IMPLEMENTING CHANGE IN EARLY LITERACY EDUCATION THROUGH IN-SERVICE PROFESSIONAL DEVELOPMENT OF TEACHERS AND SCHOOL ADMINISTRATORS

by

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A thesis submitted in conformity with the requirements for the degree of Doctor of Philosophy
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ABSTRACT
The purpose of this longitudinal study was to examine the ways that primary-level teachers implemented and sustained changes in their literacy teaching practice as a result of intensive in-service professional development based on Willows's (1994) model: The Balanced and Flexible Literacy Diet: Putting Research into Practice. Thirty teachers and ten administrators from seven schools in which the professional development system was implemented three years earlier were interviewed at length to determine their perceptions of the key content, process, and context variables of in-service professional development that guides teachers in translating research into practice. Over 90% of the participants reported that the year-long professional development program had a strong impact on both the general literacy level of students and the way that literacy was being taught in their school. Through the use of qualitative research methods to analyse the data, eight themes emerged, the most salient of which suggest that teachers are most likely to implement lasting change in early literacy education if they feel they have strong administrative and peer support, and are provided with evidence of improvement in student learning. One of the outcomes of this research is a model that delineates the key elements involved in the process of in-service professional development leading to the implementation of lasting change in early literacy education, as well as the roles of the individuals who are involved in the process and their influence on one another. A recommendation is made to assign responsibility for supporting teachers in implementing and sustaining change as well as providing them with ongoing professional development to an early literacy specialist situated within the school.
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CHAPTER ONE: INTRODUCTION

This thesis is an in-depth investigation of changes that were implemented in early literacy teaching practices as a result of a large-scale, in-service professional development initiative involving primary-level classroom teachers, support staff, and school administrators across 11 different elementary schools. In this investigation, 40 of the individuals who had participated in this year-long professional development initiative three years earlier were interviewed at length to determine its effectiveness in helping teachers translate theory into practice. Highlights of their experiences throughout the process are described and, on the basis of commonalities that appeared in the data, key factors that influence the implementation of lasting change in early literacy education are identified. In this chapter, the need for professional development programs that provide teachers with adequate preparation for effective literacy instruction in primary-level classrooms is discussed.

"One of the most striking similarities among the ideas presented in [the research literature on literacy education] is the view that the teacher is the necessary foundation, the architectural support, for building a successful literacy program" (Gambrell & Mazzoni, 1999, p. 19). Fullan (1992), for example, argues that "teacher development and school development must go hand in hand. You cannot have one without the other" (p. 114). In its (1998) report, the Committee on the Prevention of Reading Difficulties in Young Children of the National Research Council in the United States makes the following statement: "We acknowledge that excellent [literacy] instruction in the primary grades and optimal environments in preschool and kindergarten require teachers who are well prepared, highly knowledgeable, and receiving ongoing support" (Snow, Burns, & Griffin, 1998). Similarly, Allington (1994) states:

In study after study, curriculum materials and teaching methods have not proved as critical to literacy development as how well and how intensively children were taught. . . . Some teachers achieve better results regardless of the curriculum in place. Children's access to high-quality instruction is what seems to matter and high-quality instruction can be achieved within a variety of curriculum frameworks. (p. 18)
The growing consensus that teacher knowledge is critical for educational improvement, however, did not exist as recently as 10 years ago according to Darling-Hammond (1996), who points out that investments in teacher knowledge in North America have traditionally been quite small compared to those in many other countries. In the United States, school districts spend less than one half of 1 percent of their resources on professional development (Darling-Hammond, 1996), while the Ministry of Education in Ontario allocates less than one quarter of 1 percent of school districts' resources to professional development (Education Finance Branch, Ministry of Education, personal communication, March 1, 2001). Furthermore, teachers in most European and some Asian countries spend between 15 and 20 hours per week in their classrooms, and the remaining time developing programs with their colleagues, visiting parents and counseling students, and pursuing professional development (e.g., attending study groups and seminars, visiting other schools, pursuing research). By contrast, teachers in most American schools are generally not expected or encouraged to meet with colleagues or observe their classes (Darling-Hammond, 1996). Moreover, the predominant form of in-service professional development in the United States continues to be the one-day workshop even though there is considerable evidence that this form of teacher development is generally inadequate to bring about lasting change in teacher practice (Miller & Lord, 1993). Considering the wide range of knowledge that elementary school teachers need to teach in all subject areas, the percentage of professional development time allocated to literacy must be relatively small (Snow et al., 1998).

Unfortunately, as indicated by the Committee on the Prevention of Reading Difficulties in Young Children, "a large number of students who should be capable of reading ably given adequate instruction are not doing so, suggesting that the instruction available to them is not appropriate" (Snow et al., 1998, p. 25). Similarly, the Orton Dyslexia Society (ODS, 1997) indicates in its position paper on the foundations regarded as essential for teacher preparation that "the huge number of children encountering reading failure, and the grievous toll for them, their families, and society, is unacceptable. . . . [However] most of these reading problems are avoidable: With adequate teacher preparation our schools would be able to meet their obligation to teach children to read" (p. 18).
According to Fullan and Hargreaves (1996),

Many staff development initiatives take the form of something that is done to teachers rather than with them, still less by them. When new initiatives like cooperative group work, active learning, or destreaming are undertaken, principals and administrators often speak of "inservicing" their teachers, as if they were lowly residents in some kind of educational farmyard. Such top-down approaches to staff development embody a passive view of the teacher, who is empty, deficient, lacking in skills, needing to be filled up and fixed up with new techniques and strategies. (p. 17)

Allington and Cunningham (1996) suggest that the following factors may contribute to school districts' low expectations for substantial change in educational practices and the corresponding inadequate amount of support that they provide for in-service professional development:

- common belief that professional development is more an individual responsibility than a school district responsibility;
- poor track record of traditional one-shot in-service workshops which are a popular format for teacher development;
- absence of overall plan or school-wide focus for professional development;
- lack of awareness of professional development activities that have a demonstrated record of fostering positive change.

While there is an abundance of research evidence that good teaching in the regular classroom must be the first priority (e.g., Clay, 1985), the following literature review illustrates the need for research integrating the key elements involved in in-service professional development that fosters positive, lasting change in early literacy education. The purpose of the research described in this thesis was to identify these factors and to develop a model of effective in-service professional development for early literacy educators.
CHAPTER TWO: LITERATURE REVIEW

According to Guskey and Sparks (1996), the quality of any professional development initiative is directly influenced by a variety of factors which can be classified in three major categories: (a) *content characteristics* (i.e., knowledge, skills, and understanding that are the foundations of any professional development initiative); (b) *process variables* (i.e., types and forms of professional development activities; ways that activities are planned, carried out, and followed-up); and (c) *context characteristics* (i.e., organization, climate, or culture in which professional development takes place). All three of these categories are important in determining the quality of professional development; neglecting any one of them can diminish the effectiveness of professional development and subsequently reduce the likelihood of improved student outcomes. For example, a research-based innovation may fail to improve student learning if implemented in a context that does not support change (Guskey & Sparks, 1996).

The three categories described by Guskey and Sparks (1996)—content, process, and context—also form the conceptual framework of the *Standards for Staff Development* that were established by the National Staff Development Council (NSDC, 1995) in the United States to ensure success for all students by providing schools and school districts with direction in what constitutes quality professional development. The NSDC standards advocate for professional development that is grounded in solid research, not only to convey the best teaching methods and appropriate curriculum content, but to provide teachers with an understanding of the process of change and how to work collaboratively to make decisions and solve problems. Examples of these standards will be provided in the next chapter.

The following review of the literature—which is based on the framework used by Guskey and Sparks (1996) and the NSDC (1995)—synthesizes research findings on the content, process, and context variables of effective professional development, specifically, in-service professional development that is effective in facilitating the implementation of lasting change in early literacy education. First, perspectives on professional development content that would enable educators to help children become successful readers are presented. Second, variables that are involved in the transfer of knowledge and skills to the classroom are examined. Third, context factors that
have a direct influence on the effectiveness of professional development are discussed. Fourth, the impact of professional development on teacher self-efficacy is examined. Finally, five inservice professional development programs that were developed to help teachers implement change in early literacy education for all students in the regular classroom are reviewed. The framework used to present these research findings (i.e., content, process, and context) has also been used in subsequent chapters.

Principles of Effective In-service Professional Development

For Literacy Education

In this section, research on (a) the content characteristics, (b) process variables, and (c) context characteristics of effective professional development is examined.

Content Characteristics of Effective Professional Development

The following discussion presents various perspectives on the content that should be included in in-service professional development pertaining to literacy education. First, an instructional approach that integrates various methods of literacy instruction is described. Next, recommendations regarding the foundation of knowledge that is required for effective early literacy instruction are presented. Finally, examples of NSDC (1995) content standards for effective professional development are provided.

a. Balanced Approach to Literacy Development

The research literature on literacy education has historically been fraught with controversies over which practices are best for teaching children to read and write. With "pendulumlike persistence" (Allington, 1994, p. 18), we have swung from phonics to whole language and back, from teacher-directed to child-centred learning and back, and so on (Gambrell & Mazzoni, 1999). Allington and Cunningham (1996) state:

For too long the quest has been focused on discovering the one best way to teach reading and writing. We believe that there can be no such approach. Learning to read and write is a complex activity. Children differ, teachers differ, and communities differ, and each work to preclude the discovery of any single best way to develop literacy. Different
children, at different stages of development, at different times, in different schools, taught by different teachers, prosper and develop their literacy. (p. 62)

According to Spiegel (1998), school board officials need to be reminded that--as research has shown--"you can teach some of the children some of the time with one program, but you can't teach all of the children all of the time with that same program" (p. 115). Moreover, she cautions against repeatedly making the same mistake of "throwing out the baby with the bath water," that is, throwing out all the contributions of a particular philosophy or program just because it was not the magic answer to literacy education for all children. Instead, Spiegel advocates for using an approach that takes advantage all of the strengths of various perspectives which have already been demonstrated through research to be effective. Such a model recognizes and acknowledges the importance of both form (i.e., phonics, mechanics) and function (i.e., purpose, meaning) of the processes of literacy (Gambrell & Mazzoni, 1999).

Cunningham and Allington (1994) suggest:

While it is not possible to clearly determine which children will learn best with what approach, it is clear that when a teacher provides more routes to the goal of literacy, more children will find a route to take them there. (pp. 16, 17)

Spiegel (1998) maintains that a balanced instructional effort--which is "a decision-making approach through which the teacher makes thoughtful choices each day about the best way to help each child become a better reader and writer" (p. 116)--provides teachers as well as students with the best opportunity for success. Accordingly, teachers' professional development should provide teachers with the opportunity to consider using a balanced approach to literacy instruction.

Balanced literacy instruction, according to (Pressley, 1998), is not a novel concept: Research-oriented reading education scholars, such as Chall (1967, 1983) and Adams (1990), have been in favour of it all along. "It was never only phonics or only whole language (or any other alternative) with these careful thinkers," he advises (p. 134), adding that the contribution of current research, however, has been in demonstrating that balanced literacy instruction is what
good teachers practice. For example, a survey conducted by Pressley, Rankin, and Yokoi (1996) among 83 primary level teachers (Kindergarten, Grade 1, Grade 2) who had been nominated by their supervisors as exceptional in promoting the literacy achievement of their students, showed that effective teachers use a variety of literacy instructional components that have received empirical support for their ability to improve particular aspects of literacy, such as high-quality literature and stimulating classroom environments, development of letter-sound association knowledge, and instruction in the use of specific writing composition strategies. Moreover, effective teachers tend to integrate the attractive features of both whole language (e.g., immersion in authentic literature and writing experiences) and systematic skills instruction (e.g., explicit teaching of decoding skills and comprehension strategies). Pressley concludes that teachers' professional development in literacy should include exposure to a variety of instructional practices and approaches.

As a follow-up to Pressley et al.'s (1996) survey study, Wharton-McDonald et al. (1997) observed and interviewed another group of Grade 1 teachers who had also been nominated for outstanding teaching and compared them with a group of teachers considered more typical. They found that classrooms with "typical" teachers—who focused exclusively on either whole language or explicit skills instruction—did not work as well as classrooms with "effective" teachers who integrated the two types of approaches: Not only were students bored in typical classrooms, but their reading and writing performance at the end of the year did not appear to be as strong as that of children in the outstanding classrooms. While the investigators attributed the high level of student engagement that they observed in classrooms of effective teachers to factors such as modeling a love of reading and excellent classroom management skills (e.g., well-planned lessons, increased time on-task), they emphasized that "literacy instruction in the top three classrooms was exceptionally well balanced with respect to the elements of whole language—reading of outstanding literature, writing—and the explicit teaching of skills" (Pressley, Wharton-McDonald, & Mistretta Hampston, 1998, p. 165).

As Pressley (1998) argues, "it is high time to carefully evaluate alternative approaches to teacher development" (p. 272). He states that he and his colleagues continue to observe outstanding teachers in order to develop their understanding of what primary-level teachers need
to know in order to deliver balanced literacy instruction, and suggests that more descriptive studies of effective, balanced teaching are needed along with research on teacher education that helps teachers develop into effective literacy educators.

Guskey (1995) summarizes the perspectives on balanced literacy instruction discussed above:

The key to greater success in professional development rests not so much in the discovery of new knowledge, but in our capacity to use deliberately and wisely the knowledge we have. . . . To develop this capacity requires a clear vision of our goals and a thorough understanding of the process by which those goals can be attained. . . . The exact process by which that vision can be accomplished, however, is much more blurred and confused. . . . There is no "one right answer" or "one best way." Success . . . rests in finding the optimal mix of process elements and technologies that then can be carefully, sensibly, and thoughtfully applied in a particular setting. (p. 126)

b. Foundation of Knowledge for Effective Early Literacy Instruction

Students need and deserve literacy instruction that is well informed and based on a rich model of the reading process (Strickland, 1994/1995). In its position paper on teacher preparation standards, the ODS (1997) describes three elements of professional development that constitute the core of knowledge and experience required for skillful literacy instruction. First, teachers need to be provided with a solid theoretical foundation for understanding the process of literacy acquisition, including knowledge of the relationship between oral and written language and the stages involved in literacy development, a sophisticated understanding of the development of phonemic awareness, that is, understanding that words are made up of smaller, individual units called phonemes (i.e., sounds), and knowledge of the strengths involved in skilled reading. Second, teachers need a thorough understanding of the content of literacy instruction, that is, they need to have a thorough understanding of the linguistic structure of both oral and written language, as well as knowledge of the corresponding rules (e.g., letter-sound associations, spelling generalizations). Finally, teachers require a repertoire of practical methods to help them meet the needs of children learning to read. Furthermore, the ODS maintains that teachers "need to understand what constitutes adequate research evidence, [and] to be well
versed about the research regarding sources of difficulty for individuals who are having trouble learning to read" (ODS, 1997, p. 12).

The ODS (1997) also emphasizes that all early literacy educators, including early childhood educators, must know how to promote the development of phonemic awareness, as research has shown that poor phonemic awareness is a major source of difficulty for children who struggle with learning to read. Stanovich (1986), for example, argues that phonemic awareness and proficiency at mapping units of print onto units of sound (i.e., letter-sound correspondence knowledge) "must be in place early in the child's development, because their absence can initiate a causal chain of escalating negative side effects" (p. 363) in which "the poor get poorer;" that is, children with inadequate word knowledge and word recognition skills—who read slowly and without enjoyment—begin to be exposed to less text than their peers, and, subsequently, lose opportunities to develop their word knowledge and improve in reading ability. Conversely, children who are reading well and have good word knowledge will read more, learn more word meanings, and, as a result, read even better (i.e., "the rich get richer"). Similarly, Juel, Griffith, and Gough (1986), showed that children will not acquire knowledge of letter-sound correspondences without a prerequisite amount of phonemic awareness. In her (1988) study, Juel showed that children who are poor readers at the end of first grade were almost invariably still poor readers by the end of fourth grade; these children enter first grade with little phonemic awareness. She also argues that more phonemic awareness training should take place in preschool and kindergarten, as well as in first grade if necessary, to facilitate the speed of early reading acquisition.

Pressley et al. (1998) also maintain that teachers need to be provided with a thorough understanding of the linguistic structure of the English language and the principles of language acquisition. Furthermore, they argue that teachers need to have a solid background in cognitive development as well as cognition and instruction (e.g., relevance of information-processing to process writing), along with an extensive background in, and an in-depth understanding of, excellent children's literature, to provide excellent, balanced instruction. However, Allington (1994) has found that few schools that implement literature-based instruction have any sort of
structure in place for fostering teacher familiarity with the new books that are published each year.

According to Spiegel (1998), teachers can deliver informed instruction by developing proficiency in the following areas: First, the decisions that teachers make each day must be informed by research. Accordingly, they need to become familiar with a wide range of research that investigates different aspects of literacy—not just research that supports only one point of view—so that they can accurately determine which approaches are likely to work, with what tasks, with what kinds of learners, and in what situations. Second, teachers need to have a full repertoire of strategies for fostering literacy development, along with a clear understanding of how and when to implement each strategy, so that they can function as informed decision makers. As she argues, "a teacher who is not willing to grow, to change, and to learn cannot construct a balanced program. Such a teacher will neither be flexible nor be able to accept the responsibility of making informed decisions" (Spiegel, 1998, p. 118). Finally, she suggests that teachers incorporate the following features into their literacy programs: attention to the reciprocal relationship between reading and writing (i.e., incorporate writing instruction into reading lessons and vice versa); instruction in word identification strategies to enable students to gain access to meaning; direction in taking both an aesthetic stance (i.e., attending to feelings) as well as an efferent stance (i.e., focusing on gaining information) in reading; instruction in both process skills as well as the conventions and mechanics of writing to enable clear expression of meaningful ideas; and development of motivation for literacy.

c. Content Standards for Professional Development

As discussed earlier, the NSDC (1995) has established standards for content of quality professional development. For example, the NSDC maintains that effective professional development:

- enables teachers to use research-based teaching strategies;
- increases teachers' understanding of how to deliver instruction and provide school environments that meet students' developmental needs;
• provides teachers with knowledge and skills needed to ensure that quality education is provided to all students;
• promotes high expectations for student achievement;
• prepares teachers to use various types of assessment of student learning outcomes.

Whereas the content of professional development can vary according to the needs of individuals, the process of delivering high quality professional development should be relatively constant. The next section of the literature review addresses the elements that are involved in the process of effective professional development.

Process Variables of Effective Professional Development

Much of the research on the quality of professional development focuses on the factors involved in the process of professional development. In the following review, the various components of professional development that help teachers transfer knowledge and skills to the classroom are examined. Next, the role of the in-service facilitator is discussed. Finally, examples of NSDC (1995) process standards for professional development are presented.

a. Transfer of Knowledge and Skills

Historically, research on in-service teacher education has been focused on skill acquisition (Joyce & Showers, 1988; Veenman & Raemaekers, 1995). Currently, however, there is growing concern about whether teaching practices, which are implemented as a result of professional development, are closely linked to research knowledge and whether research-based practices are being sustained once professional development has ended (Vaughn, Klingner, & Hughes, 2000). Although professional development may provide teachers with the knowledge and skills to improve their literacy programs, the "transfer of learned knowledge and skill is by no means a sure bet" (Joyce & Showers, 1988, p. 71). Research on professional development suggests that teachers rarely transfer research knowledge and skills to long-term, general classroom use (Fullan, 1991; Showers, 1990).

As a result of their landmark meta-analysis of nearly 200 professional development programs and their review of the literature on teacher development conducted over a 30-year
period, Showers, Joyce, and Bennett (1987) confirmed that all of the following components included in Joyce and Showers' (1988) well-known, exemplary model of professional development are necessary for the transfer of knowledge and skill to long-term classroom practice: (i) presentation of theory, (ii) demonstration or modeling of new skills, (iii) practice of new skills, and (iv) feedback on performance. Additionally, research has shown that (v) coaching, (vi) peer support, and (vii) reflection also influence the transfer of learning.

(i) Presentation of theory. An understanding of the theory underlying a new skill or strategy, acquired through lectures, readings, and discussions, facilitates skill acquisition. Although teachers generally prefer to focus on the practical aspects of teaching rather than on theory in a training program, they will have difficulty integrating them into their teaching repertoires without a thorough understanding of the rationale behind new skills or strategies and the principles that govern their use. Moreover, theory-only treatments result in little skill development and negligible transfer to classroom practice (Joyce & Showers, 1988).

Fullan (1991) adds that in-service education pertaining to a change in teaching practice should move from the concrete to the abstract, that is, from the practical activities to a discussion of underlying principles, rather than the other way around as is usually the case. In this way, teachers learn how to use the innovation as well as to evaluate whether they should accept, modify, or reject it.

(ii) Demonstration or modeling of new skills. According to Joyce and Showers (1988), demonstration or modeling of new skills, either in the training setting or in the workplace, greatly facilitates learning of new skills. Moreover, theory and modeling have reciprocal effects (i.e., study of theory facilitates learning how to use new skills, and modeling facilitates understanding of theory); consequently, they do not have to be conducted separately. However, while adding multiple demonstrations to presentation of theory enhances knowledge, it has little effect on skill development; teachers also need to have opportunities to practice new skills and strategies in the training setting as well as in the workplace (Joyce & Showers, 1988).

(iii) Practice of new skills. Showers et al. (1987) estimate that teachers need to practice a complex strategy about 25 times in the classroom until the transfer is achieved, "or there will be an erosion of the cognitive and interactive skills necessary to implement the practice" (p. 86).
Once internalized, however, teachers will not lose the skill even if it is not used regularly, although they may become "rusty" if they have not been used in a long time.

The ODS (1997) recommends that professional development should provide teachers with opportunities for supervised practice in translating their knowledge of language and of how children learn to read into relevant classroom activities in addition to opportunities to observe peer models at work. Supervised practice should include team teaching, consultation with a mentor, and participation in problem-solving with peers (ODS, 1997).

(iv) Feedback on performance. When teachers understand the theory underlying a strategy, see multiple demonstrations, and have immediate opportunities to practice it, they generally develop sufficient skill to use it in the classroom. However, these three components alone are insufficient to ensure long-term transfer to the classroom. Skill acquisition is also facilitated through feedback, defined by Kilbourn (1990) as "any process in which one professional comments on another's practice (usually) based on observation and aimed at professional development rather than performance evaluation" (p. 1). Moreover, the effect size on transfer of training increases from 0.00 to 0.39 (i.e., 0.39 of a standard deviation on a normal curve) when feedback is added (Joyce & Showers, 1988). Joyce and Showers state that feedback can be provided by peers and add that it is most useful if it occurs as soon as possible following practice and is specific to the behaviours being attempted. The goal of constructive feedback, according to Kilbourn, is to improve teaching in a professionally rewarding manner.

(v) Coaching. According to Showers et al. (1987), teachers are likely to sustain new strategies and concepts if they are coached while trying new ideas in their classroom. Joyce and Showers (1988) report that a large increase in transfer of learning (i.e., effect size of 1.68) occurs when in-class coaching of new skills and strategies is added to theory, demonstration, practice, and feedback. Individual, hands-on assistance, such as guidance in using new techniques and feedback (e.g., analysis of the impact of change on students) can be provided by peers, administrators, curriculum supervisors, or university professors (Joyce & Showers, 1988).

In their effort to determine who would be the most effective coach—a professional development "trainer" or a peer—Sparks (1988) found, through time-sampling observations of teachers' use of "academic time" (i.e., number of academic-type interactions with students), that
teachers who received coaching from peers between workshops showed more improvement in classroom teaching than teachers who received coaching from a trainer or no support. Peer coaching provides teachers, who might otherwise work in isolation, with opportunities to interact with colleagues who can provide companionship and support (Showers, 1990). Through a follow-up training program, for example, Showers (1982, 1984) found that 80% of coached teachers, who were given opportunities to share plans and materials, observe other teachers as they implemented new instructional strategies, and work with peers in adapting new strategies to meet their students' needs, transferred teaching strategies that they had previously learned through professional development which included theory, demonstration, and practice. Conversely, only 10% of uncoached teachers achieved the transfer.

The influence of expert coaching (i.e., coaching by an individual with expertise in coaching) was examined by Veenman and Raemaekers (1995) as part of their research on the long-term effects of professional development on effective instruction and classroom management for elementary school teachers with multigrade classrooms (i.e., classrooms in which students from two or more grade levels are taught simultaneously by one teacher) in The Netherlands. In addition to theory, demonstration, practice, and feedback (Joyce & Showers, 1988), some teachers were also provided with coaching. After participating in five to seven workshops, teachers were required to implement self-designed plans to improve their specific teaching behaviours and student time on-task. Although student time on-task levels improved strongly in classroom with coached teachers, no significant differences were found in student achievement (i.e., decoding, reading comprehension, or mathematics) between the classes of coached and uncoached experimental teachers. As pre-treatment achievement data were not available, however, the investigators suggest that any initial differences in student achievement were not controlled.

According to observational data collected two years following the conclusion of the training program, the target teaching behaviours appeared to have been transferred and sustained over time as teachers were still demonstrating the target behaviours that had been reinforced during professional development. However, "full transfer" was not achieved, according to the investigators, as skill levels had not increased since the end of the program. Again, higher time-
on-task levels (in classrooms with trained teachers) were not associated with higher student achievement. However, coached teachers remarked on the benefits of receiving support and technical feedback while using newly acquired skills. Although coaching did not produce a lasting effect on teachers' skills or on student on-task levels, Veenman and Raemaekers (1995) suggest that the coaching functions may have not been implemented effectively and that a more structured set of guidelines for coaching as well as improved follow-up support were needed.

A qualitative study by Gersten, Woodward, and Morvant (1992) also explored the influence of expert coaching on eight teachers' abilities to assimilate research-based practices (i.e., strategies based on principles from current literacy research) into their teaching repertoires through "on-the-job training." After observing teachers as they worked with students who needed additional help in literacy, mentors (who were either a member of the research team or a staff development specialist) provided them with feedback and help in modifying strategies to fit the needs of their students while reinforcing aspects of their practice that were linked with student success. Through regular, intensive collaboration, teachers eventually became more reflective about what they were doing in the classroom (e.g., questioning themselves on what they were doing or whether the techniques they were using were appropriate for their students). At the end of the year, all eight teachers indicated during individual interviews that they felt comfortable with the coaching process and that they had learned how to adapt strategies to meet their individual needs as well as those of their students. Gersten et al. concluded that coaching supports teachers in implementing changes in their literacy programs.

In a similar study, Gersten, Morvant, and Brengelman (1995) further explored the use of intensive, ongoing feedback from experts as a means of facilitating change in classroom practice. After being observed by special educators who had been trained in the coaching process, regular classroom teachers were provided with constructive feedback, which was audiotaped when teachers felt comfortable, on their interactions with students as well as concrete suggestions regarding research-based practices known to enhance student success (e.g., explicit instruction in phonological awareness, repeated reading with peers, motivation strategies). Although many of the teachers indicated during interviews that they felt anxious about being evaluated, about half of them felt that the perceived benefits to their students and themselves generally compensated
for their feelings of discomfort. Moreover, teachers typically shifted their focus of concern from themselves to their students during the process, and began using instructional techniques suggested by the special educators as well as identifying links between specific techniques or programming changes that they had implemented and improvements in student performance. As Gersten et al. had hypothesized, "seeing observable change in student performance and behavior during lessons often is a powerful motivator in teachers' attitudes toward innovative techniques or practices" (p. 54). Furthermore, some teachers even started developing their own ideas through readings or discussions with colleagues. The investigators concluded that teachers must be provided with extensive opportunities for discussion during coaching, otherwise they may fail to grasp the purpose of changes proposed by their coaches and miss opportunities to develop their own strategies or solutions to teaching problems. While cautioning that this process may be perceived as threatening by teachers, they remain optimistic about the value of coaching as a means of bringing research-based practices to the regular classroom when provided in a supportive atmosphere.

In the absence of either peer or expert coaching, teachers should, at the very least, receive follow-up support for ideas and practices introduced during in-service professional development. However, in-service follow-up rarely occurs, according to Fullan (1991) who adds that it can be difficult to implement valuable ideas without a source of help when problems occur. In her comprehensive study of professional development in the state of California, for example, Little (1989) found few examples of systematic follow-up. Fullan concludes that unfortunately, most professional development activities do not measure up to the standards achieved by Showers (1982, 1984).

**(vi) Peer support.** Sparks (1983, 1988) argues that discussion among teachers about their experiences applying knowledge to classroom practice should be added to Joyce and Showers' (1988) list of the key elements involved in the process of effective professional development. Peer support groups not only provide a safe environment for teachers to discuss their concerns, difficulties, and accomplishments, but also a vehicle for learning together. Gersten and Brengelman (1996) also suggest that professional development should include opportunities for
teachers to discuss their experiences applying new strategies in a supportive, collaborative atmosphere.

(vii) Reflection. As Gersten et al. indicated in their (1992) study, teachers should also be given the opportunity for reflection during professional development in order to bring about significant and lasting change. Getting teachers together to examine their teaching practices in light of research findings can be a powerful means for producing change (Sparks, 1988). Moreover, teachers who use a balanced approach to literacy instruction should continuously reflect on and make modifications to their program to meet the needs of individual children (Spiegel, 1998).

In its 1998 report, the Committee on the Prevention of Reading Difficulties in Young Children states:

Professional development should not be conceived as something that ends with graduation from a teacher preparation program, nor as something that happens primarily in graduate classrooms or even during in-service activities. Rather, ongoing support from colleagues and specialists as well as regular opportunities for self-examination and reflection are critical components of the career-long development of excellent teachers. (Snow et al., 1998, p. 331)

Richardson (1990) also argues that teachers should be provided with the theoretical framework underlying a new classroom activity as well as the opportunity to relate the activity's theoretical framework to their own beliefs and understandings. Without the theoretical framework and the opportunity to talk about how the premises in the theory confirm or contradict teachers' own beliefs and premises, they may not feel that they have ownership over the activity and, subsequently, change may not occur (Richardson, 1990).

In examining barriers to teachers' use of recommended research-based practices for teaching reading comprehension, Anders and Richardson (1991) developed a professional development approach that encourages teachers to examine their beliefs about, and practices in, the teaching of reading comprehension and subsequently implement alternative practices and ways of thinking based on current research. Using modeling, videotapes of reading comprehension lessons given by the participating teachers, as well as current research on reading
comprehension theories and practices as a basis for discussion, the investigators elicited teachers' thoughts about their current reading comprehension practices as well as practices that they might consider using in the future. "We wished to create a process that was neither top-down nor bottom-up, but allowed for the introduction of a specific knowledge and ways of thinking that were 'new'" (Anders & Richardson, 1991, p. 317). Although the teachers were initially uncomfortable with a program that did not immediately provide exciting ideas to use in the classroom and, instead, expected them to reveal and justify their use of teaching practices to their colleagues, the following changes occurred: shifts in teachers' theories of reading acquisition and teaching of reading; increased use of literature rather than basal materials to teach reading comprehension; greater use of pre-reading activities to build background knowledge; integration of literature into other subject areas; and adoption of alternative assessment practices. Additionally, interview data indicated that teachers had acquired a new sense of professional (not just social) collegiality. Anders and Richardson conclude that teacher development programs that provide teachers with opportunities to become skilled in the process of reflection and using it to study their own teaching are well worth the effort.

b. The Role of the In-service Facilitator

Allington and Cunningham (1996) maintain that an external consultant (e.g., in-service facilitator) can play any of the following roles in professional development:

(i) **Catalyst.** An outside expert may be function as a catalyst for change by presenting a rationale for change, initiating needed discussion, or providing evidence about why various alternatives may or may not work.

(ii) **Surveyor of the broader picture.** Outside consultants, who often have familiarity with a wide range of prevailing educational practices as they visit a number of schools each year, can provide teachers with many examples of practices.

(iii) **Evaluator.** An outside consultant may be able to provide useful feedback about a change project, thereby raising questions about issues that might not have been considered by the school staff as well as making teachers aware of professional articles and books that may address these concerns.
(iv) *Partner in change.* While consultants can become partners in promoting change, most usually do not as this type of commitment usually requires at least one year (Allington & Cunningham, 1996).

As Allington and Cunningham (1996) emphasize, external consultants' ability to help teachers can be enhanced significantly if they make time to get more information about the needs of individual teachers and administrators through school visits. Moreover, the extent to which the consultant provides teachers with practical recommendations may have an impact on teachers' perceptions of the consultant's role. Veenman, van Tulder, and Voeten (1994) found a strong positive relationship between the practicality of the teacher educator and the effects of in-service professional development on transfer of newly acquired knowledge and skills to the classroom.

c. *Process Standards for Professional Development*

The NSDC (1995) has established several process standards for professional development. They advocate, for example, that effective professional development:

- uses a variety of approaches to help teachers improve instruction and student learning;
- provides follow-up to ensure improvement;
- requires ongoing evaluation;
- establishes goals for student learning based on student achievement data.

In sum, the process of effective professional development can be enhanced through a number of activities that help achieve transfer of learning and by a facilitator who provides a variety of functions. In the next section of the literature review, characteristics of the conditions that facilitate transfer of learning are discussed.
**Context Characteristics of Effective Professional Development**

We believe that the purpose of training design is to create the conditions under which sufficient levels of knowledge and skill are developed to sustain practice and to provide the conditions that support practice until executive control has been achieved and transfer has occurred. (Showers et al., 1987)

As the following research indicates, transfer of knowledge and skills to sustained classroom practice is more likely to occur under the following conditions: (a) strong support from administrators, (b) multiple sources of professional development, (c) expectations for continuous learning, and (d) high levels of teacher collaboration. Each of these factors is discussed below, followed by examples of NSDC (1995) context standards for professional development.

**a. Administrative Support**

The research literature on educational change clearly supports this view of the elementary school principal as a critical determinant in the pursuit of school improvement (Leithwood & Montgomery, 1982). Fullan (1991) elaborates on this viewpoint:

Serious reform, as we have seen, is not implementing single innovations. It is changing the culture and structure of the school. Once that is said, it should be self-evident that the principal as head of the organization is crucial. As long as we have schools and principals, if the principal does not lead changes in the culture of the school, or if he or she leaves it to others, it normally will not get done. That is, improvement will not happen. (p. 169)

Similarly, Fullan and Hargreaves (1996) argue:

Because of their presence in the classroom, and because of their sheer numbers, teachers really are the key to change. There can be no improvement without the teacher. . . . The individual and collective efforts of teachers as supporters and initiators of improvement are vital. But where leadership and school environments are particularly and persistently unsupportive, the success of teacher efforts will be slim, short-lived or non-existent, and
teachers will quickly learn not to make them. This is where the role of the principal is crucial. (p. 84)

In the following discussion on administrative support, research on the role of the school administrator in (i) implementing change, (ii) fostering collaboration, and (iii) promoting professional development is examined.

(i) Implementing change. Administrative support, according to Veenman et al. (1994), is a critical condition for the sustained transfer of learned skills. Data acquired through self-reports that were administered following the investigators' professional development initiative revealed that the schools in which in-service activities were implemented most successfully were headed by administrators who provided the most direction and support (e.g., setting goals and planning for application; monitoring action plans for using new knowledge and skills; setting up follow-up meetings for sharing, problem solving).

Huberman (1992) advises that attempts to bring change to an organization can create so much internal conflict that innovations are sometimes regarded as hazards. Consequently, many proposals for instructional change never materialize (Sarason, 1990). To facilitate implementation, Strickland (1994/1995) suggests that school administrators should establish a forum for sharing ideas, such as school meetings in which teachers and administrators are divided into small groups to discuss professional literature, video and audiotapes, as well as to share their experiences using various teaching practices. Furthermore, according to Strickland, these group discussions should help establish the groundwork for any major changes.

Despite their potential for effecting change, only about 50 percent of elementary school principals are actually directly involved in teachers' efforts to improve instructional programming (Leithwood & Montgomery, 1982). Through their review of the research literature on factors that influence school effectiveness, Leithwood and Montgomery identified several types of behaviour that differentiate the "typical" principal from the "effective" principal, that is, the principal whose behaviours influence teachers' actions and thereby indirectly influence student learning. They report several differences between effective and typical principals in the area of planned educational change or program improvement. For example, effective principals generally select influential staff members, who will provide strong leadership, to participate in
innovative school projects. Conversely, typical principals do not encourage teacher participation and may even choose uninfluential staff to participate in an innovation, thereby hindering the possibility that it will be implemented throughout the school. Similarly, while effective principals are generally directly involved during the implementation stage and express their support for new practices, typical principals tend to avoid expressing their endorsement of teacher practices. Accordingly, teachers' use of an innovation is more consistent in schools where the principal is actively involved in its implementation (Hall, Hord, and Griffin, 1980; Wideen, 1992).

Although teachers' programming objectives are of interest to both effective and typical principals, effective principals help teachers establish clear priorities among their objectives to create a focus for instruction, whereas typical principals do not attempt to improve vague objectives. Furthermore, effective principals are actively involved in monitoring teaching practices and advising their staff as needed (e.g., use of resource materials, evaluation of amount of class time that should be devoted to instruction). In contrast, typical principals tend to ignore teachers' instructional practices and "leave them alone to teach" (Leithwood & Montgomery, 1982).

Hall's (1988) analysis of three different studies on the school administrator's role in school change also showed that the principal's style in leading change efforts has a significant impact on teachers' success in implementing changes in programming. Schools with "initiator" style principals, that is, principals with clear, long-range goals, strong beliefs about what good schools and teaching should be like, as well as strong expectations for students, teachers, and themselves, were found to have a high energy, task-oriented image. Conversely, he found 40% fewer interventions in schools with "responder" style principals, that is, principals with a limited vision of school and staff change, and who generally focus on traditional administrative tasks, allowing teachers to take the lead. Hall concludes that implementation of change is most successful in schools that are led by principals with a clear vision and who have an intensive, collaborative involvement in the change process.

(ii) Fostering collaboration. Fullan (1991) argues that the a key role of the principal is not in implementing change in the classroom, but in shaping the culture of the school into a
collaborative one. Similarly, Rosenholtz (1989) determined that principals' leadership behaviour is essential to teacher collaboration. For example, she found that 87% of the teachers in collaborative schools responded that their principal was a good problem-solver, compared with only about 30% in moderately- or low-collaborative schools. She also notes that principals in collaborative schools encourage helping behaviour, make leadership a responsibility for every teacher, and involve teachers in decision-making. She states:

But of all their activity, perhaps most enriching and sustaining for schools, like backstage rigging for a theatrical performance, was principals' capacity to facilitate and empower teachers with a network of technical knowledge that connected them one to the other in pursuit of a common ideal. (p. 219)

On the basis of findings from research on collaborative schools, Fullan and Hargreaves (1996) indicate that school administrators who are effective in developing and maintaining collaboration within their school use planning and scheduling to create a collaborative school culture. Accordingly, administrators use the following ways to facilitate the implementation of new strategies or practices following professional development: timetabling students to facilitate team teaching; providing release time for collaborative planning (and giving their own time by covering teachers' classes); facilitating regularly scheduled curriculum meetings; and using preparation time for joint work with other teachers (Fullan & Hargreaves, 1996).

(iii) Promoting professional development. In addition to supporting collaboration among their staff by creating opportunities and incentives for teachers to communicate with their colleagues and visit other classrooms to find out what their peers are doing, McLaughlin (1991) suggests that administrators establish continuous professional growth as a priority and an expectation within the school; research what is happening in the area of professional development (e.g., find relevant contacts, arrange funding), then encourage their staff to participate; make it "safe" for teachers to critically examine their teaching practice then take risks with new instructional strategies; and motivate teachers to continue to grow professionally by providing them with feedback about their performance as well as information about their students' progress.
Leithwood (1990) argues that the principal is key to creating the conditions for the continuous professional development of teachers. Furthermore, teachers who feel supported in their learning are more committed and effective (Rosenholtz, 1989). In their (1982) study, Leithwood and Montgomery found that effective principals work directly as well as indirectly in providing teachers with knowledge and skills that they need to implement change effectively. Moreover, effective principals arrange for carefully structured professional development in their schools, encourage their staff to participate, and make a point of attending all or at least the initial in-service sessions. Less effective principals, on the other hand, provide minimal professional development and have limited or no participation. Leithwood and Montgomery also found that effective principals provide teachers with opportunities, both within and outside their own school, to visit and interact with other teachers for the purpose of professional development. Typical principals, however, are involved only in making the mechanical arrangement for these visits.

Teachers' interest and involvement in professional development may be influenced by school administrators' beliefs and values which are often communicated to teachers through subtle messages. McLaughlin (1991) advises that "it is difficult for individual teachers to sustain interest in the professional development if it is not valued and encouraged within their school workplace" (p. 71). The potential influence of school administrators' beliefs about professional development is exemplified in Walker and Cheong's (1996) study on the status of professional development in elementary schools in Hong Kong, where the current widespread feeling of inadequacy and frustration among teachers appears to be the result of ongoing demands for change and expectations to implement changes within relatively short time frames without adequate guidance or professional development. Through individual and group interviews, Walker and Cheong found that school administrators did not appear to associate professional development with school improvement, and were more likely to regard technical support (e.g., providing more resource materials, decreasing student/teacher ratio, increasing teachers' salaries) as the key to improvement in their schools rather than professional development. When teachers were provided with professional development, it was usually through "one shot" workshops on a specific issue or skill. They also found substantial inconsistency between administrators' beliefs
and their actions regarding teacher involvement in planning professional development activities: Although administrators professed their belief that teachers should participate in planning, organizing, and initiating professional development, there was actually very little teacher involvement and rarely any formal planning of professional development. Walker and Cheong concluded that the substantial changes that confront schools in Hong Kong will continue to be stressful and difficult to implement until school administrators establish norms of support and long-term professional growth.

Leithwood, Jantzi, and Steinbach (1999) suggest the following ways in which school administrators can contribute significantly to teacher development:

- fostering expert, practical problem-solving—which is the type of thinking required for improving instruction—by inviting teachers to participate in making decisions about school improvement;
- helping teachers assess their own needs for growth and to gain access to sources of learning;
- ensuring availability of resources (e.g., release time, materials, funding);
- making the expertise of colleagues accessible to individual teachers by encouraging collaboration among staff members;
- building teachers' self-efficacy by recognizing their accomplishments and reducing their anxiety about implementing change;
- providing on-the-job training through day-to-day interactions with teachers.

Another key player in the process of educational change is the school district leader or superintendent. Sansone (1995) emphasizes the importance of providing support as well as time to "change practices, to re-see, to think, to learn" (p. 10) in discussing his role as superintendent and facilitator of the change process during a 6-year-long initiative to improve literacy education in his school district: "Based upon my own experiences over the last seven years, it has become clear the direct involvement of the superintendent . . . is an essential component of staff and program development in schools" (p. 9). He also reports that the professional development sessions in which he participated were invaluable both in validating and supporting the work of his staff as well as in expanding his own knowledge base: "As teachers were trained, I was
trained. I learned along with everyone else the theoretical underpinnings of the program, and the excitement that comes with trying something new" (p. 10). He also claims that the collaborative involvement of administrators sent a strong message to teachers, students, and parents that he and his administrators were committed to children's literacy development.

