td>
<td>routine</td>
<td>routine</td>
<td>Karen</td>
</tr>
<tr>
<td></td>
<td>subject content (psyc)</td>
<td>generic content</td>
<td>Susan</td>
</tr>
<tr>
<td></td>
<td>generic content (categorizing)</td>
<td>generic content</td>
<td>Karen</td>
</tr>
<tr>
<td></td>
<td>generic content (representation of reading)</td>
<td>generic content</td>
<td>Barbara</td>
</tr>
<tr>
<td></td>
<td>generic content (evaluation)</td>
<td>meta content (using a new technique)</td>
<td>Susan</td>
</tr>
<tr>
<td></td>
<td>generic content (encourage reading)</td>
<td>generic content</td>
<td>Barbara</td>
</tr>
<tr>
<td></td>
<td></td>
<td>meta content (using a new technique)</td>
<td>Jim</td>
</tr>
<tr>
<td></td>
<td></td>
<td>generic content</td>
<td>Doug</td>
</tr>
<tr>
<td>31.1.92</td>
<td>routine</td>
<td>generic content</td>
<td>Jim</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(how to summarize reading)</td>
<td>Susan</td>
</tr>
<tr>
<td></td>
<td>generic content (summary with grid)</td>
<td>generic content</td>
<td>Barbara</td>
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<tr>
<td></td>
<td>generic content (from grid to essay)</td>
<td>generic content</td>
<td>Karen</td>
</tr>
<tr>
<td></td>
<td>generic content (learning through teaching)</td>
<td>meta content (using a new technique)</td>
<td>Ann</td>
</tr>
<tr>
<td></td>
<td></td>
<td>meta content (debrief students)</td>
<td>Jim, Pat</td>
</tr>
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<td></td>
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<td>subject content</td>
<td>Pat</td>
</tr>
<tr>
<td></td>
<td>subject content (English)</td>
<td>generic content</td>
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<tr>
<td></td>
<td></td>
<td>(evaluation)</td>
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</tr>
<tr>
<td>Date</td>
<td>Routine</td>
<td>Subject Content</td>
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<tr>
<td>7.2.92</td>
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<td>(Social Studies)</td>
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<td></td>
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<td>(English)</td>
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<td></td>
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21.2.92 routine process (debrief strategies)
process (what participants gain)
subject content (social studies)
process (what participants gain)
meta content (what students gain)
meta content (students' involvement)
generic content (evaluation)
meta content (students' involvement)
subject content (social studies)
meta content (student change)
meta content (learning styles)
Barbara
Jim
Barbara
Barbara
Doug
Doug
Susan
Susan
Barbara
Barbara
Jim
Mark
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<th>Subject Content (English)</th>
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<td>routine</td>
<td>Alice</td>
<td>Alice</td>
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<tr>
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<td>generic content (use of structure)</td>
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<td>Principal joins meeting</td>
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<td>Karen</td>
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<td></td>
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<td>generic content (summary in chart)</td>
<td>Karen</td>
<td>Karen</td>
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<td>generic content (representing in poster)</td>
<td>Karen</td>
<td>Karen</td>
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<td>Karen</td>
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<td>process (sharing failure)</td>
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<td>Jim</td>
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<td>Susan</td>
<td>Susan</td>
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<td>subject content (English)</td>
<td>Susan</td>
<td>Susan</td>
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<td>process (longer meeting for end of year)</td>
<td>recruit new staff</td>
<td>Gary</td>
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<td>teachers don't want principal in all meetings discuss LSG with staff how to present to staff</td>
<td>Pat</td>
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<td>Pro D day facilitated by group participants teachers discuss about how to present to staff</td>
<td>Karen</td>
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<td>Alice</td>
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<td>Mark</td>
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6.3.92 routine process (strategies vs goals) Barbara
meta content (learning theory) Jim
meta content (active learning theory in practice) Gary
meta content (link to students' experience) Janet
generic content (diagram of reading) Susan
generic content (mind map) Barbara
generic content (flow chart) Barbara
generic content (link chart and reading) Barbara
generic content (students participate in evaluation) Susan
meta content (link learning to students' lives) Susan
generic content (cheat sheets) Barbara
meta content (learning as risk taking) Nelly
generic content (preparing for exam) Barbara
generic content (improving in 2nd time) Jim
generic content (students involved in assessment) Jim
generic content (students monitor their learning) Susan

175
13.3.92 routine generic content (using structure)
meta content (partnership between students and teacher)
routine
generic content (models to represent books)
generic content (students choose form of representation)
generic content (students choose evaluation criteria)
meta content (active learning changes students' attitudes and perceptions)
meta content (students assess their progress)
subject content (English)
meta content (writing and risk taking)
generic content (representation in different formats)
generic content (students assess each other's work)
routine process (role of univers. educators)
process (fear of "theory")
process (keep meeting informal)
process (interplay of theory & practice)
process (share planning and new attempts)

27.3.92 generic content (students' self assessment)
subject content (psych)
subject content (English)
meta content (debrief students about new strategies)
3.4.92 routine
subject content (psych)
subject content (physics)

8.5.92 generic content (charting information)
subject content (psych)
process (value of planning & sharing in meeting)
subject content (English)
generic content (students learn by teaching)
generic content (writing journals)
generic content (peer teaching of students in Alternate school)