McLaughlin (1991) also argues that "the district's role should be one that enables site-level leadership and teachers to identify, address, support, and sustain professional development activities" (p. 76). To illustrate the amount of support that she feels is needed from district leaders to encourage continuous development, she describes a particular school district that "places teachers at the center of staff development policies and frames the district's role in terms of enabling and managing opportunities" (p. 78). In this particular district, teachers were offered opportunities to participate in a variety of professional development activities that were planned by a committee composed of teachers. District and school administrators shared responsibility for managing teachers' professional development by notifying teachers of available activities, arranging funding, and making resources available. Moreover, they conveyed the message that teachers' ongoing professional growth was a district priority by treating teachers to dinner at the local country club and giving them a sample of the professional development opportunities available to them.

b. Sources of Professional Development

Fullan (1992) recognizes the school as an important source of professional development as indicated below:

Given the teacher education continuum and the fact that teachers spend 30 to 35 years as teachers in schools compared to five years in university, the school as a place for teachers to learn or stagnate is crucial. . . . Classrooms and schools will become more effective when . . . the school as a workplace is organized to stimulate and reward accomplishments. (p. 116)

Allington and Cunningham (1996) suggest that teachers should be encouraged to participate in a wide variety of activities, in addition to school-sponsored professional development, that can foster professional development, such as undertaking professional reading,
guest lecturing at a college, or attending a computer workshop. For example, in schools where professional reading is valued, professional articles are circulated among teachers, portions of faculty meetings are spent discussing professional reading, and a group of teachers meet regularly to discuss recent articles or books. Additionally, teachers should be encouraged to join a professional organization such as an affiliate of the International Reading Association (Allington & Cunningham, 1996). Similarly, Little (1993) describes a number of alternatives to traditional professional development such as participation in a teacher network, adjunct faculty status at a teachers' college, or involvement in a research initiative.

Rosenholtz (1989) argues that "the greater teachers' opportunities for learning, the more their students tend to learn" (p. 7). To support this suggestion, she compared 78 elementary schools on the extent to which they provided opportunities for professional development. As predicted, the students of teachers who had a greater number of opportunities for professional development performed better in both reading and mathematics. Furthermore, number of years' teaching experience was negatively related to students' reading gains.

In addition to differences in student learning outcomes, Rosenholtz (1989) found variation in teachers' views of the value of professional development. In "learning-enriched schools," for example, 80% of teachers indicated that their own learning is cumulative and developmental, and that learning to teach is a lifelong pursuit. Conversely, only 17% of teachers in the "moderately impoverished schools" expressed a sustained view of learning, while teachers in "learning-impoverished schools" estimated that teachers learn to teach after an average of only 2.3 years. Rosenholtz (1989) concludes that "social organizations establish and maintain a self-fulfilling prophecy: The more impoverished the school's opportunities to learn, the less about teaching there is to learn, and the less time teachers require to learn it" (p. 83).

Teachers from different settings in Rosenholtz's (1989) study also varied in their awareness about the impact of professional development on their teaching ability. While teachers from learning-enriched settings became better prepared at meeting the diversified needs of their students by continuously acquiring knowledge, techniques, and skills, teachers from learning-impoverished schools seemed unaware that their standardized teaching practice was a main part of the reason for their students' weaker performance. Rosenholtz concludes that it is
easier to learn to teach better in some schools than in others and that students in learning-enriched schools profit more in their mastery of basic skills.

Finally, Rosenholtz (1989) has found that differences in workplace environment were related to teachers' preferences for sources of learning. While colleagues, who are readily accessible, seemed to be the most prevalent source of professional development for teachers in Rosenholtz's learning-enriched schools, almost half of these teachers reported that they also acquired new ideas through professional conferences; conversely, conferences were rarely mentioned by teachers in more learning-impoverished settings. Furthermore, Rosenholtz notes a consistent tendency for teachers from more learning-impoverished settings to use mainly resources that are readily accessible, such as professional magazines and in-service courses that have been arranged by schools, while teachers in learning-enriched settings not only used commonly available resources more often, but also made use of resources that require more time and energy (i.e., conferences and faculty collaboration).

Smylie (1989) has also found that accessibility can be an important factor in determining teachers' perceptions of the value of various sources of professional development. Through a national survey that asked teachers to evaluate the effectiveness of 14 different sources of professional development, Smylie found that teachers perceived their own direct classroom experience as the most effective source of learning, followed by peer consultation, independent study and research, and peer observation. In analyzing the reasons for their perceptions, Smylie realized that the sources considered most effective for the development of teachers' professional knowledge and skills were those that seem most likely to convey knowledge that has direct implications for improvement of student learning.

One of the learning sources rated as least effective by teachers in Smylie's (1989) study was the school administrator, who, as Smylie points out, may be perceived by teachers as not only less accessible, but also more likely to be involved in matters such as student behaviour problems than improvement of teaching practice. Accordingly, teachers may question the usefulness of knowledge and guidance offered by their principals. Moreover, teachers rated in-service training provided by the school district as the least effective source of learning likely to convey knowledge. According to Smylie, this source of learning is typically viewed by teachers as
ineffectual because it is often unrelated to their individual needs and concerns, and, consequently, rarely provides opportunities for work on specific classroom problems or for practice and feedback. He also suggests that most formal in-service programs serve a "maintenance" function where teachers are encouraged to change their behaviour to comply with preferred methods or routines. Smylie concludes that teachers seem reluctant to participate in professional development activities unless they see direct implications for promotion of student learning, and proposes that the value and efficacy of different sources of professional development might be enhanced by making the knowledge conveyed more accessible as well as relevant to teachers' specific classroom experiences.

c. Ongoing Professional Development

As Fullan (1991) argues, "there is no single strategy that can contribute more to meaning and improvement than ongoing professional development" (p. 318). However, through 25 years of experience as an educator and researcher, Allington (1994) has observed that few classroom teachers are well supported with ongoing professional development activities. Many professional development efforts are inadequate because they are provided in a single one-shot session and without the systematic follow-up that is necessary for sustainability (Goldenberg & Gallimore, 1991; Snow et al., 1998).

According to Snow et al. (1998), the limited amount of time that is allocated to reading instruction in the typical pre-service teacher education program "is insufficient to provide beginning teachers with the knowledge and skills necessary to enable them to help all children [particularly those who experience difficulties] become successful readers" (p. 283). Furthermore, since one-shot workshops on new instructional strategies may not be sufficient to change teaching behaviours, "teacher preparation must be seen as a career-long continuum of development" (Snow et al., 1998, p. 283) as teachers need to keep informed of new developments in the field of literacy education as well as to become adept at translating theory into practice. Accordingly, Snow et al. argue that teachers should continue to be given opportunities for effective in-service education throughout their careers, and that highly effective teachers should receive rewards and acknowledgement for their skills and demonstrated effectiveness.
Allington and Cunningham (1996) suggest that professional development should occur before school, after school, during professional leaves, as well as during summer holidays since finding time for professional development will always be a problem due to the multiple demands placed on teachers.

**d. Teacher Collaboration**

According to Little (1990), most teacher development budgets are allocated to in-service providers and administrators rather than to teachers. Fullan and Hargreaves (1996) argue, however, that one of the most effective ways that teachers can grow professionally is by learning from each other. Accordingly, they propose that "a good proportion of staff development resources be allocated not to workshops and inservices, but to opportunities for teachers to learn from, observe, and network with each other" (p. 104), such as visits to other classrooms both within and outside their own schools. Little argues, however, that "joint work," such as planning, team teaching, and mentoring, is the strongest form of collaboration and most likely to lead to significant improvement, while helping and sharing, which may support joint work, are poor substitutes for it.

As the research literature on educational change shows, collaboration among teachers, as measured by the frequency of professional interaction, is a strong indicator of the success of an implementation. The more that teachers interact, the more they will be able to implement changes that they themselves identify as necessary, according to Fullan (1991) who also argues that "significant educational change consists of changes in beliefs, teaching style, and materials, which can come about only through a process of personal development in a social context" (p. 132).

The importance of a collaborative climate to the implementation of lasting change is discussed frequently in the literature on educational and teacher change. McLaughlin (1993), for example, states:

Almost every teacher we encountered who pursued notions of alternative practices for his or her classroom on a sustained basis, who felt excited about workplace challenges and engaged in issues of practice and pedagogy, and who expressed energy and continued
enthusiasm for the profession was a member of a strong collegial community, a community of learners. (p. 97)

Little (1982) also maintains that "staff development appears to have greatest prospects for influence where there is a prevailing norm of collegiality" (p. 339). Furthermore, she argues that continuous improvement is a shared undertaking and that it is difficult for change to occur outside collaborative efforts. Her research on the organizational characteristics that were related to ongoing professional development revealed that schools that sustain expectations for extensive, routine collaboration are the most adaptable and successful. Teachers in relatively successful schools (classified on the basis of standardized achievement scores in reading and mathematics), particularly those receptive to staff development, were found to participate more often in professional interactions with their peers or administrators (e.g., talking about teaching practice; observing and providing feedback to each other; sharing planning, preparation, and evaluation of teaching materials and practices), than teachers in less successful schools. Furthermore, analysis, evaluation, and experimentation with teaching practices were "treated as tools of the profession, designed to make work better (and easier)" in successful schools (Little, 1982, p. 339).

Rosenholtz's (1989) in-depth research on the influence of the social organization of a school on teachers' perceptions and behaviours (e.g., mutual helping behaviours, teacher improvement) provides additional evidence that schools with a collaborative work culture are conducive to continuous "learning on the job." She suggests that "norms of collaboration enable if not compel teachers to request and offer advice and assistance in helping their colleagues improve" (p. 7), while teachers in "isolated" settings have fewer opportunities for interaction and, consequently, "are not made privy to colleagues' specialized knowledge" (p. 68). As predicted, Rosenholtz found, through interviews and questionnaires, that all but one teacher in the "collaborative" settings (i.e., schools that displayed high levels of team teaching and shared teaching goals) engaged in mutual sharing with colleagues (e.g., exchanging instructional materials and ideas, joint problem-solving, and planning). Conversely, only about one fourth of teachers in isolated schools exchanged materials and ideas, and no one reported instructional
problem-solving or planning with colleagues. Rosenholtz (1989) also found that teachers in collaborative settings are generally less inhibited about soliciting and offering help as illustrated below:

Their sense of confidence in a technical culture seems so strong that it proclaims itself as a basis for faculty collaboration. . . . Not only do teachers appear to talk spontaneously about technical ideas or problems; they implicitly convey that it's a taken-for-granted, natural thing to do. (p. 50, 52)

Snow et al. (1998) also argue that professional development programs should include not only courses and meetings but also continuing opportunity for teachers to work together and to visit other classrooms from time to time as teachers cannot be expected to grow professionally if they are isolated. Furthermore, sharing ideas with other teachers makes them feel less isolated and more confident about their ability to implement change (Veenman et al., 1994).

On the basis of their research on ways that teachers transfer new skills into the classroom, Joyce and his associates implemented a school improvement program in 50 schools in which there had been concerns about low student achievement. Teachers at these schools were provided with two weeks of intensive training during the summer, followed by six weeks to practice new teaching strategies (at least 30 times each) in the classroom and in weekly study groups. Between study group meetings, during which participants planned, shared, and evaluated lessons, teachers were required to visit one another in their classrooms and observe students' responses to teachers' strategies. At 6-week intervals, teachers were also provided with demonstrations and practicums to address their needs based on observations of their teaching practices. Two years after the program had started, Joyce, Murphy, Showers, and Murphy (1989) reported dramatic positive effects in student achievement. Moreover, the investigators observed that borrowing ideas and materials from each other had become a pleasurable source of success to the teachers. "Teachers are learning from one another and are welcoming the fruits of research into their repertoires. It is a pleasure to watch their transition from anxiety to pleasure in the company of their colleagues" (Joyce et al., 1989, p. 77). They conclude from their research that collective action can be effective if the workplace is changed to make cooperative behaviour the norm.
e. Context Standards for Professional Development

The NSDC (1995) suggests that professional development initiatives meet various context standards. For example, effective professional development:

- requires strong leadership;
- fosters a norm of continuous improvement;
- provides adequate release time for teachers to learn and work together;
- fits with school district goals and is funded by school district resources.

Conclusion

Up to this point, this literature review has focused on the content characteristics, process variables, and context characteristics of in-service professional development that leads to the implementation of lasting change and, ultimately, improvement in student learning outcomes. We now move from a discussion of the elements of professional development to their impact on an equally important outcome: teacher self-efficacy. In the next section, research on the impact of professional development on teachers' sense of self-efficacy is examined.

Impact of In-service Professional Development on Teacher Self-efficacy

Many professional development initiatives involve an attempt to first bring about some form of change in teachers' attitudes toward teaching (e.g., feeling a personal responsibility for their students' learning). Accordingly, many investigators have focused on the impact of teacher self-efficacy on student learning outcomes. In contrast, others have examined teacher self-efficacy as a dependent or outcome variable, that is, they have examined the influence of various contextual factors (e.g., teacher collaboration, administrator support) and process variables (e.g., peer support) involved in professional development on teacher self-efficacy. Guskey (1986), for example, proposes an alternative perspective on the temporal sequence among the three major outcomes of teacher development (i.e., change in teaching practices, change in teachers' beliefs and attitudes, change in student learning outcomes). According to him, "significant [enduring] change in teachers' beliefs, and attitudes is likely to take place only after changes in student learning outcomes are evidenced" (p. 7). Accordingly, when teachers see that a new program or
teaching strategy improves the learning outcomes of their students (e.g., higher levels of achievement, increased motivation for learning), then, and perhaps only then, significant change in their beliefs and attitudes is likely to occur. This perspective on teacher change is based on the idea that "change is a learning process for teachers that is developmental and primarily experientially based" (Guskey, 1986, p. 7). Furthermore, Guskey suggests that the endurance of any change in instructional practice depends on students' learning success; practices that teachers find useful in helping students attain desired learning outcomes are retained, while those that do not work are abandoned.

One source of support for Guskey's (1986) model has been his research on the process of teacher change. In his (1984) study, for example, he examined the effects of an in-service professional development program focusing on mastery learning (Bloom, 1968, 1971)—which is a feedback-corrective process designed to help students identify and then correct their learning errors—on the beliefs and attitudes of participating teachers. Using pre-test and post-test data, teachers who used the mastery learning procedures in the first school semester following professional development, and subsequently gained evidence of improvement in their students' learning outcomes, expressed more positive attitudes toward teaching and felt they had a stronger influence on their students' learning following professional development (i.e., their self-efficacy had increased). However, teachers who did not use the mastery learning procedures, as well as teachers who did use the procedures but saw no evidence of improvement, did not experience similar changes. Although generalizability of his results was limited due to small sample sizes and a narrow focus (i.e., mastery learning), Guskey's findings were important because many previous studies had shown that experienced teachers generally do not feel that they have an influence on student performance.

Later, Guskey (1988) investigated the relation between teachers' self-efficacy (i.e., their perceptions that they can help nearly all students learn) and their attitudes toward implementing new instructional practices. Following a 1-day teacher development workshop on the theory and application of mastery learning procedures, a detailed questionnaire administered to teachers indicated that teachers who express a high level of self-efficacy, who like teaching, and who feel confident about their teaching abilities are the most receptive toward implementing new
instructional practices such as those associated with mastery learning. Guskey concludes that a significant implication of these results is the need for strong guidance and support from administrators in educational improvement efforts so that teachers can increase their skill, ownership, and sustained use of the innovation.

In accordance with his model of the teacher change process, Guskey (1986) suggests that teacher development programs could be far more effective if teachers receive regular feedback on student learning progress. Furthermore, while involving teachers in the planning and development of an innovation may increase the interest of some teachers, it rarely results in significant attitude change or strong commitment. Accordingly, he suggests that it may not be worthwhile to try to alter teachers' beliefs and attitudes (e.g., gain a sense of commitment) before implementing a new program or innovation, and emphasizes instead that continued support and follow-up after initial professional development are crucial.

Guskey's (1986) perspective on the impact of student improvement on teachers' beliefs and attitudes is shared by other investigators as well. One of the outcomes of the coaching process in Gersten et al.'s (1995) study, for example, was that observation of improvement in the performance of students who were previously doing poorly was a powerful motivator for many teachers. Similarly, Pinnell, Lyons, Deford, Bryk, and Seltzer (1994) argue that teachers need to be exposed to professional development simultaneously with practice with their own students so that they have the opportunity to see the success of new ideas and practices.

Administrators can also influence teacher self-efficacy. For example, the Rand Change Agent Study (Berman & McLaughlin, 1978)—a 4-year national study sponsored by the United States Office of Education to assess federally funded programs designed to introduce and support innovative practices in public schools—indicated various ways in which the design of a particular project and accompanying support from administrators can influence teacher attributes.

Finally, teacher collaboration and support can also have a positive effect on teacher self-efficacy. Darling-Hammond (1996), for example, points out that teachers "who have access to teacher networks, enriched professional roles, and collegial work feel more efficacious in gaining the knowledge they need to meet the needs of their students and more positive about staying in the profession" (p. 9). Similarly, Fullan and Hargreaves (1996) state:
The most common state for the teacher is not a collegial one. It is a state of professional isolation; of working alone, aside from one's colleagues. This isolation gives teachers a certain degree of protection to exercise their discretionary judgement in the interests of the children they know best. But it also cuts teachers off from clear and meaningful feedback about the work and effectiveness of what they do. (p. 38)

Rosenholtz (1989) found that one of the most important effects of teacher collaboration is its impact on teachers' "certainty," that is, their sense of efficacy about their instructional practice and the learning potential of their students. Teachers in collaborative schools, who were more likely to seek advice and assistance from their colleagues and the principal, were also more likely to feel more confident and committed to improvement. Furthermore, they found that teacher certainty contributed significantly to student learning gains in reading and mathematics. She states:

Where teachers collaborate . . . where teachers and principal work together to consistently enforce standards for student behavior, and where teachers celebrate their achievements through positive feedback from students, parents, principal, colleagues, and their own sense, they collectively tend to believe in a technical culture and their instructional practice. (Rosenholtz, 1989, p. 137)

Similarly, Ashton and Webb (1986) compared middle school teachers--who worked with colleagues to increase their knowledge of students' needs, make technical decisions, set goals, and plan lessons--with professionally isolated and uninvolved junior high school teachers who rarely taught to individual needs and lacked confidence in their students' potential. They found that middle school teachers shared a common sense of accomplishment and believed they had an effect on their students' lives. Moreover, as in Rosenholtz' (1989) study, students in schools with more confident teachers scored higher on tests of basic skills than students in schools with teachers who lacked confidence.

Similarly, the Rand Change Agent Study (Berman & McLaughlin, 1978) showed that support activities, such as meetings during which teachers could discuss project strategies in terms of their own classrooms, enhanced teachers' feelings of ownership and confidence in using new strategies, and promoted encouragement among colleagues to sustain implementation of
practices (McLaughlin, 1991). The influence of peer support on teachers' expectations for themselves and their students was also noted by Sparks (1988) who provided teachers with professional development on ways to increase students' time-on-task and improve interactive instruction. During the four weekly workshops, which were intended to provide teachers with a supportive environment, most time was spent in small-group problem solving and sharing. Additionally, the professional development program incorporated the four main components suggested by Joyce and Showers (1988), that is, theory, demonstration, practice, and feedback, and some teachers also received coaching from either a peer or a trainer. As predicted, the "improving teachers" (i.e., teachers whose interactive instruction ability improved on the basis of measurements of classroom teaching behaviour) indicated during interviews that they had acquired new ideas and techniques to use in the classroom and that their awareness of potential classroom problems had increased. Moreover, their confidence for experimenting with recommended practices and dealing effectively with problems had increased, and they were more confident that they could make improvements in their classrooms. Conversely, "nonimproving teachers" tended to defend their natural teaching style, attempted few changes, and had low expectations for themselves and their students. "It appeared that these teachers had given up, not only on their students, but also on their own ability to help students learn" (Sparks, 1988, p. 116). According to Sparks, low self-efficacy (i.e., lack of confidence in teaching ability) may have accounted for their lack of improvement. He concludes that small support groups that provide a safe environment for teachers to learn together as well as discuss their concerns and accomplishments should be a standard part of professional development programs.

**Review of In-service Professional Development Programs for Literacy Education**

The following review of five long-term in-service professional development programs, which were each developed to facilitate the implementation of change in literacy education with the goal of improving the learning outcomes of all students in the regular classroom--that is, not just the lowest achievers--has been divided into two sections: (a) programs that used a prescriptive approach (i.e., teachers were expected to adhere to specified practices), and
(b) programs that used a non-prescriptive approach (i.e., teachers were provided with knowledge and/or research evidence that could be used to develop effective literacy instruction, but were not directed to implement specific practices). This review is followed by a summary in which each of these professional development programs is evaluated on the basis of its content, process, and context.

**Research on Prescriptive Approaches to Professional Development**

In a qualitative study, Vaughn, Hughes, Schumm, and Klingner (1998) examined the extent to which regular classroom teachers, who had participated in an intensive, year-long professional development program, implemented and continued to use four concrete research-based literacy instructional practices that had previously been identified through a literature review as successful for improving literacy outcomes of learning disabled (LD) and at-risk students in the regular classroom. Professional development was provided three times during four 9-week blocks which each included one full-day workshop to introduce teachers to one of the instructional practices and two other 3-hour workshops to provide support and encouragement for implementation of the practice. Teachers were also provided with weekly in-class coaching and demonstration lessons for each of the instructional practices from a partner of the investigators to ensure that the practices would be implemented in their classrooms, as well as support during bi-monthly follow-up meetings from other teachers who were implementing the same practices. Furthermore, teachers were encouraged to engage in ongoing reflection as well as to collaborate with colleagues while implementing the strategies in their classrooms.

On the basis of teachers' positive reactions through individual interviews and checklists, Vaughn et al. (1998) found that the demonstration lessons and follow-up meetings enhanced implementation; however, only five of the seven teachers partially or completely implemented the practices during the obligatory 9-week period, and only four of the teachers continued to use them during remainder of school year. Moreover, while teachers appeared to understand the practices and implemented them effectively, most teachers were unable to show they had gained a complete understanding of the underlying principles (e.g., they had difficulty understanding when and how to modify the practices to meet individual students' needs). Whereas Vaughn et
al. had limited the content of this program because previous professional development efforts had "ended up being much like a university-based seminar" and "too much content that was not tailored to classrooms was unlikely to be implemented" (p. 58), they concluded that in-service training must be "considerably more extensive, directed, and ongoing than those we have heretofore developed or implemented" (p. 71), that is, it should include significantly more discussion of theory so that teachers can acquire the amount of knowledge and experience that they require to meet the needs of LD students.

Three years after the professional development program had ended, Klingner, Vaughn, Hughes, and Arguelles (1999) found that four of the regular classroom teachers--plus two special education teachers and a resource teacher who had also participated in the project--demonstrated overall high use of the practices and had adjusted them to suit their individual style of instruction as well as their students' needs. "Given the demands of teaching and the ever-shifting focus of schools and districts, we were surprised by how well and how long these teachers continued to be influenced by their professional development experience" (Klingner et al., 1999, p. 273). However, they cautioned that while they had been able to ascertain, through classroom observation, whether teachers were familiar with a practice, teachers' reports of levels of implementation may have been exaggerated. Moreover, the original size of the sample was not only small but had also decreased during the 3-year period between the two studies.

Through the use of classroom observations, checklists, and focus group and individual follow-up interviews, Klingner et al. (1999) also discovered that teachers were more likely to continue using an instructional practice if they had access to a support network of peers with whom they could discuss the practice and get ideas about continuing implementation and encouragement regarding the value of continuing implementation and experts who could provide coaching and demonstrations as required. Furthermore, they report that administrative support (e.g., attendance at meetings, encouragement in using strategies) was an important factor in determining sustainability of practices, and that teachers were influenced by whether or not their administrators maintained interest in the practices. Similarly, sustainability of practices appeared to be influenced by administrative turnover (i.e., teachers were less likely to sustain a practice if there was inconsistent leadership). Teachers also seemed to be influenced by whether or not they
perceived that their students liked or were benefiting from the practices (e.g., improved performance, increased self-esteem, and confidence). Moreover, they suggest that understanding the theory behind the practice is also an essential component of professional development.

Finally, Klingner et al. (1999) report various external pressures--perceived by teachers as beyond their control--that may interfere with sustained implementation of practices, such as time constraints, changes in the school's focus, and teachers' feelings of isolation (e.g., due to staff turnover). Furthermore, they found that "high-stakes achievement testing greatly influence teachers...they felt intense pressure to prepare their students for test taking" (Klingner et al., 1999, p. 270) as teachers often feel that they are evaluated according to their students' performance. They conclude that teachers are not willing to invest time on long-term instructional practices that would not benefit students on the next assessment.

Miller and Ellsworth (1985) developed a long-term in-service program with the overall goal of improving the quality of reading instruction of elementary school teachers. During a 2-year in-service program conducted over four semesters, for which teachers earned college graduate credits, teachers were provided with professional development that included lectures and discussions on the use of various assessment and literacy instruction techniques (e.g., directed reading, story discussion), as well as modeling, and feedback. The objectives of the program were to build teachers' background knowledge in literacy instruction, and to change their attitudes toward reading instruction and subsequently their teaching behaviours. Initially, three-hour meetings were held once a week after school. Gradually, teachers' contacts with the instructors became less formal and often occurred in periodic small-group meetings of teachers with similar needs and interests; near the end of the program, most of the contact occurred in teachers' classrooms.

Miller and Ellsworth (1985) found that teachers who had participated in the in-service program were more knowledgeable about reading instruction and expressed more attitude changes as well as significantly more of the desired teaching behaviours after the in-service than non-participating teachers. They also noted that participating teachers tended to have less experience, fewer college degrees, and had taken fewer reading courses. They conclude that longitudinal professional development that provides teachers with a better understanding of the
reading process and reading instruction can help modify attitudes favourably toward reading instruction and subsequently improve teaching behaviours. Moreover, when students were assessed at the end of the in-service program, the investigators found that the reading comprehension scores of students of the participating teachers were significantly higher than those of students of non-participating teachers. While Miller and Ellsworth caution that these results must be considered tenuous due to the post hoc nature of this analysis, they conclude that changes in teachers' knowledge, attitudes, and behaviour seemed to be positively related to student achievement.

**Research on Non-prescriptive Approaches to Professional Development**

Instead of simply providing teachers with prescribed instructional practices which might be implemented but not maintained, McCutchen and Berninger (1999) argue that efforts to implement long-term changes in classroom practice should be directed at enhancing the knowledge that teachers need for effective literacy instruction, such as research findings on normal reading and writing processes (e.g., structure of language), sources of learning disabilities, and other information that is often lacking in pre-service teacher education programs. They propose that "the translation between research and practice is truly complete when teachers themselves [are provided with] the requisite knowledge to develop their own [italics added] effective lessons (McCutchen & Berninger, 1999, p. 216), rather than prescribed instructional practices which they might implement but not maintain. They also argue that it is not feasible to expect teachers to acquire this knowledge through a 1-day workshop. Their in-service professional development model included a 2-week summer in-service session that covered the core requirements for teacher preparation programs in reading as proposed by the ODS in their (1997) position paper, followed by three 1-day workshops spread out over the rest of the year to review themes from the summer institute and share experiences in applying knowledge. Teachers were also given opportunities during the workshops to apply their research knowledge through supervised teaching and assessment experiences, observe members of the research team modeling instructional activities, as well as modify activities which they subsequently
demonstrated for their peers to critique. Ongoing consultation in the form of regular classroom visits and follow-up sessions was also provided.

According to McCutchen and Berninger (1999), not only had teachers' knowledge and classroom practice been transformed, but they were also organizing their own workshops within their school to share their knowledge with their peers. The investigators subsequently concluded that long-term changes in literacy instruction can be expected when they are "rooted in teacher knowledge" (p. 224). Rather than providing teachers with a curriculum, McCutchen and Berninger argue that teachers should be empowered to translate research knowledge into pedagogical knowledge. Similarly, in their synthesis of literature on procedures and strategies that appear to consistently lead to teachers' sustained use of innovative research-based practices, Gersten and Berngelman (1996) conclude that "simply providing teachers with access to innovative instructional strategies is insufficient to alter existing patterns of teaching" (p. 68).

A professional development program developed by Taylor, Blum, and Logsdon (1986) was also based on the assumption that professional development should provide teachers with an understanding of the theoretical basis for what they do rather than merely give them manuals with instructional procedures. According to Taylor et al., teachers who do not have access to an adequate theory base from which to make decisions about curriculum often resort to their own impressions about the way reading has always been taught. Accordingly, they encouraged Kindergarten teachers to implement a comprehensive, theory-based pre-reading curriculum and create a language- and print-rich classroom environment, in which students would begin to see themselves as readers and writers, by providing teachers with an understanding of what children need to discover about written language. Teacher development consisted of a 2-week workshop prior to the beginning of the school year, monthly in-service meetings throughout the school year, and two consultant visits per month to each of the teachers' classrooms for nine months. During the initial workshop, recent research on oral and written language acquisition was presented and teachers were introduced to informal assessment measures as well as techniques for diagnostic teaching. They were shown how to capitalize on all opportunities that could promote written and oral language development and to begin developing their own language arts activities. Additionally, teachers had opportunities to discuss various issues and problems that
they were encountering. While Taylor et al. found that young children can develop important pre-literacy skills within a language- and print-rich environment, they also determined that there is still a need to integrate the vast array of theoretical information that exists in the field of early literacy into a more comprehensive model on which teachers can base their programming.

In-service professional development has had a particularly strong influence on literacy instruction in elementary schools in Australia where teachers are provided with centralized sources of information as well as extensive support on using specific approaches. Each state, for example, produces its own curriculum syllabus which is a series of booklets that typically includes philosophical models of literacy, descriptions of effective instructional practices, and prototypes of materials, lessons, and skills (van Kraayenoord & Paris, 1994). Additionally, Australian state departments of education have developed in-service professional development programs such as the Early Literacy Inservice Course (ELIC; South Australian Department of Education, 1982), which became the focus of a national effort in the 1980s to improve the language experiences and competence of children in the first years of elementary school through changed teacher practice. Through the use of a non-prescriptive approach that encourages them to make their own decisions about the application of content in their classrooms, teachers gain an increased understanding of the processes involved in literacy acquisition and a well-developed repertoire of teaching techniques and strategies during intensive professional development which takes place twice-weekly for 11 consecutive weeks. The focus of this program is on helping teachers become more purposeful and take responsibility for what they do in their classrooms. With the ongoing support of ELIC tutors who are also classroom teachers, teachers have the opportunity to reflect on their current classroom practice, understand and develop principles of successful literacy learning, and then modify their classroom practice in accordance with these principles. After trying out activities in their own classroom, teachers also share ideas and experiences as well as receive feedback from their peers during weekly workshops. Furthermore, teacher collaboration as well as support from the principal—who usually participates in either the whole or part of the ELIC program—are recognized as crucial elements of the implementation process (Kennedy & Hodgens, 1989).
According to Kennedy and Hodgens (1989), the following changes have been observed in teachers who have participated in the ELIC: increased self-confidence; improvement in classroom organization; improvement in understanding of children's written language development; and increased sharing of perspectives, experiences, and techniques. According to the Queensland Department of Education (Research Services Branch, 1986, as cited in Kennedy and Hodgens, 1989), interviews conducted with teachers showed that 80% of participants felt that their early literacy teaching practices had changed (e.g., teaching phonics during reading, allowing self-selected reading, increasing the amount of authentic reading and writing activities). Moreover, almost every participant indicated that their understanding of early literacy had improved and that they had become more confident in their teaching. Some teachers also indicated that they had been transferring ELIC strategies to other subject areas. Furthermore, teachers felt that the ELIC had enhanced children's self-confidence as well as their attitudes towards reading and writing in terms of independence, self-motivation, and sharing with peers, and that children reading more often, producing a great deal more written work of a consistently higher standard that previously, and that their word attack, spelling skills, and use of writing conventions had improved (Kennedy & Hodgens, 1989). Although it was difficult to show that student performance was directly affected by changes in teacher practice, Kennedy and Hodgens conclude that the ELIC has had a considerable effect on teachers' confidence and attitudes to literacy instruction and on students' attitudes to learning.

A summary evaluation of the five professional development programs reviewed above is provided in Table 1.
### Table 1

**Summary Evaluation of Professional Development Programs**

<table>
<thead>
<tr>
<th>Prescriptive programs</th>
<th>Vaughn et al. (1998)</th>
<th>Miller &amp; Ellsworth (1985)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Content</strong></td>
<td>research-based practices, little discussion of underlying theory</td>
<td>instructional techniques no theory</td>
</tr>
<tr>
<td><strong>Process</strong></td>
<td>workshops, in-class coaching, demonstration, practice, reflection, peer support, follow-up</td>
<td>lectures and group discussions, demonstration, feedback, peer discussion groups</td>
</tr>
<tr>
<td><strong>Context</strong></td>
<td>administrator turnover teacher collaboration</td>
<td>no data provided</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Content</strong></td>
<td>ODS (1997) recommendations</td>
<td>theory and techniques</td>
<td>theory and techniques</td>
</tr>
<tr>
<td><strong>Process</strong></td>
<td>workshops, practice, demonstration, peer and expert feedback</td>
<td>workshops, peer discussions</td>
<td>workshops, practice, reflection, sharing, peer feedback</td>
</tr>
<tr>
<td><strong>Context</strong></td>
<td>sharing</td>
<td>no data provided</td>
<td>administrator support collaboration</td>
</tr>
</tbody>
</table>

### Conclusions

According to the ODS (1997), "most teachers are not being given the content and depth of training needed to enable them to provide appropriate [literacy] instruction" (p. 1) because an important domain of knowledge from nearly three decades of systematic research has not yet reached most faculties of education. Similarly, Allington and Cunningham (1996) suggest that teachers lack awareness of research findings that could be used to enhance the effectiveness of their literacy teaching practice. As discussed in this review of the literature, teachers should be provided with (a) research-based knowledge pertaining to the advantages of a balanced approach to literacy instruction and the foundations of literacy development, (b) a professional
development process that is conducive to long-term transfer of knowledge and skills to the classroom, and (c) conditions in which transfer of learning is most likely to occur (Guskey & Sparks, 1996; NSDC, 1995). Each of these factors should be addressed when developing and evaluating in-service professional development, since neglecting any one of them can diminish the effectiveness of professional development. While the professional development process used in the programs described above was generally adequate, program content was not always sufficient (e.g., lack of theory, use of prescribed approaches) and context factors were not always addressed.

This literature review indicates that there is a need for research on in-service professional development in which recognized content, process, and context standards have been achieved. In addition, while some studies report long-term changes in classroom practice (e.g., Klingner et al., 1999; McCutchen & Berninger, 1999), they fail to provide detailed descriptions on the process of change resulting from professional development; this information could help educators and administrators plan, develop, and implement effective professional development activities. The research described in this thesis is a longitudinal follow-up of an early literacy professional development initiative that was designed to facilitate the implementation of lasting change in early literacy education. Through the use of a qualitative research approach, the content, process, and context variables of this professional development program were analysed in order to highlight the key variables involved in the process of change according to the individuals who participated in the program. On the basis of the findings of this study, a model that illustrates the key elements of in-service professional development for early literacy education is presented. In the next chapter, the history of this study and a description of the professional development program on which it has been based are described, followed by a discussion of the purpose of the research.
CHAPTER THREE: BACKGROUND AND PURPOSE OF THE RESEARCH

This chapter provides information on the background to this study (context), the professional development model on which the study was based (content), and the implementation of the professional development system (process). Finally, the research questions that guided this study are presented.  

Context for the Professional Development Initiative

*Background Information*

The research reported in this thesis addresses the process of change in early literacy education resulting from Willows's (1994) research-based, in-service professional development system—*The Balanced and Flexible Literacy Diet: Putting Theory into Practice (The Literacy Diet)*—which was implemented simultaneously at selected schools in two neighbouring school districts throughout the entire 1994-95 academic year. The present evaluation of the Primary Literacy Project (PLP), through which this system was implemented, is part of a larger, multi-dimensional research project that has been investigating the long-term effectiveness of the in-service system in improving classroom teaching practices and raising literacy levels of primary grade students. Within the larger project, the impact of this model on several different areas has been assessed, such as teachers' knowledge, beliefs, and practices of literacy immediately following in-service professional development (Haig, 1999) and students' learning outcomes in literacy both in the short term and in the long term (Collins-Williams, 2001).

In the first school district in which The Literacy Diet professional development system was implemented (School District 1), a superintendent of schools enlisted the help of Dr. Willows to achieve his goal of raising the literacy levels of primary grade students in his area. He had been concerned with the significantly poor performance on standardized reading tests by two-thirds of the student population in his area which he described as the region with the lowest socioeconomic status and the highest rate of immigration in the district. In collaboration with

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1 Portions of this chapter were drawn directly from *The Balanced and Flexible Literacy Diet: Putting theory into practice*, by D. M. Willows, 2000, Toronto. Manuscript in preparation for publication, Ontario Institute for Studies in Education of the University of Toronto. Adapted with permission.
Dr. Willows, he and a team of administrators and resource teachers developed a plan of action that included implementation of Willows's (1994) in-service system. Similarly, an administrator at a school in the second school district (School District 2) had found that nearly 40% of the Grade 3 students in her school were performing below grade-level expectations, and realized that changes in early literacy education were needed. While school district administrators initially suggested that these results may have been the result of a variety of factors such as the high proportion of children with English as a Second Language (ESL), separated or divorced parents, or few books in the home, she and Willows recognized that a large proportion of students, particularly children with a low level of literacy support at home, may actually need more structured literacy programming in the classroom. In collaboration with Willows, she proposed to provide primary grade teachers with knowledge and skills for delivering effective literacy programming through The Literacy Diet in-service system which was subsequently implemented (Willows & Burgess, 1996).

Content of the Professional Development Initiative

Rationale for the Professional Development System

The Balanced and Flexible Literacy Diet: Putting Theory into Practice is designed to be a self-maintaining professional development system to put theory into practice in primary and junior classrooms. After the initial training period, school staffs are expected to continue growing and developing without the need of continuous professional development from an outside source. The content of the system is based on current research-based wisdom about how literacy skills are acquired as well as the most effective instructional practices for facilitating literacy acquisition. The professional development strategies followed in The Literacy Diet system are based on key features contributing to effective professional development and to the implementation of change in schools as suggested in the literature.

In the schools participating in this research project, as in nearly every other school in the English-speaking world, there has long been an ongoing dispute among educators about how children should be taught to read in the beginning stages. Some have advocated starting with a phonics emphasis while others have argued for a whole language approach. Disagreement has
centered on whether teaching should begin with explicit instruction in phonemic awareness and symbol-sound correspondences, or whether initial instruction should be meaning-centered, with letter-sound correspondences taught incidentally, in context, as needed. Unfortunately, this phonics-versus-whole-language debate has long been characterized by intolerance and polarization, with extremists advocating either a rigid teacher-centered "back-to-basics" approach or an uncompromising child-centered "developmental" approach. Such dogmatism and inflexibility is often a consequence of limited knowledge of a subject. Teachers who are either relatively new and inexperienced or who have been in the profession for many years and have not recently updated their knowledge are particularly vulnerable to embracing educational fads and ideologies uncritically.

Pre-service and in-service education has a key role in providing teachers with a level of theoretical and practical knowledge that should prepare them to approach early literacy acquisition as a complex challenge to which they must address all of their critical and creative faculties, formulating their own working models based on the assimilation of new information and accommodation of their own schemas. Unfortunately, pre-service teacher education is all too brief and rarely provides teachers with the foundation of understanding they need in order to be critical consumers of educational theories and new methodologies. Moreover, in-service teacher education—which often involves single inspirational sessions—may briefly energize teachers but rarely results in significant positive changes in classrooms. Thus, most pre-service and in-service teacher education has failed to provide the necessary theoretical understanding of the processes involved in literacy acquisition (American Federation of Teachers, 1999; Richardson, 1998; Snow et al., 1998).

To be effective, teachers' personal working models must be open to change as new and conflicting data about reading and writing become available. Those who lack sufficient breadth and depth of knowledge can "get stuck" in narrow and simplistic interpretations, resorting to rhetoric and slogans to support their beliefs. One of the greatest barriers to progress in the field of literacy education has been the development of a vocabulary of emotion-laden language. Words and phrases such as literacy, mechanistic, authentic, drill, whole language, phonics, learning by osmosis, child-centered, direct instruction, skills, natural, standardized testing.
holistic, word calling, and developmental have come to carry much more meaning than the lay observer might imagine. What was once called the "great debate" in the 1960s and 1970s (Chall, 1967, 1983, 1996) has become the "reading wars" in the 1980s and 1990s (Stanovich, 1993/94). Colleague has been pitted against colleague and children have been the victims of the conflict.

The Balanced and Flexible Literacy Diet framework was designed by Willows (1994) to allow educators to approach the topic of literacy acquisition without the baggage of old wars. In The Literacy Diet, the overused and emotion-laden vocabulary of the "great debate" and the "reading wars" has been replaced with an intuitively-appealing diet metaphor that educators easily understand, allowing them to move away from slogans and rhetoric to logic and common sense. Within this framework, research findings are presented in an organized and comprehensive system, and classroom practices are structured in a meaningful way.

Content of the Professional Development System

The simple notion underlying The Balanced and Flexible Literacy Diet system is that in order to promote growth in literacy, we must provide the right amount and type of "food for literacy" and ensure that every student consumes enough of the right literacy foods on a daily basis as discussed below.

(i) Balance. Literacy Diet components represent the equivalent of the food groups (e.g., grains, fruit and vegetables, meat and alternatives, dairy products and alternatives), and obviously no diet is balanced if it includes only one or two food groups. The key "food groups" of The Literacy Diet, which are based on both research and practice, are listed in Table 2. These components are required in appropriate proportions, complementing each other in fulfilling all nutritional requirements for literacy growth. Classroom teachers must understand why, when, and how these components should be offered to ensure the literacy success of their students.
<table>
<thead>
<tr>
<th>Component</th>
<th>Brief description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motivation for literacy</td>
<td>promoting enjoyment of books and appreciation of the usefulness of reading and writing</td>
</tr>
<tr>
<td>Concepts of print</td>
<td>demonstrating for children the purpose of letters and printed words and how they are used in books and other texts</td>
</tr>
<tr>
<td>Word/world knowledge</td>
<td>extending children's experience, understanding and use of a large repertoire of words and concepts</td>
</tr>
<tr>
<td>Language development</td>
<td>modeling and eliciting from children language structures that are more elaborated and more varied than the ones used outside of school</td>
</tr>
<tr>
<td>Listening/thinking skills</td>
<td>promoting active listening, reasoning, and relating of new information to what children already know</td>
</tr>
<tr>
<td>Sight words</td>
<td>systematically teaching and promoting practice in recognizing the most common irregularly spelled words, beginning with the most useful ones for reading/writing and gradually, as these are learned, moving on to less common ones</td>
</tr>
<tr>
<td>Phonemic awareness</td>
<td>teaching children to focus on and manipulate the sounds in spoken words, to blend them together into words (for reading) and to break words down into their constituent sounds (for spelling)</td>
</tr>
<tr>
<td>Letter-sound associations/ complex letter sounds</td>
<td>explicit, systematic teaching of the letter-sound connections (40+) and practice in using them for decoding (reading) and encoding (spelling/writing)</td>
</tr>
<tr>
<td>Letter formation</td>
<td>providing explicit teaching and practice of the correct formation of letters, and setting reasonable quality expectations for printing and writing</td>
</tr>
<tr>
<td>Spelling</td>
<td>systematic teaching and practice of common spelling patterns and word families, providing mnemonics for the spelling of irregular/&quot;tricky&quot; words; promoting correct spellings of high-frequency grade-appropriate words and inventive spellings of less common ones</td>
</tr>
<tr>
<td>Schema development</td>
<td>teaching, modeling and eliciting the use of frameworks to assist children in developing and organizing what they already know and to facilitate their understanding, memory and use of new information in their comprehension and production of oral and written language</td>
</tr>
<tr>
<td>Real reading</td>
<td>engaging children in reading real things for authentic purposes</td>
</tr>
<tr>
<td>Fluency</td>
<td>promoting speed, accuracy, and proper expression in reading and writing through extensive appropriate practice with guidance and feedback</td>
</tr>
<tr>
<td>Text types</td>
<td>providing opportunities, explanations, structures and purposes to promote children's reading of a wide range of stories and informational texts</td>
</tr>
<tr>
<td>Comprehension strategies</td>
<td>teaching, modeling and promoting children's use of a variety of effective strategies to improve their comprehension of what they read</td>
</tr>
<tr>
<td>Real writing</td>
<td>engaging children in writing real things for authentic purposes</td>
</tr>
<tr>
<td>Writing conventions</td>
<td>teaching, modeling, and promoting the proper use of capitalization, punctuation, paragraphing, etc.</td>
</tr>
<tr>
<td>Composition strategies</td>
<td>teaching, modeling and promoting children's use of a variety of effective strategies to increase the length, accuracy, coherency, and complexity of their written compositions</td>
</tr>
<tr>
<td>Written language structures</td>
<td>providing opportunities, explanations, structures, and purposes to promote children's writing of a wide range of narrative and expository texts</td>
</tr>
</tbody>
</table>
(ii) **Flexibility.** As in any other diet, not everyone enjoys all foods for literacy. In The Literacy Diet framework, it is "OK" if you don't like broccoli! There are many different "nutritious" activities to provide each of The Literacy Diet components. Teachers need not throw out all previous classroom practices to create a more effective literacy program; they simply need to do a "nutritional analysis" and choose/create a Literacy Diet for their students that is balanced and appealing.

(iii) **Developmental stages.** Another useful lesson based on "food rules" is that human dietary requirements change at different stages of maturation. For example, when children's bones are growing they require more foods from the dairy group because these foods contain calcium. Similarly there are changing literacy diet requirements as children grow in literacy. Although learning to read and write do not reflect "natural" developmental processes comparable to human maturation (Lyon, 1998), it is helpful to consider literacy acquisition within a stage framework (Chall, 1983, 1996; Frith, 1986; Juel, 1987; Marsh, Friedman, Welch, & Desberg, 1981). Students at different stages of literacy development have different "literacy nutritional needs." As students progress through the stages, the components and activities in their literacy diet must change in order to promote growth. To be effective, teachers must understand the nature of the stages of literacy development and provide their students with stage-appropriate foods for literacy.

(iv) **Special needs.** Some students come to the classroom with special "literacy nutritional requirements" because of their linguistic, cognitive, and experiential backgrounds. For these, The Literacy Diet approach is designed to assist the teacher in assessing needs and in designing appropriate special diets to ensure literacy growth. Teachers in both regular and special education need to share an understanding of The Literacy Diet framework to facilitate program planning for all of their students. Classroom teachers must work closely with the specialists to ensure that the literacy diet they provide in the classroom is appropriate and consistent with that being provided by the special educators.

(v) **Effectiveness and engagement.** Even if a classroom literacy program is well designed to satisfy the basic "dietary requirements" of all children in the class, not everyone will grow in their literacy unless they consume and enjoy what is being offered to them. The appeal of the
diet—to both "the cook" and "the consumer"—are central to its success. All the right literacy food groups can be put together into a literacy meal by a "hospital dietitian" and nobody will ask for more (and the cook probably won't get much enjoyment out of preparing the meal) or, essentially the same ingredients can be put together by a "gourmet chef"—with a little spice—and everyone will ask for more (and the cook will feel pride and personal satisfaction). In The Literacy Diet approach, the inspired gourmet chef has a much better chance of motivating the children to consume the essential foods for growth in literacy.

(vi) Nutrition and growth. Concepts of planning, classroom organization and time management are central to The Literacy Diet system. In order to assist teachers in organizing and managing classroom time and activities, The Literacy Diet metaphor suggests that they reflect on how much and what type of literacy nutrition each of the children in their classrooms is receiving. At any given point in time, the teacher learns to ask: What, if any, literacy nutrition is provided by this particular classroom practice? Who is getting the nutrition? How much are they getting? From such analyses, teachers come to distinguish between "literacy junk food" and highly nutritious literacy activities. They also recognize that activities which focus attention on one or two children while the others watch may, in many cases, be providing nutrition only to the children who are directly involved in the activities while other children are "starving!" Teachers develop detailed day plans based on their recognition that if every child is to receive as much as possible of the right foods for literacy every day, then plan their day in the same way as a dietitian would plan a menu to ensure that all children are receiving enough appropriate nutrition each day. Teachers' day plans must also accommodate children's special needs and preferences to ensure that all children will, in fact, consume the literacy foods that they require for growth.
Process of the Professional Development Initiative

Implementation of the Professional Development System

The professional development system was originally implemented in 10 schools in School District 1 and one school in School District 2; this follow-up study involved six of the schools in School District 1 (Schools A, B, C, D, E, and F) and the one school in School District 2 (School G). Schools A, B, and C in School District 1, which is located just outside of a large metropolitan city, are situated in communities that are highly transient, at-risk for poverty, and have a large proportion of immigrants. A significant proportion of the student population in these schools is ESL—both new Canadians and "second generation"—(i.e., children of immigrants) and includes some children from homes in which English is not spoken at all. Schools D, E, and F in the same district are situated in middle class neighbourhoods in a historical part of the city; a smaller proportion of the student population in these schools is ESL. The student population of School G, which is situated in School District 2, is highly diverse: Several different cultural backgrounds are represented (e.g., 100 students speak Punjabi), and the school is situated in a low socioeconomic status community with mixed dwellings (e.g., small houses, duplexes, and apartment buildings) within a large metropolitan city.

When the PLP was initiated, school administrators in School District 1 were asked to recruit a team of volunteers that included one teacher from each of the primary grade levels and support staff (i.e., special education teachers, ESL teachers); these teachers were subsequently expected to share the knowledge that they gained through the program with the rest of the school staff. The guidelines were applied flexibly to the extent that more than one teacher per grade was permitted to participate if there was a strong desire. At one of the schools in this district, all primary grade teachers participated in the professional development program at the request of the school administrator. The school principals in School District 1 were expected to participate in the workshops; vice-principals in two of the schools also chose to participate. In School District 2, all of the primary grade teachers and support staff in the target school were given the opportunity to opt into the project; all but one teacher did. The vice-principal of this school

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2 Teachers at School C did not educate non-participating staff members until the following year when they formally implemented the strategies from the program throughout the school.
participated in the workshops. Administrators also received a total of two full days of professional development from Dr. Willows during the year prior to the program.

The implementation of the professional development system involved a systematic attempt to bring about change in the knowledge, beliefs, attitudes, and classroom practices of primary grade teachers, and a change in the learning outcomes of students through ongoing professional development over the entire 1994-95 school year (i.e., September through June). Participants met with Dr. Willows during project workshops designed to develop and promote the implementation of balanced and flexible literacy programs to meet the needs of children in the regular classroom. Table 3 provides a comparison of the intensity of professional development in the two school districts.

Table 3
Comparison of In-service Programs in School Districts 1 and 2

<table>
<thead>
<tr>
<th></th>
<th>School District 1</th>
<th>School District 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Participants</strong></td>
<td>primary grade teachers(^a), support staff, principal and/or vice-principal, superintendent of schools</td>
<td>primary grade teachers(^b), support staff, vice-principal</td>
</tr>
<tr>
<td><strong>Length of in-service</strong></td>
<td>10 months (Sept. - June)</td>
<td>10 months (Sept. - June)</td>
</tr>
<tr>
<td><strong>Frequency of workshops</strong></td>
<td>monthly</td>
<td>twice-monthly</td>
</tr>
<tr>
<td><strong>Location of workshops</strong></td>
<td>various schools</td>
<td>School G</td>
</tr>
<tr>
<td><strong>No. of schools at workshop</strong></td>
<td>3 or 4</td>
<td>1 (School G)</td>
</tr>
<tr>
<td><strong>Classroom visits by facilitator</strong></td>
<td>sporadic</td>
<td>before each workshop</td>
</tr>
<tr>
<td><strong>Student assessment</strong></td>
<td>type and amount varied across schools</td>
<td>end of implementation year and in subsequent years</td>
</tr>
</tbody>
</table>

\(^{a}\)Team of primary grade teachers from Schools B, C, D, E, and F; all primary grade teachers from School A.  \(^{b}\)All but one primary grade teacher from School G.
As indicated in Table 3, professional development in School District 2 was more intensive than in School District 1, with more frequent workshops that were always held at the target school as well as regular classroom visits that included observation and feedback from the in-service facilitator.

In order to be included in the project, each teacher had to be willing to make a commitment to participate in professional development throughout the entire year. Participation entailed reading recommended books and articles, attending after-school workshops, attending in-school literacy meetings between workshops, preparing and sharing program materials, implementing program components in their classrooms, individualizing programs for special needs students, documenting classroom time allocation, and participating in assessment to evaluate program effectiveness.

The workshops, which were held after school, included presentations by Dr. Willows, group discussion of professional development materials from books and videotapes, demonstration of research-based teaching strategies, and sharing by participating teachers of approaches and materials that they had tried and found effective. Copies of the four books listed below were provided, as required reading, for each teacher.3

3 In School District 1, the books—as well as delicious and nutritious food for the workshops—were provided by the superintendent of schools, whereas they were provided from the school budget in School District 2.

Phonics They Use: Words for Reading and Writing (Cunningham, 1991)
Classrooms That Work: They Can All Read & Write (Cunningham & Allington, 1994)
Early Literacy in the Classroom (Depree & Iverson, 1994)
Learning to Read and Write: Adapting Programs to Children's Needs (Willows, 1993)

Two activities described in Classrooms That Work: They Can All Read & Write (Cunningham & Allington, 1994)—a book that describes the critical components of a balanced literacy program—were highlighted during the workshops: (a) Making Words, in which children manipulate letters printed on cards to make words, and (b) Word Wall, which is used for teaching recognition of high frequency words. Many Kindergarten and Grade 1 teachers also received a copy of The Phonics Handbook: A Handbook for Teaching Reading, Writing and Spelling
(Lloyd, 1993), which is a manual for "Jolly Phonics," a phonics-based reading instruction program that combines systematic phonics instruction with a multi-sensory approach (i.e., an action for each letter sound); the manual also includes an explanation of the theory underlying the program. A variety of supplementary theoretical and practical materials were also provided as optional reading.

To guide teachers in implementing change, the following areas, described below, were covered in the workshops: (i) program planning, (ii) time management, (iii) program implementation, and (iv) monitoring and adjustment.

(i) Program planning. The beginning step in program planning was to examine the outcomes desired by the end of each of the literacy stages, using The Literacy Diet framework to generate the types of activities needed to achieve these outcomes. An integrated program approach was developed collaboratively with the participants. This program included all of the components (listed in Table 2) deemed essential to achieve the desired outcomes and made use of a range of teaching materials and approaches. The program incorporated the best aspects of phonics approaches, sight approaches, and the whole language philosophy (based on Learning to Read and Write: Adapting Programs to Children's Needs, Willows, 1993 and A "Normal Variation" View of Written Language Difficulties and Disabilities: Implications for Whole Language Programs, Willows, 1991). Balance and flexibility built into the program allowed individual teachers to select from a range of classroom activities, as long as essential program components were included and sufficient time was allotted to activities to ensure satisfactory program outcomes. Two simple principles guided all teaching practices: (a) all program activities had to make sense in terms of the desired outcomes of the program, and (b) all program activities had to be motivating to children.

(ii) Time management. A key problem in many classrooms is that the actual amount of time children spend reading and writing is uncontrolled. Although there are certain times of day that are considered "literacy time," for any given child there is often little monitoring of on task time. Whereas some children may spend most of the language arts periods actively engaged in reading and writing activities, others (usually those most in need of assistance) spend much of their time engaged in talking to other children, waiting in line for help, or doing artwork or other
non-literacy activities. Many of the children who are *off task* (because reading and writing are hard for them) are those most in need of in-school reading and writing practice because they may be involved in very little reading and writing outside of school. In order to insure success for all children, classroom activities were developed that promoted a high degree of "individual engagement time;" each child was encouraged to do their "personal best" and not depend too much on others to do their thinking. This strategy did not preclude working in groups or pairs, but required careful planning on the teacher's part to ensure that all children were engaged in activities appropriate to their stage of literacy development every day.

*(ii)* Program implementation. Under the guidance of Dr. Willows, the school principal and/or vice-principal, support staff (i.e., special educators and ESL teachers), and classroom teachers at each of the primary grades (Kindergarten through Grade 3) were expected to work together to develop program plans based on the model and materials discussed in the professional development sessions. Within The Literacy Diet framework, teachers (guided by professional development readings and discussion) were expected to determine the essential components required to achieve the desired outcomes. A range of alternative classroom activities were generated, consistent with each program component, and each teacher was expected to develop an individual program that included all of the essential program components. Teachers were also expected to develop, regularly revise, and implement day plans that would include details of classroom literacy activities.

*(iv)* Monitoring and adjustment. Even the best planned programs do not always work out as expected. Sometimes the children may not be interested in a particular activity or may find it too easy or too hard. Ongoing monitoring of the effectiveness of the program and a willingness to modify aspects of a program that did not seem to be achieving the desired ends were both essential to success. Classroom visits by Dr. Willows to observe and conference with teachers provided an opportunity for feedback on individual classroom programs; as indicated in Table 3, these visits occurred more frequently in School District 2. Specific children and small groups of children who had special programming needs were supposed to receive individualized programs, with the support of the special education and/or ESL teacher. Informal assessment and regular collection of writing samples provided valuable information to assist in monitoring the progress
of the group as a whole, as well as of individual children. In addition, the effectiveness of the professional development was evaluated formally through standardized assessment of student literacy outcomes at the end of the implementation year as well as in subsequent years in School District 2 (see Collins-Williams, 2001); the type and amount of standardized assessment varied across schools in School District 1.

**Purpose of the Research**

The primary goal of this longitudinal follow-up study was to describe the ways that primary-level teachers implemented and sustained changes in their literacy teaching practice as a result of in-service professional development that guides teachers in translating theory into practice. A secondary goal of this research was to determine whether teachers acquired and maintained an understanding of the concepts of The Literacy Diet which was used as a framework for professional development. In order to achieve these goals, data collection was guided by the following questions:

- What are teachers' and administrators' perceptions regarding the efficacy of the various elements of an in-service professional development initiative that was conducted three years earlier?
- What changes were implemented in primary literacy classrooms as a result of professional development?
- What changes have been observed in students since the professional development system was implemented?
- What other effects has the professional development system had on the teachers and school administrators who were involved in it?
- What role do administrators play in facilitating the implementation of change in early literacy education?
- What are teachers and administrators doing to sustain changes that were implemented as a result of professional development?
- Has the professional development system had a lasting impact on teachers' understanding of the concepts of The Literacy Diet which was used as a framework for professional development?
CHAPTER FOUR: METHODOLOGY

Rationale for the Research Approach

Qualitative inquiry cultivates the most useful of all human capacities—the capacity to learn from others. (from Halcolm's Evaluation Laws, as cited in Patton, 1990, p. 7)

A qualitative research approach was used in this study to gain an understanding of human behaviour and experience during the process of change directly from the individuals who implemented the changes. As Merriam (1988) argues, "research focused on discovery, insight, and understanding from the perspectives of those being studied offers the greatest promise of making significant contributions to the knowledge base and practice of education" (p. 3). Whereas quantitative techniques, which generally focus on outcomes, may show by means of pre- and post-testing that change occurs, "if you want to know about the process [italics added] of change in a school and how the various school members experience change, qualitative methods will do a better job" (Bogdan & Biklen, 1998, p. 39). Qualitative methods are also more appropriate for evaluating outcomes that are difficult to standardize such as increased awareness or self-esteem (Patton, 1990). Furthermore, qualitative research methods enable the investigator to study an issue in depth "without being constrained by predetermined categories of analysis" (Patton, 1990, p. 13). My task then, as investigator, was to present the perceptions of individuals who had participated in a professional development program that was developed to guide literacy educators in translating theory into practice.
Description of the Research Approach

Data Collection

To determine whether changes implemented as a result of professional development were lasting, the data were collected three years after the professional development program. The sample and the procedures that were used for this study are described below.

Participants

The participants in this study were 30 female elementary school teachers, nine school administrators (6 females and 3 males), and one male superintendent of schools. Thirty-seven of the 40 participants had attended the in-service professional development program three years earlier; the remaining participants (all of whom were school administrators) participated in a similar program the following year. Teachers had been either primary-level regular classroom teachers, special education teachers, or ESL teachers during the implementation year (i.e., year of in-service program); school administrators were either principals or vice-principals.

As indicated in the previous chapter, school administrators had been instructed to recruit a team of volunteers when the PLP was initiated. However, some teachers reported that their participation was mandatory. Table 4 provides a breakdown of the number of teachers and school administrators who participated in this study.
Table 4

Number of Participants at each School when Study was Conducted

<table>
<thead>
<tr>
<th>School</th>
<th>Grade</th>
<th>ISSP/ESL&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Voluntary participation</th>
<th>Administrator</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>K</td>
<td>1</td>
<td>2</td>
<td>1/2</td>
</tr>
<tr>
<td>District 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>1</td>
<td>2</td>
<td>no&lt;sup&gt;b&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>1</td>
<td>1</td>
<td>yes</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>1</td>
<td>1</td>
<td>yes</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>1</td>
<td>1</td>
<td>no</td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>2</td>
<td></td>
<td>yes</td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>2</td>
<td>1</td>
<td>yes</td>
<td></td>
</tr>
<tr>
<td>District 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

Note. Three additional teachers and three additional school administrators, who had relocated to schools that were not involved in the PLP, were also involved in this study. Dashes indicate that no administrator was interviewed. ISSP = in-school support staff. VP = vice-principal.

<sup>a</sup>One teacher had an autistic class. <sup>b</sup>All primary grade teachers at School A were required to participate. <sup>c</sup>All but one primary grade teacher at School G participated. <sup>d</sup>The former administrator at School G had retired.

Demographic information pertaining to each of the participants is provided in Appendix A. Descriptions of each of the following groups of participants are provided below:

(i) Teachers. Thirty elementary school teachers (i.e., 25 teachers from School District 1 and 5 teachers from School District 2) agreed to participate in this follow-up study; 23 teachers were regular classroom teachers and seven were support staff (i.e., special education, ESL, autistic class, or resource teacher). This sample of teachers represents 47% of the 64 primary-level teachers who had participated in the PLP professional development program three years
earlier; most of the other teachers had either retired or relocated to schools that were not involved in the PLP.

All but two of the teachers who participated in this study were still teaching primary-level students when this study was conducted; one teacher was teaching Grade 4 students and the other had become a resource teacher (who provides support to classroom teachers at several different schools). Three other teachers had relocated: Two teachers had relocated to schools that had been involved in the PLP--one of which was participating in this study--and one teacher had relocated to a school that had not been involved in the PLP.

(ii) School administrators. Nine school administrators (eight administrators from School District 1 and one administrator from School District 2) participated in this follow-up study. Six of the thirteen school administrators (10 principals and 2 vice-principals in School District 1; 1 vice-principal in School District 2), who had attended the professional development with primary-level teachers during the 1994-94 academic year, participated in this study; the remainder had either retired or were situated at schools that did not participate in the follow-up study. The other three administrators who participated in this study had attended the professional development program when it was offered to junior grade teachers the following year.

All but one of the school administrators had relocated since the implementation year. Four administrators had moved to other schools involved in the PLP and the other three administrators had relocated to schools that were not involved in the PLP, including a middle school (i.e., Grades 6 through 8). As a result, it was necessary to travel to non-participating schools to collect some of the data. Another administrator had retired by the time this study was conducted.

(iii) Superintendent of schools. One former superintendent of schools, who was responsible for initiating the PLP in School District 1, participated in this follow-up study. He later relocated to another unit within his district and subsequently retired.

Participant Codes

In order to ensure participants' anonymity, I assigned each of them a code that would replace their name on all data. First, I placed teachers' names in one group and school administrators' names in another group, both in random order. Next, I assigned a numerical code
to each participant; teachers' codes were preceded by the letter "T" and school administrators' codes were preceded by the letter "P." The superintendent's code was preceded by the letter "S."

In order to be able to report findings by school, I grouped the teacher codes according to the school at which they were situated during the implementation year (i.e., year of in-service) and assigned a colour code to each participant. Teachers were assigned a dyad of colours (the first colour of the dyad representing their school) and school administrators were assigned a triad of colours (Tesch, 1990). These colour codes were used during data analysis.

**Research Instruments**

Qualitative research, which focuses on the meaning of the data, requires data collection instruments that are "sensitive to underlying meaning when gathering and interpreting data" (Patton, 1990). Since data are mediated through the investigator, Guba and Lincoln (1981) argue that the investigator is "himself the instrument" (p. 113). Moreover, investigators are "best-suited for the task" (Merriam, 1988, p. 3) since they can be flexible and adapt techniques to the circumstances, be sensitive to nonverbal information, and explore irregular responses as well as clarify and process data instantly (Patton, 1990). Patton (1990) states:

> The purpose of interviewing is to find out what is in and on someone else's mind. The purpose of open-ended interviewing is not to put things in someone's mind (for example, the interviewer's preconceived categories for organizing the world) but to access the perspective of the person being interviewed. We interview people to find out from them those things we cannot directly observe. We cannot observe feelings, thoughts, and intentions. We cannot observe behaviors that took place at some previous point in time. . . . The purpose of interviewing, then, is to allow us to enter into the other person's perspective. Qualitative interviewing begins with the assumption that the perspective of others is meaningful, knowable, and able to be made explicit. (p. 278)

To capture the perspectives of the participants, I conducted individual, open-ended interviews with each of the participants face-to-face, using a nonscheduled, standardized interview protocol, that is, a semistructured questionnaire in which the same questions and probes are used for all respondents, but the order in which they were posed can be changed according to how individuals react (Denzin, 1978). The interview questions, which were based
according to how individuals react (Denzin, 1978). The interview questions, which were based on the content of the professional development system that was implemented three years earlier, the approaches used to implement change, and the impact of the initiative on students, teachers, and administrators, were developed to generate data that would help provide answers to the questions that guided this research (refer to Chapter Three). Most of the questions were open ended to "permit one to understand the world as seen by the respondents" (Patton, 1990, p. 24).

I first met individually with each of the school administrators in School District 1 to explain the procedures of the research as well as to give them a letter of introduction and a consent form along with letters and consent forms for each of the teachers who had participated in the PLP and were still situated at the same school (see Appendix B). The administrators were responsible for informing the teachers about the study, providing each of them with a letter of introduction and consent form, then determining who was willing to participate. The superintendent of schools in School District 1 was also provided with a letter of introduction and a consent form.

As this study was part of a larger research project, reference was made to several different data collection instruments in the letters of introduction; however, the only instruments that were used for this study were (i) a teacher interview, (ii) a school administrator interview, and (iii) an interview for the superintendent of schools (see Appendix C).

(i) Teacher interview. Interviews were held in a private room at the teacher's school. In addition to audiotaping the interviews if permission had been granted, I wrote their responses verbatim (i.e., as much of their response as possible) directly on the interview protocol. As it was anticipated that each interview would be approximately three hours in duration, a substitute teacher was provided for one-half day for each of the teachers so that they could be released from class.

Prior to being interviewed, teachers were shown an outline of the topics that were to be discussed. The interview protocol consisted primarily of open-ended questions that involved in-depth probing of teachers' perceptions of the in-service professional development system and its impact on their beliefs and teaching practices. It also included three items designed with five-point Likert responses ranging from 1 (no use at all) to 5 (very useful) or none to very strong.
teachers were asked to look at a scale containing the five choices while responding to these items. Some interview questions were taken from the teacher interview used by Haig in her (1999) study on change in the knowledge and practices of literacy so that comparisons could be conducted between (a) teachers who were interviewed immediately following professional development, (b) teachers who were interviewed three years after professional development, and (c) control teachers who did not participate in professional development.

Teachers were first asked to describe their background (i.e., teaching history, initial teacher education, additional qualifications, other in-service professional development experiences). Next, they addressed a series of open-ended questions regarding their initial interest in the PLP, their perceptions of the workshops, professional development materials, and in-school literacy meetings, as well as their perceptions regarding the amount of collaboration that had occurred within their school during the implementation year. Subsequently, they were asked specific questions that assessed their understanding of the concepts of The Literacy Diet framework (i.e., define concept and describe an activity for developing it in the classroom). Next, teachers described changes that they had made to their program as a result of the professional development. Subsequently, they were asked to describe any changes they had observed in students since the implementation year as well as their perceptions regarding impact of the project on students' literacy development. Next, they were asked about the long-term impact of the project on teaching practices and collaboration. Finally, they were asked to describe the impact of the project on the school (i.e., impact of staff changes on project, further professional development, overall long-term effect of the project).

(ii) School administrator interview. School administrators were also interviewed individually. The interviews were approximately one hour long and took place in the participant's office during school hours. In addition to audiotaping the interviews if permission had been granted, I wrote administrators' responses directly on the interview protocol.

Administrators were first shown an outline of the topics that were to be discussed. Not all questions in the interview were applicable to each administrator as most of them had relocated to a new school since the beginning of the project. The interview protocol, which consisted primarily of open-ended questions, also included two items designed with five-point Likert
responses ranging from 1 (*none*) to 5 (*very strong*); administrators were asked to look at a scale containing the five choices while responding to these items. First, they were asked to describe their background (i.e., teaching and administrative experience, education, additional qualifications, and previous professional development experiences). Next, they addressed a series of open-ended questions regarding their initial interest in the project as well as strategies that they had used to gain teachers' interest, their perceptions of the in-service program (i.e., workshops, in-school literacy meetings, involvement of support staff), and their perceptions concerning the amount of collaboration that occurred within their school during the project. Subsequently, they were asked to describe any changes that may have occurred in the following areas: student behaviour and progress in literacy, classroom teaching practices, school culture, and their role as school administrator. They were also asked to describe any sources of support or constraints on their attempts to improve literacy education in their school. Next, they were asked to discuss their own gains from the project, their goals regarding literacy education, and their professional relationship with their staff. Finally, they were asked about their perceptions regarding the impact of staff changes, further professional development activities, and the overall long-term effect of the project.

*(iii) Superintendent of schools interview.* Prior to being interviewed, the former superintendent of schools was shown an outline of the topics that were to be discussed. The interview was one hour long and was audiotaped with his permission. In addition, the superintendent's responses were handwritten in the space below each question on the interview protocol.

Prior to being interviewed, the superintendent of schools was shown an outline of the topics that were to be discussed. The interview consisted primarily of open-ended questions. It also included two items designed with five-point Likert responses ranging from 1 (*none*) to 5 (*very strong*); he was asked to look at a scale containing the five responses from which he could choose while responding to these items. First, he was asked about his background (i.e., teaching and administrative experience, education, previous professional development experiences). He was then asked to describe the reasons for his own interest in the project, the strategies he had used to gain the interest and involvement of school administrators, and his perception of the
in students since the project started, the impact of the project on student progress in literacy, as well as any changes in the status of the schools in his unit (i.e., they were formerly among the lowest performing schools in the school district). He was then asked to discuss the impact of the project on literacy instruction, strategies for implementing change in literacy education, and obstacles that schools face in implementing change. He was also asked to describe what he had gained from participating in the project and to comment on a preliminary list of themes that had been emerging in the data.

**Interviewing Schedule**

I started interviewing participants right after spring break, almost three years after the professional development program ended. The participants were interviewed in the following order:

1. Teachers, School District 1
2. Administrators, School District 1
3. Teachers, School District 2
4. Administrator, School District 2
5. Superintendent of Schools, School District 1.

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4 Due to his busy schedule, I interviewed the superintendent of schools the following year.
Data Management and Analysis

What a man in the know does not want is to be told what he already knows. What he wants is to be told how to handle what he knows with some increase in control and understanding of his area of action. (Glaser, 1978, p. 13)

Qualitative Analyses

"Data analysis is the process of making sense out of one's data. . . . In the process of [qualitative] analysis, data are consolidated, reduced, and, to some extent, interpreted" (Merriam, 1988, p. 127, 130). According to Taylor and Bogdan (1984), the goal of data analysis is "to come up with reasonable conclusions and generalizations based on a preponderance of the data" (p. 139).

There are three different levels of qualitative data analysis that can be used according to the purpose of the study and the desired end product: (i) organizing the data set and then describing the findings in narrative form; (ii) identifying, describing, and, to some extent, interpreting essential features or themes within the data; and (iii) interpreting the data by linking themes and making inferences. While the first level of analysis may be sufficient to produce a narrative account of the findings, the second and third levels of analysis should be used if the investigator wants to show connections between concepts and interpret meaning (Merriam, 1988). In analysing the findings, I used each of these levels of data analysis for different purposes as described below.

(i) Describing the findings. I used the first level of analysis to organize the data into a manageable form so that I could report the findings in a descriptive narrative. Although I incorporated the ideas of a few different authors (e.g., Bogdan & Biklen, 1998; Cole, 2000; Merriam, 1988; Tesch, 1990) in developing my organizing system, I used Tesch's (1990) "steps for developing an organizing system for unstructured qualitative data" (p. 142) as a framework. Using my organizing system, I arranged all relevant data (i.e., data that would help achieve the research goals) into categories so that material that was relevant to a particular topic was physically separated from other material. These categories were derived from patterns, that is,
recurring units of information (e.g., phrases, sentences, paragraphs) that I "discovered from the data" (Goetz & LeCompte, 1984, p. 191). The steps that I took to develop my organizing system are explained below.

Although a computer program would have helped organize and analyze the massive amount of data that I had collected, I would have had to first transcribe (i.e., type) the data from each of the audiotapes or interview transcripts. Since the interviews for 30 of the 40 participants had taken three hours each to conduct, I felt that transcribing the data would have been too time consuming, and consequently decided to organize it manually instead using Bogdan and Biklen's (1998) "cut-up-and-put-in-folders approach." First, I read through all of the interviews to get an overall impression of the data as well as a comprehensive sense of what I would be analyzing. While reading each transcript, I wrote comments, observations, and queries in the margins as they came to my mind. Writing these notes helped validate my thoughts about the data. At this stage, according to Merriam (1988), I was "virtually holding a conversation with the data, asking questions of it, making comments, and so on" (p. 131).

Next, I selected five interviews at random. As I read each transcript again, I identified key words and phrases that seemed to stand out, particularly those that recurred a few times in the data, and wrote them down in the margin of the transcript. At this stage, I was asking myself "What is this unit of data about?" rather than "What does this unit of data suggest?" Accordingly, I was identifying the topic, rather than the content, of each unit of data. Once I had completed this step for five interview transcripts, I wrote a list of all of the topics that I had identified on a big sheet of paper, using one column for each interview transcript. Next, I compared all of the topics, drawing lines with different colored markers between columns to connect similar topics. On a separate sheet of paper, I then clustered similar topics together (i.e., topics that were connected by lines) and named each cluster using the best fitting name from the group. With these names, I then made a new list containing three columns: Topics that appeared frequently in the five interviews that I had selected were placed in the first column, unique topics that seemed relevant to the goal of this research but appeared less frequently were put in the second column, and the remaining topics were put in the third column. I then placed all of the topics from the first column and some of the topics from the second column into
categories, each of which contained interrelated topics). Finally, I named the categories and abbreviated the topics as codes. The first draft of my coding system contained 52 topics that had each been placed into one of 12 different categories.

Returning to the data, I tried out my preliminary coding system on the five interview transcripts with which I had already worked. After making new copies of these transcripts, I coded the data by writing codes in the margins next to applicable segments of text (i.e., words, sentences, phrases, paragraphs), using brackets around the segments, if necessary, to separate them from adjacent segments. As I coded the data, I constantly refined my list of codes (e.g., deleting codes that I found redundant or not applicable; adding new codes when I found segments that could not be coded with the preliminary system; changing the names of the clusters as necessary).

While reviewing my preliminary coding system with two of the members of my thesis committee, I was advised to scale it down to a more manageable size. According to Bogdan and Biklen, "if you have over 50 major categories, they probably overlap. . . . While it is difficult to throw away data or categories, analysis is a process of data reduction" (p.183). Similarly, Tesch (1990) advises that a system containing only 10 to 20 codes may be too sparse for a large data set, while 25 codes can be easily manipulated; more than 40 codes may be difficult to remember. She also advises that it is easier to apply an organizing system that has some kind of order rather than just a list of codes.

Bogdan and Biklen (1998) also suggest that particular research questions can generate coding categories. Realizing that most of the topics that I had identified were relevant to the questions that guided my data collection, I decided to use these questions as a basis for my coding categories (i.e., each category would contain data that could provide answers to the questions). In examining my coding system, I considered whether some topics were closer in content to certain topics than to others, and whether some topics were subcategories of others. Again, I drew lines to connect related topics. After several attempts, I eventually ended up with 26 codes (refer to Table 1 in Appendix D) clustered into four categories pertaining to the implementation of change through professional development: (a) content, (b) process,
(c) context, and (d) impact. These four categories have been used to present the findings from this study.

The next step involved coding all of the data. First, I made three copies of each interview transcript so that I would have a sufficient amount of material with which to work. Multiple copies of each transcript were needed in case paragraphs contained more than one segment of coded data (i.e., to avoid breaking up paragraphs) or a particular segment was to be sorted into more than one category. Before coding each transcript, I drew lines of colours (two colours for teachers, three colours for administrators) with highlighters down the centre of each page from top to bottom according to the colour codes that I had previously assigned to each participant. As a result, each piece of data, once cut out from a transcript, was marked with either a dyad or a triad of colours to identify the participant to which it pertained; the first colour of each dyad also indicated the teacher's school. I then marked each segment (e.g., sentence, paragraph) with the appropriate abbreviated topic code as well as the number of the page from which it had been taken for future reference (i.e., in case information was needed about the context from which it was taken, or to help locate the approximate position of the segment on the audiotape if required). Finally, I labeled "quotable material" with the letter Q. Once all of the data were coded, I literally cut segments of data from the page, then pasted them on sheets of paper which I subsequently placed in a file folder that held all data pertaining to a particular topic (i.e., all data with the same code). According to Tesch (1990), "the folder embodies the new 'context' for all the segments in it" (p. 129).

The outcome of this process was a box of file folders in four different colours (one colour for each of the main categories), each containing all of the data that pertained to a particular topic; later, I used the titles of these folders (i.e., the 26 codes) as subheadings in writing up the findings. I then analysed the data further by breaking them down into subcategories (i.e., subcodes) for convenient handling (Bogdan & Biklen, 1998). The data were finally organized so that I could describe the findings in narrative form, using sufficient quotations to illuminate and support them (Patton, 1990); the audiotapes were used to ensure the accuracy of the quotations.
In describing the findings, I occasionally counted the number of participants who shared a particular view or had been using a particular approach. Although some qualitative investigators avoid counting because it is "too quantitative" (Merriam, 1988, p. 148), it may be useful in providing an idea of "the general drift of the data" (p. 215), support for an emerging hypothesis, or protection against investigator bias (Miles & Huberman, 1984). The findings are reported in the next chapter.\(^5\)

(ii) Developing themes. The next level of data analysis involved moving from concrete description of observable data to a more abstract level. At this stage, I used a process/outcomes matrix (Patton, 1980) to organize the data and help identify and describe key themes (i.e., higher level categories). According to Patton (1980), the process/outcomes matrix "is a way of organizing, thinking about, and presenting the qualitative connections between program implementation dimensions and program impacts" (p. 416). As shown in Figure 1, program processes are placed along the left side of the matrix and outcomes of the PLP are placed across the top; I decided to use the impact of the PLP on teachers for outcomes because the focus of this thesis is pertaining to the perceptions of teachers. The cross-classification of any process with any outcome produces a cell containing themes, patterns, quotations, program content, or actual activities. Patton (1980) emphasizes that the process/outcomes matrix is merely an organizing tool; the data from participants themselves provide the actual linkages between processes and outcomes. My completed process/outcomes matrix is provided in Appendix E.

<table>
<thead>
<tr>
<th>Teacher Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>4</td>
</tr>
</tbody>
</table>

**Figure 1.** Matrix of linkages between program processes and teacher outcomes for theme development.

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\(^5\) Data acquired through interview questions pertaining to content of teachers' literacy programs (e.g., teachers' day plans, classroom teaching materials) were not used in this study, but were reserved for future research.
Through the use of this process, I identified eight major themes that reflect key issues or concepts representing the kinds of changes that occurred during the PLP and how these changes were perceived by participants to be related to specific processes. Whereas I had been identifying the topic of each unit of data during the coding, I was examining the content of the data while developing themes. For some themes, I also identified two to five "properties"—which are concepts that describe a category or theme (Merriam, 1988)—to further describe and interpret the findings. "Categories and properties are concepts indicated by the data (and not the data itself) . . . In short, conceptual categories and properties have a life apart from the evidence that gave rise to them" (Glaser and Strauss, 1967, p. 36). According to Holsti (1969), themes derived from content analysis should be congruent with research goals and questions.

Although I had been thinking about patterns that seemed to be emerging during the data collection stage, I did not actually start to analyse the data until I had interviewed all but one of the participants, that is, the former superintendent of schools. By the time that I was able to interview him, I had analysed the data up to the point where I had developed a preliminary coding system. Since I had also identified some themes by then, I asked him for his reaction to these themes during his interview.

Finally, I searched manually through all of the data again to locate segments of data pertaining to these themes. Once I coded the data using abbreviations of these themes (see Table D2 in Appendix D), I organized them into folders using the same approach that I had used to organize the findings (i.e., "cut and paste"). The themes and their corresponding properties are discussed together with the findings in the next chapter.

(iii) Interpreting the data. Theorizing (i.e., interpreting the data) which Goetz and LeCompte (1984) define as "the cognitive process of discovering or manipulating abstract categories and the relationships among those categories (p. 167), is part of the process of developing a theory or model that explains some aspect of educational practice (Merriam, 1988). As Miles and Huberman (1984) state, "we are no longer dealing just with observables but also unobservables, and are connecting the two with successive layers of inferential glue" (p. 228).

Whereas I had been linking observable processes and outcomes while developing themes, the third and final level of analysis involved linking themes and making inferences. For
example, I hypothesized that there was a connection between administrative support and teacher collaboration. As a result of this type of analysis, I developed a model that illustrates interrelations among the key elements of effective in-service professional development.

**Quantitative Analyses**

As data pertaining to teachers' understanding of Literacy Diet concepts were available from an earlier study by Haig (1999) involving a similar measure (i.e., teacher interview), there was an opportunity to test the differences between the following three groups in their understanding of the components of The Literacy Diet: (a) 9 teachers who were interviewed immediately following professional development (Experimental Group 1), (b) 30 PLP teachers who three years following professional development (Experimental Group 2), and (c) 9 teachers who did not receive professional development (i.e., Control Group). Demographic information pertaining to teachers in Experimental Group 1 and the Control Group are provided in Appendix F.

Prior to conducting the analyses, I rated the responses of teachers in Experimental Group 1 using Haig's (1999) coding scale: 5 = excellent understanding, 4 = good understanding, 3 = vague understanding, 2 = incorrect guess, and 1 = no response. Additionally, teachers' descriptions of a concrete activity that they would use in the classroom to develop the applicable Literacy Diet component provided further indication of their level of understanding. Although the responses of teachers in Experimental Group 1 and the Control Group had been rated earlier by Haig, I rated them again to ensure that all responses were rated according to the same criteria. The responses of 31% of the teachers (i.e., 15 of the 48 teachers across all three groups) were also coded by another rater; inter-rater reliability, based on a correlation of ratings for each Literacy Diet component, ranged from .72 to 1.00 (see Table 5). While reliability was moderate for three of the 19 components due to the relatively small sample size, it was high for the remaining 16 components. In sum, the overall reliability for the rating of teachers' definitions was high.
Table 5
Inter-rater Reliability: Correlations of Ratings for PLP Teachers' Definitions of
Literacy Diet Terms

<table>
<thead>
<tr>
<th>Literacy Diet term</th>
<th>$r$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motivation for literacy</td>
<td>0.76*</td>
</tr>
<tr>
<td>Concepts of print</td>
<td>0.96**</td>
</tr>
<tr>
<td>World knowledge</td>
<td>0.90**</td>
</tr>
<tr>
<td>Word knowledge</td>
<td>0.76*</td>
</tr>
<tr>
<td>Language development</td>
<td>0.93**</td>
</tr>
<tr>
<td>Listening/thinking skills</td>
<td>0.92**</td>
</tr>
<tr>
<td>Sight words</td>
<td>0.96**</td>
</tr>
<tr>
<td>Phonemic awareness</td>
<td>0.98**</td>
</tr>
<tr>
<td>Letter-sound associations</td>
<td>0.72*</td>
</tr>
<tr>
<td>Complex letter sounds</td>
<td>0.92**</td>
</tr>
<tr>
<td>Letter formation</td>
<td>1.00*</td>
</tr>
<tr>
<td>Spelling</td>
<td>0.92**</td>
</tr>
<tr>
<td>Schema development</td>
<td>0.96**</td>
</tr>
<tr>
<td>Fluency</td>
<td>1.00**</td>
</tr>
<tr>
<td>Text types</td>
<td>0.97**</td>
</tr>
<tr>
<td>Comprehension strategies</td>
<td>0.92**</td>
</tr>
<tr>
<td>Writing conventions</td>
<td>1.00**</td>
</tr>
<tr>
<td>Composition strategies</td>
<td>1.00**</td>
</tr>
<tr>
<td>Written language structures</td>
<td>1.00**</td>
</tr>
</tbody>
</table>

*p < .01. **p < .001. df = 14.

The following quantitative analyses were conducted:

1a. One overall 1-way analysis of variance (ANOVA) to determine whether there were
significant differences between the three groups (Experimental Group 1, Experimental Group 2,
Control Group) in the means of their total score (i.e., rating of teachers’ definitions) across all
Literacy Diet terms.
1b. Two-tailed $T$-tests comparing pairs of groups in each combination (e.g., Experimental Group 1 vs. Experimental Group 2; Experimental Group 1 vs. Control Group) to determine where significant differences, if any, existed in their overall understanding of Literacy Diet components (i.e., comparing mean total scores across all Literacy Diet terms).

2a. One-way ANOVAs to determine whether there were significant differences between the three groups in their mean scores for each individual Literacy Diet term.

2b. Two-tailed $T$-tests comparing the mean scores of pairs of groups to find out exactly where significant differences, if any, existed in their understanding of individual Literacy Diet terms.

3. Correlations between PLP teachers' scores on Literacy Diet term definitions and number of years' teaching experience.

**Methodological Safeguards**

*Ethical Considerations*

The task for the qualitative researcher is to provide a framework within which people can respond in a way that represents accurately and thoroughly their points of view about the world, or that part of the world about which they are talking--for example, their experience with a particular program. (Patton, 1990, p. 24)

The present study was undertaken under an ethical review that was conducted for the larger research project: "Long-term Effects of an In-service teacher Education System on Teachers, School Administrators, Classroom Processes, and Literacy Outcomes" (Willows, 1994). Since the staff at the schools involved in this study had agreed to participate in the interviews as part of the larger project, it was not necessary to conduct an additional ethical review for this aspect of the overall project.