17.6.92 process (evolution of project)
process (examine strategies vs goals)
process (establish goals for 2nd year)

Year 2000 Grant
meta content (importance for variety of teaching techniques)
meta content (new goals)
process (recruit more teachers)

Alice
Karen
Mark
Karen
Karen
Karen
Pat
Pat
Pat
Doug
Jim
Jim
Jim
Karen
Susan
Karen
Doug
23.9.92 (2nd year)

meta content (links between subjects, in subjects and to students' life)

document of strategies to share with staff

23.9.92 (2nd year)

process (1st meeting)

teachers present at conference

23.9.92 (2nd year)

process (phrase strategies in generic terms)

teachers discuss LSG with staff

23.9.92 (2nd year)

routine
generic content (common approach to essay writing)

phrase strategies in general terms so others may use them

30.9.92

subject content (English)

preparation of presentation in staff meeting

30.9.92

process (purpose of LSG meetings)

30.9.92

propose drop-in to staff interest in conference presentation

14.10.92

subject content (psych)

propose drop-in to staff interest in conference presentation

14.10.92

meta content (integration between social studies & English)

racialism in the school

14.10.92

subject content (social studies)

meta content (integration between social studies & English)
18.11.92  subject content (social studies)  Barbara
          generic content (essay writing)  Karen
          generic content (structure and language as tools)  Pat
          subject content (English)  Karen
          generic content (writing a paragraph)  Karen
          meta content (2nd time better results)  Nelly
          generic content (use a model and structure)  Karen
          subject content (English)  Alice
          meta content (using Bloom's taxonomy to evaluate where students are)  Barbara
          generic content (integration of social studies and English)  Barbara

25.11.92  routine  Nelly
          generic content (team teaching social studies & English)  Alice
          generic content (writing a paragraph)  Karen
          generic content (using structure)  Alice
          subject content (English)  Karen
          subject content (English)  Pat

9.12.92   subject content (English)  Karen
          subject content (English)  Karen
          generic content (model a paragraph)  Karen
          subject content (English)  Karen
          meta content (link between science and English)  Gary

6.1.93    Year 2000 conference presentation publishing strategies in Australia  Nelly
          generic content (teaching grammar as a writing tool)  Gabriella
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<tr>
<th>Date</th>
<th>Subject Content</th>
<th>Generic Content</th>
<th>Notes</th>
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<tbody>
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<td>subject content (social studies)</td>
<td>generic content (evaluation involving students)</td>
<td>Pat</td>
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<tr>
<td></td>
<td></td>
<td>subject content (English)</td>
<td>Pat</td>
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<td>Principal joins asks group's support in enhancing cooperative learning among staff</td>
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<td>Teachers propose to each teach the staff one technique that works well</td>
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<td>generic content (assessment in cooperative learning teaching)</td>
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<td>3.2.93</td>
<td>subject content (English sociogram)</td>
<td>generic content (link within English unit)</td>
<td>Karen</td>
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<td></td>
<td></td>
<td>subject content (English)</td>
<td>Alice</td>
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<td></td>
<td>subject content (social studies chapter review)</td>
<td>Nelly</td>
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<td>generic content (links between social studies &amp; English)</td>
<td>Georgette</td>
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<td></td>
<td>generic content (monitoring students' progress)</td>
<td>Barbara</td>
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<td></td>
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<td>Barbara</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Karen</td>
</tr>
<tr>
<td>17.2.93</td>
<td>generic content (links between social studies &amp; English)</td>
<td>Visitor from the School Board joins</td>
<td>Karen</td>
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<tr>
<td></td>
<td>subject content (physics)</td>
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<td>Mark</td>
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<td></td>
<td>generic content (writing as a thinking skill)</td>
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<td></td>
<td>subject content (English sociogram)</td>
<td></td>
<td>Alice</td>
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<tr>
<td></td>
<td>generic content (involving students in assessment)</td>
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<td>Alice</td>
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<td></td>
<td>generic content (visual representation)</td>
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<tr>
<td>Date</td>
<td>Subject Content (Social Studies)</td>
<td>Generic Content (Visual Representation)</td>
<td>Subject Content (English, Use of Structure)</td>
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<td>3.3.93</td>
<td>(Social Barbara</td>
<td>Addressing Cultural Diversity (Barbara)</td>
<td>(English Karen)</td>
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<td>25.3.93</td>
<td>(Social Karen)-(Metaphors Alice)</td>
<td>(Teaching Gary Students The Language to Discuss Their Learning)</td>
<td>(English Karen)-(Metaphors Alice)</td>
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<td>7.4.93</td>
<td>(Social Alice)-(Use of Structure)</td>
<td>(Teaching Nelly Students The Language to Discuss Their Learning)</td>
<td>(English Alice)-(Use of Structure)</td>
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<td>21.4.93</td>
<td>(Social Nelly)</td>
<td>(Teaching Nelly Students The Language to Discuss Their Learning)</td>
<td>(English Karen)-(Use of Structure)</td>
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</table>
16.6.93 subject content (English) Teacher-As-Researcher Grant
process (LSG efficient pro-d because it is on-going & supportive) recruit more people write a paper based on conference presentation
Karen

6.10.93 recruit more people not becoming an all English teachers meeting Schön's work and its relevance student teaching and reflection
(3rd year) Pat
Doug
Karen
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