In this study, ethical safeguards, such as informing participants of the purpose and nature of the research, explaining that their participation would be voluntary and that they were free to withdraw from the study at any time, and assuring them that their identity would not be revealed, were followed carefully. Before the study commenced, informed consent was provided by each
of the participants after reading a detailed letter of introduction that accompanied the consent form (refer to Appendix B). Additionally, each participant was asked to sign the cover sheet of the interview transcript before the interview started, indicating whether they gave their permission to be audiotaped (refer to Appendix C). At this time, it was emphasized, as indicated in the letter of introduction, that great care would be taken to ensure anonymity of all data included in both verbal and written reports: The investigator would be the only person who would see any identifying information (i.e., their name and name of their school) on these reports. Furthermore, information would not be shared with their colleagues, their principal, or their superintendent, and the audiotapes would be erased once the accuracy of the interviews had been confirmed. Accordingly, I removed the cover sheet from each interview transcript and wrote the code number that had previously been assigned to the participant on each page prior to analyzing the data. Similarly, I replaced participants' names on the audiotapes with their numerical code.

In addition to informed consent and confidentiality, there are other risks that data collection for a qualitative research study may carry for participants, such as inadvertently preventing participants from telling their own story because of the investigator's preconceptions. To help participants feel comfortable in telling the whole story, I maintained a neutral attitude (i.e., neither approving nor disapproving) throughout the interview. Furthermore, I was conscious of their feelings at all times (e.g., paying attention to nonverbal behaviour such as hesitation) and reminded them that they were not required to respond to any questions that they had difficulty answering. Another potential risk is reduced control over participants' self-presentation. As an example, some participants might have not wanted to answer certain questions for fear of revealing either something about a sensitive issue or their own ignorance, but felt that they were under pressure to respond (Merriam, 1988). During the portion of the interview in which I assessed participants' understanding of concepts from The Literacy Diet, for example, some participants commented on the difficulty in recalling the meaning of some of the terms. To make them feel at ease, I reminded them about confidentiality and advised them that many of their colleagues felt the same way.
Data analysis in a qualitative study may also present ethical issues. Problems may arise, for example, if the reader is unable to distinguish between data and the opinions of the investigator. In reporting the findings of this research, I indicated that I was using participants' perceptions rather than my own. Furthermore, I was careful to indicate that the findings were based on participants' accounts as relayed to me as there could be discrepancies between their accounts and actual occurrences. Any interpretations that I made were labeled as my own conclusions and were based only on connections that I found in the data as reported to me by the participants; my interpretations are provided only in the Discussion chapter of this thesis. Additionally, biases, some of which may not be apparent to the investigator, may be imposed on the data such as in highlighting certain data while excluding data contradictory to one's views (Merriam, 1988). Since Dr. Willows—who developed The Literacy Diet and facilitated the in-service professional development program—was also my thesis supervisor, there was a possibility that investigator bias could have influenced how the data were collected and analysed, what findings were included or excluded, and the way that they were reported. However, I did not discuss any of the findings with Dr. Willows until after the data were analysed and written up. Moreover, she was never made aware of the particular source of any of the findings.

**Trustworthiness and Rigour**

"The basic issue in relation to trustworthiness is simple: How can an inquirer persuade his or her audiences (including self) that the findings of an inquiry are worth paying attention to, worth taking account of?" (Lincoln & Guba, 1985, p. 291)

In conventional quantitative research, *internal validity, external validity, and reliability* are used to evaluate the trustworthiness of a study. In evaluating qualitative research, however, these concepts are not appropriate as they are based on a different set of assumptions (Lincoln & Guba, 1985). "One of the assumptions underlying qualitative research is that reality is holistic, multidimensional, and ever-changing; it is not a single, fixed, objective phenomenon waiting to be discovered, observed, and measured" (Merriam, 1988, p. 167). Accordingly, these concepts are replaced by the following constructs in qualitative research: (a) *credibility,*
(b) transferability, and (c) dependability (Lincoln & Guba, 1985). The techniques that I used to satisfy each of these criteria of trustworthiness are described below.

(a) Credibility

Satisfying the credibility criterion involves two tasks: (a) enhancing the probability that credible findings and interpretations will be produced, and (b) testing the findings and interpretations with the sources from which they were obtained (Lincoln & Guba, 1985).

Triangulation is one of the techniques suggested by Lincoln and Guba (1985) that can be used to improve the likelihood that credible findings and interpretations will be produced. In this study, I used one of the four different modes of triangulation suggested by Denzin (1978): triangulation of data sources, that is, comparing and cross-checking the consistency of information derived from multiple and different data sources while using the same method. Checking findings against other data sources prevents the investigator from accepting too readily the validity of initial impressions and helps in correcting biases that may occur when there is only one investigator (Glaser & Strauss, 1967). "Consistency in overall patterns of data from different sources and reasonable explanations for differences in data from divergent sources contribute significantly to the overall credibility of findings" (Patton, 1990, p. 467). My sample size was relatively large for a qualitative study: there were 40 participants involved in this study. Moreover, at each of the participating schools, three to five teachers participated in this study. Consequently, I had the opportunity to verify or clarify information that was specific to one school in particular with two to four other respondents in the same setting. In addition to using multiple sources, I used various types of data sources: regular classroom teachers, special education teachers, ESL teachers, school administrators, and a superintendent of schools. Furthermore, seven different schools were involved in this study: six in one school district and one in another school district.

While triangulation pertains to validation of the accuracy of specific items of data, member checking, that is, testing analytic categories, interpretations, or conclusions, either informally or formally, with people from whom the data were originally collected, is the most crucial technique for establishing overall credibility (Lincoln & Guba, 1985). From time to time, I informally "played back" portions of an interview to the person who provided it to ensure that I
had captured the data accurately as well as to confirm my understanding of its meaning. Additionally, I informally asked one participant—the former superintendent of schools—for his reaction to a preliminary list of themes that I had developed while I was still analyzing the findings.

Another technique that enhances the probability of producing credible findings is persistent observation, that is, focusing on the most relevant characteristics of a situation in detail so that they are understood in a nonsuperficial way (Lincoln & Guba, 1985). As I had one-half day to interview each of the teachers, I had the opportunity to cover each topic in depth by probing for more information as necessary.

(b) Transferability

According to Lincoln and Guba (1985), establishing transferability in qualitative research is not only very different from establishing external validity (i.e., generalizability of results to other situations), but also, "in a strict sense, impossible" (p. 316) partly because the emergent design of a qualitative study precludes a priori controls such as random sampling and controlled sample size. Moreover, generalizing from a single case (e.g., an in-service professional development program or a group of teachers) does not make any sense as "one selects a case study approach because one wishes to understand the particular in depth, not because one wants to know what is generally true of the many" (Merriam, 1988, p. 173). As Lincoln and Guba advise,

The naturalist can only set out working hypotheses together with a description of the time and context in which they were found to hold. Whether they hold in some other context, or even in the same context at some other time, is an empirical issue, the resolution of which depends upon the degree of similarity between . . . contexts. (p. 316)

Alternatively, an investigator conducting a qualitative study can provide the reader with a thick description, that is, sufficient detailed description and direct quotations to enable someone interested in making a transfer to judge whether the transfer is possible (Lincoln & Guba, 1985). A thick description, in which "the voices, feelings, actions, and meanings of interacting individuals are heard" (Denzin, 1989, p. 83), allows the reader to "enter into the situation and
thoughts of the people represented in the report" (Patton, 1990, p. 430). Moreover, a thick description enables the reader to understand not only the findings but also the basis for an interpretation (Patton, 1990). Accordingly, I have attempted to describe the findings in an interesting and informative manner.

(c) Dependability

In qualitative research, the investigator tries to "describe and explain the world as those in the world interpret it. Since there are many interpretations of what is happening, there is no benchmark by which one can take repeated measures and establish reliability in the traditional sense" (Merriam, 1988, p. 170). Merriam states that achieving reliability (i.e., the extent to which the findings of a study can be replicated) in the conventional sense may not be possible in qualitative research due to the lack of a priori controls as well as the dynamic nature of both human behaviour and the phenomenon chosen for study (e.g., early literacy education).

Alternatively, Lincoln and Guba (1985) suggest using techniques that will enhance the dependability of results obtained from the data. "Rather than demanding that outsiders get the same results, one wishes outsiders to concur that, given the data collected, the results make sense—they are consistent and dependable" (Merriam, 1988, p. 172).

In this study, I used various techniques suggested by Merriam (1988) to ensure that the findings were dependable. First, as noted earlier, I used triangulation of data sources, which also strengthens the dependability of the findings (Merriam, 1988). As Patton (1990) argues, however, "Triangulation of data sources will seldom lead to a single, totally consistent picture. . . . The point is to study and understand when and why there are differences" (p. 467).

Accordingly, I have attempted to explain the reasons for any discrepant findings. Second, I have explained my position as investigator (e.g., assumptions behind the study, my relationship with the participants, a description of the participants and the basis for their selection). Finally, I rigorously maintained an audit trail, that is, "a residue of records stemming from the inquiry" (Lincoln & Guba, 1985, p. 319) so that independent judges could verify the findings of a study. Examples of these records include raw data, data reduction and analysis products (quantitative summaries, working hypotheses), and data reconstruction synthesis products (development of categories and themes,
coding). Although I did not actually implement Lincoln and Guba's *inquiry audit*, I have described in detail how data were collected, categories were derived, and decisions were made so that "other researchers can use the original report as an operating manual by which to replicate the study" (Goetz & LeCompte, 1984, p. 216).

The results of the qualitative and quantitative analyses described above are presented in the following chapter.
CHAPTER FIVE: FINDINGS

The primary purpose of this study was to describe the ways that primary grade teachers implemented and sustained changes in their literacy teaching practice as a result of an in-service professional development initiative which had been conducted three years earlier. The findings presented in this chapter represent the perceptions of PLP participants regarding the in-service program, the process of implementing change in the classroom as a result of professional development, the context in which efforts to implement change were made, and the long-term impact of the PLP. These findings—which are based only on the perceptions of the participants—have been reported three years after the teacher and school administrator interviews were completed.6 They have been organized according to eight key themes that emerged when the content of the data was analysed; an explanation of how these themes were developed was provided in the Methodology. The relation of each theme to the findings from which they emerged is provided in Figure 2.

Consistent with the framework introduced in the Review of the Literature, the themes have been categorized on the basis of their relevance to the content, process, context, and impact of the professional development system that was implemented in the two school districts. The topics listed under each theme in Figure 2 were initially used to code the data as described in the Methodology; they appear as subheadings in this chapter. Data pertaining to each topic is described, then followed by a summary pertaining to the applicable theme. In the next chapter, the findings are interpreted, linked to other research findings, and integrated into a comprehensive model of in-service professional development for early literacy educators.

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6 Pronouns indicating gender (e.g., he, she, him, her) were not used for referring to school administrators so that their anonymity would be ensured. They were used, however, in referring to teachers (who were all female) and to the superintendent of schools.
Figure 2. Overview of themes and findings.
Content of the Primary Literacy Project Professional Development

This section presents the perceptions of PLP participants concerning the professional development program in which they participated. The most salient theme that emerged from these findings—"theory into practice"—is discussed below.

Theme 1: Theory into Practice

The three topics that are discussed in this section are indicated in Figure 3. Following the description of participants' perceptions of the professional development program, a summary of data pertaining specifically to the theme "theory into practice" is provided.

<table>
<thead>
<tr>
<th>Theme 1: Theory into Practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Value of the Professional Development Program</td>
</tr>
<tr>
<td>b. Professional Development Materials and Activities</td>
</tr>
<tr>
<td>c. School Literacy Meetings</td>
</tr>
<tr>
<td>d. Difficulties with the Professional Development Program</td>
</tr>
</tbody>
</table>

Figure 3. Topics pertaining to Theme 1: Theory into Practice.

a. Value of the Professional Development Program

Each of the 40 individuals who participated in the PLP had something positive to say about the professional development program. All participants recognized the value of the workshops, for example, as illustrated by the following excerpts:

I can't say enough positive about it. It was absolutely fabulous. (P3)

All new teachers should learn this in teachers' college. There were no gimmicks, just common sense and practical suggestions. (T23)
I have been teaching for about 30 years and I've tried many new things. They're always coming out with something new and saying, "This is the answer." Well, this time, I feel it is the answer. (T5)

All of the information that was presented—if you incorporate all of those strategies into your program along with the things that you've always been doing yourself that you felt were good, you're bound to be hitting on at least one method that's going to [reach] some child, right? I mean, if you've got this much ammunition. (T17)

Many teachers also mentioned that they appreciated being able to relax and enjoy refreshments during the workshops. As one teacher remarked, "It wasn't go-go-go. We were given time to sit and chat when we arrived. It was a nice way to do professional development" (T14). Some teachers also said that they appreciated receiving release time at the end of the day for traveling to the workshops.

Five subcategories emerged when participants' perceptions of the value of the workshops were analysed: (i) theory, (ii) strategies and resources, (iii) practice, (iv) sharing, and (v) reflection; (refer to the Methodology for an explanation regarding subcategories).

(i) Theory. Six of the 40 participants said that they found the discussions on literacy theory helpful. Some teachers, for example, found the discussions on the stages of literacy development particularly useful; one of these teachers mentioned that she found these discussions helped her understand the needs of ESL students which dominated the school population.

Some participants commented that the homework assignments (e.g., reading professional development materials, trying out new technique) helped keep them on track during the in-service program. Other participants remarked that they found The Literacy Diet metaphor very meaningful. One of the administrators, for example, felt that everyone could identify with the concept of taking something from each of the food groups and remarked that teachers continue to make sure that they include all of the components of a balanced literacy diet in their own programs. Another administrator remarked, "It is a good model for making change" (P1). A teacher with over 30 years' experience commented that the concept made a lot of sense to her
from the first moment she heard about it as it reminded her of the way she taught when she started teaching literacy. Similarly, another teacher with about 20 years' experience, who had just started teaching Grade 2 for the first time in several years, found that she could relate the concept to the way she used to teach many years ago. She felt that The Literacy Diet metaphor made a great deal of sense and was excited to see that it was not something brand new. The following excerpt illustrates the impact of the concept on a third teacher:

I enjoyed the first session the most. [Dr. Willows] talked about The Literacy Diet and all the components and how it changes over time, how it changes based on the needs of people, and relating all that to nutrition, which I'm also very interested in, just really made sense to me. It really clicked. I'm aware of how a balanced diet is important to nutrition and relating that whole thing to literacy... was just a really good analogy. And I was absolutely fascinated particularly with the first session just because of that whole connection with nutrition and diet. (T25)

(ii) Strategies and resources. Thirty-four of the 40 participants discussed the value of acquiring a wide range of practical ideas (e.g., strategies, activities, games) to use in the classroom as well as professional development and other resource materials. As one teacher remarked, "Teachers are always looking for new ideas to get kids interested in reading and writing" (T2). Three teachers reported that they always incorporated at least one new idea into their literacy programs between workshops. Although a few teachers remarked that some of the ideas that were presented during the workshops were not new to them, they appreciated being reminded about them. Some teachers who had recently started teaching a new grade level reported that the workshops provided them with knowledge on how to develop a literacy program.

Teachers were particularly pleased that the strategies presented to them through the workshops and the reading materials were feasible as exemplified in the following two excerpts:

[I gained] a whole new vision of what I can do to teach literacy. And that's what I was looking for... Opening up my mind to different ways and implementing them in the classroom and then finding out that they worked!" (T11)
There seemed to be so many strategies that we could offer to the children, to give the children different things to try to see what would work for them, and they were all workable. There's a lot of things that you get thrown at you and you think, "How am I ever going to pull this off?" or it just doesn't seem feasible, especially to the age group. But this obviously was workable with the kids and really fun too. And I think that's important when they're young like that. They have to enjoy what they're doing. So they can enjoy what they're doing but they're really getting something, in my opinion, tangible that they can actually work with. (T29)

Several participants mentioned that they found the suggestions for improving time management (e.g., increasing time on task, using prime learning time for literacy) extremely helpful. Many teachers also commented on the value of receiving their own copies of some of the professional development materials as well as the opportunity to examine other resource materials such as reading materials and games during the workshops.

(iii) Practice. Six participants remarked on the opportunity to apply their knowledge in the classroom then subsequently discuss their experiences with colleagues at the school literacy meetings and the workshops. One administrator, for example, reported that teachers "were directed to look at different components [of The Literacy Diet] involved in reading, then examine their own programs to determine what works or doesn't work, try new things, and evaluate" (P9).

(iv) Sharing. Eighteen participants mentioned that they found the opportunity to share ideas and experiences with colleagues during the workshops worthwhile. Some teachers indicated that whereas they generally found it difficult to sit down and discuss programming issues during a typical school day because of their busy schedules, the workshops gave them the opportunity to do this. Many teachers also remarked that they enjoyed meeting teachers from other schools. Additionally, teachers found that they were able to acquire new ideas to use in the classroom and learn from each other through brainstorming, sharing experiences (i.e., successes and failures), and examining samples of students' work.

(v) Reflection. Although three of the teachers were frustrated at first by the lack of direct instruction in the workshops, they eventually appreciated Dr. Willows's style of teaching. One teacher, for example, said that she was frustrated when Dr. Willows didn't "spoon-feed" them and just hinted at areas that they should explore to find answers themselves. She recalled that
Dr. Willows had said, "This is a project, not a kit. If I tell you what to do, it's a kit" (T30). The following two excerpts further exemplify these sentiments:

I had some difficulty digesting the resource materials and figuring out what [Dr. Willows] wanted from me. It took me almost the year to figure that out and the learning curve was frustrating. . . . I am a person who likes to get right to the point. I don't like to go around it or spend an hour to do something that would take me five minutes. I'm very time-conscious in everything that I do. I tend to be rather efficient, if I can say that. . . . She was not trying to efficiently instruct me on some new strategies. She was trying to make me think. And maybe . . . it was hard for me to accept that. . . . But it was rewarding in the end. I realized that she was asking us "Is your program satisfactory?" . . . Looking back, it was a worthwhile process. (T26)

She always had us doing our own work. That was one of the interesting things about [Dr. Willows]. I think she really believed in our doing the work and I guess the idea was that it would become our learning. I know sometimes we would ask a question and she would throw it back at us. She wanted us to come up with the answers ourselves. (T27)

b. Professional Development Materials and Activities

As indicated in the Methodology, all teachers were asked to rate the professional development materials and activities to which they were introduced during the in-service program according to their perceptions of their usefulness. In general, teachers assigned higher ratings to reading materials that they perceived as being practical rather than theoretical, that is, Classrooms That Work: They Can All Read & Write (Cunningham & Allington, 1994) and Phonics They Use: Words for Reading and Writing (Cunningham, 1991). Additionally, most teachers felt that Jolly Phonics (Lloyd, 1993), which is a systematic phonics instruction program with a multi-sensory approach, as well as two of the activities that were described in Classrooms That Work: They Can All Read & Write—Making Words (a phonics activity) and Word Wall (a strategy for teaching high frequency words)—were also very useful. Their ratings and perceptions of each of the individual professional development materials and activities are provided in Appendix H.
Overall, teachers were happy with most of the professional development materials and activities, particularly because they found them very practical, well written, and easy to understand. Many teachers indicated that they still referred to the materials from time to time, whether they had recently started teaching a new grade, wanted to refresh their memories, or were simply looking for new ideas on activities to use with their students. Moreover, they reported that their students enjoyed doing the activities that were described in them. The following excerpts exemplify some perceptions:

We loved them. We thought they were great books. Lots of good ideas in them. (T20)

My program is now so organized because of the ideas. (T26)

I think they were great. The best I've seen in years, really. They're easily understood. You can read them and you can visualize that and when you actually try it out, they work. There aren't too many things that are going to go wrong, really. You can tell that they've been actually put in practice by the people who wrote the book. (T6)

Three teachers, as exemplified in the following three excerpts, even referred to some of the books as "bibles:"

Great. Wonderful. In fact, all of ours are "dog-eared" [bent corners]. We all wrote all over them... I've made notes in the columns and underlined... They were like a bible to me, anyway, because they were packed full of information. And you know, a lot of the things I already knew. Because when you've been teaching a number of years, you automatically know a lot of these things... A lot of these ideas, my goodness, I'd forgotten about them, which was great, because I would think] "Oh yeah! I remember doing that!"... Every one of them are terrific resources that you can go back to and use in any classroom situation. (T23)

The books that we were provided with were absolutely excellent. In fact, I love those books. They're like little bibles to me. And our principal asked us to include them in the classroom inventory and I'm thinking, "Classroom inventory! I thought they were mine to keep!" I liked them so much, I want to get my own copies... To me, they're meaningful to the person who did the in-service... They were very well chosen...
Mine are certainly worn with having been used a lot. I refer to them all the time. They are often borrowed by other colleagues who don't have a copy of the book. . . . It's really great because everything has been literally thought out for you. You just have to open the book to the page and here's a lesson. (T17)

I thought they were great. They were my bibles. . . . I'd been out of Primary for so long, that it got me back into exactly what the children needed to learn and what the developmental stages were. I'd been so used to trying to adapt my program to higher age children, that when all of a sudden they told me I was going to have a Grade 2, the first thing I went to was these books last summer. . . . So, it made it a lot easier to start teaching Grade 2 again. . . . I needed a refresher and it was all in there, exactly how to do it. (T7)

c. School Literacy Meetings

Teachers who participated in the in-service program were also expected to attend literacy meetings at their school between the professional development workshops. Five of the six school administrators who participated in the workshops with the primary-level teachers indicated that they attended these school meetings; one of these administrators added that he did not attend every meeting to avoid inhibiting the staff. The sixth administrator remarked, "I don't attend division meetings. I attend classrooms" (P9), but monitored teachers' attendance at the meetings.

Descriptions of each school's literacy meetings are provided in Appendix I. A summary of data pertaining to these meetings, based on a consensus from participants within each school, is provided in Table 6.
Table 6
Summary of School Literacy Meetings

<table>
<thead>
<tr>
<th>School</th>
<th>Frequency</th>
<th>Leader</th>
<th>Agenda for readings</th>
<th>Readings discussed</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>weekly</td>
<td>principal (first meeting only), then teachers</td>
<td>no</td>
<td>yes</td>
</tr>
<tr>
<td>B</td>
<td>weekly or monthly (no consensus)</td>
<td>principal (first meeting only), then teachers</td>
<td>no</td>
<td>yes</td>
</tr>
<tr>
<td>C</td>
<td>monthly</td>
<td>vice-principal</td>
<td>no</td>
<td>yes</td>
</tr>
<tr>
<td>D</td>
<td>no meetings</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>monthly</td>
<td>teachers</td>
<td>no</td>
<td>yes</td>
</tr>
<tr>
<td>F</td>
<td>monthly</td>
<td>resource teacher</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td>G</td>
<td>every two weeks</td>
<td>teachers</td>
<td>no</td>
<td>no&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

<sup>a</sup>Teachers at School G read the materials during the summer prior to the professional development program.

The school meetings on literacy were intended to provide teachers with additional opportunities to enhance and consolidate their knowledge on literacy. While the effectiveness of these meetings varied across the seven schools, teachers generally used the meetings for the following functions:

- sharing and clarifying knowledge of theoretical concepts, strategies, and practical methods gained from reading professional development materials and attending PLP workshops;
- sharing experiences in application of knowledge and skills to classroom practice as well as samples of students' work;
- problem-solving of difficulties experienced while implementing change;
- discussing administrative aspects of the PLP (e.g., deciding what to share with non-participating staff).
d. Difficulties with the Professional Development Program

Although each of the participants perceived some value in the in-service workshops, 24 of the 40 participants indicated that they had difficulty with one or more of the following aspects of the professional development program: (i) time commitment, (ii) frequency of workshops, (iii) content of professional development, and (iv) format of professional development.

(i) **Time commitment.** Twelve of the 30 teachers mentioned that they had difficulties with either the amount of time involved (e.g., attending workshops and school literacy meetings, reading professional development materials, completing assignments), the time of day at which they were required to attend the workshops (e.g., 3:00 p.m. or 6:00 p.m.), or the length of the entire program. One administrator, for example, indicated that her teachers felt that they had learned enough after five workshops; they subsequently became resentful when they were asked to finish the program.

(ii) **Frequency of workshops.** As indicated earlier, teachers in School District 1 attended workshops once a month, while teachers from School District 2 attended workshops twice a month. One of the administrators from School District 1 described the monthly workshops as well-structured and well-paced since teachers were provided with ample time to apply what they were learning in their classrooms. In contrast, a teacher from the same district felt that there was not always time to go into enough depth on each subject. She also felt that there would have been more continuity if the workshops had taken place twice a month (e.g., she sometimes found it difficult to remember the topic of the assignment from the previous session). Two teachers from School District 2 felt that twice-monthly sessions were adequate and indicated that the frequency of the sessions helped keep teachers on track since they were required to bring their completed assignments to each session. As one of these teachers remarked, "It made it a real commitment for the year" (T29).

(iii) **Content of professional development.** Eight of the 40 participants commented that some workshops were less useful to them than others. A Grade 3 teacher, for example, who argued that there is such a wide range of levels from Kindergarten to Grade 3, felt that meetings in which practices for a Kindergarten class were discussed were not useful to her. Similarly, a
Kindergarten teacher felt that discussions that focused on Grades 1 through 3 were not relevant for her. A few teachers contended that it was not necessary to spend so much time covering theoretical material and would have preferred to spend more time finding out about strategies and activities that they could use in the classroom as exemplified in the following excerpt:

Most of what we were interested in was . . . getting ideas that we could actually put into practice. That was exciting. When we were sitting listening to a lot of theory, it wasn't. . . . You can just listen to it for so long. And there was a lot to do. And sitting there at 6:00 after teaching all day long, listening to a lot of theory, just turned a lot of people off. (T20)

Another teacher remarked that she did not see the connection between the theoretical material and classroom practice and, consequently, felt that the material did not have as much relevance for her as she would have liked. However, she added the following remarks:

In the end, I felt that we got a whole picture. . . . We did a lot of sharing amongst ourselves as well as [Dr. Willows] providing materials and ideas for us to use in the classroom which were useful. Eventually we did get to it. (T15)

Seven of the 40 participants complained about repetition of information in the workshops as exemplified by the following excerpt: "Teachers are generally highly organized. They need to be taught in a highly organized way and quickly, just to ask questions as needed and move on once we get it" (T30).

(iv) Format of professional development. Nine of the 30 teachers had concerns about the format of the professional development; however, there was a considerable amount of variance in the opinions. Some teachers, for example, felt that they did not benefit from the small group discussions that occasionally took place during the workshops and preferred listening to Dr. Willows, who, they felt, was the expert. Conversely, a few teachers indicated that they did not learn much by just listening to someone speak and preferred sharing samples of students' work, classroom experiences, and teaching strategies with other teachers.
A teacher from School District 2 argued that the in-service training should be done one school at a time so that all participants would be familiar with the same students. Conversely, some teachers from School District 1 remarked that they enjoyed meeting teachers from other schools.

Some teachers also commented on the number of participants in the workshops. Two teachers, for example, reported that they did not enjoy the first few sessions as there were too many participants and it was either difficult to share or intimidating. They found the sessions that followed much better because there was more opportunity for audience participation and they felt more involved; one of these teachers indicated that she had not understood The Literacy Diet concept until then. Similarly, another teacher thought that she gained much more from the program than a colleague who was in a much larger group.

Other participants criticized the implementation approach (i.e., educating only a team of teachers from each school). A few teachers, for example, remarked that some staff members who did not participate in the program, particularly teachers with many years' experience, were not interested in implementing some of the ideas and activities from the project. Similarly, the administrator who had his entire primary staff attend the workshops argued that the approach is not effective because of the inevitability of staff turnover as illustrated in the following excerpt:

If you're going to get implementation, "train-the-trainer" doesn't work. I don't care what you say. In a transient system like we're working in and the turnover in staff that I have here today, in this building--I'm talking 40 teachers--over 50 percent of them are different than two years ago. So, if I train one or two people and those key people leave, I've got zippety-doo. What a waste of time and effort and funds. (P6)

A teacher who had just started teaching Grade 1 when the in-service program began, and had taught Kindergarten for six years following an 18-year hiatus, indicated that she felt overwhelmed and incompetent while participating in the in-service program. The following excerpt reflects her confusion:

I felt really overwhelmed because... it was my first year teaching Grade 1. It was something completely new to me which I had not heard of before... And I
volunteered to go, thinking . . . maybe I should learn more of what the sort of latest ideas are because, like I said, I hadn't taught Grade 1 for [28] years. Then I found I was too overwhelmed by it all because it was new to me. . . . I found myself trying to adjust to two things at the same time: trying to adjust to Grade 1 again and trying to sort of fit in what I was hearing from . . . to what I had done years ago [when I was] teaching reading and writing in Grade 1 and 2. . . . And I didn't feel comfortable doing that. Because you go to the workshop and you get, say, an idea, and you think, oh, that's a good idea to try. But when I went back to the classroom and tried to fit it into what I was doing already, I found it very fragmented. (T19)

Some of the suggestions that participants made about improving the in-service program and administration of the PLP are provided in Appendix G.

**Summary of Theme 1: Theory into Practice**

As the name of the professional development system on which this research has been based—The Balanced and Flexible Literacy Diet: Putting Theory into Practice implies--its underlying principle was "putting theory into practice." Accordingly, the data has shown that teachers were given several opportunities to put theory into practice during in-service as illustrated in the following two excerpts:

We had the theory and we were given some practical things to do. We had an opportunity to go back [to the school] and try them, and then come back and discuss the application of the theory amongst a number of staffs. (P6)

Part of their homework, I think, was to go back to the school and do something practical with it. That probably was a positive too because it got people to not just sit and not do anything with it. They had to respond to it in some way back at the school. (P2)

Whereas some teachers indicated that they would have preferred to spend less time discussing theoretical material (e.g., Literacy Diet components, stages of reading development) during the workshops, other teachers indicated that they recognized the value in learning theory and, moreover, acknowledged the link between theory and practice. One teacher, for example, who felt that some of the theoretical material that she received during the in-service program was
difficult to read, stated: "It was clear that if we didn't have the background [knowledge], our teaching would suffer" (T30). The following excerpt further exemplifies teachers' recognition of the link between theory and practice:

I think what it made us do was become just aware of what we were doing in the classroom. . . . With the handouts that [Dr. Willows] had given us . . . it was important to see . . . what she was doing and her philosophy or her theory and so on and how we could use that in the classroom. (T14)

Process of Implementing Change Through Professional Development

Two major themes emerged from findings that pertained to the process of implementing change: 7 "catalyst" and "early intervention." The findings from which these themes emerged are discussed in this section.

Theme 2: Catalyst

The two topics from which the theme "catalyst" emerged are indicated in Figure 4. The description of the two topics is followed by a summary of data pertaining specifically to this theme.

Theme 2: Catalyst

- a. Interest in the Primary Literacy Project
- b. The Role of the In-service Facilitator

Figure 4. Topics pertaining to Theme 2: Catalyst.

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7 Although two different processes were involved in this study—the professional development process and the change process—they were actually intertwined as participants were "implementing change through professional development."
a. Interest in the Primary Literacy Project

Eighteen of the 30 teachers and all ten administrators indicated that they were either excited or very interested about participating in the PLP when they first found out about it. The remaining 12 teachers were either apprehensive or indifferent. As the superintendent of schools from School District 1 explained, some teachers felt that their beliefs about literacy education were in jeopardy and did not want to hear how research evidence was challenging the way they had been teaching. Alternatively, some teachers either felt they already had too much on their plate or were concerned that the PLP would become just another abandoned project. One teacher revealed that she had feared she would be "put under a microscope" (T30). The following excerpt exemplifies the attitude of some hesitant teachers:

I don't remember being very enthusiastic [when I was first told about the project]. We had enough on our plates and the [school district] had put us through so many programs then abandoned them. I thought it would be another "bandwagon," something we'd put time in and then it would fizzle out. We didn't need another one. I was also concerned about the time factor since I have a young family. I felt it would just add time pressure, something we didn't need. However, I was curious. I'm always curious about something new. (T30)

Participants discussed four major reasons for their interest in the in-service program:
(i) receiving professional development, (ii) focusing on early intervention, (iii) raising student literacy levels, and (iv) introducing phonics instruction.

(i) Receiving professional development. The opportunity to receive professional development was a strong incentive for some teachers. As one administrator indicated, the PLP provided teachers with an opportunity to receive professional development in direct, systematic instruction. According to another administrator, teachers were motivated by the offer of new professional development materials.

The majority of teachers who were interested in participating in the PLP reported that they had been interested in improving their literacy program and finding out about different strategies and activities that they could use in the classroom. Some teachers had recently started teaching a new grade level and welcomed the opportunity to gain expertise as well as learn strategies that
they could use in their new programs. One teacher, for example, explained: "I was fairly new in Grade 2 at the time, so I was looking for great ideas to use in Grade 2" (T20). The following excerpt from an interview with another teacher who had about 10 years' teaching experience further exemplifies these sentiments:

I was feeling really concerned about my reading program, not knowing what to do with it, not feeling comfortable with what I was doing. I ran down and signed up real fast. I didn't feel that I was addressing the needs of the kids and I didn't feel that I knew what direction to take. I think it was a combination of being at a new level that I hadn't been at, in the Grade 2 level, and the supply of books in the classroom wasn't adequate for what I wanted. I was looking for direction. (T15)

The following excerpt is from an interview with a teacher with about 12 years' experience teaching students with special needs. She had also been looking for direction in developing a literacy program for the regular classroom.

I was really interested because I felt that I didn't have enough background in reading. I'd been out of the system for so long ... I really was rather excited about it because I really felt that I didn't know enough to teach a regular classroom. So, it really gave me the confidence to go into a classroom. (T22)

Three of the ten administrators indicated that they were interested in providing their staff with ways to improve the effectiveness of their instruction in literacy. One administrator, for example, felt that there was a need for professional in-service training and hoped that staff and students would benefit from a consistent teaching approach within the school. Another administrator had always been interested in programs that help teachers become better in their profession.

(ii) Focusing on early intervention. Ten of the 30 teachers indicated that they were interested in focusing on literacy in the early grades and providing their students with a good foundation for future learning. A Kindergarten teacher, for example, who objected to claims that students do little more than play in Kindergarten, indicated that she was interested in having as many resources as possible at her fingertips so that she could give her students a head start in
literacy. Similarly, a special education/ESL teacher, who also saw the need for early intervention, made the following remarks:

I was really excited about it [the PLP] because I saw the need to focus on literacy in the early grades, and I knew that was the focus that [Dr. Willows] was prepared to talk about and address and I certainly knew that it had to be a many-faceted kind of approach. . . . It sounded right to me. It didn't sound like one of these things . . . "here we go again, another idea, another theory." It's sort of a common sense approach. (T23)

Four administrators also indicated that they had been interested in focusing on early intervention in literacy, particularly with children whose primary language is other than English. One of these administrators, who described the school, in which the primary language of 70% of the population was other than English, as a "very needy environment" (P8), felt that all teachers should be aware of good strategies for improving the literacy level of these students.

(iii) Raising student literacy levels. Each of the administrators expressed a common desire: to improve the literacy skills of their students. One administrator, for example, believed that student learning outcomes in literacy would improve considerably through direct instruction.

Some of the teachers also mentioned that they had been looking for strategies to help students who were performing below grade-level expectations. The following excerpt is from an interview with a teacher, with about 15 years' experience, who was teaching a special education class for students with communications difficulties while she was participating in the in-service program:

We had heard that there was a lot of different ideas that we could get to help our children. And we'd heard about [Dr. Willows's] success. And I think that was one of the main things. We'd been working for so many years, especially me in special ed, with children who, all of a sudden, had reached Grade 4 then got put into a special ed class and were turned off reading already at Grade 4. So I was looking for ways that I could work in my special ed class with the children to turn them back on to reading and to get some success so that they could read. (T7)
A regular classroom teacher with about 23 years' experience offered the following remarks:

I wanted a change in how we were approaching our language arts. I had been on the committee for school success, and we had already had testing that we had been evaluating and our principal at the time looked it over and said "Let's try to get these averages up" and we were working on a school profile. So, it was all part of a vision in trying to work with the kids and modify our programming to see that they got better. . . . There were too many children, as far as I was concerned, that were going into Grade 2 without sounds. I had been teaching for a while and I thought there must be a better way to do this. . . . I guess we were ready to try something new. (T11)

Finally, a special education teacher with about 12 years' teaching experience discussed her reasons for participating in the in-service program:

I wanted to participate because I had been doing special education for one year and I thought it would really help my program and give me some good ideas to use. It was originally supposed to be, I think, the Grade 1, 2, and 3 teachers that were supposed to be involved, and Kindergarten, and I asked if I could be involved as well. I had some students who really had not learned to read and were in Grade 3 and it was a big concern. So, I was looking for some ideas to help them. (T13)

(iv) Introducing phonics instruction. Nine of the 30 teachers indicated that they had been intrigued by the opportunity to incorporate phonics instruction into their literacy program. For example, a Grade 1 teacher with about 30 years' teaching experience, who explained that she "came from the old way of teaching reading with basal readers and a structured phonics program," reported that she had been "very anxious to do the in-service" and wanted to "be part of something that would really work" (T5). Similarly, a teacher with about 20 years' experience remarked that she was interested in the PLP because she "could really relate to it, probably better than the young teachers could because they had never had any phonics" (T20).

In the following excerpt, a Kindergarten teacher with about 15 years' teaching experience explains the reasons behind her interest in the PLP:
I felt I wanted to see if there was any different or new ideas that would help with the amount of ESL children that I had. . . . I wanted to get back into some phonics and there wasn't very much push, I would think, on using phonics in Kindergarten. It was almost like a "no" word. You weren't allowed to say it. I wanted to use phonics again because I felt it was important, especially to teach children that are ESL and they don't have a really good model at home teaching them the sounds in English. And some of the sounds we have in English are not even the same sounds that are in their language, so they haven't even heard them before. So, that was important. I taught phonics when I was in [another school district] and it was a big part of our program when I taught Grade 2. (T10)

The impact of introducing phonics instruction on students and teachers is discussed later in this chapter.

b. The Role of the In-service Facilitator

Individual perceptions of Dr. Willows's role in the PLP were fairly congruent throughout the interviews. She was described not only as a facilitator, but also as a leader or co-leader who interacted with the superintendent of schools and the other administrators, a key player, and a "guru of literacy" (T30). The following excerpts illustrate some perceptions of her role in the PLP:

She is the project. Her name is synonymous with it. (P1)

She wasn't coming to us with all the answers, but directing our learning about teaching to specific areas that she was interested in. (T15)

I'm not sure it would have happened without her. I admire her beliefs that all kids can learn to read and write. She doesn't believe anyone should accept anything less. (T5)

Several participants also mentioned specific aspects of Dr. Willows's role. The following aspects were mentioned most frequently:

1. Eight participants discussed Dr. Willows's role in relation to research, either as an investigator or as a "presenter of theory" (T30). One teacher, for example, reasoned that "this was her research" (T9). An administrator who described her as a "director of research" also
noted that she "set the stage with history" (P4). Another teacher commented, "She gave us the theory behind it . . . She broke it down into terms we could understand" (T19). Several people referred to The Literacy Diet when they discussed this aspect of her role.

2. Six participants referred to Dr. Willows's role in making teachers aware of excellent resource materials and strategies that they could use in the classroom. One teacher, for example, described her as "a person who had a wealth of knowledge" and added, "We could put our hands on it through her" (T7).

3. Eight participants remarked on her role as a catalyst for change or an instigator who "got the ball rolling" (T14).

4. Each of the teachers in School District 2 remarked on Dr. Willows's capacity for encouraging them to think for themselves as illustrated in the following three excerpts:

She made people think. She brought everything back together after she made them go out and think. (T28)

[She was] just [a] facilitator. She had us do most of the work. (T27)

She got us thinking. She never gave us the answer . . . made us talk about it and share ideas. (T29)

As indicated in Figure 5, 28 out of 39 participants did not feel that similar outcomes could have been achieved if a teacher or administrator within their school had assumed her role.
Figure 5. Participants' perceptions whether similar outcomes achievable with teacher or school administrator as in-service facilitator. Total number of applicable participants: 39 (i.e., 30 teachers, 9 school administrators).

Some of the reasons for participants' perceptions that similar outcomes would not have been achieved if a teacher or school administrator had been the in-service facilitator are described below:

1. Nobody within the school had as much knowledge and expertise, either research or clinical. As one administrator remarked, "She could settle the debate on whole language and phonics. Her expertise and desire to improve teaching helped teachers buy into the fact that phonics may be required to teach some students" (P5). A teacher who referred to Dr. Willows's networking experience made the following remarks: "She has spent her life investigating literacy and is an expert in her field. An administrator wouldn't have done this. She can 'train the trainer,' but the first plateau will benefit the most" (T26).

2. Since her name was recognized, she held the title "Dr.," and she was affiliated with the Ontario Institute for Studies in Education of the University of Toronto, Dr. Willows had a great deal of credibility according to a teacher. An administrator felt that her credibility was enhanced further when she presented findings from various research studies and showed videotapes of effective teaching in literacy.
3. Someone from outside the school--"a new face . . . new ideas" (T2) -- was needed to provide in-service training. One teacher, for example, remarked that they needed an outsider to tell them that the whole language approach may not work for all students and that it was all right to teach phonics. The following four excerpts illustrate this perception:

It's hard to take consistent teaching from a colleague. (T28)

Teachers think that principals don't know anything about pedagogy. (P2)

Teachers are very hard on each other. It's hard to do things in front of a colleague who is a teacher. (T16)

Because it had administrator support, it was more powerful. If a teacher or other staff had done it, it wouldn't have had anywhere near the impact. (T15)

In contrast, some participants felt that an individual from their school could have led the in-service program. One teacher, for example, remarked, "Often teachers are the best in-service to each other. Teachers have seen your kids somewhere and have tried something that works with them" (T1). However, most of the individuals who felt that a colleague could have facilitated the program qualified their response by stipulating that the facilitator would need to have either the same amount of knowledge or the same type of expertise as Dr. Willows.

Summary of Theme 2: Catalyst

Some of the findings in this section indicate that the PLP was timely for teachers and administrators who knew that change was necessary and may have needed a catalyst to facilitate it. Some administrators, for example, reported that they were pleased that they had been provided with the opportunity to implement changes in literacy education at their school. One administrator felt that the PLP would help let teachers know what needed to be changed as well as provide an impetus for them to move ahead and implement changes. Moreover, administrators generally hoped that the project would lead to improvement in the general literacy level of their students so that their performance could be favourably compared against external
standards, such as the performance of students on the province-wide tests that were being conducted by the Educational Quality and Accountability Office (EQAO).

Some administrators, who had already been implementing changes in literacy programming when the PLP was introduced, found that the PLP complemented and extended their efforts by providing their staff with theoretical knowledge, which included a framework for applying this knowledge (i.e., The Literacy Diet), as well as practical knowledge. One teacher, for example, reported that the PLP came along during a 3-year initiative to improve the literacy levels of their students. Similarly, another school had been replacing the traditional approach of teaching reading by grade level with reading initiative groups in which students were placed according to their stage of reading development. The administrator, who had been examining various literacy programs (e.g., Reading Recovery), felt that the PLP would help achieve the goal of improving the literacy levels of all students throughout the school as well as provide a wonderful opportunity for the staff to receive professional development as illustrated below:

I saw that it was something that would fit into what we were already doing. So, it was just going to complement what we were already under way of doing. It became an opportunity to get staff development for a program where we were devising a reading initiative to improve the reading of all pupils in the class across all the grades. (P6)

In addition to precipitating and complementing changes in literacy programming, the PLP also seemed to precipitate changes in relationships among staff members. One administrator reasoned, for example, that the in-service program "provided a conversation for staff about meeting [students'] needs" (P1). According to some teachers, this type of conversation might never have occurred without the program because of their busy schedules. Similarly, another administrator reported that the in-service program had made work easier as it had provided teachers with a common philosophical approach to literacy instruction; consequently, teachers and administrators had gained a basis for communicating at various meetings, particularly meetings conducted by the Identification, Placement, and Review Committee (IPRC) regarding exceptional students. Moreover, this administrator felt that the experience had encouraged collaboration as illustrated in the following excerpt:
I think one of the important parts of the whole process was that it made us form a team. You know, we had to come together, we had to work as a team. . . . And you often want to do these things. You might have all the best intentions in the world, but unless somebody . . . [encourages] you to do it, it doesn't happen. So, it provided that structure. (P4)

This particular administrator also felt that the PLP had provided teachers with a framework for developing their individual growth plan and, at the same time, had encouraged them to focus their plan on literacy as illustrated in the following excerpt:

The other thing that helps this whole process is that in [this school district], every teacher is required to have a personal professional growth plan in place. . . . And that is the foundation of our teacher evaluation process. And the personal growth plan has to be directly related to your school success plan. Part of our school success plan is a good literacy program. So it's a fabulous opportunity for teachers to say, "Okay, for my personal growth plan, I'm going to concentrate on the area of literacy and this is how I'm going to do it." And, for example, the teacher that I'm thinking of at [my former school] who was concentrating on literacy decided that her professional growth plan was going to evolve out of the guided reading focus. . . . If our school success plan is a focus on literacy and numeracy, then you're going to have every teacher with a specific plan in place as to how their teaching practice is going to impact on student learning in those areas. And part of the growth plan is that they have to prove it. They have to prove that what they're doing is having an impact on student learning. So, part of it is how [you are] going to assess student learning; how [you are] going to make sure that growth is taking place. (P4)

Some PLP participants actually regarded Dr. Willows--rather than the project itself--to be the catalyst that precipitated change. As indicated earlier, for example, the superintendent of School District 1 said that he had approached Dr. Willows about professional development because of his concerns about student achievement in literacy. He remarked: "I knew I was going to turn things around. I know about implementation and reading and writing instruction standards. I used [Dr. Willows] and she used me. I needed a catalyst" (S1). Similarly one school administrator said that Dr. Willows was a "real catalyst for change in how we teach
reading as a school; not just as an individual teacher but as a school" (P2), and a teacher referred to her as a "catalyst for ideas" (T30). Similar perceptions are provided below:

She empowered us to do things that we might not have ever tried. (T30)

She told us we needed to do something. She had seen lots of children who weren't good readers and writers, and their programs weren't nutritious. (T4)

She gave us a different perspective on what was happening in classrooms. You could say that it's obvious, but it really isn't. We hadn't been thinking this way before. (P4)

**Theme 3: Early Intervention**

The theme "early intervention" emerged through analysis of participants' perceptions regarding the process of implementing change in the classroom. The topics discussed in this section are indicated in Figure 6 and are followed by a summary of data pertaining specifically to this theme.

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<thead>
<tr>
<th>Theme 3: Early Intervention</th>
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<tbody>
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<td>a. Implementing Change in the Classroom</td>
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<tr>
<td>b. Reduction in Number of Special Education Referrals</td>
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<tr>
<td>c. Difficulties Implementing Change</td>
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*Figure 6. Topics pertaining to Theme 3: Early Intervention.*

**a. Implementing Change in the Classroom**

Many of the teachers who participated in this study made comments of the following nature: "I looked at how I could make my program more efficient" (T30). In fact, six teachers reported that they revised their entire literacy program while participating in the project. One of these teachers stated that she had changed her whole approach toward teaching literacy after learning about The Literacy Diet. The following excerpt illustrates another teacher's experience:
I don’t know how many times that year I changed my daily schedule around. Must have been six times throughout the year that I kept changing the way I was doing business, so to speak . . . because my learning was changing all the time, my understanding of it all . . . . And the following year, it continued. And because of my desire to do a better job at that [grade] level, because I think it is so crucial . . . I kept working until I found something that really seemed to make a difference and work. (T19)

Some teachers also mentioned that their expectations of their students' abilities had changed once they saw what their students were capable of doing. They expected their students to write longer stories, for example, as well as use letter-sound knowledge when writing. One teacher, for example, said: "I think I have better success every year. I keep improving my program and increasing my expectations" (T26). The following excerpt provides another example of how teachers had changed their expectations:

Children come to our school with very little [background knowledge]. We didn't expect them to read as well, but now our standards are higher. And using this way, or this system, this program from Kindergarten on makes them better readers earlier (T11).

Responses from teachers on ways that they changed their literacy programs while participating in the project were grouped into seven subcategories: (i) changes to literacy activities, (ii) balanced literacy instruction, (iii) increased structure, (iv) more effective use of time, (v) student grouping, (vi) new reading materials, and (vii) modeling.

(i) Changes to literacy activities. Most teachers reported that they had added one or more new activities to their literacy program. One teacher, for example, said that the in-service program helped her increase the amount of variety in her program. Of the four new activities that were mentioned most often--phonics activities, guided reading, Making Words, and Word Wall--phonics activities were mentioned most often. Whereas most of the teachers who mentioned phonics had never included it in their literacy program before the PLP was initiated, others said they had changed the way they were teaching phonics (e.g., more systematic approach; new order in which letter-sounds were introduced based on Jolly Phonics program). A Grade 1/2 teacher reported that her phonics instruction had become planned rather than incidental. A
Kindergarten teacher, who used to teach only the letter names and the sounds of initial consonants, reported that she had been instructing her students to write stories themselves instead of writing for them once she started incorporating letter sounds into every lesson. Similarly, a teacher who was teaching a Grade 1/2 class said that she no longer wrote in students' journals but had them write in them instead. Another teacher indicated that she had been asking students to sound words out as she composed a story with the whole class.

Several teachers mentioned that they had incorporated games into their literacy programs. One teacher, for example, reported that she had developed 10 different literacy games as well as posted a chart of 20 activities from which students could choose. Another two teachers reported that they used their students' stories as material for some of their activities. Four teachers mentioned that they were doing story completion activities with their students (i.e., teacher reads part of a story and then students write an ending for it).

(ii) Balanced literacy instruction. According to the superintendent of schools, teachers were being encouraged to use a balanced approach to literacy instruction and make adjustments as necessary to meet the needs and learning styles of individual students, particularly those of LD students. Consistent with this goal, eight of the thirty teachers reported that they had tried to make their literacy program more balanced by adding more Literacy Diet components. One of these teachers remarked, "I feel that the program really covers all the bases, covers all the modalities. I'm giving them an opportunity to learn language in different ways and [through] a greater variety of experiences than they had before . . . [so they] can get a hold of what they need to know" (T15). A teacher who had been teaching Grade 2 students during the implementation year reported that she had introduced non-fiction on a daily basis to increase her students' world knowledge. A Grade 3/4 teacher, who reported that thorough planning helped her use her time more effectively, reported that she and her colleagues were typing their day plans as well as adding much more detail to them to make sure that nothing was left out from their program. Another teacher reported that she had been incorporating instruction on writing conventions into story writing; previously, she merely brainstormed ideas with her students, then asked them to write a story.
The following excerpt further exemplifies teachers' attempts to provide more balanced programming:

I guess probably the thing I found most beneficial was looking at my program and seeing [if it] was balanced because I realized that it wasn't, basically. I hadn't been thinking about that. And it forced you to look at all the various components and make sure that you're not just focusing on one or two in particular. And I think the thing, too, was the emphasis on real reading and real writing as opposed to a lot of worksheet variety types. (T17)

Fifteen of the 40 participants discussed the benefits of a balanced, multi-faceted approach for at-risk or special needs students. A Kindergarten teacher, for example, noted that "The Literacy Diet covers everything. It doesn't leave anything out. So, if some kid doesn't get it, there's a problem that needs to be addressed" (T28). Similarly, another teacher said "The basics are emphasized. That's what at-risk students don't have. These are things that have to be addressed first of all. The program is so varied that there's got to be something there to help them" (T15).

(iii) Increased structure. Nine teachers reported that they had made activities such as spelling, story writing, phonics, and reading much more structured, that is, they were using a more systematic approach with more direct instruction instead of expecting students to somehow grasp new concepts. As one teacher explained, for example, "Previously, we just expected the students to get this. It wasn't spoken out loud" (T1). Another teacher stated, "I like structure and I think that the kids like it too. That's what's good about this" (T5). A third teacher said that there used to be more "helter skelter; now there's rhyme and reason" (T29). A teacher who had about 30 years' experience reported that she had put structure back into her program as a result of her participation in the project and reported that the all the work she did at the beginning of the project, such as preparing charts for her classroom, saved her a great deal of time in planning and preparation. A fifth teacher said: "I follow a definite format now. There's not as much guesswork" (T27).

Many teachers mentioned that at-risk and special needs students were benefiting from the concrete strategies and activities, such as Making Words and Word Wall, that they had been
using since the project started. A special education/ESL teacher, for example, reported that her students were benefiting enormously from using tools such as a tape recorder for reading aloud, big books, and story plans. Another teacher commented that students who have difficulty creating structure for themselves were benefiting considerably from a literacy program that provides structure for them.

(iv) More effective use of time. Twelve of the 30 teachers mentioned that they had been using time allocated to literacy more effectively and had changed their day plans accordingly. Many teachers, for example, indicated that they were using the first part of the morning, often described as prime learning time, for literacy instruction. One teacher, for example, reported that she had moved art, music, and drama to the afternoon so that she could devote the entire morning to literacy. Some teachers reported that they had increased the total amount of time that they spent on literacy. One teacher, for example, reported that she had doubled the amount of time she spent on literacy. Another teacher reported that the administrator at her school had requested teachers to reserve one quarter block of each day for reading time.

Several teachers, indicated that they had been trying to plan each moment of the day and make sure that each activity had a purpose (i.e., promoting literacy learning). One teacher for example, stated, "We use our time wisely now. Every moment has a purpose. Even free time is very structured. . . . There is a reason for everything that we do now and the kids know it" (T26). Similarly, another teacher reported that she had been asking herself the following questions: "Now what exactly am I teaching here? Is it just decoding? That's not enough" (T23). A third teacher, who reported that she used to "do a lot of frill, cute stuff" (T30), reported that she had started questioning whether students really needed to do a particular activity. "You don't want to waste students' time or your own time. You make the most of every minute that you spend with the students. If you plan well, you use your time well" (T30). Accordingly, she had decreased the amount of time spent on marking work during class. Instead, she was meeting with five students each day to monitor their progress (e.g., listening to them read; looking at their writing). She also suggested that students were making her accountable for what she was doing by referring to her daily agenda on the board, and that she no longer taught any lessons in isolation;
instead, each lesson was related to another aspect of literacy. Similarly, a fourth teacher indicated that she no longer expected students to line up at her desk to get their work marked.

In keeping with their attempts to use time more effectively, several teachers reported that they had either eliminated or reduced time spent on activities that did not directly pertain to literacy instruction. One teacher, for example, said that she had no longer gave worksheets to her students and had been focusing instead on real, authentic reading and writing. Another teacher indicated that she no longer asked students to read to the rest of the class during literacy time as she realized that the activity was not "nutritious." Similarly, two teachers mentioned that they had reduced the amount of time that they spent reading to students. A Kindergarten teacher reported that she had eliminated the snack table and let students each take their snack during activity time instead in order to make better use of their time. Similarly, her students selected the books that they would take home that day as soon as they arrived instead of during a group activity.

Seven teachers mentioned that they significantly reduced or deleted time for playing. A Kindergarten teacher, for example, whose program used to be more play-based, had her students choose a literacy activity for play time. Similarly, another teacher indicated that her students had been selecting a literacy activity once they were finished their work, rather than play a game that was not literacy-related. Another six teachers said that they had either eliminated or reduced the amount of time spent on artwork. A Kindergarten teacher, for example, indicated that she started encouraging students to write words instead of just drawing pictures, and a Grade 2 teacher reported that she had changed her chalk, paint, and magic marker centres into literacy centres.

Eight teachers reported that they either deleted "show and tell" or modified it so that the whole class would benefit from the activity (e.g., sharing stories that they had written or a book that they had read; placing an item in a bag and answering questions about it; incorporating letter sounds into a guessing game). Similarly, most teachers who still used show and tell reported that they had been allowing only one student per day to do the activity.

The following excerpt portrays one teacher's experience in changing the content of her literacy program:
[Dr. Willows] had us look at our programs and try to improve the quantity of literacy. I eliminated time-wasting activities and came up with some activities on my own. I made drawers of games, like Fish using high frequency words, Concentration using science themes, and Bingo using letters and blends. (T26)

(v) **Student grouping.** Teachers at each of the schools reported that they had changed the way that they were grouping their students for literacy instruction. When the in-service program started, teachers at School A had just assessed their students and placed them in small "reading initiative" groups, according to their stage of literacy development, for teaching structured lessons in vocabulary, writing, silent reading, and oral reading; as a result of their participation in the project, the staff had created "phonics" groups as well. According to teachers, reading instruction was no longer "hit and miss" (T11). Instead, teachers were able to ensure that they were teaching all of the skills to all of their students.

Teachers had also been grading reading materials by level of difficulty so that students were provided only with books that were suitable for their stage of development. A few teachers mentioned that they eventually found it necessary to re-grade the books due to the remarkable progress that students were making as exemplified in the following excerpt:

When we first started the program, we got all our books out and we labeled them... low ones, mid ones, and high ones. Now, because the children are doing so well, the levels have changed. The books that we considered a "mid" may be now a low, and a high is now a mid; it's all shifted. We find that we have more children in the mid-to-high [level] than the low [level]. (T4)

Teachers at Schools C, D, F, and G also reported that they were placing their students into reading groups according to their stage of literacy development as well as grading reading material by level of difficulty. One teacher remarked that independent reading had become less prescriptive: students were given more choice instead of being told what to read.

Some teachers, especially teachers at Schools B and E, reported that they had been using a non-ability approach for grouping students known as the Four Blocks approach (Cunningham, Hall, and Defee, 1998) which is another way of implementing balance. With this approach, time
allocated to literacy instruction is divided among four blocks: (1) guided reading (children read individually, in pairs, or in small groups with teacher support); (2) *self-selected reading* (children choose what they want to read; respond to what they read in individual conference with teacher; (3) writing (teacher models writing process; children help edit teacher's writing); and (4) "working with words" (i.e., activities such as Word Wall and Making Words). Teachers had found that this approach, in which all students in the class were doing the same thing simultaneously, helped students understand what was expected of them throughout the day, and had eliminated time-consuming rotations between activities as well as noise disturbance from groups who were working on a different activity. Some teachers indicate that they had modified the approach to suit their individual needs. A teacher at School F, for example, reported that although she did not schedule blocks of time on a daily basis, she made sure that all four areas were covered over a period of a week.

(vi) *New reading materials.* Many participants reported that they started purchasing new reading materials for their students once they realized that some of the materials that they had been using were inappropriate. A teacher who had been teaching Grade 2 during implementation year, for example, reported that she realized that she needed more books that were meant to be read by her students rather than to them (e.g., large print, high interest/controlled vocabulary). Similarly, most teachers mentioned that they had started providing their students with books that were appropriate for their individual stage of literacy development. Several teachers mentioned that they had acquired a large assortment of books that the students could take home and read with their parents. One administrator indicated that his staff had purchased over one thousand new books.

(vii) *Modeling.* Nine teachers reported that they had been modeling the writing process for their students rather than expecting students to just start writing. One teacher, for example, modeled how to think aloud during writing so that students would think about what they are doing as they wrote. Another teacher reported that she involved students by asking them to help her edit something that she had written on the board.
b. Change in Number of Special Education Referrals

Although most participants said that they did not know whether the number of referrals for special education had changed since the PLP started, some participants felt that it had increased while others felt it had decreased (see Figure 7). One teacher, for example, reported that she was referring only one or two students a year, whereas she used to refer five to seven students each year. She also pointed out that the size of the support staff at her school had decreased, and wondered if the change was due to a decrease in the number of referrals. Another teacher indicated that although she was probably referring the same number of students per year, her ability to provide information about each student that she referred had improved.

![Figure 7](image.png)

Figure 7. Participants' perceptions of change in number of special education referrals since implementation year. Total number of applicable participants: 39 (i.e., 30 teachers and 9 school administrators).

Some of the participants who felt that the number of referrals had increased qualified their responses with the following comments:

1. The community had become more needy than it was five years earlier.
2. Many referrals were for students who were relatively new to the school and consequently may have not benefited from the project for the same length of time as their peers.

3. Teachers had become more knowledgeable about the potential difficulties that students may have.

4. Students with reading and writing difficulties were being identified earlier since the project had started.

c. Difficulties Implementing Change

Twelve of the 30 teachers reported that they had encountered some type of difficulty in implementing changes to their literacy program. Most of their difficulties were in the following areas: (i) time constraints, (ii) adjustment to a new program, (iii) LD students, and (iv) lack of appropriate reading materials.

(i) Time constraints. The most common difficulty reported by teachers was lack of time; eight teachers discussed it at length. A Grade 2 teacher, for example, felt that she had to rush through Making Words, while one of her colleagues complained that some of her students missed story writing activities when they were withdrawn by the ESL teacher. A resource teacher revealed that she used to try to do too many things at one time, while another Grade 4 teacher found it particularly difficult to get all students to make good use of their time. Some teachers also complained about the amount of time that was involved in implementing change. A Grade 2 teacher, for example, who found the initial preparation of materials very time-consuming, was worried that she would have to do the work all over again once she started teaching a different grade.

One of the most popular concerns was how to provide a balanced literacy program without taking time away from other subjects such as art, physical education, and music. This difficulty had been exacerbated recently since the school district expected mathematics to be the focus of attention. A Grade 1/2 teacher, for example, indicated that expectations in all areas of the curriculum had become so intense that she was having increasing difficulty creating a balanced educational program, let alone a balanced literacy program, and argued that she could not spend all of her time on The Literacy Diet at the expense of other subjects. In the following excerpt, a special education teacher reflects on her timetabling difficulties:
We've had a lot of changes, a lot more demands being put on us. And in the last few years, and even now, there's more things being placed. . . . We still had environmental studies units we were required to do, and now we have the new math curriculum. . . . It was fitting everything in. It was between the time that you had, and then if they were out for gym and then they were out for music. Sometimes it's just squeezing it all in. And I know that [Dr. Willows] had talked about that in her sessions, about timetabling, and that's the big thing. . . . with the very young children, that whole issue of "Do they need to be doing more of this in the morning?" (T1)

The superintendent of schools empathized with teachers about their concerns regarding time constraints as indicated by his comments: "They had competing demands: new curricula, math, science, the new report card. Also, how much in-service can teachers take? It is very difficult to integrate all these demands" (S1).

Some of the participants who complained about difficulties with time also offered some positive remarks about the process of implementing change and maintaining a balanced literacy program. A Grade 3/4 teacher, for example, remarked that although she found it difficult in the beginning to find enough time to create a program which covered all of the components of a balanced Literacy Diet, she had learned to integrate a few components into each lesson, as well as to prioritize and adjust the balance once skills were acquired. She emphasized that teachers must realize that they cannot cover everything in one day. Despite their difficulties, one administrator felt that each of the teachers had the basis for a strong literacy program, and that the PLP had placed them in a good position for meeting the requirements of the Ministry of Education's new curriculum while maintaining the focus on literacy.

(ii) Difficulty adjusting to a new program. Three teachers mentioned that they had experienced difficulty adjusting to a new program at first. A Kindergarten teacher, for example, remarked that she moved slowly when she started using the Jolly Phonics program as she was "not sure [the children] were getting it" (T12) and was skeptical about whether the techniques would work. Once she saw the progress that her students were making, however, she moved faster. Another teacher, who was teaching Grade 1 students during the implementation year, offered the following comments:
These are wonderful ideas if all children would do what they are supposed to be doing at the right time. There were some that were so busy moving [the Making Words letters] around, they weren't listening to what you were saying. ... Anything new, until they were sort of really into the routine, they kind of attended [to] everything but the main idea. ... But eventually they'd click in. But I think it takes a while to kind of get this novelty. ... And then you're thinking, boy, they say in the book 10/15 minutes! It doesn't seem to take 10/15 minutes sometimes. (T1)

(iii) Difficulty helping LD students. Another concern voiced by seven participants was meeting the needs of all students, particularly students who were severely LD. One administrator, for example, was concerned that although teachers were obviously reaching many students through their literacy programming, there were some students who were still not responding to their efforts. This administrator was concerned whether they were using the right approach with these students and reported that they were addressing this issue. Similarly another administrator was concerned about a small group of students that seemed to have poor phonemic awareness despite teachers' attempts to help them through a variety of strategies.

Teachers were also concerned that the project was not helping students with learning disabilities. One teacher, who had 10 years' experience, reported that some LD students, who had received three years' instruction using the Jolly Phonics program and were being withdrawn for help from the special education teacher one-half hour per day, were making very little progress. The other teacher, who had approximately 25 years' experience, felt that students who were reading and writing at grade level or above were benefiting most from the project, while LD students were "not getting it" (T20). Conversely, another teacher, who had about 11 years' experience, felt that "maybe something will click for students with reading difficulties" (T10). Similarly, a teacher with about nine years' experience felt that LD students were just as capable of learning to read and write as their peers.

Another three teachers felt that their difficulties in meeting the needs of special needs students were exacerbated by problems in the home environment, such as parental separation and the transient nature of the community. One of these teachers expressed her frustration with parents who do not provide any support for their children in learning to read and write. Another
teacher noted that most of the students who really needed direct instruction did not come from literacy-rich home environments. A Grade 2 teacher found it difficult to use some of the practices with students who had behavioural problems as they were difficult to teach. She also found it difficult to do activities such as Making Words in a classroom of students who are all at different stages of literacy development. Consequently, she was able to do certain activities only with her lowest achieving students. Similarly, she found it difficult to keep the rest of the class on task while she was working with a small group.

The following excerpt from an interview with a Grade 2 teacher shows how she tried to meet needs of students at different stages of literacy development:

I found that some kids really needed a lot more work than other kids did. I started doing it with the whole class and I had to go down to the smaller groups for specific areas. Like with the phonemes, it was only the combinations that the better kids needed. . . . I repeated [the single letter sounds] with the lower level kids. (T15)

(iv) Lack of appropriate reading materials. Two teachers felt that insufficient resources had been allocated for new reading materials within their respective schools; both teachers mentioned that they had to resort to their own finances in order to acquire new books. As a result of the lack of variety in reading materials that existed when the project started, according to one of these teachers, students were sometimes exposed to the same books when they moved from one grade to the next. Her perception of the problem is further illustrated in the following excerpt:

When you change the approach and you want these specific types, and you want to address all these areas, it takes a while to build a collection up. And a lot of teachers, myself included, think we've made the mistake of purchasing our own and owning a lot of what is in our rooms. And when you go, they [the reading materials] go. (T1)

Summary of Theme 3: Early Intervention

The most salient theme that emerged when the data on implementing change were analysed was "early intervention." Many participants reported that there had been a much greater focus on early intervention throughout the whole school district since the PLP was
initiated. The following excerpts exemplify some perceptions concerning the importance of early intervention:

Early literacy. I believe it fits with anybody. It even fits with the current government, even though they're cutting funding, cranking up class sizes. (P6)

Literacy instruction for early learners is vitally important here because there are so many new Canadians. (P1)

Some participants recognized that early intervention was intrinsically related to students' motivation for literacy. As one teacher argued, for example: "Get them interested early, then they will be interested for life!" (T3). Two Kindergarten teachers had similar perceptions as illustrated in the following excerpts:

I believe that you're always learning. You're learning all your life. But I believe... that the younger that we can get the children and teach the children, that the quicker and the more volume that they will learn. And I particularly think that it's important in Kindergarten, because it's the very first year that they start school. And if you get them started on the right foot, if you give them the confidence, the ability to take risks, and the joy of learning, then you're going to have a child who enjoys school and wants to learn and be successful. (T8)

[The in-service program confirmed] that Kindergarten wasn't too young to start this. I mean, you didn't have to be in Grade 1 to learn how to read and write. ... What you do in Kindergarten is important, and the sooner you can start to teach them literacy skills, the more successful they're going to be. (T28)

A special education teacher reported that the staff at her school had become more aware of the importance of early intervention as a result of the PLP. Similarly, one of her colleagues, a Grade 1 teacher who stated "we're looking for kids earlier" (T3), attributed teachers' ability to identify special needs students to their increased knowledge about literacy development.

According to the administrator of this particular school, exceptional students were being
identified earlier due to the combined effects of the PLP and an ongoing assessment program that was part of another research project.

Since literacy education had been starting earlier, students who were experiencing difficulties were being identified earlier and subsequently receiving additional help sooner (i.e., Grade 1 instead of Grade 3 or 4). As a special education teacher remarked, "If kids are still struggling by Grade 1 [their second year of school], then you know there's a real problem" (T1). Similarly, a Kindergarten teacher said: "The Literacy Diet covers everything. It doesn't leave anything out. So, if some kid doesn't get it, there's a problem that needs to be addressed" (T28).

While some participants felt that the number of special education referrals had increased, others felt that it had decreased. Various factors could have been related to a decrease in the number of referrals. First, there may have been fewer automatic referrals of ESL students for assessment or remedial help as teachers had learned to recognize that these children may simply be experiencing difficulties that are inherent in learning a second language. Second, teachers may have become more proficient at identifying the needs of all students who experience difficulties. Finally, teachers had been introduced to many different early intervention strategies that could be used with special needs students, thereby reducing the need for intervention.
Context for Implementation of Change

The context in which teachers transferred the knowledge and skills that they had gained to classroom practice is presented in this section. Two key themes emerged when data pertaining to context factors were analysed: "administrative support" and "teamwork."

**Theme 4: Administrative Support**

Data pertaining to administrators and their role in the PLP are described in this section (see Figure 8), followed by a summary of data pertaining specifically to the value of "administrative support."

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*Figure 8. Topics pertaining to Theme 4: Administrative Support.*

**a. Strategies for Gaining Participants' Interest**

The perceptions described in this section apply only to the seven administrators who participated in the in-service program during the implementation year (i.e., not the three administrators who participated in the program with junior-level teachers the following year).

The superintendent of schools indicated that he did not experience any difficulty in getting the school administrators in his unit "on board" as illustrated in the following excerpt:

It wasn't very hard to get principals to envision as to what it is they would like to see. So, "What is it we want for our kids?" is pretty easy to get at with committed professionals. Then to take a look at the data that we had--how are the students actually functioning--then to take them through a series of activities that would breach existing paradigms and mythology that exist in North America with respect to literacy. . . . I created, with my
people's consent—they knew where we were going and why—a malleable mind-set, so the nonsense that "you can't teach immigrant kids," many of the myths were dispelled, and then we proceeded to design a plan of action that would involve first of all them knowing what implementation consisted of—it's not an esoteric set of skills, it's time-consuming—and then the actual plan in terms of a literacy project itself based on research as opposed to private opinion. (S1)

Although school administrators were receptive to his plans, the superintendent of schools provided various "perks" such as professional development books for each participating teacher. Whereas funding for resource materials would generally be taken from school budgets, he allocated these personally from district resources.

The administrator who initiated the PLP in School District 2 spent an entire year preparing teachers for change before the in-service system was implemented (e.g., making them aware of the need for change, providing them with literature pertaining to literacy, pre-testing students and subsequently sharing the results, inviting Dr. Willows to speak to them). Fortunately, the primary grade teachers in that school felt that they had not received adequate training in literacy instruction during their pre-service training and were receptive to the plan. The administrator described the beginning stage of the project, however, as a period of stress because teachers felt pressured to change. To alleviate their feelings of stress, the administrator initiated a morning "coffee clutch" which provided them with an opportunity to discuss their frustrations. The teachers gradually became excited about changing the curriculum, and these gripe sessions eventually ended on a positive note as they shared positive aspects of the project with each other.

As discussed in the background to this study, school administrators were instructed to recruit a team of volunteers to participate in the PLP. While many teachers were eager to participate, most administrators reported that they had to use various strategies to encourage interest and involvement from some of teachers. Furthermore, some administrators even found it necessary to mandate participation. One administrator, for example, found that teachers were resistant and "polarized in terms of their ideas on how things should be done," and had difficulty maintaining their interest after the first few workshops (P8) as illustrated in the following excerpt:
This is called a little bit of top down. It was basically "You have to do this. . . . Literacy has to be addressed. . . . You're good teachers but you need to know more information about how to run a good literacy program, and just doing it the old way of osmosis and just writing . . . doesn't do it. They need phonemic training. They need a lot more specific strategies. . . . We're in this. We're committed. We've already received the resources, so we have a professional commitment here to see this through. Nobody quits. End of story. (P8)

Anticipating that time spent training only some of the staff would be wasted because of inevitable staff turnover, another administrator, who was also faced with some resistance, "made sure that everybody went and everybody sat down, and that way, no matter who left, I was always left with a strong core" (P6). This administrator elaborated further on this decision in the following excerpt:

There's two types of motivation. There's intrinsic--those who want to be there and want to do it, and they will go and do it and they will be leaders, [and] there's those who will go along because the crowd seems to be going that way. And there's those who are going to dig in their heels. If everybody had to hear the message even if they're digging in their heels, then they can't snipe the others because they heard the same message, and they can't say that isn't true because they heard it. And therefore it nullifies the sniping. They snipe at the principal for making them go, not at the program. And therefore you don't damage the program. And it's the program that counts. (P6)

On the other hand, this particular administrator--whose vision, according to one of the teachers, was to "make our school great" (T11)--also felt that involving his teachers in planning and development would motivate them as indicated in the following excerpt:

We sat down as a group and said "These are our scores. What will we do to make them better?" And then [we] did a lot of reading, looked at all the different types of research, what programs were successful. . . . The primary goal we were looking at was what would improve the reading of all students, not just those at risk. . . . What program was best for that, to improve it for most students? (P6)
Another administrator, who argued that top-down strategies do not work with teachers, felt that administrators must include teachers in their plans to implement change and respect their personal views if they want their cooperation.

One administrator indicated that teachers were hesitant about the PLP at first as they were skeptical about a long-term commitment by administrators. Furthermore, according to the administrator, teachers felt that they were being evaluated on the way they were currently teaching literacy and were concerned about participating in a program that might involve phonics instruction. First, this administrator tried to help the teachers get beyond what they saw on the surface and see the merits of a balanced literacy program, and then reminded them that their students had performed poorly two years consecutively on assessments that were being conducted throughout the school district. Eventually, teachers were motivated to participate in the in-service program. Furthermore, they were informed that they had a clear commitment from the superintendent of schools and the in-service facilitator for a long-term project.

b. The Role of Administrators

Perceptions regarding the importance of the school administrator to the success of the PLP appeared in many places throughout the data. The superintendent of schools, for example, stated that "the principal is a critical person in the implementation process" (S1). As illustrated by the following excerpts, his viewpoint was shared by other participants as well:

The principal and vice-principal were very interested in implementing [the PLP]. (T8)

No one really cared about what we were doing in the [Kindergarten] classroom before this all started. And then once the literacy thing got started, [the vice-principal] was very involved. (T28)

I'm a big proponent of direct instruction. This had a big impact on the staff. I just needed to keep inspiring them. (P9)

I think that without an administrator . . . [who is] a curriculum leader, it's a very difficult thing. I mean, they can support the program, but if they're not interested, I don't
know what happens over time. I think the work has to come from people like [Dr. Willows] working with administrators and teachers. (P3)

The following facets of the school administrator's role in the PLP were highlighted in the data:

- participating along with teachers in the in-service program,
- facilitating collaboration within the school as well as sharing with teachers at other schools;
- providing teachers with adequate resource materials and release time;
- endorsing phonics instruction;
- following up professional development to ensure implementation;
- contributing to teachers' professional development;
- encouraging leadership;
- assessing student learning outcomes in literacy on an ongoing basis;
- acknowledging teachers' accomplishments.

The superintendent of schools in School District 1 also played a very important role in the PLP. In addition to initiating the project within his district, he was actively involved in the project in various ways, such as participating together with teachers and school administrators in the in-service program and organizing a major early literacy conference—at which Patricia Cunningham, author of Phonics They Use: Words for Reading and Writing (Cunningham, 1991) and co-author of Classrooms That Work: They Can All Read & Write (Cunningham & Allington, 1994), was a keynote speaker—and asking teachers to make presentations. While school administrators were responsible for ensuring that the teachers in their school were actively applying concepts and activities from the project, the superintendent of schools "kept on top of the principals" (S1) by visiting the schools and talking to principals and teachers to monitor implementation or to find out whether his intervention was needed. Moreover, he actually modeled a literacy activity for teachers together with one school administrator over a four-month period. Although this level of involvement by an area superintendent in a literacy initiative is unusual, it apparently had a positive impact on teachers' perceptions regarding the importance of
the project. One administrator suggested, for example, that teachers were motivated by the fact that the project was a field office initiative. The superintendent was equally cognizant of his own influence as illustrated by the following remark that he had made at a conference for superintendents: "I am the critical piece in implementation across a large number of schools. . . . I never felt that I wasn't making a difference" (S1).

The superintendent of schools met monthly with all of the school administrators who were involved in the PLP so that they could share what was working in their schools (e.g., book bag program) and discuss budget procedures. Although principals were responsible for their own budget, the superintendent periodically reviewed each school's budget, checking to make sure that sufficient funds had been allocated for literacy (e.g., "Have you set aside money for . . .?" or "How are you planning to complement . . .?"). As he argued, "It was important that we provided a core of resources that allowed people to use the skills that they had been presented immediately. . . . Every cent of my school support money went to literacy" (S1). In turn, he was required to provide school district trustees with details about the project so that they could appreciate the progress reports that they were receiving periodically from the school administrators.

c. Weak Administrative Support

Unfortunately, not all administrators were viewed by their staff as supportive. Teachers at School D were quite candid, in fact, in their perceptions about lack of administrator support during the PLP. The following excerpt illustrates one teacher's perceptions about the former administrator of her school:

Our former principal was very much in favour of it, but we were much more on our own to do it. . . . Not that [he/she] wasn't supportive. . . . more laid back and we were sort of on our own. [But] I think it's nice sometimes to know you've got someone there pushing you a little bit. Not too much. (T1)

Her colleagues' perceptions, on the other hand, were much more negative. One former teacher, for example, who attributed the administrator's lack of interest to upcoming retirement,
remarked that the administrator did not offer any direction regarding the PLP, provided little funding toward new reading materials, and did not seem to have any real expectations that teachers would actually implement the practices that were discussed during the workshops. Another former teacher, who reported that "there was a lot of buzz around the school, some positive and some negative" (T20), felt that the lack of leadership and direction from the administrator was typical of the climate which existed at the school (i.e., a non-collaborative culture). Similarly, a third teacher, who felt that she gained little from the in-service program, said: "I think the problem was that we didn't take it a step further; we didn't follow up [between workshops] at our school" (T9). She attributed the lack of school literacy meetings to poor follow-up by the administrator (i.e., not checking to make sure that teachers were meeting or benefiting from the workshops) and added that once the administration changed, teachers started receiving release time for meetings. Moreover, she announced that she would not participate in a project like the PLP again unless there was good administrative support.

**Summary of Theme 4: Administrative Support**

According to the superintendent of schools, "the biggest endeavour [in an initiative to implement change] should be to change the principal" (S1). Accordingly, he made certain that all school administrators participated in the professional development program together with their staff. "It was important that the principal or vice-principal, but preferably the principal, be involved in the in-service with the training group and attend each of the follow-up sessions in the school" (S1). Many administrators also recognized that it was important for them to attend all of the workshops, not only to receive the same education as teachers and keep on top of what they were doing, but also to show their support for the project and remind teachers of their continued interest. One school administrator, for example, who suggested that teachers were generally skeptical and concerned about anything that was mandated by the superintendent, felt that the administrators' interest and participation in the project promoted teachers' interest because of their own credibility. Moreover, according to this particular school administrator, the superintendent's active involvement in the project may have precluded resistance from the teachers.
Similarly, administrative participation was one of the most salient forms of support for teachers as exemplified by the following two excerpts:

I wasn't really sure what we were getting into. There was a commitment from the superintendent and from the principal, and it seemed that everybody was jumping on the bandwagon. And I was very reluctant to jump on the same bandwagon until I found out about it because, you know, in this business things come and they go. . . . We were told [to participate]. . . . [However] I remember certainly being curious. I knew if it got all the administrators excited, well, hey, maybe there was something to it. And I knew that [Dr. Willows] had made presentations to the [administrators]. (T6)

The administration was included [in the in-service program]. The fact that the principal was there and on the same wavelength sure helped. [He/she] knew what was going on. [He/she's] very good at redirecting discussions and getting to the point . . . covering all the bases. And [he/she] could be supportive in our attempts to do whatever because he/she understood it. (T24)

Another important function of the school administrator's role was administration of the PLP. In addition to providing teachers with release time so that they could meet to discuss various aspects of the project (e.g., planning literacy programs), school administrators supported teachers by providing adequate funds for resource materials (e.g., reading materials, games). As one administrator argued, "Change happens the minute you announce it. All I do is make sure the announcement gets fulfilled. . . . You make sure that any resource that's needed is there and it's sitting on their desk" (P6).

Administrators also monitored teachers' performance. One administrator, for example, had been comparing classroom results of student assessments (i.e., pre-tests and post-tests) and meeting with teachers individually if there was no indication of improvement in student literacy outcomes. Another administrator had been monitoring teachers' performance through their long-range plans that were supposed to include descriptions of teaching strategies and student assessments.

The following excerpt from an interview with a school administrator sums up some of the predominant perceptions of the qualities of a supportive administrator:
You need to have strong administrative support. I think administrators need to attend all the meetings when you're having in-service. They need to provide all the resource material that the teachers need; you cannot function without the resources. And your role is simply to be supportive, to be the facilitator of the change. If time is something that the teachers need, provide time for them so they can meet; you do that through your timetabling. They have to be very much involved in supporting the teachers throughout the entire process. (P3)

**Theme 5: Teamwork**

In this section, participants' perceptions regarding the amount and type of collaboration that occurred at each of the participating schools during the implementation year are presented (refer to Figure 9), followed by an summary of data pertaining to the theme "teamwork" that emerged from the data.

<table>
<thead>
<tr>
<th>Theme 5: Teamwork</th>
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<td>a. Collaboration During Implementation Year</td>
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*Figure 9. Topic pertaining to Theme 5: Teamwork.*

**a. Collaboration During Implementation Year**

In addition to attending the school literacy meetings that were supposed to take place regularly between in-service workshops, teachers at some schools met periodically to make joint decisions on issues such as programming, purchasing and grading new reading materials, and grouping students. Some participants indicated that the PLP had actually fostered collaboration within their school while they were attending the in-service program.

Descriptions of the collaboration that occurred among staff during the implementation year are provided below. These findings represent the perceptions of participants who were still situated at the same school since the implementation year as well as participants who had moved from the school. Although there was some variability in their responses, these perspectives represent the majority of participants at each of the schools.
School A. The former principal indicated that teachers were given time in addition to staff meetings so that they could meet to plan programs and prepare materials (e.g., books graded by reading level, flash cards, homework). One of the teachers reported that literacy was also discussed after school and during lunch-time. Another teacher noted that teachers often shared their experiences with each other and added that she collaborated constantly with the other two teachers with whom she shared space.

School B. The administrator remarked that the primary grade teachers had always been collaborative and continued to work together as a team throughout the project (e.g., they worked together to present information to the rest of the staff). Furthermore, they often made suggestions and subsequently put them into action (e.g., putting up Word Walls in every classroom).

The teachers also reported that they frequently shared their experiences with each other. One teacher, for example, mentioned that she looked forward to presentations by other participants during grade level meetings to learn about things that they had tried in their classrooms. A special education teacher mentioned that she occasionally shared ideas and made suggestions for the regular classroom teachers. Similarly, an ESL teacher said that she collaborated with regular classroom teachers daily and emphasized that they worked together as a team. The fourth teacher at this school, however, reported that although she often discussed concepts and shared materials with teachers who worked in the same classroom location as her, she collaborated less frequently with the other teachers.

School C. The former vice-principal reported that in-service participants were constantly collaborating throughout the project, either while chatting in the staff room or the hallway, sharing information and resources, or visiting each other's classrooms. The administrator also noted that teachers took ownership for providing in-service to the rest of the staff and showed a consistent commitment to sharing the knowledge that they had gained.

Most teachers also indicated that they collaborated a fair amount during the project. An ESL teacher, for example, reported that teachers spent a considerable amount of time working together at the beginning of the project organizing students into reading groups, acquiring and grading new reading materials by level, as well as making book bags which students used for
carrying home reading materials. She also mentioned that she became actively involved as a member of one of the "school success" teams, whereas she had not collaborated much with the other teachers previously because of her role as an ESL teacher. One teacher, however, indicated that she found it difficult to collaborate with teachers who were not participating in the program as they were mature teachers with their own philosophies on literacy instruction.

Although teachers shared experiences and ideas with their colleagues during the year in which they were trained, they collaborated in a more organized manner the following year when they formally implemented the "Primary Initiative" throughout the school. During monthly primary division meetings, teachers who had participated in the in-service program led discussions on various literacy topics and assigned readings.

**School D.** Four of the six participants who were interviewed remarked on the lack of collaboration that existed during the project. According to one teacher, for example, literacy was not discussed at the staff meetings. Moreover, as indicated earlier, there were no literacy meetings at the school between the in-service workshops. A former teacher remarked that she had no idea at the time what took place in a special education classroom, and that teachers generally worked independently except to select new guided reading materials and "snuggle up" books (i.e., books that students took home to read with their parents). She also felt that there had been a lack of consistency in teaching methods used throughout the school. Another former teacher attributed her perception that "everyone sort of worked on their own" (T20) to the small size of the school, with not more than one to one-and-a-half teachers per grade. Similarly, two other teachers suggested that collaboration was limited because there were not enough teachers to have grade level meetings. One teacher, for example, recalled that she had felt isolated as the only Kindergarten teacher and had wanted to talk with colleagues so that she could gain more from the workshops.

Conversely, two of the teachers at this school felt that they had collaborated a fair amount during the project. One of these teachers remarked that since they shared reading materials, they also shared their perceptions of the materials as well as ideas about activities for their students. She also recalled talking with colleagues during car pools to the workshops. The other teacher
felt that teachers gave each other a great deal of support during the implementation year and often discussed their perceptions of the project.

**School E.** The former school administrator felt that teachers did not collaborate with each other enough during the implementation year, although teachers in some grade levels collaborated more than others. One teacher reported that collaboration increased the following year (after the administrator moved to another school). According to another teacher, participants were excited about the project and discussed their experiences during lunch-time or after school during the implementation year. Similarly, they worked together on various tasks such as organizing their "tub system" of books.

**School F.** Each of the teachers who were interviewed at this school mentioned that they collaborated in ways such as ordering and subsequently sharing new resource materials as well as chatting informally about the project during lunch-time. One teacher felt that the project had stimulated collaboration (e.g., teachers used to talk whenever they were trying a new strategy). Another teacher reported that the staff collectively organized the guided reading program during the year following the in-service program. A third teacher, however, mentioned that while teachers shared materials, they planned their programs independently.

**School G.** According to the former vice-principal, teachers at this school were very collaborative and willing to share. This administrator also reported that the PLP had actually been a catalyst in fostering collaboration: Teachers met weekly and sometimes more often to work together on almost everything from planning their literacy programs and changing their timetables to preparing materials for the classrooms. The administrator felt that teachers became enthusiastic and excited about change as a result of the project, and talked often about curriculum which "drives the school" (P3).

Four of the five teachers interviewed also reported that they collaborated with each other frequently during the implementation year, particularly within grade levels; the fifth teacher explained that she did not have the benefit of working with colleagues who were participating in the in-service program as she was teaching at another school at the time. One teacher reported that she and her colleagues had always been particularly collaborative and added "I think our school is unique in this sense" (T26). As an example, she said that teachers made group
decisions about which activities they were going to use and, moreover, saved time and paper by making enough materials to share with each other. In addition, they shared samples of their students' work with each other, modeled samples lessons, discussed their experiences with various activities that they had tried in their classrooms, planned programs together, and tracked student writing progress in order to monitor which activities were most successful. This teacher felt that one of the reasons for the cohesiveness within the primary division was that the chair of the division, whom she described as inspirational, was a very good leader and "motivator" and was sincerely interested in helping others improve professionally.

A Kindergarten teacher also mentioned she shared the workload with the other Kindergarten teacher (e.g., making two charts at once, picking up twice the amount of materials). She even reported that she arrived at school at 7:00 a.m. each day to plan with her colleague. Another teacher mentioned that teachers often shared their experiences either during lunch-time, recess, or in the hallway.

**Summary of Theme 5: Teamwork**

Data pertaining to teacher collaboration showed that teamwork was a very important aspect of the project. Many participants indicated that collaboration among teachers had increased as a result of the PLP. At one school, for example, teachers reported that they had never planned together before the PLP started. As one teacher recognized, they "became unified as teachers" (T30) as a result of the project. Similarly, a special education teacher at another school suggested that teachers had become much more inclined to work together as a team in helping students who experience difficulties as illustrated in the following excerpt:

And even the time collaborating with staff [during the workshops] ... that was beneficial, because we just don't get time to do that. I mean it's just go, go, go from the time we get here at a quarter past eight 'til the time you leave at five and it's just go, go, go. . . . Because when we came back, we would have the meetings, and it made us sit down and talk about literacy as individual teachers, as grade levels, and then as a primary division. (T14)

The next two excerpts also illustrate the impact of the PLP on teacher collaboration:
I think that one of the important parts of the whole process was the fact that it made us form a team. You know, we had to come together, we had to work as a team, and we also had to plan for how we were going to share this information back at the school. (P4)

It's a small school. Grade 1 is right next to the Kindergarten, Grade 2 is on the other side, and there are three pods in a row. So there is a lot of talk, but it was more academic talk now than there ever used to be. It was definitely an academic focus and sharing of things that worked. If I find something that works and I'm excited about it, I want to share it with other people to help the kids. And I think a couple of other teachers who were in the in-service felt the same way. So, talk did increase. (T18)

One teacher, who was supply teaching at School G when teachers first found out about the PLP and then subsequently attended the in-service program while working at a non-participating school, felt that the experience was not as fulfilling for her as it was for her colleagues who had plenty of opportunities to collaborate with each other while attending the training program:

I felt a little bit cheated when it actually started because they were going every second week to the session and then they were working together... I didn't have that input of having your colleagues doing it as well and being able to hash things out and say "Let's try this" and "How's it going?" So, that's one thing that I really missed and that's one reason why I wanted to get back to [the school at which I supply taught] because I knew everybody was on board there with it and I really did miss that. (T29)

Another valuable outcome of the PLP, according to teachers and administrators, was increased consistency in teaching practices throughout the primary grades. Many teachers felt that the project had "pulled everybody together [onto]... the same wavelength" (T20) since they had all read the same professional development materials and were expected to follow similar practices. Furthermore, as some participants indicated, parents seemed pleased that their children were exposed to the same type of program throughout the school.

In addition to helping teachers understand each other's motives, increased consistency in teaching practices had provided staff and administrators with the following benefits:
• stronger incentive for joint planning;
• better team teaching as teachers shared a common understanding about students' needs and how to meet them;
• common philosophical approach to literacy instruction that could be used at all staff meetings.

Students seemed to be benefiting from increased consistency in the following ways:

• smoother transition between grades;
• stronger foundation for skill acquisition.

The next three excerpts reflect teachers' recognition of the importance of the increased consistency within the primary division:

As a school, we all got on the same wavelength, so that we were all being consistent. I think that was an important part as well, that we were all becoming aware of each other's types of programs and working together. (T14)

So that all your primary kids up to Grade 3 are getting the benefit of the [same] programming, or at least to Grade 2 anyway: Kindergarten, Grade 1 and 2. Certainly the organization of the day and activities for writing and word structure and stuff like that they could use all the way through, but [also] just the basic phonics and the basic introductory reading and writing programs for the early primaries. (T21)

What I'm finding is that because we're all on the same wavelength now, we're teaching the same things and so the kids, I think that they are making better gains, not necessarily because I'm the teacher, but because we're all doing word making, and we're all doing guided reading. So we all know where each other is coming from, so the programs are more consistent. . . . In Grade 1, they really feel that the kids have made far greater gains than they would have otherwise because we are all doing the same thing. We're working on the same Word Wall words, and we're working on the same sounds, and doing the same thing for the sounds. (T22)
Some teachers remarked that lack of consistency could have a negative impact on student learning. One teacher, for example, who felt that the PLP had made only a moderate impact on the general literacy level of students at her school, felt that staff turnover had interrupted continuity from one grade level to the next. Similarly, another teacher, who felt that the PLP had made a fairly strong impact on the general literacy level of students at her school, suggested that it might have been even stronger if all teachers had been following similar practices.

**Impact of the Primary Literacy Project**

In the final section of the findings, three themes pertaining to the impact of the professional development program on students and teachers are examined: "teacher self-efficacy," "confirmation," and "sustainment."

**Theme: 6 Teacher Self-efficacy**

The findings from which the theme "teacher self-efficacy" emerged are described below (refer to Figure 10), followed by a summary of data pertaining to this theme.

**Theme 6: Teacher Self-efficacy**

a. Changes in Students  
b. Changes in Teachers  
c. Changes in Administrators

*Figure 10. Topics pertaining to Theme 6: Teacher Self-efficacy.*

**a. Changes in Students**

Teachers and administrators indicated that they had observed several changes in students since the PLP started. Data pertaining to these changes were grouped into the following subcategories: (i) achievement in literacy, (ii) motivation, (iii) classroom behaviour, and
(iv) advantages for PLP students.

(i) Achievement in literacy. As indicated earlier, a substantial proportion of the student population within the District 1 schools had been achieving low scores in literacy testing. The superintendent for these schools made the following remarks during his interview: "I knew I was going to turn things around [when I arrived 13 years earlier]. I know about implementation and reading and writing instruction standards. . . . I personally know how kids should perform" (S1). According to him, the PLP had made a very strong impact on the general literacy levels of students in the schools that participated, and reading and writing levels improved dramatically: "We impacted on thousands of kids, hundreds of teachers. . . . In terms of any measure, these kids do well. There is no question regarding their success" (S1). His convictions were confirmed three years after the conclusion of the in-service program when he found out that the EQAO test scores of the Grade 3 students in his area were "right up there" (S1).

Apparently, his convictions were shared by most of the other PLP participants. Each of the seven school administrators who rated the impact of the PLP on the general literacy level of students at their school felt that it was either fairly or very strong; the mean rating by administrators was 4.5 on a scale of 1 to 5. One administrator, who stated "I see better readers" (P9), reported that students had been experiencing greater success than expected and that there used to be many more students "who just don't get it" (P9) before the project was initiated. According to this administrator, only students with severe emotional problems were not showing improvement. Similarly, another administrator stated that "this really works with our kids" (P7). A third administrator made the following remark:

We were a high risk school. We were all at risk. The kids were curriculum damaged. They hadn't been taught to read. Our marks in the literacy project went up appreciably. We were no longer at risk. The small group that was taken by the [special education] teacher, they were actually all reading [by the end of the year]. So, the skills and strategies that were taught were beneficial to the so-called at-risk kids that were parceled out through the IQ process for special attention and special education, They all benefited. . . . There's strong research that shows that these kids that are in [special education] classes, the majority of them don't really improve and sustain improvement over time. (P3)
The overall perception of the teachers was similar. 27 of the 30 teachers rated the impact of the project as either fairly or very strong; the mean rating by teachers was 4.4 on a scale of 1 to 5. Furthermore, each of the 21 teachers who compared their current students with those that they had taught before the PLP felt that current students were performing better. A resource teacher, for example, who had taught Grade 1 for six years, reported that graduates from the Grade 1 class seemed to be stronger each year. Similarly, another teacher remarked: "Literacy should be taught so that all kids can be successful. I think this program has done that. . . . All the kids are having some success now. . . . These kids are definitely further ahead" (T5). Only one teacher, who worked with ESL students, felt that poor reading comprehension continued to be a weakness of many students at her school, and, accordingly, felt that the project had made only a moderate impact. A second teacher, who felt that the PLP had made a moderate to fairly strong impact on student achievement, suggested that staff turnover had interrupted continuity for the students at her school, while a third teacher had noticed a fairly strong impact on writing, but had not noticed a significant improvement in reading ability.

Regular classroom teachers (i.e., all teachers except support staff) were also asked to indicate how many of their current students were reading at, below, or above grade-level expectations. A summary of their responses is provided in Figure 11 which indicates that a greater proportion of students were reading and writing at or above grade level than below grade level three years following the in-service program according to regular classroom teachers. While some participants based their perceptions regarding student achievement in literacy on informal observations, other participants had found that students were performing well on tests. Three administrators, for example, reported improvement in norm-referenced tests scores since the PLP started. Similarly, a teacher reported that Grade 3 students had been performing better on EQAO testing. Some teachers also reported that students were performing better on informal diagnostic tests. One teacher stated: "The testing shows that they're doing reasonably better. We're getting to the hard-to-reach kids" (T1).
Teachers discussed improvements in many different literacy skills. The following skills were mentioned most frequently: phonemic awareness, letter-sound connections, decoding, sight word recognition, fluency, spelling, and writing conventions. Many teachers also indicated that students were writing more than previously (i.e., longer pieces of written work) and expressing themselves more creatively. Several teachers attributed improvements in student achievement to the multi-sensory approach of teaching letter-sound connections through the Jolly Phonics program. As one teacher stated, this program was providing students, particularly those who experience difficulty, with extra tools for learning how to read and write. Another teacher indicated that "incorporating phonics has raised the level of written expression" (T17). The superintendent of schools indicated that he had observed students helping each other learn letter-sound correspondences with this program.

Some participants mentioned that students were acquiring literacy skills earlier and faster since the project started (i.e., in Kindergarten). As a result, teachers were able to introduce more difficult concepts to their students at a younger age than previously. One administrator, for example, reported that most Kindergarten and Grade 1 students knew all of the letter-sound
connections, whereas only one-quarter to one-third of these students knew them prior to the initiation of the project. Moreover, some Kindergarten students were learning how to blend sounds into words. Kindergarten teachers felt particularly rewarded that their students were going into Grade 1 as "beginning readers and writers" (T8). One Kindergarten teacher, for example, made the following observation: "Children are much more prepared. They know what reading is about, and are at the reading readiness stage by Grade 1. In Grade 2, teachers don't have to do as much prep work because kids have a better foundation" (T28). Another Kindergarten teacher reported that students were able to work much more independently (e.g., more attempts to write independently without giving up; less pretend reading and more attention to print) than students that she had taught previously. The following excerpt illustrates the feelings of accomplishment that the Kindergarten teachers were experiencing:

A feedback that I get from the staff is that they can't get over how the Kindergartens know their sounds. When they come into Grade 1, they seem to know their sounds far better than they did previously. . . . Some of them didn't even know the alphabet [before the project started]. . . . These kids are definitely further ahead. (T12)

Teachers working with students in Grades 1 through 3 also remarked on the improvements in student achievement that had been occurring since the PLP was initiated. One teacher felt that most Grade 1 students were writing better than Grade 2 students that she taught before the project started, and a Grade 2 teacher reported that many of her students did not have letter-sound correspondence knowledge and were reading only basic words such as the names of colours before the project started. Another Grade 2 teacher remarked that she used to feel that students did not learn anything in Kindergarten and Grade 1. The following two excerpts were taken from interviews with teachers who had been teaching either Grade 1 or Grade 2 since the PLP was initiated:

I think most of us . . . are really getting into the early literacy, like really spending a lot of time teaching the kids reading and writing. . . . We really focus on the Grade ones and even Kindergartens. In Kindergarten, they're learning sounds—the phonics sounds—which they didn't do before. When we get them in Grade 1, most of them know a lot of sounds. (T3)
When you start off in September, it's like a ball rolling slowly, and as the year goes on, it just seems to gather speed because they learn so much more and so much quicker now and complete things faster. It's just wonderful to see. (T4)

Some participants also talked about the positive impact of the project on the ESL population within their school. One administrator, for example, felt that teachers were seeing very good results with ESL students who were "finally getting it" (P8). Similarly, a Kindergarten teacher, who remarked that she had been observing more and more improvements each year, reported that several of her ESL students were reading early readers, and a Grade 2 teacher reported that ESL students had been reading increasingly difficult text. An administrator remarked on the positive effect of the change in student grouping (i.e., by level of literacy development) on the self-esteem of these students, particularly because they were being moved up to the next level as soon as they showed some progress and, more importantly, no students were being singled out through this approach. This administrator also felt that the project had helped put the needs of these students into perspective: ESL students were no longer being automatically referred for special education, and were observed instead for a period of time before they were referred. Similarly, a Kindergarten teacher noted that teachers were better able to determine whether written language difficulties were based on a student's lack of ability to make associations between symbols and sounds or on the difficulties inherent in learning a second language since all students were being taught letter-sound connections at an early age. She also argued that the number of special education referrals should be decreasing as teachers are realizing that many of the students who would have been referred previously are simply experiencing ESL difficulties and will eventually catch on. Similarly, another Kindergarten teacher argued that ESL students can be just as successful in literacy as students whose first language is English as long as they are strong in their first language because letter-sound correspondence knowledge does not depend on English vocabulary knowledge.

The following excerpt summarizes the attitudes of these participants regarding the needs of ESL students:
We have an ESL population and we have kids from disadvantaged backgrounds. These used to be reasons why people would say the kids could not be literate. We have proven them wrong: They can read as well as or better than kids whose first language is English. (T30)

(ii) Motivation. As one administrator stated, "it is critical that [students] look at reading and writing as positive things right from the start" (P4). Consistent with this belief, while students were successfully acquiring strategies for reading and writing, their motivation for literacy and self-efficacy were also improving according to teachers. Many teachers reported that students seemed more eager to attempt to read and write, were more confident about their abilities, and seemed to feel good about themselves because they could pick up a book and read it. One teacher, for example, reported that she was hearing comments such as "this is easy" more often than "I can't read." Another teacher reported that students had shown greater interest in written material (e.g., "What does that say?") A third teacher commented that students seemed excited about learning to read and write, and that none of them seemed "turned off" (T23).

Several teachers also mentioned that students were taking greater risks such as attempting to sound out unfamiliar words. Some teachers remarked that their students liked getting homework and were proud of the finished product. According to one teacher, students were more interested in reading because there were more enjoyable reading materials available to them as well as a variety of ways to let them express themselves. Another teacher attributed their excitement about literacy to new activities such as Making Words. A third teacher felt that students' motivation for literacy had increased since teachers had started encouraging independence in reading (i.e., letting them choose what they want to read), thereby allowing them to develop their own interests. Many teachers attributed student confidence to their increased letter-sound correspondence knowledge.

The following excerpts further illustrate teachers' perceptions of the project's impact on student motivation:

I found my kids were able and willing to do as much as I asked. (T26)

They're finding great satisfaction in being able to read and write. They write reams. (T11)
They'll read anything. They'll read labels, names of books that you might be holding in your hand for some reason, signs. They're constantly reading. You show a video, the title comes out, everybody is reading it. They read everything, or they try to decode it. Before, they would just sit there and the teacher would be the one saying "this says so-and-so." (T4)

Certainly having a background with the Jolly Phonics has encouraged the children to write with more confidence in that they will actually put down their thoughts on paper using their sound-symbol knowledge that they develop and not [say] "I can't write." Most children envision themselves as being capable of writing. I think that has to go hand in hand with the idea that you encourage real writing and getting your thoughts down. (T17)

The students are very enthusiastic. They come in and say, "Are we learning a new word list?" "I know my words." "I know my sounds." The first thing they do on Monday, they want to know what the new sound is. . . . They're so proud they can read the words on the Word Wall. . . . They're proud that they can write their own stories. You see them actually attempt them even without me. There's more enthusiasm, I think, because they're more successful. (T12)

(iii) Classroom behaviour. Several participants had observed many positive changes in classroom behaviour. According to the superintendent of schools, "successful students behave better and enjoy learning" (S1). One of the administrators, who reported that students were more focused, confirmed the superintendent's claims regarding student behaviour and also reported fewer discipline problems. The Kindergarten teacher who had introduced "work time" during which the children were required to sit down and complete some work before playing noticed improvements in students' self-discipline, and reported that students were eager to show her their work once it was completed. Another Kindergarten teacher remarked that students seemed much more independent as well as more aware of classroom routines and time management. Another teacher had observed that students were more on task.

(iv) Advantages for PLP students. Several teachers discussed the advantages for students who had been at a school involved in the PLP since Kindergarten compared with students who had arrived at the school in Grade 1 or later. Moreover, some of these teachers noted that
students who started school in junior Kindergarten were even further ahead. An ESL teacher remarked that she had also noticed differences between classrooms of participating teachers as some of them "had not bought into it as well" (T24).

Many teachers attributed the differences between students to the letter-sound connection knowledge that students were acquiring in Kindergarten through the Jolly Phonics program. As one teacher remarked, "Even in Grade 1, they are definitely superior in skills" (T29). Similarly, another teacher remarked, "Newcomers to the system are always far behind, regardless of the school or socioeconomic status they came from" (T26). The next two excerpts further illustrate this perception:

I'm not a phonics fanatic. It's like a pizza. That's one slice of the pizza and it's a very worthwhile one because it really does give them tools to work with. I certainly don't overwork phonics; it's just one part of the whole pizza. But you can really notice the difference. When you get a new child into your classroom during the year who hasn't been exposed to that sort of structured sound-symbol program, you can just see the difference in their writing. They just have more difficulty. And when you give something like a diagnostic sort of test... the kids who have had the Jolly Phonics have a better score. (T18)

I think they have more phonetic awareness. It's very noticeable when we get children transferring in from another school board or another area in the board who haven't had this experience. It's soon very apparent that they don't have the sound-letter association that the children coming from our Kindergarten [have]. (T19)

b. Changes in Teachers

Teachers reported that they had (i) they had gained knowledge pertaining to literacy, (ii) their teaching had improved, and (iii) they had used their newly acquired knowledge to teach other subjects. Each of these topics is discussed below.

(i) Increased knowledge. Teachers noted that they had gained knowledge in areas such as the stages of literacy development; the key components of a balanced literacy program; the major areas of difficulty underlying children's problems in reading and writing; identification of at-risk and special needs students; planning, classroom organization, and time management; and
assessment of student achievement in literacy. The following excerpts illustrate teachers' feelings about their increased knowledge:

I discovered that language arts has numerous components. I was missing these. (T26)

It made me think a lot more about what I was teaching, why, and how. I was lacking the why and how. Now I feel more comfortable. (T22)

I learned a lot about how kids become literate. I understand the process a lot better now. (T18)

Kids are learning more because I know more about what to teach them. (T15)

As explained in the Methodology, PLP teachers were asked to define the 19 components of The Literacy Diet to which they had been introduced during the professional development program three years earlier (refer to Table 2). When the scores (i.e., ratings using a scale of 1 to 5) of their definitions were compared with the scores of Haig's (1999) Control Group teachers (i.e., teachers who had not received professional development) to determine whether learning had taken place, their overall understanding of Literacy Diet components was significantly greater (i.e., there was a significant difference in their mean total scores across all Literacy Diet terms), \( t(37) = 5.57, p < .001 \).\(^8\) Furthermore, there was not a significant difference between the mean total score for PLP teachers (Experimental Group 2) and the mean total score for teachers who were interviewed by Haig immediately after they received similar professional development from the same in-service facilitator (Experimental Group 1), \( t(37) = .07 \). The results of these two analyses show that (a) teachers who participated in the PLP in-service program had a significantly greater overall understanding of Literacy Diet concepts than teachers who did not participate in it, and (b) that their knowledge had been sustained over a three year period. Moreover, PLP teachers' ability to describe activities which they had been using to apply the

\(^8\) Although this test was not a strong one because differences between the two groups were not controlled, Haig (1999) had showed that the differences between her Experimental Group 1 and Control Group teachers were not due to either number of years' teaching experience or type of teaching experience. Moreover, Experimental Group 1 teachers actually had less experience than Control Group teachers.
concepts suggests that transfer of learning to the classroom had occurred. The mean total scores across all Literacy Diet terms for each group are provided in Table 7.

Table 7

Mean Total Scores across all Literacy Diet Term Definitions
(Experimental Group 1, Experimental Group 2, Control Group)

<table>
<thead>
<tr>
<th>Experimental Group 1a</th>
<th>Experimental Group 2b (PLP Teachers)</th>
<th>Control Groupc</th>
</tr>
</thead>
<tbody>
<tr>
<td>n</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>9</td>
<td>68.78</td>
<td>(3.93)</td>
</tr>
</tbody>
</table>

Note. The highest possible total score was 95 (rating of 5 for all 19 Literacy Diet terms).

aTeachers who defined the terms immediately after professional development. bTeachers who defined the terms three years after professional development (i.e., PLP teachers). cTeachers who did not receive professional development.

Table 8 shows the results of 2-tailed t-tests comparing the means scores for teachers in Experimental Group 2 (i.e., PLP teachers) and the Control Group on individual Literacy Diet component definitions: PLP teachers were more knowledgeable than Control Group teachers on 11 of the 19 Literacy Diet terms. This finding shows that PLP teachers had a significantly greater understanding of over half of the Literacy Diet terms than teachers who did not receive PLP professional development. The results of 2-tailed t-tests comparing the means scores for teachers in Experimental Groups 1 and 2 for each individual Literacy Diet term are provided in Table 9. The results of one-way ANOVAs comparing the mean score on each individual term for the three groups (Experimental Group 1, Experimental Group 2, Control Group) are provided in Appendix J.

9 The result of the overall ANOVA, which showed a significant difference in the mean total scores for all three groups (Experimental Group 1, Experimental Group 2, Control Group), was $F(2,45) = 16.48, p < .001.$
Table 8

*Mean Scores on Individual Literacy Diet Term Definitions: Comparison of Experimental Group 2 (PLP teachers) and Control Group*

<table>
<thead>
<tr>
<th>Literacy Diet term</th>
<th>Experimental Group 2 (PLP Teachers)</th>
<th>Control Group</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Motivation for literacy</td>
<td>30</td>
<td>4.27</td>
<td>(0.64)</td>
</tr>
<tr>
<td>Concepts of print</td>
<td>30</td>
<td>3.90</td>
<td>(1.12)</td>
</tr>
<tr>
<td>World knowledge</td>
<td>30</td>
<td>4.07</td>
<td>(0.74)</td>
</tr>
<tr>
<td>Word knowledge</td>
<td>30</td>
<td>3.33</td>
<td>(0.92)</td>
</tr>
<tr>
<td>Language development</td>
<td>30</td>
<td>3.07</td>
<td>(0.98)</td>
</tr>
<tr>
<td>Listening/thinking skills</td>
<td>30</td>
<td>3.67</td>
<td>(1.03)</td>
</tr>
<tr>
<td>Sight words</td>
<td>30</td>
<td>3.97</td>
<td>(0.76)</td>
</tr>
<tr>
<td>Phonemic awareness</td>
<td>30</td>
<td>2.77</td>
<td>(1.17)</td>
</tr>
<tr>
<td>Letter-sound associations</td>
<td>30</td>
<td>4.27</td>
<td>(0.52)</td>
</tr>
<tr>
<td>Complex letter-sounds</td>
<td>30</td>
<td>4.27</td>
<td>(0.94)</td>
</tr>
<tr>
<td>Letter formation</td>
<td>30</td>
<td>4.57</td>
<td>(0.50)</td>
</tr>
<tr>
<td>Spelling</td>
<td>30</td>
<td>3.47</td>
<td>(1.04)</td>
</tr>
<tr>
<td>Schema development</td>
<td>30</td>
<td>1.80</td>
<td>(1.06)</td>
</tr>
<tr>
<td>Fluency</td>
<td>30</td>
<td>4.13</td>
<td>(0.51)</td>
</tr>
<tr>
<td>Text types</td>
<td>30</td>
<td>2.53</td>
<td>(1.22)</td>
</tr>
<tr>
<td>Comprehension strategies</td>
<td>30</td>
<td>4.67</td>
<td>(0.55)</td>
</tr>
<tr>
<td>Writing conventions</td>
<td>30</td>
<td>4.60</td>
<td>(0.81)</td>
</tr>
<tr>
<td>Composition strategies</td>
<td>30</td>
<td>3.20</td>
<td>(0.61)</td>
</tr>
<tr>
<td>Written language structures</td>
<td>30</td>
<td>2.10</td>
<td>(0.96)</td>
</tr>
</tbody>
</table>

*p < .05. **p < .01. ***p < .001.
Table 9

*Mean Scores on Individual Literacy Diet Term Definitions: Comparison of Experimental Group 1 and Experimental Group 2 (PLP teachers)*

<table>
<thead>
<tr>
<th>Literacy Diet term</th>
<th>Experimental Group 1</th>
<th>Experimental Group 2 (PLP teachers)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>M</td>
</tr>
<tr>
<td>Motivation for literacy</td>
<td>9</td>
<td>4.00</td>
</tr>
<tr>
<td>Concepts of print</td>
<td>9</td>
<td>4.11</td>
</tr>
<tr>
<td>World knowledge</td>
<td>9</td>
<td>3.78</td>
</tr>
<tr>
<td>Word knowledge</td>
<td>9</td>
<td>2.67</td>
</tr>
<tr>
<td>Language development</td>
<td>9</td>
<td>2.56</td>
</tr>
<tr>
<td>Listening/thinking skills</td>
<td>9</td>
<td>3.67</td>
</tr>
<tr>
<td>Sight words</td>
<td>9</td>
<td>3.89</td>
</tr>
<tr>
<td>Phonemic awareness</td>
<td>9</td>
<td>3.33</td>
</tr>
<tr>
<td>Letter-sound associations</td>
<td>9</td>
<td>3.89</td>
</tr>
<tr>
<td>Complex letter sounds</td>
<td>9</td>
<td>4.44</td>
</tr>
<tr>
<td>Letter formation</td>
<td>9</td>
<td>4.33</td>
</tr>
<tr>
<td>Spelling</td>
<td>9</td>
<td>3.00</td>
</tr>
<tr>
<td>Schema development</td>
<td>9</td>
<td>3.67</td>
</tr>
<tr>
<td>Fluency</td>
<td>9</td>
<td>4.00</td>
</tr>
<tr>
<td>Text types</td>
<td>9</td>
<td>3.33</td>
</tr>
<tr>
<td>Comprehension strategies</td>
<td>9</td>
<td>4.00</td>
</tr>
<tr>
<td>Writing conventions</td>
<td>9</td>
<td>4.89</td>
</tr>
<tr>
<td>Composition strategies</td>
<td>9</td>
<td>3.11</td>
</tr>
<tr>
<td>Written language structures</td>
<td>9</td>
<td>2.11</td>
</tr>
</tbody>
</table>

***p < .001.
As indicated in Table 9, there were no significant differences between Experimental Group 1 and Experimental Group 2 (PLP teachers) for 18 of the 19 Literacy Diet terms. These results suggest that PLP teachers' understanding of Literacy Diet terms was comparable to that of teachers who had received similar professional development three years earlier. Furthermore, they suggest that PLP teachers had retained their knowledge of the terms since participating in the in-service program three years earlier. The only term for which teachers in Experimental Group 1 had a better understanding was schema development which, unlike most of the other terms, is a difficult concept to understand. Since there was no significant difference between PLP teachers and Control Group teachers in their understanding of schema development, it seems that PLP teachers never had a good understanding of this particular concept.

In order to determine whether the number of years that PLP teachers had been teaching had an impact on their knowledge of Literacy Diet concepts, their scores of Literacy Diet term definitions were correlated with number of years' teaching experience. Table 10 shows the correlation between number of years' teaching experience of PLP teachers and their mean scores for definitions of Literacy Diet terms. The only significant correlation was the inverse correlation between number of years' experience and understanding the need for a focus on high frequency sight words. As this correlation was negative, it seems that less experienced teachers have a better understanding about the need for instruction in sight words than more experienced teachers. This result may reflect a greater focus on sight words in recent teacher education courses. Haig (1999), who also found an inverse correlation between number of years in the classroom and understanding of the term sight words, concluded that teachers with more classroom experience do not necessarily have a better understanding of literacy concepts. Similarly, Troyer and Yopp (1990) found that less experienced Kindergarten teachers (i.e., 1 to 5 years' experience) were more familiar with emergent literacy concepts (e.g., phonemic awareness) than more experienced Kindergarten teachers, and subsequently suggested that teachers' actual sources of knowledge were graduate courses and in-service programs rather than direct classroom experience. While only one of the inverse correlations in the PLP follow-up study was significant, the combined results of these three studies—that is, the present study,
Haig's (1999) study, and Troyer and Yopp's (1990) study—provide additional confirmation that teachers need to receive ongoing professional development throughout their career.

Table 10

*Correlation between Number of Years' Teaching Experience and Knowledge of Literacy Diet Terms for PLP Teachers*

<table>
<thead>
<tr>
<th>Literacy Diet term</th>
<th>r</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motivation for literacy</td>
<td>-.18</td>
</tr>
<tr>
<td>Concepts of print</td>
<td>-.13</td>
</tr>
<tr>
<td>World knowledge</td>
<td>-.19</td>
</tr>
<tr>
<td>Word knowledge</td>
<td>-.11</td>
</tr>
<tr>
<td>Language development</td>
<td>-.22</td>
</tr>
<tr>
<td>Listening/thinking skills</td>
<td>-.22</td>
</tr>
<tr>
<td>Sight words</td>
<td>-.52*</td>
</tr>
<tr>
<td>Phonemic awareness</td>
<td>-.05</td>
</tr>
<tr>
<td>Letter-sound associations</td>
<td>.03</td>
</tr>
<tr>
<td>Complex letter sounds</td>
<td>-.17</td>
</tr>
<tr>
<td>Letter formation</td>
<td>.07</td>
</tr>
<tr>
<td>Spelling</td>
<td>-.01</td>
</tr>
<tr>
<td>Schema development</td>
<td>.09</td>
</tr>
<tr>
<td>Fluency</td>
<td>-.29</td>
</tr>
<tr>
<td>Text types</td>
<td>.30</td>
</tr>
<tr>
<td>Comprehension strategies</td>
<td>.01</td>
</tr>
<tr>
<td>Writing conventions</td>
<td>-.01</td>
</tr>
<tr>
<td>Composition strategies</td>
<td>.07</td>
</tr>
<tr>
<td>Written language structures</td>
<td>-.25</td>
</tr>
</tbody>
</table>

*p < .01. df = 29.*

In addition to gaining knowledge about literacy development in children, teachers felt that they had learned how to provide more effective literacy instruction. Furthermore, they had been
using knowledge that they had acquired to teach other subjects as well. Both of these topics are discussed below.

(ii) Improvements in teaching. Overall, teachers felt that the PLP had made a strong impact on the way that they were currently teaching literacy (mean: 4.3 on a scale of 1 to 5). All but three of the 30 teachers felt that this impact was either fairly or very strong. Of the two teachers who felt that the project had made just a little impact on the way that they were teaching literacy, one teacher said that the in-service program had simply confirmed her beliefs about the way literacy should be taught and, as a result, she did not find it necessary to make many changes to her program, while the other suggested that she might have felt differently if she had collaborated more with colleagues at the time.

Similarly, each of the 10 administrators felt that the project had made either a fairly strong or a very strong impact on the way literacy was taught at their school (mean: 4.6). The superintendent of schools, for example, who said that he was "very satisfied with the quality of instruction" (S1) since the implementation year, felt that the project had made a very strong impact on pedagogy, assessment tactics, and teachers' level of confidence. One school administrator reported that the project had "heightened awareness of how to teach more efficiently" (P2).

According to administrators, teachers' classroom practice had improved in various ways, some of which are discussed below.

1. Teachers had become more reflective, that is, they were evaluating their existing literacy programs and making changes as necessary in order to provide their students with a balanced literacy program. As one administrator suggested, the PLP "pulled people away from a 'cookbook approach' because they had to analyse and work as professionals. This is what [Dr. Willows] strived for" (P9).

2. They had adopted a "higher level of professionalism" (P1), such as reading professional articles on a regular basis, showing a greater willingness to measure progress against external standards, and giving presentations at professional conferences.
3. Teachers' time management and classroom organization skills had increased. For example, they were thinking more about time on task (i.e., amount of time spent directly on literacy-related activities).

4. They had gained a greater understanding of the various difficulties that at-risk or special needs students may experience and how to adapt instruction to meet their needs. Furthermore, they had become more adept at identifying children who need additional help.

5. Teachers had gained a wider repertoire of strategies that they could use in the classroom.

6. Teachers' expectations of their students had increased.

The following excerpts exemplify teachers' perceptions about the impact of the PLP on the way that they were teaching literacy:

I hadn't tried to analyse what I was doing or why I was doing it [before the project started]. Now I think about it. It made me think: Certain kids need this because they learn this way or need that because they learn that way. I know that I have to use different strategies because not all kids learn the same way. (T20)

My role is to remediate. It made me see that I had to look at the whole child--who may have strengths and talents in other areas--not just remediate deficits and be creative doing it. It made me work harder. (T23)

It completely changed my thinking about teaching. I had spent a lot of time on practice only. I didn't know the reason why I was doing what I was doing, and I didn't know if I was benefiting the students. . . . I didn't use to focus on how kids were learning. I just taught the program in a more general way without knowing what the components of literacy were. This hindered students' ability to learn how to read and write. The knowledge that I gained empowered me to do things I didn't know how to do. We can make it happen in a classroom. (T30)

I feel the program covers all the bases and learning modalities. I'm giving them opportunities to learn language in more ways and a greater variety of experience than before. It's still structured, but there are more opportunities to get hold of what they need to know. (T15)
When I know where the child is at and where he needs to be, I will teach everything necessary. . . . I will never teach the way I used to. . . . We need to teach solid, on-task reading and writing activities. . . . I think "Did I really [used to] teach them literacy? I thought I was. But I don't think I was." (T11)

I have purpose in what I am doing. I am more driven and have higher expectations because my students are tested at the end of the year and I want them to do well. [The PLP] showed me areas I needed to work on at the time. (T26)

(iv) Teaching other subjects. According to a special education/ESL teacher, teachers were encouraged during the workshops to look for opportunities throughout the curriculum where literacy could be taught and reinforced so that it was taught throughout the entire day, not just during part of it. Correspondingly, fifteen of the thirty teachers suggested that the PLP had affected other aspects of their teaching. One teacher, for example, reported that she had actually doubled the time she spent on literacy instruction by extending it to other subjects. Similarly, an administrator commented that various components of the Literacy Diet (e.g., word knowledge, spelling) were being taught each day in every subject. While some teachers reported that they had been extending literacy to other subjects intentionally, others found that literacy instruction sometimes occurred incidentally. One teacher, for example, reported that she found herself teaching letter-sound connections when talking about the names of animals.

Some teachers provided specific instances of how the project had affected the way they were teaching other subjects. One teacher, for example, reported that it had definitely affected the way she was teaching science and social studies as these subjects require real reading (i.e., reading real things for authentic purposes, not just exercises or worksheets) as well as real writing (e.g., explaining thoughts in writing). Similarly, a special education teacher said that she was using writing strategies such as story mapping and brainstorming with Grade 5 and 6 students who were working on research projects. Many teachers indicated that literacy had become an integral component of their mathematics program (e.g., thinking skills).

Two teachers felt that the in-service program had provided them with skills that they could use in many different areas. A resource teacher, for example, felt that her leadership skills had increased as a result of her participation in the project. Another teacher felt that her planning
skills (e.g., selecting relevant components for a new program) had improved. A third teacher reported that the program had helped improve her organization skills, while a fourth teacher said that she tended to think in a more structured manner since participating in the program.

c. Changes in Administrators

Administrators also felt that the PLP had made an impact on them. Some administrators reported that they had learned a great deal about literacy development, such as knowledge about language acquisition, while others indicated that they had learned various strategies that could be used in the classroom. One administrator, for example, said that everyone had acquired a "tremendous knowledge base" (P3) and had become experts on how to implement change in literacy education. According to this administrator, although the need for improvement was evident, no thought had previously been given to the strategies that should be used for implementing change. A principal who had become an administrator just three years earlier, for example, had been keenly interested in participating in the professional development program along with the teachers and had gained confidence in teaching literacy as a result of the project. Furthermore, the administrator's attitude toward the "Great Debate" (i.e., the debate on phonics versus whole-language instruction) had changed because of the program.

The superintendent of schools reported that he had derived not only professional satisfaction but also personal satisfaction from participating in the project: Because of the improvement in students learning outcomes, he felt that he had succeeded in achieving a high degree of status among his colleagues.

Summary of Theme 6: Teacher Self-efficacy

An essential part of the process of implementing change in literacy education, according to the superintendent of schools, was making sure that teachers felt good about themselves. Consistent with this goal, 21 of the 30 teachers who participated in this study made comments which indicated that their self-efficacy had improved since the project started. Teachers who participated in the PLP appeared to have developed a stronger self-concept as professionals because of the knowledge and skills that they gained through the project. As one administrator commented, "the project turned them around in the way they thought of themselves" (P9). Some
teachers, for example, remarked that they had become better teachers because of their participation in the PLP. One teacher, who reported "we're all better at what we do," even remarked that they had become "better people, not just teachers" (T30). Moreover, the PLP had heightened teachers' confidence in their ability to help at-risk and special needs students "instead of saying we can't teach them" (P8).

The following excerpt illustrates one administrator's observations of some of the changes that had occurred in teachers since the project started:

The whole literacy thing, I think, has just heightened general awareness around literacy and how you can go about improving the level of students' literacy. Instead of throwing up our hands and saying we can't teach them anymore, or, there's nothing more they can learn, the staff is open to looking for new suggestions and if this doesn't work, then let's try something else. I think they feel good about the fact that the level of literacy has improved. (P8)

One teacher, who admitted that she did not really like teaching when she started teaching 25 years earlier, announced that she had become "more confident about everything in the classroom" as illustrated in the following excerpt:

You know what I've gained? Self-confidence in myself as a teacher and even in myself as someone to give ideas to somebody else or to help other teachers. I think that I know a lot more ways of teaching different things. You know, I've got a lot of games and fun things that are really learning activities I use that I've developed or learned about. And even in [teaching] writing and reading, I feel that I'm more confident. (T3)

One of the strongest factors that had contributed to teacher's increased self-efficacy was improvement in student learning outcomes (e.g., improvements in students' scores on standardized tests). As one administrator argued, "children's success is what drives teachers to continue practising. They become enervated [sic] by it" (P3). Many teachers indicated that they felt more successful since the PLP started as a result of their students' success. Several teachers indicated that they gained increased confidence in their teaching skills once they observed progress in their students. One teacher, for example, reported: "Seeing growth in the kids is just
amazing" (T4). Similarly, another teacher said: "We're very proud, especially with the results of testing" (T8). A Kindergarten teacher remarked that she felt good at the end of the school year when students, who did not even know the alphabet when they started school, were sounding out words and becoming emergent readers and writers. She felt proud that the results of EQAO testing in Grade 3 had shown that they were "heading in the right direction" (T8). A fourth teacher stated: "We see the strength of our students and the difference that we can make" (T30).

Being asked to share their knowledge and expertise with others had also helped increase teachers' sense of self-efficacy. According to the superintendent of schools, who intentionally acknowledged teachers' work in many different ways, teachers were actually "bubbling with excitement" (S1) about what they were accomplishing in their classrooms. First, he provided them with opportunities to make presentations at "high profile sessions" (S1) such as the monthly meetings for administrators. Second, he asked them to visit other schools that had not participated in the PLP as welcome visitors to their own classrooms to demonstrate various activities that they had been using. Finally, he asked them to participate with their students in videos that would show the effectiveness of their programs. One administrator noted that teachers' participation in the videos "says a lot about how teachers felt about themselves. Because they could see growth, they were willing to share their knowledge" (P3). Another administrator had found that the opportunities to demonstrate their skills in front of teachers from non-participating schools had been very reinforcing because they provided teachers with opportunities to see themselves as exemplary.

Teachers confirmed that the opportunities to share their knowledge and experience had indeed motivated them. One teacher, for example, felt that the experience had increased her desire to share her knowledge with others and show them "what the kids can do!" (T8). Another teacher mentioned that she had become more confident in talking to parents about their children's progress. A teacher at School G in School District 2, where teachers had become particularly active in sharing their expertise with teachers from other schools, stated: "We're a model school in the system... It's not debatable. We're so strong... [we] can't be challenged" (T30).

Similarly, one of her colleagues, who had become particularly active in sharing her expertise with teachers from other schools, remarked that the PLP had "given us a lot of attention,
although it has died down a little because new things come out" (T28). She also stated that she had become much more confident about giving presentations and teaching in front of visitors: "I can [now] explain what I'm doing and why with confidence" (T28). Similarly, another one of her colleagues, who felt that her ability to articulate what she was doing had improved, made the following remarks:

I'm a better teacher [now]. I'm a lot more confident about what I'm doing now. I think I can verbalize why I'm doing a specific activity. I think I have gained respect within my profession as a person who has something to contribute. I worked with [a faculty of education] as an adjunct professor this year and was able to share the [Literacy Diet] components. I had lunch hour in-services on these activities and I think it helped my teacher candidates to be successful. (T26)

Similarly, an ESL teacher, who said that she felt "better equipped to help the kids now " (T24), suggested that the PLP had provided her with opportunities to develop her presentation skills as illustrated in the next excerpt:

Through the discussions in our group . . . during that year, we had lots of opportunities to talk about what we were doing. And you know how often times you do things and [you] don't talk about them? Because I was forced to talk about them, it gave me a little bit more confidence. I often knew I was doing the right thing, but it made me kind of articulate it, and I think I became better at articulating what I was doing and why. (T24)

Some administrators had found that consulting teachers and involving them in the planning process had also helped increase their self-efficacy. One administrator, for example, gave teachers "the opportunity to talk about what may need to be changed and ways to go about changing it and making them part of it" (P1). Another administrator remarked that "teachers became disciples of the program" (P3).

Finally, administrators also helped build teachers' sense of self-efficacy by giving them opportunities for leadership. One administrator, for example, suggested that teachers' willingness to assume leadership roles (e.g., leading school meetings, educating other teachers) indicated that they felt good about themselves and thought of themselves as experts in their field.
Another administrator, who felt that an important part of the school administrator's role was "celebrating recognition of teacher leadership in our schools," reported that the teachers "made it happen. . . . I was their coach and cheer-leader" (P7). In addition to encouraging teachers to take the initiative and become leaders, this administrator encouraged them to become aware of their impact on student learning outcomes. As a result, "teachers felt good about themselves" (P7).

**Theme 7: Confirmation**

The topic from which the theme "confirmation" emerged is discussed below, followed by a summary of the data that pertains to this theme.

<table>
<thead>
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<th>Theme 7: Confirmation</th>
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<tr>
<td>a. Fascination with Phonics</td>
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**Figure 12.** Topic pertaining to Theme 7: Confirmation.

**a. Fascination with Phonics**

A topic that seemed to have captivated the interest of most teachers was phonics. Once considered to be a "forbidden fruit" in the field of education, phonics had finally received the endorsement of the administrators who were involved in the PLP. Although they realized that a balanced Literacy Diet must include a variety of teaching strategies, some teachers, nevertheless, seemed intrigued with the topic of phonics. Phonics instruction, for example, was mentioned more often than any other activity when teachers talked about the changes that they had implemented.

While some teachers felt that the PLP had presented them with (i) an opportunity to try a new approach to literacy instruction, others, who were already using phonics, felt that the PLP had (ii) legitimized phonics instruction. Both of these perspectives are discussed below.

(i) **Opportunity to try a new approach.** Some teachers indicated that they had never used phonics before participating in the PLP and that they had learned how to teach phonics as a result of the professional development. The following two excerpts—the first from an interview with a
teacher who had been teaching for about 10 years, and the second from a teacher who had started teaching in the 1960s—illustrate their perception of the PLP as an opportunity to use a new approach:

I recall distinctly we had a very particular approach in how [the instructors in teacher's college] taught us to teach reading and [the in-service program] was an exposure to very different approaches that just [were] not taught when I went to teacher's college. You didn't mention phonics the year I went to teacher's college. I remember specifically a professor who taught language arts. I mean, there was no arguing with him. He didn't believe in it and he didn't touch on it. This was an opportunity to find out about some other strategies that had never been dealt with when I took my teacher training. (T1)

There was a period when phonics was not stressed in the schools. . . . If you want to go really, really far back, when I went to school, phonics was not taught. So I, as a student myself, hadn't been taught phonetically to read. And I am a poor speller, and I blame part of that [on the way I was taught]. That was another thing that I [learned] when I did the [in-service program]: to do phonic. . . . When I went to teacher's college, I wasn't taught that. So, it was a new approach for me. (T19)

Teachers generally felt that introducing phonics had made a strong positive impact on student learning outcomes. A Kindergarten teacher, for example, who admitted that she had been apprehensive about incorporating a "formal phonics program" into her literacy program (T8), had noticed a remarkable improvement in students' inventive spelling as well as in their level of confidence, and an administrator remarked that "a light went on for the student who was never taught phonics before" (P2). A Grade 2 teacher with about 25 years' teaching experience, however, pointed out that phonics instruction was certainly not a novelty in the field of education:

I guess I felt like "So what's the big deal? I mean, so who doesn't teach phonics?" To me, I thought it was phonics. That was my first impression because everyone was going "Oh, we're back to phonics. We're going right back where we used to be." That's the way education always is anyway. We're always on these bandwagons and cycles, and here we go, and there it goes, and here it comes again. (T20)
(ii) **Legitimization of teaching approach.** Many teachers who had already been teaching phonics seemed relieved to find out that they could finally include phonics in their literacy program without fear of admonishment. One teacher, for example, who had often felt over the past 20 years as if she had to "sneak it in," suggested that the PLP had "legitimized the use of phonics" and brought it "out of the closet" (T21). Similarly, a special education teacher, who reported that her instructors at the faculty of education had frowned upon phonics instruction, remarked that it was "nice to hear someone else say that it was important" (T14). A special education/ESL teacher said that when she first started teaching, she felt that she had to "close the door sometimes because I would be talking about phonics and it seemed to be the worst word in the world at that time. . . Phonics was not a word you ever used (T23). Her fear of being discovered, however, disappeared once the PLP started as illustrated in the following excerpt:

[I learned] that many things that I had been told in the past, and had seen in the past, and had done in the past were okay. It was okay to do those things that over the years we've been told were not okay and that new things come along and all those great strategies and methods disappeared for a while. (T23)

The following three excerpts provide additional examples of these sentiments:

[I changed my literacy program by] implementing a systematic phonics program and having people--[Dr. Willows] and the . . . administration in the school--saying "This is a good thing. We're glad that you're doing it. You don't have to close your door and be worried that somebody's going to be upset because you're teaching phonics. We'll give you what you need. We'll give you the support you need." (T28)

Having taught older kids, I knew that there should be more emphasis on phonics, which there wasn't at the time. It was rather a dirty word, you know, when I first started into Grade 1. . . . Whole language, I guess, was in at the time and there [were] a lot of benefits to it, but I don't think it was enough because there were certainly kids who weren't being reached through it. (T18)
It was good to have [Dr. Willows] tell us "It's okay to teach [phonics]. In fact, you need to be teaching it to your kids." You know, whole language doesn't work for everybody. The Literacy Diet was more important than the approach. (T13)

**Summary of Theme 7: Confirmation**

The PLP confirmed participants beliefs regarding the importance of a balanced approach to literacy education, particularly their beliefs regarding the value of phonics instruction. Whether they were already teaching phonics when the PLP started or had wanted to teach it but had been afraid of the repercussions (i.e., admonishment by administration), teachers generally seemed to feel relieved that phonics instruction had been endorsed by the in-service facilitator and administrators. One teacher, for example, said, "I gained validation that no one particular method works best and that we need to use a bit of everything because some kids need phonics" (T17). Similarly, another teacher, who had only one year's experience in a regular classroom prior to a 10-year leave, remarked that the knowledge that she gained through the project not only gave her the confidence to teach in a regular classroom again, but also confirmed her beliefs about the way literacy should be taught and made her feel more comfortable that she had changed her approach when she returned to work (i.e., from a whole-language approach to an approach that included phonics instruction). Her thoughts are illustrated in the following excerpt:

[The knowledge that I gained] made me feel that I'm on the right track that particularly the kids who have difficulty really need to know how to decode. For years we depended on the sight reading and . . . whole language. It sort of **confirmed** [italics added] that you need a mixture of everything and that there's not a right answer to everything. That reading and writing are a mixture of a whole bunch of things, and it depends on the student how much they need of each. I think we knew that; we just didn't know how to say it. (T22)

A Kindergarten teacher remarked that the in-service program gave her a "good feeling that I was on the right track" (T8) because her belief that it was appropriate to use structure in a Kindergarten program had been confirmed. Another teacher reported that the PLP had
confirmed her belief that teachers should incorporate a variety of different strategies in their teaching practices as children have different needs.

Some administrators also mentioned that their own beliefs on literacy education had been validated through their participation in the project. One administrator, for example, reported that the in-service program had validated the belief that a literacy program should include not just one but several different types of strategies for teaching literacy.

**Theme 8: Sustainment**

The final theme--sustainment--is an important theme as it addresses an aspect of the main goal of this study, that is, to determine the ways that teachers sustained changes in their classroom literacy practice as a result of the professional development. The topics from which it emerged, as indicated in Figure 13, are discussed below, followed by a summary pertaining to the theme "sustainment."

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<th>Theme 8: Sustainment</th>
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<td>a. Focus on Literacy</td>
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<td>b. Maintenance of Teaching Practices</td>
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<td>c. The Role of Support Staff</td>
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<td>d. Ongoing Collaboration and Sharing</td>
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<td>e. Further Professional Development</td>
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<td>f. The Role of Parents</td>
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<td>g. Transferring the Primary Literacy Project to a New School</td>
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<td>h. Impeding Factors</td>
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<td>i. Goals for Literacy Education</td>
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*Figure 13. Topics pertaining to Theme 8: Sustainment.*
a. Focus on Literacy

As indicated in Figure 14, 23 of the 27 participants who had stayed at the same school since the implementation year felt that the focus on literacy within their school had either increased or stayed the same since that year. Only 3 participants felt that the focus on literacy in their school had decreased after the implementation year. Two of these teachers, both of whom worked at the same school, attributed this change to other demands (e.g., new curriculum, new report card, expectations regarding mathematics and science). Moreover, all participants (except for three administrators who did not comment) felt that the overall long-term effect of the project was positive.

Figure 14. Participants' perceptions of changes in focus on literacy since implementation year. Total number of applicable participants: 27 (i.e., 26 teachers and 1 administrator who had not relocated after the implementation year).

b. Maintenance of Teaching Practices

While administrators who had arrived at the school after the implementation year were unable to provide data regarding the change in focus on literacy, they were generally able to report whether their staff had sustained the changes that they had made to their literacy programs. Nearly three years since the in-service program had ended, teachers were still following practices
that came from the project according to the five administrators who were at participating schools when this study was conducted (i.e., the administrators of Schools A, B, C, D, and E). According to them, the following activities were still being practised: Jolly Phonics, Word Wall, Making Words, and guided reading. The former administrator of School G, who was still in contact with the teachers, also reported that teachers were still following practices and concepts from the project, and added that it was actually the teachers themselves who had been sustaining the project although the current principal had certainly supported them in their practice. The administrator at School F was not interviewed; however, the teachers at that particular school felt that there had been a decrease in use of the practices from the project.

Although some teachers felt that the focus of attention had shifted to mathematics, many teachers confirmed that they still followed practices from the project. One teacher, for example, reported that all of the primary grade teachers at her school were using the activities that had been introduced during the professional development program. Another teacher, who said, "we still hear the terms" (T13), indicated that the staff at her school were still purchasing five or six copies of each book that was to be used for guided reading and making sure that all materials that they purchased were appropriate (i.e., corresponding to stage of literacy development). Several teachers reported that "Word Walls are still up all over the school" (T25).

c. The Role of Support Staff

As indicated earlier, support staff (i.e., special education and ESL teachers) were also invited to participate in the PLP. These teachers provided support to regular classroom teachers in various ways such as helping them implement new practices as well as educate non-participating teachers. Descriptions of the role of support staff at each individual school are provided in Appendix K.

d. Ongoing Collaboration and Sharing

Although all PLP participants reported that the school meetings on literacy were no longer taking place, many participants mentioned that they continued to collaborate with each other regularly at primary division meetings and grade level meetings. Furthermore, some teachers
indicated that they continued to work together on activities such as planning programs as well as purchasing and grading new reading materials for students.

As indicated in Figure 15, 21 of the 26 teachers who had remained at the same school since the implementation year felt that collaboration had either increased or stayed the same since that year. At two of the schools in School District 1--Schools A and E--two out of three teachers felt that their need to collaborate with each other had increased since the implementation year due to recent changes in the curriculum and report card as mandated by the provincial government.

![Change in Collaboration](image)

*Figure 15. Teachers' perceptions of change in collaboration since implementation year. Total number of applicable teachers: 26 (i.e., teachers who had not relocated since implementation year).*

As indicated in Table 11 below, teachers at six of the seven schools had been sharing their expertise with staff at other schools since the implementation year through school visits, conference presentations, and workshops. Two of the nine school administrators who were interviewed reported that they frequently brought visitors to their school so that teachers could share some of the knowledge that they had gained from the project; a third administrator
indicated that a team of teachers had visited other schools for the same reason. A resource teacher commented that she also encouraged class visits to other schools; however, she felt that most sharing took place within the schools. Summaries of the amount and type of collaboration and sharing that had been taking place at each school since the implementation year according to participants are provided in Appendix L.

Table 11
Sharing With Teachers Across Schools Since Implementation Year

<table>
<thead>
<tr>
<th>School</th>
<th>Sharing across schools</th>
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<tbody>
<tr>
<td>A</td>
<td>yes</td>
</tr>
<tr>
<td>B</td>
<td>yes</td>
</tr>
<tr>
<td>C</td>
<td>yes</td>
</tr>
<tr>
<td>D</td>
<td>no</td>
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<td>E</td>
<td>yes</td>
</tr>
<tr>
<td>F</td>
<td>yes</td>
</tr>
<tr>
<td>G</td>
<td>yes</td>
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</tbody>
</table>

Note. Based on responses of majority of participants within each school.

e. Further Professional Development

According to one administrator, teachers at her school were continuously looking for ways to improve and, accordingly, were always interested in professional development. Similarly, a teacher remarked: "Teachers still have a zest to learn and grow. They are always looking for something new that they can absorb. This experience has broadened our horizon. We realize things can't remain status quo" (T30). Another teacher said that although the project had moved her "further along the road . . . I feel I haven't arrived yet" (T24).

Despite the interest in ongoing professional development that was expressed by some participants, all of the participants indicated that they had not been involved in any long-term
professional development programs on literacy since the PLP in-service program. However, some teachers had been attending short-term workshops on specific topics pertaining to literacy (e.g., phonemic awareness, guided reading) as well as conferences on literacy. Specific examples of professional development activities in which school staffs had been involved since the in-service program are provided in Appendix M.

Teachers at some schools reported that they had been educated in the use of specific strategies such as "reading and writing descriptors" and "running records" (i.e., methods for monitoring and reporting student progress). A resource teacher (i.e., teacher who visits schools to provide support to classroom teachers) reported that schools in School District 1 could select any of the following approved teacher development programs: First Steps, All-Star Reading, Reading Recovery, or the Parent-Assisted Reading Program. Some teachers mentioned that representatives from their school were currently being educated in how to use the writing component of First Steps, a program that can be used both as an assessment tool and as an instructional tool (i.e., strategies for teaching various forms of writing); these representatives would subsequently educate the rest of the staff. Teachers at School G reported that First Steps had recently been mandated in their district. While recognizing the merits of this particular program, the former administrator of School G made the following remarks:

We brought a program in, again, board-wide, that we have no proof that it works. There's no way they're doing a pre-test. . . . They just bring in a program, they support it one hundred percent, they throw money at it, and they have no idea whether it's working or not other than teacher reporting and they probably are very selective. And it's very subjective when you have teacher reporting. But when you have actual tests to show that it works, that's an entirely different thing. That's a non-subjective method of showing that something works. (P3)

Some administrators indicated that they had personally been contributing to teachers' professional development in one or more of the following ways:

- referring frequently to key Literacy Diet concepts (e.g., time on task, prime learning time, balanced literacy program);
• providing teachers with professional articles on literacy;
• visiting classrooms regularly to ensure that teachers were using direct instruction;
• providing teachers with additional professional development from district support staff such as the speech-and-language pathologist.

f. The Role of Parents

According to many participants, parents' attitudes toward their children's education had improved since the PLP started. These perceptions were based both on (i) comments that they had received from parents regarding their delight with their children's progress as well as (ii) the increase in the level of their support and involvement in their children's education since the project started. Findings pertaining to both of these topics are described below.

(i) Parents' satisfaction with their children's progress. Some teachers reported that parents seemed particularly pleased with their children's progress. A Kindergarten teacher, for example, reported that she had been receiving a great deal of positive feedback from parents regarding the shift to phonics instruction along with comments such as "We didn't think anyone taught that anymore" (T28). A Grade 2 teacher said "Each year, parents come and tell me they can't believe how well their child is reading" (T5). Similarly, a resource teacher commented that parents were sometimes astounded by the progress that their children were making, and an administrator remarked that some parents seemed amazed at the concerted effort made by teachers to keep their approach to teaching literacy consistent throughout the school.

(ii) Parental support and involvement. Some administrators and teachers discussed their perceptions of support given by the parents of their students. As one teacher remarked, "I think the key to things is to get the parents on board. . . . When you're trying to come up with activities that will [help them] practice the reading or practice the writing, they've got to be on board" (T6).

The administrator of School C felt that involvement by parents was so important that five full days each year were spent training them. Each May, this administrator and the librarian educated the parents of all new children who were starting Kindergarten, Grade 1, and Grade 2 the following year in the use of Jolly Phonics and guided reading. In addition, the librarian was showing parents the types of books that they should be selecting for their children according to their age. In September, parents returned to the school to learn about book bags (i.e., bags that
were used by the children to take books home every night). As a result of these efforts, according to the administrator, parents were able to help their children with homework even if they could not speak English, and literacy continued to be a major focus both in the classroom and at home. "But that's a whole literacy program. . . . You got to link it. You have to make the connection" (P6).

A teacher at school E also discussed attempts that had been made by teachers to inform parents about their children's literacy education through presentations on a variety of subjects (e.g., Literacy Diet components) at the school's curriculum night, while another teacher indicated that the staff at her school had been providing parents with a newsletter to keep them informed of what they were doing. Similarly, the school administrator reported that workshops on literacy were held for parents during "Education Week." During one of these workshops, a suggestion had been made to train parent volunteers in some of the methodologies of the program so that they could come into the classroom and support the teachers. Although a formal training program had not yet been implemented, the administrator reported that teachers had been trying to train parents informally. Moreover, the parent council had been raising almost as much money as the school budget each year to help purchase resource materials (e.g., $12,000 to $15,000 was raised from the annual spring fair). Similarly the administrator of another school, who also indicated that parents' attitudes toward the school had become very positive, reported that the school's parent-teacher association was formed after the project started.

Some administrators also indicated that parents had become much more involved in their children's literacy education. Two administrators, for example, said that parents were pleased when their children had homework and had been monitoring their children's homework much more regularly. In fact, one of these administrators reported that parents had even been involved in creating the school's homework policy, and believed that the community had acknowledged the focus on literacy within the school. Several teachers also commented on parents' increased involvement in their children's literacy education through homework (e.g., reviewing Word Wall lists, practising Jolly Phonics letter-sound connections). Two teachers said that they had been informing parents that many of the activities can be practiced at home with them. One teacher
reported that parents sometimes came into the classroom to work with at-risk students using the Jolly Phonics program.

Unfortunately, parental involvement did not exist in all the schools. One teacher, for example, remarked that the parents of her students should be more involved in their children's literacy education and suggested that it would be helpful if parents volunteered in the classroom. Another teacher at the same school reported that lack of support, particularly from parents of children who need the most help, may have even hindered progress at times (e.g., students were not bringing Jolly Phonics word boxes back to school).

g. Transferring the Primary Literacy Project to a New School

Since the implementation year, the superintendent of schools in School District 1 and four school administrators had relocated to schools that had not participated in the PLP. One teacher had transferred to a field office and became a resource teacher for several schools, while another teacher had moved to a non-participating school. Each of these participants was asked whether they had attempted to implement changes in literacy education at their new school.

Three of the four school administrators who had transferred to a new school had introduced resource materials from the in-service program at their new school. One of these administrators, for example, had implemented various activities from the project, particularly activities from the Jolly Phonics program. The administrator who had initiated the PLP in School District 2 facilitated a 2-year in-service program at the new school using the same professional development material that was used in the PLP. The administrator first organized a session at which teachers discussed what needed to be changed and how they could implement changes, then, with the assistance of a few teachers from the former school, educated the teachers at the new school. The administrator retired at the end of the program, but felt confident that the teachers knew what they had to do and no longer needed assistance. According to this administrator, the teachers at that school continued to follow practices that came from the program.

The superintendent of schools also reported that he initiated another in-service program when he transferred to a new unit three years before he retired from his position. He found that teachers and administrators were receptive to the program because they had positive reactions to
it from administrators in his former unit. In-service training was also provided, under the guidance of Dr. Willows, by teachers who had received participated in the PLP professional development.

The regular classroom teacher who had become a resource teacher reported that she had been sharing her professional development material with classroom teachers, and that she had also been actively implementing concepts and components from The Literacy Diet (e.g., modeling, guided reading, Cunningham's Four Blocks). A teacher who had moved to a school that had not participated in the in-service program reported that she had received a negative reaction from the administrators and other teachers at her new school when she started using Jolly Phonics; nevertheless, she continued using the program with her students.

h. Impeding Factors

According to the superintendent of schools, literacy rates will fall if maintenance of the PLP is not addressed. Consistent with this perception, school administrators continued to play a pivotal role in the project once the professional development program ended as illustrated in the following two excerpts:

The administrator has tried to revisit [concepts that were introduced during the in-service program] or by reminding us during staff meetings, sometimes with visual stuff. . . . Always helps us to think of what books you need for next year. . . . The budget, [he/she] makes us very conscious of how much money you should put into literacy. [He/she] doesn't dictate it, but [he/she] helps us to think along that line. . . . [He/she] is really for literacy, that's for sure. (T16)

[The PLP is] certainly not high focus like it was before. Certainly, there are a few of us who were involved and are still here, all of us as a matter of fact, and doing those kinds of things and newcomers are doing those kinds of things, but it's not something that's coming down from the administration. But it's not that [he/she] hasn't talked about Word Walls; some of those things are still being mentioned. (T24)
Despite their interest in maintaining the effects of the PLP, teachers had been confronted by various constraints such as (i) staff turnover, (ii) administrative turnover, (iii) competing demands, and (iv) lack of school district support.

(i) Staff turnover. Turnover in staff had a variable impact on the PLP across the seven schools. While participants at School A had not noticed any effect from staff turnover, some teachers at the other schools had noticed effects such as a decline in collaboration among staff, a decrease in school-wide consistency in teaching practices, and even diminished interest in the PLP as exemplified in the following excerpt.

I think that it [interest in the PLP] is fading simply because there is nobody around to sort of keep it sparked except the ones that took [the in-service program] who have seen the benefit of using it and doing it and have continued it. But [one of these teachers] will be going because she's retiring, so there's another one. The Kindergartners, as far as I know, are still going to use it... and myself because I have Grade 1 next year. But I don't know. We have these new Grade one, two, threes [new teachers]. I don't know whether those Grade ones will use it. And they've been doing their own program apparently in another school for a number of years, so they probably have a different program. (T21)

The impact of staff turnover on the PLP and efforts made by staff and administrators to educate new staff about the PLP within each of the schools is provided in Appendix N.

(ii) Administrative turnover. Six of the seven schools that were involved in this study experienced a turnover in administration (Schools A, C, D, E, F, and G). The new administrators at schools A, C, D, and E had participated in the in-service program either at their former school or once they arrived at their current school (i.e., along with junior-level teachers). A teacher from one of these schools, whose administrator had been involved with the PLP at a former school, remarked: "We were lucky because the principal had been involved with the project at [a former school] so [he/she] knew what was going on" (T2). Another teacher, whose administrator participated in the in-service program along with the junior-level teachers upon arrival at the school, remarked that although there had been a change in administration, the new administrator was just as enthusiastic and supportive as the former administrator: "[He/she] kept us going. We did presentations at two other schools [and a conference] after he/she came" (T14). Teachers at
School D may have even benefited from the change in administration: One of these teachers remarked that "the [new] administrator will help to keep [the PLP] going" (T1).

The staff at schools F and G each experienced the impact of administrative turnover differently. While teachers at School G seemed unaffected by the arrival of an administrator who had no previous exposure to the PLP, teachers at School F felt that the change in administration had made an impact on literacy instruction within the school. One teacher at this school, for example, noted that the new administrator expected teachers to make sure that the entire curriculum was balanced (i.e., not just their literacy program) and, accordingly, had been encouraging them to increase time on task in mathematics as students had been performing below grade-level expectations in that subject. One of her colleagues, who felt that the change in superintendence had also made an impact, stated that interest in the PLP had been fading because "there's nobody around to keep it sparked" (T21) as illustrated in the following excerpt:

We have had different administrators who have very different views. The original superintendent was really gung-ho. The new one doesn't really have the same emphasis. And this affects your program. Teachers who haven't been through the [in-service] program probably don't use "the program." Also, the new principal doesn't give the same support to the project and even had a negative response to the Jolly Phonics program. But teachers use it anyway. As long as you have evidence that you have a good program, that you've got good literature that you're using . . . good writing activities and [a good] writing program, then not really a lot is said. But I don't feel that it's really supported. And I think partially a lot is not said because [teachers who were trained] are sort of the old school; we've been around for a while. But I have a feeling that if it was a brand new teacher, they might actually be told "I don't think that's a necessary part of your program" or "Maybe you could be using your time to do something else." That's the feeling I get. . . . When somebody comes into an administrative position and they have certain things that they really like or that they want to promote . . . so they want to go ahead with that. But, unfortunately, each time administration changes, you know, oh, there goes something else that somebody doesn't like, or, they're bringing in something else new. . . . But it's too bad that, you know, there isn't that consistency. But I suppose people wait to become principal so they can try some of their own ideas. (T21)
(iii) Competing demands. As the superintendent of schools acknowledged, teachers were being confronted by several competing demands. Some teachers indicated that they were "under pressure to improve mathematics programs" (T26) due to relatively poor results of Grade 3 students on EQAO testing in mathematics. One teacher, for example, reported that teachers would soon be required to include mathematics instruction in the morning along with literacy in order to devote equal time to mathematics and language and half time to social studies. Another teacher indicated that all professional development was being focused on mathematics as administrators assumed that teachers "know what they are doing now [in literacy]" (T7). Similarly, some teachers indicated that they felt "all wrapped up in the new report cards and the new curriculum" (T13) that had recently been mandated by the provincial government as exemplified in the following excerpt:

Awareness of what the project was about is not high focus anymore. Like, right now, it's the new language curriculum. We still put some attention to [the PLP] . . . [but] everything in literacy is based on implementing the new curriculum this year. (T15)

On the other hand, some teachers felt that the staff at their school had become more collaborative as a result of recent demands.

(iv) Lack of school district support. According to the former school administrator in School District 2, sharing across schools had decreased significantly since the implementation year due to lack of support from the school district as illustrated in the following excerpt:

There's a dichotomy in every [school] board and it comes about through, I guess, a power process. If the program isn't initiated at the board level, then it's not a good one. I don't know what it is. I mean, I don't know why all boards do not have direct instruction in phonics when it's been proven in the literature time and time again that that's the way to go for all kids. Some kids can learn to read if you stand in front of the ceiling and spit nickels. But other kids, and that's the majority of the kids, need to learn to break the code. . . . The board is not cognizant of the fact that kids need phonics. (P3)
i. Goals for Literacy Education

Each of the nine school administrators shared a common goal: to maintain the focus on literacy within their schools. Additionally, all administrators discussed their individual goals regarding literacy education. One administrator's goal, for example, was to ensure that all children learned to read, or, at the very least, to learn the reasons for failure of those that did not learn to read, as well as to reduce the number of children identified as LD through early intervention.

Some administrators indicated that they wanted to focus their attention on assessment of student progress. One administrator, for example, wanted all students at the school to perform well relative to external standards, such as student performance on the provincial EQAO Grade 3 assessments, so that the staff could "get on with what's important." This administrator suggested that if students perform poorly on provincial testing, their self-concepts will suffer; accordingly, educators have the responsibility of helping students successfully acquire skills in literacy and numeracy. Two other administrators indicated that they wanted to develop their own assessment plans for their students. One of these administrators also planned to develop a school policy regarding the use of student portfolios for assessment.

Three administrators mentioned that they planned to apply the concepts of The Literacy Diet to other areas of the curriculum such as mathematics, science and technology, and French immersion. Another administrator was concerned about improving the literacy skills of students at the intermediate level (i.e., Grades 6 through 8), while one administrator wanted to reduce the number of referrals for IPRC as illustrated below:

Maybe 11 to 12% of our population are in special ed classes. So, if we can reduce the number of kids who will be identified as having learning disabilities by the early interventions of our literacy program, then that's what's really key. (P2)

Finally, one administrator who wanted to focus on improving oral language skills--both receptive and expressive language--prior to developing written language acquisition, argued that teachers should receive training in oral language development in teacher's college. This
administrator also felt that there should be collaboration between speech pathologists and ESL staff in the schools.

**Summary of Theme 8: Sustainment**

According to most of the individuals who participated in this study, the PLP had a lasting effect in the schools in which it was implemented. Most of the participants who had remained at the same school since the implementation year felt that the overall long-term effect of the project was positive and that the focus on literacy had been sustained. Furthermore, the long-term effects were generally evident throughout the entire school according to some participants. One teacher, for example, indicated that the effects of the PLP had "ripped into the higher grades where more students are reading at grade level than ever before" (T30). As a result of the PLP, literacy committees had been formed at some schools, and, accordingly, various initiatives had been established (e.g., recognition of the "Student of the Month" for accomplishments in literacy). Furthermore, teachers at six of the seven schools were still sharing their knowledge and experiences pertaining to literacy education with teachers at other schools. Some administrators mentioned that an assessment package had been introduced at their school as a result of the project.

The following excerpts further exemplify participants' perceptions on the long-term effects of the PLP:

- Once teachers know what to do, they continue with it and become so committed that they will never go back to what they were doing before. (S1)

- The seed was planted and it grew. (T1)

- I think it's continuing because we're all so sold on this and the success that we're having that we don't want to change. (T4)

- Teachers are still very committed to the program and following through with it, even though they no longer meet to hash things out as things have fallen into place. (T27)

- I truly believe it's a worthwhile project and I'm behind it one hundred percent. (T8)
We've tested the kids and we see "Hey, this is working. Why am I going to stop this if this works? (T11)

The very fact that some of these strategies are [still] in use is encouraging. Often times teachers will attend workshops or whatever and say at the workshop "Oh, that's wonderful!" But they don't put it into practice. It's really difficult to make something part of your own. (T24)

I'm amazed at the fact that after I left the school . . . the research shows that after you leave a school, that a program that's been implemented while you were there, that program finally is sort of so weakened that it doesn't carry out. And that isn't the case at [my former school] because I've been away from there for three years and the program, to my knowledge, is as strong as ever. I've spoken to some of the teachers and they're just as dedicated as ever to the [PLP]. . . . [The focus on literacy] is still going on and it's very strong, and it's the literacy project and the in-service that we had that the teachers are committed to. So they balance their programs and they're still carrying on. (P3)

We've come to the point where we know what we have to do to help kids here. It takes a while to get to this point. We discuss literacy all the time. The parents know it, the staff knows it and that's what they plan around. . . . It is front and centre on what we do at this school. (P1)

While the overall perception regarding the long-term effect of the PLP was positive, recognition of the need to maintain the school focus on literacy was evident throughout much of the data as exemplified in the following excerpt:

I think that it could disappear if you don't keep it front and centre, if you don't continue to put an emphasis on literacy. And the school success plan is an ideal place to make that happen. It has to be part of our school success plan. That's what we're all about: creating literate children. (P4)


Summary of Themes

Eight themes have been highlighted in the perceptions of teachers and administrators regarding their experience with a particular in-service professional development system that guides teachers in translating theory into practice and their attempts to implement lasting change in their literacy teaching practices. These themes—which have been categorized on the basis of their relevance to the content, process, context, and impact of the professional development program—are summarized below. Figure 16, which illustrates the relationships among the themes, follows this summary.

Content Themes
- Participants were provided with a foundation of theory that could be put into practice.

Process Themes
- Participants perceived the PLP—as well as the individual who both developed and facilitated the professional development program—as a catalyst for much-needed change in literacy education.
- Participants became more aware of the significance of early intervention in literacy.

Context Themes
- Participants found that administrative support is essential for the successful implementation of change through professional development.
- Teachers had found that teamwork facilitates the process of change.

Impact Themes
- Teachers' self-efficacy increased once they started observing the impact of change on student literacy outcomes.
- Teachers had received confirmation of their beliefs regarding the importance of a balanced approach to literacy education, particularly their beliefs about the value of phonics instruction.
- Overall, changes that had been implemented as a result of professional development had been sustained.
In the following chapter, the findings from this research are first compared with findings from other studies in the research literature, then integrated into a comprehensive model of in-service professional development for implementing change in early literacy education.
Figure 16. Relationships among themes. PD = professional development.
CHAPTER SIX: DISCUSSION

While teacher development programs can vary widely in format and context, they generally share a common purpose: to systematically alter the beliefs, attitudes, and classroom practices of teachers, and improve the learning outcomes of students (Guskey, 1986). Consistent with this viewpoint, the implementation of the PLP professional development approach involved a systematic attempt to bring about lasting change in the knowledge, beliefs, attitudes, and classroom practices of teachers through in-service professional development over an entire school year (Willows, 2000). As research has shown, one-shot workshops are generally ineffectual for achieving these changes (Allington & Cunningham, 1996; Goldenberg & Gallimore, 1991).

Research has also shown that teachers don't always jump at the chance to participate in in-service professional development. As an example, Smylie (1989) found, through his survey on teachers' perceptions of different sources of professional development, that teachers are unlikely to perceive in-service teacher education as an effective source of learning unless it relates to their specific classroom experiences and they see clear implications for student learning outcomes. Similarly, Klingner et al. (1999) found that teachers are influenced by whether they feel professional development activities have implications for student outcomes on "high-stakes" achievement testing (i.e., district-wide standardized testing) as they may feel that they will be evaluated according to their students' performance. Consistent with these findings, while many of the teachers in the PLP follow-up study revealed that they were excited about participating in the professional development program when they first learned about it, a substantial proportion of teachers (12 out of 30) were either apprehensive or indifferent about participating; some of these teachers either felt they already had too much on their plate, were concerned that the PLP would become just another abandoned project, or feared that they would be criticized and their beliefs and teaching practices would be challenged. Nevertheless, almost all teachers revealed either some interest in learning how to improve their ability to teach literacy or, at the very least, curiosity about what the PLP could offer them. Moreover, initial enthusiasm for professional development has relatively little influence on learning according to Showers et al. (1987).
Miller and Ellsworth (1985) found that teachers with less experience and fewer college degrees volunteered to participate in their 2-year in-service professional development program. In contrast, the number of years' teaching experience of PLP teachers ranged from 7 to 33 years, and 20 of the 30 teachers who participated in the PLP professional development program had at least 15 years' teaching experience. Similarly, Daresh (1987) reports that a consistent finding in his review of teacher development programs was that less experienced teachers are interested in programs that are designed specifically to help them learn more about teaching in general, while more experienced teachers prefer activities that they feel will help them learn more about the needs and interests of students as well as new teaching methods. In contrast, the wide range of experience of PLP teachers indicates that teachers with varying amounts of experience wanted to learn more about ways to meet their students' needs. It should be noted, however, that not all of the teachers who participated in the PLP were volunteers (i.e., some teachers were asked by their school administrators to participate). Consequently, the level and type of interest demonstrated by these teachers and the relation between their interest and experience may not be representative of teachers in general.

Although the present study was focused on a specific professional development approach in a particular context, some general principles emerged from this research. In this chapter, the main findings from this study are discussed in relation to findings from other research in the literature on professional development and educational change. First, participants' perceptions regarding the content of the PLP professional development are discussed. Second, the elements of the PLP professional development process are examined. Third, context factors that both facilitated sustained implementation of change and impacted on teachers' sense of self-efficacy are examined, followed by factors that impeded change. Finally, a tentative model of the process of in-service professional development and the relationships among the individuals who are associated with the process is presented.
Content of Primary Literacy Project Professional Development

It was clear from teachers' preference for professional development materials that contained practical information, that is, *Classrooms That Work: They Can all Read & Write* (Cunningham & Allington, 1994) and *Phonics They Use: Words for Reading and Writing* (Cunningham, 1991) over material that contained only theory, that is, *Learning to Read and Write: Adapting Programs to Children's Needs* (Willows, 1993), as well as from comments by some participants indicating that they felt it was not necessary to spend so much time on theoretical material, that most teachers are not interested in just learning about theory: They want to learn how to put theory into practice. As a further example, participants at only four of the six schools in School District 1 discussed readings from the professional development materials on a regular basis during school literacy meetings; more time was spent sharing ideas during these meetings. Furthermore, none of the schools had an agenda for the readings.

Despite their seeming indifference towards theory, the evidence presented in the Findings shows that the teachers and administrators who participated in the PLP in-service professional development program generally felt that they gained a solid foundation of knowledge for implementing lasting change in early literacy instruction. Participants reported that they had acquired knowledge in areas such as the stages of literacy development; the key components of a balanced literacy program; the major areas of difficulty underlying children's problems in reading and writing; identification of at-risk students and strategies to meet their needs; and assessment of student achievement in literacy. Furthermore, teachers' familiarity with the components of a balanced Literacy Diet—as demonstrated by their ability to define the concepts and describe an activity that they would use to develop them—not only shows that they had retained the knowledge but also suggests that transfer of learning to the classroom had occurred. Teachers also found program content pertaining to planning, classroom organization, and time management (e.g., using prime learning time for literacy, increasing time on task) extremely helpful and had adjusted their day plans accordingly (e.g., devoting the entire morning to literacy, eliminating time-wasting activities).

Other studies in the research literature on professional development have also shown that teachers need to acquire an understanding of the theoretical basis and rationale underlying the
strategies that they plan to use in the classroom (e.g., Joyce & Showers, 1988; Klingner et al., 1999; McCutchen & Berninger, 1999; Miller & Ellsworth, 1985; Taylor et al., 1986). The ODS (1997), for example, delineates the core concepts and skills that educators need for informed teaching in literacy (e.g., stages of literacy development, understanding of development of phonemic awareness). However, the research literature confirms that theory in and of itself is insufficient: Teachers want to learn how to put theory into practice. Joyce and Showers, for example, argue that although understanding the rationale for a skill facilitates its acquisition as well as helps teachers discriminate between valuable and superficial skills, theory-only treatments result in little skill development and negligible transfer to classroom practice.

Similarly, Vaughn et al. (1998) found, through several attempts with different types of programs, that professional development activities that provide teachers with knowledge but do not actively engage them in the learning process are generally ineffective.

The professional development content that seemed most salient for PLP participants was the concept of a balanced approach to literacy development, particularly the Literacy Diet metaphor which they found both meaningful and useful. Many teachers indicated that they had been making a conscious effort to include all of the components of a balanced Literacy Diet in their own programs as well as to consider the "nutritional value" of an activity before using it in their classroom. The most compelling evidence, however, regarding the salience of this knowledge to teachers was the unequivocal belief by a substantial amount of teachers in the value of one particular aspect of balance: phonics instruction. In fact, one of the key themes that were identified in the data—"confirmation"—emerged through numerous remarks regarding the value of phonics, particularly for students who find learning to read and write unusually difficult. As one teacher commented, some students were no longer considered "at-risk" because they had been receiving systematic instruction in phonemic awareness and letter-sound associations as a result of the professional development. Teachers were also eager to suggest that phonics instruction had finally been legitimized as exemplified by remarks such as "It was good to have [Dr. Willows] tell us 'It's okay to teach [phonics]. In fact, you need to be teaching it to your kids'" (T13) and "We're glad that you're doing it . . . We'll give you the support you need" (T28).
Additional evidence of participants' perceptions regarding the value of professional development on balanced literacy instruction is illustrated by their ratings of the materials and activities to which they were introduced during professional development: Twenty-four out of 28 teachers rated *Classrooms That Work: They Can All Read & Write* (Cunningham & Allington, 1994)—a book that describes the critical components of a balanced literacy program—either 4 or 5 on a scale of 1 (*no use at all*) to 5 (*very useful*); a similar proportion of teachers felt the same way about *Phonics They Use: Words for Reading and Writing* (Cunningham, 1991), Jolly Phonics, which is a systematic phonics program, and Making Words, which is a phonics-based activity. Additionally, some teachers had been using the Four Blocks framework (Cunningham et al., 1998) in which time allocated to literacy instruction is divided into four blocks—guided reading, self-selected reading, writing, and working with words (e.g., Making Words)—to ensure that their literacy programs were balanced and that *all* of their students were receiving instruction in *all* skills.

Recent research findings (e.g., Guskey, 1995; Pressley et al. 1996; Spiegel, 1998; Wharton-McDonald et al., 1997) have also shown that teachers find a balanced approach to literacy instruction more effective than using only one type of approach for all students—especially for students with learning difficulties—as it provides a variety of routes to reading and writing acquisition. Furthermore, as Pressley (1998) points out, balanced literacy instruction has been advocated for many years by well-known reading theory experts such as Chall (1967, 1983, 1996) and Adams (1990). He adds that "the unique contribution of the work of our group is in demonstrating that that is really what good teachers do" (p. 181).

**Process of Primary Literacy Project Professional Development**

In addition to presentation and discussion of theory, the PLP professional development involved several elements: (i) demonstration or modeling of research-based strategies; (ii) practice of new strategies between workshops; (iii) feedback on performance; (iv) classroom visits; (v) peer sharing and support; (vi) reflection on teaching practices; and (vii) follow-up to professional development. Each of these elements is discussed below in relation to other
research findings, followed by a comparison of professional development in School Districts 1 and 2.

(i) Demonstrations. Although various strategies were demonstrated for teachers through videotapes and modeled occasionally by teachers who were attending the workshops, some teachers felt that more live demonstrations or modeling would have provided them with a better understanding of how to implement them. Joyce and Showers (1988) have found that demonstration or modeling, either through videotapes or conducted live, greatly facilitates learning of new skills, and add that demonstration facilitates the understanding of underlying theories by illustrating them in action. Similarly, McCutchen and Berninger (1999) included modeling as one of the components of their professional development program which, according to them, produced changes in teachers' knowledge and classroom practice.

(ii) Practice. PLP teachers were expected to apply the concepts and strategies that they had acquired through professional development in their classrooms, then subsequently discuss their experiences with their peers. According to Joyce and Showers (1988), teachers must have sufficient opportunity to develop skills that they can eventually use in their classrooms. Moreover, Pinnell et al. (1994) argue that teachers need to be exposed to professional development at the same time as practice with their own students so that they have the opportunity to see the success achieved by implementing new strategies.

(iii) Feedback. Only teachers from School District 2 benefited from regular classroom visits by the in-service facilitator; visits from the facilitator were sporadic in School District 1 because the workshops were less frequent and were usually held off-site. Furthermore, the large number of teacher participants within this district precluded systematic monitoring by the facilitator. Teachers in both school districts were not provided with formal opportunities from their administrators to receive feedback or any other form of in-class coaching from either experts or peers.

Kilbourn (1990) also finds that teachers seldom receive systematic feedback on a regular basis, either by those who have the authority and responsibility to provide it or by their colleagues who would have the best understanding about the realities of the classroom. According to Showers et al., (1987), however, teachers are likely to sustain new strategies and
concepts if they receive coaching such as feedback, either from an expert or from peers, while they are trying new strategies in the classroom. Teachers who received in-class coaching in Veenman and Raemakers' (1995) study found it beneficial to receive technical feedback from an experienced individual while practising new skills in the classroom. Similarly, teachers in Gersten et al.'s (1992) study found that expert feedback helped them adapt research-based strategies to meet individual students' needs. Sparks (1988), on the other hand, found more improvement in classroom teaching by teachers who received feedback from peers than teachers who received feedback from an expert (e.g., professional development facilitator).

**(iv) Classroom visits.** Although teachers from non-participating schools had been visiting School A in School District 1 and School G in School District 2, PLP teachers had not been observing each other within their classrooms on a regular basis. One teacher suggested that more visits to other teachers' classrooms should be organized. Through his national survey, Smylie (1989) found that teachers perceive peer observation as one of the most valuable source of professional development. Kennedy and Hodgens (1989) also suggest that teachers learn best from other teachers.

**(v) Peer sharing and support.** The school literacy meetings were an important element of the PLP and were held regularly at six of the seven schools. They not only provided leadership opportunities (teachers usually led the meetings), but also a forum for sharing ideas and experiences as well as problem-solving with peers. Some PLP participants also indicated that their peers provided them with confidence for trying new strategies. The benefits of exchange of information and peer support are mentioned frequently throughout the literature on teacher development (e.g., Kennedy & Hodgens, 1989; Klingner et al., 1999; Sparks, 1983, 1988; Taylor et al., 1986; Veenman et al., 1994). Strickland (1994), for example, has also found that school meetings help facilitate implementation of change, and suggests that teachers and administrators meet in small groups to discuss professional literature and videotapes as well as to share experiences with various teaching practices. Similarly, Gersten and Brengelman (1996) suggest that professional development should include opportunities for teachers to discuss their concerns, difficulties, and accomplishment in a safe environment. Moreover, Gersten et al. (1995) have
found that teachers may fail to grasp the meaning of concepts or the intended purpose of proposed changes if they are not provided with opportunities for discussion.

(vi) Reflection. PLP teachers were encouraged by the in-service facilitator to reflect on their teaching practices and implement changes accordingly. Furthermore, they were often expected to find their own solutions to their problems. Some teachers felt uncomfortable at first about this process and were frustrated by the lack of direct instruction in the workshops. Eventually, however, they recognized the value of this approach in facilitating their learning and helping them take ownership of their teaching practice (e.g., learning how to adapt practices to meet individual needs).

Spiegel (1998) suggests that teachers who use a balanced approach to literacy instruction should continuously reflect on their teaching practice and make modifications as necessary. Similarly, the Committee on the Prevention of Reading Difficulties states that self-examination and reflection are critical components of teacher development (Snow et al., 1998). Various studies in the research literature on educational change have also attested to the benefits of reflection. Anders and Richardson (1991), for example, also reported that teachers were initially uncomfortable in having to justify their use of teaching practices to colleagues, but eventually became skilled in using the process of reflection to improve their teaching. Gersten et al. (1992) found that teachers learned, through coaching, to question themselves about the appropriateness of various strategies they were using and subsequently to adapt them to their own needs and those of their students. Similarly, Sparks (1988) found that getting teachers to examine their own teaching in light of research findings can be a powerful way of implementing change. Vaughn et al. (1998), on the other hand, who did not incorporate reflection into their professional development program, found that most of the teachers in their study had difficulty understanding when and how to modify prescribed practices to meet individual students' needs.

(vii) Follow-up. Follow-up was not a formal element of the PLP professional development program. Only two administrators indicated that a resource teacher from the school district helped teachers in their classrooms during implementation year. In fact, one of the suggestions made for improving the PLP was to provide intensive follow-up to professional development (e.g., an entire week of classroom visits from someone trained by the in-service
facilitator) to assist teachers in implementing change. Fullan (1991) also finds that in-service follow-up rarely occurs. According to Joyce and Showers (1988), however, follow-up is probably necessary for transfer of learning. A teacher in Klingner et al.'s (1999) study reported that she valued the help she had received from a facilitator who worked with her in implementing changes, and felt reassured knowing, three years later, that someone was still available to answer questions and even come to her classroom and demonstrate if necessary.

**Comparison of School Districts 1 and 2**

Since the professional development system was implemented differently in the two school districts that were involved in this study, there was an opportunity to evaluate the impact of these differences. The differences between School Districts 1 and 2 in implementation of the professional development system are shown again in Table 12.

As indicated in Table 12, teachers in School G had twice the number of workshops than teachers at the other six schools. Furthermore, since the workshops were always held at their school, teachers also received more feedback from the in-service facilitator. Correspondingly, on the basis of participants' responses, the following differences were found between School G and the other schools:

1. Teachers in School G were particularly cohesive during the and collaborated continuously on all aspects of literacy education during the implementation year. They also seemed to be the most active of all PLP teachers in sharing their knowledge with teachers from other schools. In fact, the former administrator of School G, which was described as a "demonstration school," reported that they had visitors from approximately 50 schools to view the literacy program over a 6-month period. Additionally, some PLP teachers from School District 1 had visited School G to see what they were doing with their students.
Table 12

Comparison of In-service Programs in School Districts 1 and 2

<table>
<thead>
<tr>
<th></th>
<th>School District 1</th>
<th>School District 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participants</td>
<td>primary grade teachers\textsuperscript{a}, support staff, principal and/or vice-principal</td>
<td>primary grade teachers\textsuperscript{b}, support staff, vice-principal</td>
</tr>
<tr>
<td>Length of in-service</td>
<td>10 months (Sept. - June)</td>
<td>10 months (Sept. - June)</td>
</tr>
<tr>
<td>Frequency of workshops</td>
<td>monthly</td>
<td>twice-monthly</td>
</tr>
<tr>
<td>Location of workshops</td>
<td>various schools</td>
<td>School G</td>
</tr>
<tr>
<td>No. of schools at workshop</td>
<td>3 or 4</td>
<td>only School G</td>
</tr>
<tr>
<td>Classroom visits by facilitator</td>
<td>sporadic</td>
<td>before each workshop</td>
</tr>
<tr>
<td>Student assessment</td>
<td>type and amount varied across schools</td>
<td>end of implementation year and in subsequent years</td>
</tr>
</tbody>
</table>

\textsuperscript{a}Team of primary grade teachers from Schools B, C, D, E, and F; all primary grade teachers from School A. \textsuperscript{b}All but one primary grade teacher from School G.

2. All teachers in School G reported that they had become more reflective as a result of the professional development.

3. The staff at School G was the most active in immersing new teachers in the PLP. New teachers each received their own set of professional development materials from the in-service program and were shown videos on literacy practices such as guided reading. Furthermore, resource teachers demonstrated how to do certain activities and PLP teachers had assumed the role of mentor to newcomers.

4. All teachers at School G reported that the focus on literacy within their school had either remained the same or increased since the professional development program; in contrast, some teachers in School District 1 felt that it had diminished within their school after the professional development year was over. Moreover, interest in the PLP had been sustained despite a change in administration.
These differences suggest that more intense professional development provides not only greater opportunity for learning, but also enhances the likelihood of sustained transfer of learning through process elements such as feedback, peer support, and reflection.

In addition to differences in intensity of professional development, the reading of professional development materials was handled differently in the two school districts. While teachers in School District 1 were requested to read the materials concurrently with professional development, teachers at School G read the materials during the summer prior to the program. One teacher from this school felt that she and her colleagues were well prepared for the workshops because they had already read all of the materials. She also indicated that she and some of her colleagues had typed summaries from some of the materials (e.g., guided reading lessons for various levels of readers) and had prepared lessons for supply teachers. However, whereas reading the materials before the workshops may have helped prepare teachers for the program, it also precluded the opportunity for teachers to discuss the readings with their colleagues.

Context for Implementing Change Through Professional Development

Factors that either facilitated or constrained participants in their efforts to implement and sustain changes are discussed in this section.

Facilitating Factors and their Impact on Teacher Self-efficacy

The following factors not only facilitated the implementation of change but also helped teachers in sustaining the changes that they made through their positive impact on teachers' sense of self-efficacy: (a) increased knowledge pertaining to literacy development, (b) observation of benefits to students, and (c) a strong support network.

(a) Increased Knowledge

As noted earlier, teachers felt that they had acquired a solid foundation of knowledge about literacy development and, as a result, seemed very confident in their ability to help students learn to read and write, even some of the students whom they previously might have labeled "unteachable."
(b) Benefits to Students

An additional source of empowerment for PLP teachers was their observation of remarkable improvement in student learning outcomes. Overall, both teachers and administrators felt that the PLP had made a strong impact on the general literacy level of students at their school. Moreover, there was very little variance in participants' perceptions: 35 out of 38 participants rated the impact of the PLP on student learning as either fairly or very strong. Similarly, according to regular classroom teachers, a greater proportion of students in their class were reading and writing at grade level than below grade level three years following the in-service program, and some teachers had noted that students were performing better on standardized testing. Furthermore, students had been acquiring literacy skills at an earlier age and making faster progress according to teachers.

These perceived changes, along with other observed changes in students such as increased motivation and self-efficacy and improved classroom behaviour, seemed to have made a substantial impact on teachers' feelings about their teaching ability: 21 of the 30 teachers reported feelings that reflected improvement in their sense of self-efficacy since the project started, such as gratification in their students' performance in the classroom and on standardized testing, confidence in their teaching ability, and pride in their literacy programs. Moreover, 27 of the 30 teachers—as well as all 10 administrators—felt that the PLP had made either a fairly or very strong impact on the way literacy was being taught in their schools.

Other investigators also argue that observing, or, more importantly, seeing concrete evidence of improvements in students can have a significant impact on teachers' self-efficacy. Pinnell et al. (1994), for example, suggest that teachers need to be exposed to professional development simultaneously with practice with their own students in order to be able to see the outcomes of changes they have made. Similarly, Gersten et al. (1995) found that observing improvement in the performance of students who were previously doing poorly motivated teachers to continue trying to improve instruction. Guskey (1986) has shown that lasting change in teachers' beliefs and attitudes occurs only after evidence of changes in student learning outcomes has been provided.
(c) Support Network

Another major factor that appeared to help teachers substantially in implementing and sustaining changes to their literacy programs was the existence of a strong support network. PLP teachers in collaborative settings, especially teachers at School G, seemed to thrive within a collegial community; an administrator at School A and a teacher at School G even noted that they found the cohesiveness of their staff remarkable.

Teachers were aware that they had been benefiting in a number of ways from the increased collaboration that had occurred as a result of expectations as well as opportunities for them work together while participating in the PLP. As an example, they had not only been benefiting from each other's knowledge, such as finding out about new ideas that they could use in their classroom or learning whether certain activities were worth implementing, but they had also gained confidence to try new strategies through support from their peers. Several investigators have also pointed out that teachers learn from each other "on the job," either by observing each other in their classrooms or simply chatting in the staff room or the hallway (e.g., Joyce et al., 1989; Little, 1982; Smylie, 1989). Consultation with other teachers, for example, was one of the strongest sources of learning by teachers in Smylie's (1989) study following direct experience in the classroom. Moreover, as Darling-Hammond (1996) points out, knowledge gained through peers can lead to improvement in student learning outcomes and to a corresponding increase in teacher self-efficacy. Little (1982), Rosenholtz (1989), as well as Ashton and Webb (1986) have all found that student achievement is higher in schools in which there is a high amount of teacher collaboration and, correspondingly, teacher confidence.

Another outcome from the increase in teacher collaboration was improved consistency in teaching practices throughout the school. Not only had teachers benefited from this consistency (e.g., knowing what students had learned the previous year; building on students' existing knowledge about activities and routines; being on the same wavelength as colleagues and administrators), but students also appeared to have benefited: Teachers noticed a remarkable difference between new students from non-participating schools and students who had previous exposure to PLP methods. Klingner et al. (1999) also found that school-wide implementation of teaching strategies made it easier for teachers to continue using them. Furthermore, there is a
substantial amount of evidence in the research literature that a strong collegial community is conducive to the implementation of lasting change following in-service professional development (e.g., Fullan, 1991; Little, 1982; McLaughlin, 1993; Rosenholtz, 1989).

Another benefit to PLP teachers from increased collaboration was having resource materials already prepared or available that they could share with each other. In all but one of the schools in this study, teachers worked together on tasks such as selecting and grading new reading materials, making book bags for overnight borrowing, and preparing resource materials for classroom use. School G teachers, who indicated that they generally made joint decisions at each grade level about everything, found that they saved both time and money by sharing most of their materials with each other. In fact, one of the suggestions for improving the professional development program was to allow some time during the workshops for preparing resource materials. According to Little (1990), joint work is the strongest form of collaboration. Teachers in Klingner et al.'s (1999) study also found that having materials prepared in advance by the in-service facilitators and support staff helped them substantially in implementing new instructional practices.

Finally, sharing knowledge at meetings and professional conferences had also contributed to increased self-efficacy for teachers who were given these opportunities according to the superintendent of schools. As an example, a teacher who had conducted a large number of workshops and welcomed many visitors to her classroom since the PLP started indicated that she had become much more confident in giving presentations. McLaughlin (1991) suggests that encouragement from colleagues can help teachers feel more confident about implementing new practices. Similarly, Kennedy and Hodgens (1989) have observed that confident teachers, when given the opportunity to share experiences with colleagues, seem to have a positive influence on student attitudes and learning.
Impeding Factors

The following factors were found to have a negative impact on implementation and sustainability of change: (a) competing demands, (b) weak administrative support, (c) administrative turnover, (d) isolation, (e) staff turnover, and (f) difficulty helping students with severe reading disabilities.

(a) Competing Demands

The most common problem reported by PLP teachers was lack of time, particularly the difficulty in finding time to cover all Literacy Diet components and still have time for other subjects. At the time of their interviews, teachers were finding it particularly difficult to maintain their focus on the PLP because of several competing demands such as a new curriculum, a new report card, and province-wide standardized testing for Grade 3 students (i.e., EQAO testing). As the superintendent of schools reported, administrators and teachers were particularly concerned with students' poor performance on recent EQAO testing in mathematics; consequently, the focus in some schools had shifted to mathematics as well as science. Furthermore, in School District 2, according to the former school administrator, schools were not receiving district support for phonics instruction and were being required instead to implement another program for which there had never been any research regarding its effectiveness.

In Klingner et al.'s (1999) follow-up study to professional development provided three years earlier, time constraints were also found to be a persistent theme that influenced teachers' decision making. For example, while teachers felt that the time they set aside for certain activities "would hardly have been enough time for full implementation in the best circumstances" (p. 271), their difficulties were exacerbated by frequent interruptions. Furthermore, Klingner et al. also found that upcoming "high-stakes" testing interfered with implementation of new instructional practices as teachers became preoccupied with preparing students for these tests.

(b) Weak Administrative Support

The pattern illustrated in Table 13 suggests that there may be a relation between teachers' perceptions regarding administrative support and their level of involvement in a professional
development initiative (e.g., participation in school meetings, collaboration with colleagues). However, although School D teachers' comments regarding lack of administrative support were relatively consistent, it should be noted that other factors may have also impeded the effectiveness of the project at this particular school (e.g., participation in professional development program was mandated by school administrator according to teachers), particularly since this pattern was found in only one school in this study.

Table 13

Relation between Participant Involvement in PLP and Administrative Support During Implementation Year

<table>
<thead>
<tr>
<th>School</th>
<th>School meetings</th>
<th>Collaboration within school</th>
<th>Administrative support</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>B</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>C</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>D</td>
<td>no</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td>E</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>F</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>G</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
</tbody>
</table>

Teachers at School D were cognizant of the possible connection between weak administrative support and their own involvement in the PLP. As an example, one teacher felt that the lack of leadership and direction regarding the PLP from the former administrator was typical of the climate which existed at the school during the PLP (i.e., a non-collaborative culture). Moreover, she attributed this administrator's lack of interest in the PLP to upcoming retirement. The administrator's lack of interest seemed to have had a strong influence on the staff's involvement in the PLP: No school literacy meetings were held during the implementation year and teachers worked independently except to select reading materials for students. Furthermore, the school administrator made no attempt to monitor either school meetings or collaboration among teachers. Teachers also reported that there was a lack of
consistency in teaching practices throughout the school. Although teachers claimed, during their interviews, that they were still following practices from the project, when questioned further it was revealed that they were talking only about the Jolly Phonics program. Similarly, new teachers were only told about the Jolly Phonics program, and one teacher reported that new teachers have no idea to whom she was referring if she mentioned the name of the PLP in-service facilitator.

The research literature also shows that teachers' interest and involvement in professional development is influenced by administrators' beliefs and values. Daresh (1987) and McLaughlin (1991) both suggest, for example, that teachers tend to lose interest in professional development if it is not valued and encouraged by administrators. According to Leithwood and Montgomery (1982), principals who are less effective in influencing teachers' actions and thereby indirectly influencing student learning provide minimal professional development for their teachers and rarely participate in it along with their teachers. Furthermore, they are less active in providing teachers with opportunities to visit and interact with other teachers for the purpose of professional development. Leithwood and Montgomery also found that less effective principals are not actively involved in monitoring teaching practices. Moreover, they do not encourage teacher participation in change efforts and may even choose uninfluential staff to participate in an innovation, thereby hindering the possibility that it will be implemented throughout the school. Similarly, Hall (1988) found 40% fewer interventions in schools with administrators who lacked a clear vision of school and teacher change and who generally focused on traditional administrative tasks, allowing teachers to take the lead in implementing change.

(c) Administrative Turnover

Table 14 shows the effects of administrative turnover on (a) collaboration and sharing and (b) efforts to educate new staff members after the implementation year. As indicated in this table, teachers at three of the schools with a new administrator who had previously participated in the PLP (i.e., Schools A, C, and E) did not notice any effect from a change in administration. Teachers at School C felt particularly fortunate because their new administrator had already been involved with the PLP before arriving at their school. Teachers at Schools A and E—where the new administrator participated in the PLP in-service program with junior-level teachers during
the year following implementation—did not perceive any negative impact from the change in administration either. Teachers at each of these three schools were still sharing their knowledge with teachers from other schools three years after the in-service program had ended (e.g., participating in conferences, welcoming visitors to their classrooms) and had been introducing the PLP to new teachers at their school. The new administrator at School D had also been involved with the PLP at a former school; however, it was too soon to determine whether the change in administration had made an impact. Nevertheless, some teachers at this school felt that collaboration within the school had increased since the implementation year. Moreover, an increase in collaboration following the change in administration at School D would provide additional support for the potential connection between weak support from the previous administrator and lack of involvement by School D teachers in the project.

Table 14

*Effects of Turnover in Administration After Implementation Year*

<table>
<thead>
<tr>
<th>School</th>
<th>Participation by new administrator in PLP PD</th>
<th>Effect of turnover in administration</th>
<th>Collaboration and sharing since implementation year</th>
<th>Educating new staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>yes</td>
<td>no change</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>C</td>
<td>yes</td>
<td>no change</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>D</td>
<td>yes</td>
<td>unknown&lt;sup&gt;a&lt;/sup&gt;</td>
<td>increased collaboration, no sharing</td>
<td>no</td>
</tr>
<tr>
<td>E</td>
<td>yes</td>
<td>no change</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>F</td>
<td>no</td>
<td>negative</td>
<td>minimal</td>
<td>minimal</td>
</tr>
<tr>
<td>G</td>
<td>no</td>
<td>no change</td>
<td>yes</td>
<td>yes</td>
</tr>
</tbody>
</table>

*Note.* School B is not included in this table as there was no change in administration there after the implementation year. PD = professional development.

<sup>a</sup>No data provided on effect of turnover for School D because the new administrator had only recently arrived.

The change in administration had a different effect at each of the two schools in which the new administrator had not participated in PLP professional development. At School F, teachers
indicated that the new administrator had not been giving the same support to the project as the former administrator who had been very involved in it. Furthermore, they stated that this particular administrator expected teachers to shift their focus to mathematics—at the expense of the focus on literacy—as students had recently been performing below grade-level expectations. Table 14 shows the impact that this change has had on the project: Sharing with teachers at other schools had decreased and teachers were providing minimal support to new staff. Likewise, since new teachers were using different strategies, the level of collaboration within the staff and school-wide consistency had decreased. Moreover, since the new administrator and the staff did not seem to be "on the same wavelength" regarding the PLP, teachers' interest and commitment to it did not appear to be as strong as it was at other schools three years following the in-service program.

According to the staff at School G, the new administrator was supportive, but was not involved in any aspects of the project. However, although the original administrator (i.e., the administrator who was at the school during implementation year) actually initiated the project at that school, and was actively involved in it and very supportive during implementation, the change in administration did not appear to have any impact. As teachers indicated, the primary grade staff was particularly cohesive, with a strong chair who was a good leader and motivator. Consequently, their interest and involvement with the project continued after the original administrator left. Teachers were "still just as dedicated as ever" three years later (P3).

(d) Isolation

Another barrier to sustained implementation of change as reported by some teachers was the feeling of being isolated. While most participants benefited from collaborating with colleagues, some teachers did not have this advantage. One of the teachers at School G, for example, who, due to extraordinary circumstances, was working at another school during the implementation year, said that she felt cheated by not having the support of her peers within her place of work. Similarly, one of the teachers at School D, where there was very little, if any, collaboration during the implementation year, felt she was at an even greater disadvantage because she was the only Kindergarten teacher, and stated that she would consider participating in another long-term in-service program only if the level of collaboration within the school were
to improve. Similarly, other teachers who also remarked that they did not have the benefit of working with other teachers at the same grade level noted that they had fewer opportunities for interaction with peers and, consequently, experienced greater difficulty during the implementation year. Moreover, they had even greater difficulty continuing the project after the implementation year since teachers were no longer meeting regularly to discuss literacy.

The literature on teacher collaboration confirms that teachers who feel isolated have difficulty applying knowledge and skills acquired through in-service professional development, and, as a result, are less likely to grow professionally (e.g., Snow et al., 1998, Klingner et al., 1999). Veenman et al. (1994) suggest that teachers who feel isolated are less confident about their ability to implement change. Rosenholtz (1989), who emphasizes that isolated teachers have less access to colleagues' knowledge, found that only about one fourth of teachers in isolated schools exchanged materials and ideas, and none of them reported instructional problem-solving or planning with colleagues.

(e) Staff Turnover

Participants at Schools B, C, D, F, and G had noticed some impact of staff turnover on continuation of the project. Since not all new teachers had adopted practices from the PLP, some participants noted effects such as decreased collaboration within grade levels, lack of school-wide consistency, and discontinuation of activities such as guided reading.

Some PLP participants felt that the approach in which a team of teachers attended the workshops then educated the rest of the staff was a disadvantage because of the inevitability of staff turnover. Anticipating that time spent training only some teachers would be wasted when staff inevitably left the school, one of the administrators in School District 1 insisted that the entire staff participate in the professional development program. Similarly, a teacher from School District 2—where all but one primary grade teacher participated in the professional development program—remarked: "She can train the trainer, but the first plateau will benefit the most" (T26). Some teachers also felt that including only some teachers in the in-service program caused some polarization among the staff. A few teachers, for example, found it difficult to talk about the PLP with non-participating teachers who had many years' teaching experience and pre-conceived notions about it.
Difficulty Helping Students with Severe Reading Disabilities

A final concern that was voiced by some PLP participants was the difficulty meeting the needs of all students. Two administrators, for example, were concerned that there were some students who were still not responding to teachers' efforts. As the in-service facilitator suggested, however, approximately five percent of the school population find learning to read unusually difficult, no matter how intensive an education they receive. Consistent with her belief, Jackson, Paratore, Chard, and Garnick (1999) found that their well-designed early intervention model, which involved key elements such as theory, demonstration, peer support, reflection, and in-class coaching—and was developed specifically for special education students who are severely delayed in literacy acquisition—failed to bring most of their second grade students up to or near grade level. Similarly, a longitudinal study by Torgesen, Wagner, and Rashotte (1997) showed that while the phonetic reading skills of children with severe reading disabilities improved after 2 1/2 years of intensive, one-to-one supplemental reading instruction in phonological awareness and phonics, their real-word reading ability and reading comprehension skills did not improve correspondingly. They concluded:

Despite truly significant advances in our understanding of the nature of reading disabilities and of the reading process itself, there remain large gaps in our knowledge about how to assist children with the most severe reading disabilities to learn to read effectively.

(p. 230)

Model of In-service Professional Development for Early Literacy Educators

On the basis of the findings of this research, a tentative model of in-service professional development for early literacy educators has been developed. This model, which is depicted in Figure 17, outlines the major elements that should be included in the professional development process in order to help teachers and school administrators implement research-based teaching practices. It also indicates the roles of each of the individuals who are key figures in the implementation process as well as their influence on one another. These roles are described in further detail following the diagram of the model.
Figure 17. Model of in-service professional development for early literacy education.
Roles of Participants

The professional development system on which this study was based—The Balanced and Flexible Literacy Diet—is a self-maintaining system in which, after the initial period of professional development, teachers and school administrators are expected to continue to grow and develop together without the need for continuous external input (Willows, 1994). However, as implied by one of the themes that emerged from the findings of this study—"teamwork"—all individuals who are involved with the system must continue to work together as a team and carry out the various functions pertaining their role to maintain its effectiveness. Each of these roles is discussed and related to data in the research literature below.

School District Leader

The primary responsibility of the school district leader or superintendent of schools in an initiative to facilitate change in early literacy education through professional development is overseeing the implementation. In one of the school districts that were involved in this particular study (i.e., School District 1), the professional development initiative was actually initiated by a superintendent of schools who was concerned about the relatively low level of student achievement in literacy in the elementary schools within his area (i.e., three families of schools). Moreover, this particular superintendent of schools became actively involved once the project started, such as participating in the professional development program along with teachers and school administrators, visiting classrooms to monitor implementation, facilitating visits to non-participating schools so that teachers could share their knowledge and demonstrate skills, as well as giving teachers the opportunity to share their accomplishments at administrative meetings and professional conferences, thereby acknowledging their work and increasing their sense of self-efficacy. In addition, he personally allocated school district resources toward the project (e.g., supplying each participating teacher with copies of the professional development materials) and met regularly with school administrators to ensure sufficient funds were allocated for literacy development and to monitor progress. Although this level of involvement in a literacy initiative is unusual for an area superintendent of schools, his personal involvement seemed to impress and motivate teachers, as well as provided additional validation and confirmation of his commitment to long-term professional development.
Sansone (1995), a superintendent who was also actively involved in his school district's initiative to implement change in literacy education, contends that the superintendent should be directly involved in a major professional development initiative because such involvement adds credibility and provides teachers, parents, and students with a strong message of the school district's commitment to literacy development.

Together with the school administrators and the in-service facilitator, the school district leader should also be involved in developing an overall literacy theory-to-practice plan for implementation and sustainment of change.

**School Administrator**

Each school administrator is responsible for monitoring implementation within his or her school. To facilitate implementation, the school administrator should be involved in every stage of the process. The school administrators who participated in the PLP played a pivotal role according to all participants: Their beliefs, attitudes, and behaviours had an impact on every aspect of the project. By attending the in-service workshops along with their staff, for example, they helped to validate the program, confirmed their commitment to teachers' continuing professional development, and provided a common basis for communication, particularly at identification, placement, and review committee meetings pertaining to special needs students. Daresh (1987) and McLaughlin (1991) confirm that teachers have a more positive attitude towards professional development when administrators demonstrate a continuing commitment to it.

At all but one of the schools involved in this study, school administrators were actively involved in many other aspects of the project in addition to participating in professional development during the implementation year. As an example, all but one administrator—who regularly visited classrooms—attended the school literacy meetings. In contrast, while Leithwood and Montgomery (1982) have found that effective principals make a point of attending all or at least the initial sessions of professional development, they report that only 50 percent of administrators are directly involved in teachers' efforts to implement change. This contrast suggests that the professional development initiative was especially effective in engaging school administrators.
PLP school administrators provided teachers with support in many different ways throughout the project, such as facilitating collaboration among teachers by encouraging them to meet and providing them with release time, providing adequate funds for resource materials, and following up to make sure that they were implementing practices from the professional development program. Moreover, as indicated by teachers' positive responses regarding administrative support, administrators made it safe for teachers to examine their teaching practice critically and take risks with new instructional strategies as well as to incorporate phonics instruction into their literacy programs. School administrators also helped teachers feel good about themselves by acknowledging their accomplishments and asking them to share their expertise with others (e.g., encouraging them to demonstrate their use of specific strategies at professional conferences; asking them to participate with students in videos to demonstrate effectiveness of their programs; bringing visitors to their classrooms). Additionally, some school administrators reported that they encouraged leadership by asking teachers to lead the school literacy meetings as well as to educate staff members who were not participating in the program.

Similarly, Rosenholtz (1989) reported that administrators in collaborative schools not only encourage helping behaviour, but also make leadership a responsibility for every teacher, and Fullan and Hargreaves (1996) state that administrators who are effective in developing a collaborative school culture encourage teachers to meet regularly and provide release time for collaborative planning. Moreover, Leithwood et al. (1999) suggest that administrators can contribute significantly to teacher development by recognizing their accomplishments and reducing their anxiety about implementing change.

Assessment is an integral element of the overall plan of implementation and sustainment. In addition to overseeing implementation, the school administrator should evaluate the effectiveness of a professional development initiative in promoting change by initiating assessment of student learning outcomes on a regular basis. Some administrators in School District 1 initiated assessment strategies within their schools; standardized assessment was a mandatory component of the PLP in School District 2. Veenman et al. (1994) found that schools in which teachers had successfully implemented strategies acquired through in-service professional development had principals who provided substantial direction and "steered their
teachers to the intended innovation goals" (p. 316) when necessary. Furthermore, they also set up follow-up meetings at periodic intervals when the in-service program had ended and monitored teachers' action plans for using new knowledge and skills.

Some PLP teachers mentioned that school administrators tried to supplement professional development by circulating journal articles and referring to concepts from the in-service program. The majority of PLP participants (28 out of 39 participants), however, did not feel that an administrator (or teacher) within their school could have provided the professional development, especially since nobody within their school had as much knowledge and expertise as Dr. Willows. One administrator even remarked that teachers think that administrators do not know anything about pedagogy. Similarly, teachers in Smylie's (1989) survey rated administrators as one of the least effective sources of teacher development.

Finally, the school administrator should ensure that school literacy meetings are held on a regular basis and are used as formal rather than incidental learning opportunities to complement professional development workshops. As Kilbourn (1990) points out, opportunities to engage in discussions about teaching practice are limited. Regularly scheduled meetings would ensure that teachers have opportunities to benefit from each other's knowledge and experience. In order to capitalize on these opportunities for learning, certain changes should be made: First, general agendas for each of the meetings would help ensure that the meetings are productive and useful. Second, an agenda specifically for discussing theoretical material would ensure that teachers have read the professional materials and have opportunities to ask questions if needed. Finally, opportunities for teachers to demonstrate the use of various strategies as well as to receive constructive, non-evaluative feedback on their performance from their peers should be included in these meetings. In sum, school administrators should be responsible for ensuring that every available opportunity should be used to enhance, reinforce, and sustain teachers' learning of new concepts, approaches, and skills both during and following professional development.
In-service Facilitator

The in-service facilitator is another key member of the team of individuals who work together in improving the quality of early literacy education. At the initial stages of implementation, the facilitator, who often functions as a catalyst for change, may work together with the school district leader and school administrators in designing and implementing the literacy initiative. Then, through presentation and discussion of theory, demonstration of strategies, as well as encouragement of reflection and sharing, the facilitator leads participants in putting theory into practice. Additionally, depending on logistical factors, the facilitator may also monitor teachers' attempts to implement change.

Allington and Cunningham (1996) also suggest that the in-service facilitator can act as a catalyst as well as a "surveyor of the broader picture." According to Veenman et al. (1994), who found a strong positive relationship between the practicality of the teacher educator and the effects of in-service professional development on application of newly acquired knowledge and skills, the extent to which the in-service facilitator provides teachers with practical recommendations may have an impact on teachers' perceptions of the consultant's role. Consistent with this suggestion, the majority of PLP teachers who were interested in participating in the PLP reported that they wanted to find out about different strategies and activities that they could use in the classroom. Furthermore, most participants noted that the in-service facilitator had led them to excellent resource materials and strategies that could be used in the classroom. Daresh (1987) argues, however, that while practical issues are of high interest to teachers, they do not want to feel that professional development is offering them immediate, simplistic answers to complex problems.

Early Literacy Specialist

A key element of this model of professional development is a new role which should be created to ensure that teachers are provided with continuous support during implementation and sustainment of change as well as ongoing professional development: The "early literacy specialist," who would ideally be situated within each school on a full-time basis, would have two main areas of responsibility: (a) facilitating the transfer of learning through in-class coaching, modeling, feedback, and follow-up to professional development activities in which
teacher participate directly and (b) providing ongoing professional development to regular classroom teachers and support staff by attending centrally-organized professional development activities (i.e., workshops organized by the school district) on a regular basis and subsequently sharing research-based knowledge with them. As a result, teachers would have continuous access to current research-based strategies and knowledge.

On the basis of findings from this study, the new role of early literacy specialist is needed for the following reasons:

1. This new role would ensure ongoing access to current research findings by teachers as well as the continuity of knowledge gained through professional development within the school despite inevitable staff changes.

2. An early literacy specialist could ensure that the focus on literacy is maintained despite a change in administration. As illustrated in the case of School F, interest in maintaining the outcomes of professional development can fade when there is no longer someone to keep it sparked. Moreover, a new administrator may have a different agenda and can unintentionally intimidate teachers and newcomers into moving their focus away from the project. In School G, on the other hand, the leadership and support that teachers received from the chair of the primary division helped maintain their focus on the project once the original administrator had left.

3. The early literacy specialist could perform certain functions that may not otherwise be fulfilled, such as providing systematic feedback and follow-up to professional development.

4. As Kilbourn (1990) points out, consultants and administrators are usually perceived as having more "power" than the classroom teacher; differences in power can complicate certain elements of professional development such as feedback. However, as Kilbourn adds, teachers may lose the opportunity to receive feedback on an ongoing basis if it is limited to individuals who are perceived to be of equal status (i.e., teachers with identical amounts of experience). Thus, a possible solution would be to provide teachers with feedback from a teacher who has experience in the "art of constructive feedback" (Kilbourn, 1990, p. 103), that is, an early literacy specialist.
5. According to findings from this study as well as other studies in the research literature, teachers prefer to receive professional development from other teachers rather than from a school administrator.

In summary, the role of early literacy specialist should be created to support teachers in implementing and sustaining change through professional development and should involve the following responsibilities:

- providing ongoing professional development to ensure that research-based knowledge continues to enhance practice;
- coaching teachers regularly in their classrooms through modeling, guidance, and feedback, as well as offering assistance as needed;
- following up professional development in which teachers participate directly by monitoring that they are benefiting from workshops and applying their knowledge and skills in the classroom;
- "mentoring" new teachers;
- facilitating ongoing school literacy meetings after the implementation year to maintain interest and facilitate collaboration, particularly at schools in which there is a risk of isolation once professional development has ended;
- coordinating sharing sessions with teachers from other schools;
- encouraging teachers to attend and participate in professional conferences on literacy.

**Teachers**

Teachers can help one another in many ways during professional development and while attempting to implement change, such as sharing ideas and experiences, preparing resource materials together, modeling strategies, suggesting solutions to problems, planning their programs and preparing resource materials together, team teaching, and providing each other with constructive feedback. Furthermore, they can give one other emotional support, inspiration, and encouragement, and even set expectations for sustaining improvements. In addition, they can extend the effects of professional development further by serving as mentors to new staff, involving parents in the implementation process, and sharing their expertise with teachers who have not participated in similar professional development.
Parents

Some of the school administrators who participated in the PLP felt strongly about the importance of parental involvement to the process of improving early literacy education. One administrator, for example, who reported that an entire school week each year was spent educating parents of new students regarding various facets of the literacy program, argued that parental involvement was one of the factors contributing to the school's success in maintaining the focus on literacy. Similarly, another administrator reported that literacy workshops were held for parents during Education Week and that efforts to involve parents in their students' education had been reciprocated as the parent council had been raising a substantial amount of money toward the purchase of new resource materials each year. Similarly, other administrators indicated that the parents of their students had become much more involved in their children's education, particularly in monitoring their homework. As one administrator observed, the changes in parents' attitudes toward their children's literacy education occurred once students started showing signs of improvement, and that their new-found involvement in their children's education was a reflection of their change in attitude.

In his "inside-outside" story of educational reform, Fullan (2000) describes the parent as one of the "powerful external forces that schools must contend with and turn to their advantage" (p. 582). He argues that since parents, teachers, and students must share a rapport for learning to occur, educators need to view parents more as part of the solution than as part of the problem.

Support Staff

Support staff (i.e., special education, ESL, and resource teachers) can also help regular classroom teachers throughout the process of implementing change through activities such as modeling, coaching, and providing feedback. The special education and ESL teachers who participated in the PLP provided regular classroom teachers with support in various ways, such as sharing knowledge and practical methods, helping them understand how to implement practices that were described in professional development materials, helping them prepare materials for classroom use, and educating staff members who were not participating in the program. Additionally, resource teachers from the school district field office occasionally visited
some schools to share ideas that they had observed in other participating schools or to assist teachers in implementing changes.

In the following chapter, conclusions regarding the process of implementing change in early literacy education through in-service professional development are presented. Additionally, the limitations of this study and its implications for future research are discussed.
CHAPTER SEVEN: CONCLUSIONS

The primary purpose of this study was to examine the ways that primary-level teachers implemented and sustained changes in their literacy teaching practice as a result of in-service professional development in which they participated three years earlier. Through the use of qualitative research methods, the key issues and concepts that were involved in the process of implementing change through professional development have been identified. Furthermore, quantitative analyses have shown that teachers learned and maintained knowledge of many of the concepts from Willows's (1994) Literacy Diet model that was used as a framework for professional development. Finally, on the basis of the findings of this study as well as other studies in the research literature, a tentative model of in-service professional development for facilitating the implementation of lasting change in early literacy education has been developed.

In this chapter, highlights of the impact of the PLP are presented along with evidence of its long-term impact, followed by a summary of the contributions of this research, a discussion of its limitations, and, finally, recommendations for future research.

Highlights of the Impact of the Primary Literacy Project

The unequivocal impact of the PLP on students, teachers, and administrators within the schools that participated in it suggests that the content, process, and context of the PLP in-service professional development were effective in engaging teachers and administrators as well as in facilitating the implementation of lasting change in early literacy education. The following highlights illustrate the effectiveness of the PLP:

- all participants (except for three school administrators who were unable to provide an opinion because they had relocated) felt that the overall long-term effect of the project was positive;
- 35 out of 38 participants felt that the PLP had made a strong impact on the general literacy level of students in their school;

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10 Proportions indicated in these highlights vary according to the number of participants who responded to the applicable interview question.
• student literacy levels had risen since the PLP was initiated according to each of the 21 teachers who compared current students with students they had taught previously;

• almost three-quarters of the current student population across all of the participating schools was reading and writing at or above grade level according to regular classroom teachers;

• 27 of the 30 teachers—and all 10 administrators—felt that the PLP had made a strong impact on the way that literacy was being taught;

• 21 out of 26 participants felt that collaboration within their school had either increased or stayed the same since the implementation year;

• 21 of the 30 teachers indicated that their self-efficacy had increased since the project started;

• all five school administrators who were still situated at PLP schools said that teachers were still following practices that came from the project;

• 23 out of 27 participants felt that the focus on literacy within their school had either increased or stayed the same since the implementation year;

• teachers showed significantly greater familiarity with the components of a balanced literacy program three years following in-service—based on their ability to define literacy terms that should be conventional wisdom—than teachers who did not participate in the project.

Evidence of the Long-term Impact of the Primary Literacy Project

According to most of the teachers as well as the five administrators who were still situated at participating schools, teachers were still using PLP strategies three years after the implementation year. Although quantitative evidence that teachers had actually sustained changes was not acquired as part of this study, there are three main sources of support for their claims. First, the methodological use of triangulation in this study enhanced the credibility of the findings: Not only were data acquired from a relatively large sample (i.e., 40 participants), but different types of sources were used (i.e., regular classroom teachers, support staff, school administrators, and a superintendent of schools, as well as seven different schools within two different school districts). Furthermore, because teachers were assured that all data would be reported anonymously and that they would not be judged on the basis of their responses, they were more likely to report what was really happening in their classrooms. Second, PLP teachers had not only learned many of the concepts pertaining to The Literacy Diet, which was used as the framework for the professional development program, but also demonstrated that they had been
applying the knowledge in their classrooms through their ability to describe activities that they would use to develop Literacy Diet components with their students. Finally, teachers' familiarity with most of the professional development materials to which they had been introduced three years earlier—as well as the activities described in them—provides further support for participants' reports that teachers were still following practices from the project.

Contributions of the Research

Many of the findings from this study confirm and provide additional evidence for other findings in the research literature. The major contribution of this study, however, has been to identify the key content, process, and context factors that influence the effectiveness of in-service professional development in facilitating the implementation of change in early literacy education. This contribution to the professional knowledge base can aid practitioners in planning, developing, and implementing in-service professional development that leads to lasting change in early literacy education. Each of these factors is summarized below.

Content Factors

1. Teachers find The Literacy Diet metaphor meaningful and helpful in making them aware of all of the components that should be included in their literacy program in order to provide their students with balanced literacy instruction.

2. Teachers want to be given "permission" to include phonics instruction in their literacy program.

3. Teachers value professional development that guides them in putting theory into practice.

Process Factors

1. Sustained transfer of knowledge and skills to classroom use is facilitated by including all of the following elements in professional development: (a) discussion of theory, (b) demonstration of research-based teaching strategies, (c) practice of new skills, (d) feedback on performance, (e) in-class coaching, (f) classroom visits, (g) peer sharing and support,
(h) reflection on teaching practice, and (i) follow-up to professional development.

2. School meetings on literacy between professional development workshops provide additional opportunities for teachers to build and consolidate their knowledge, as well as to receive support and feedback from peers.

3. Educators benefit most from in-service professional development that is long-term and intensive.

Context Factors

1. Teachers are more likely to implement and sustain changes in their teaching practice if they are part of a strong collegial community that enables them to discuss their knowledge, ideas, and experiences, and provides them with encouragement and even expectation for continuing implementation. Furthermore, collaboration among staff members facilitates school-wide consistency in teaching practices.

2. Administrative support is crucial to the success of an in-service professional development initiative. Administrators influence teachers' beliefs, attitudes, and behaviours at each stage of professional development, such as initiating and sustaining their interest, monitoring their involvement, encouraging application of knowledge and skills to classroom practice, creating a climate that is conducive to change (e.g., collaborative culture; supportive of risk-taking), acknowledging their accomplishments, and encouraging them to share their knowledge with others.

3. There is a need for an early literacy specialist who would assist the school administrator in supporting teachers as they implement change through professional development and monitor sustainment of change once professional development has ended by assuming responsibility for activities such as following up professional development, providing in-class coaching (e.g., modeling, feedback), monitoring school literacy meetings, and encouraging teachers to collaborate and share their knowledge with others. Moreover, by attending centrally-organized professional development workshops and subsequently sharing newly acquired knowledge with the rest of the staff, the early literacy specialist would ensure that all teachers are provided with continuous research-based professional development.
4. Teachers are motivated to sustain improvements to their teaching practice if they are provided with evidence of the impact of the changes on student learning outcomes. Thus, ongoing assessment of student learning outcomes is an integral part of any professional development initiative.

Limitations of the Study

While the findings of this research have contributed toward a better understanding of how to implement large-scale change in literacy education effectively through in-service professional development, some of the procedures involved in this study might have increased its viability if they had been handled differently. The various limitations in methodology and design as well as practical limitations are addressed below.

One of the limitations of this study was that I recorded participants' responses by hand and did not transcribe the audiotapes. Although I took very detailed notes and used the audiotapes when necessary to check the accuracy of participants' remarks, some details from the interviews might have been omitted despite these efforts.

A second limitation of this study was my use of a manual cut-and-paste approach rather than a computer program to code the data. Not only was it difficult at times to locate data in file folders as well as on audiotapes, but a computer would have been more efficient for conducting certain analyses (e.g., counting the number of participants who gave a particular response).

A third limitation was the result of turnover in staff and administration following the in-service program. As in most longitudinal studies, some of the teachers and administrators who had participated in the in-service program three years earlier were unavailable to participate in this follow-up study (e.g., some participants had retired; some schools did not participate in the follow-up study). Consequently, the perceptions of about half of the original participants were not represented. While the reason for collecting data three years after the in-service program was to determine whether changes implemented as a result of professional development were lasting, data collected immediately after professional development would also have been useful both to enrich and contrast the findings.
A fourth limitation was that the professional development program that was provided to PLP participants may have been slightly different from the program provided earlier to teachers in Experimental Group 1 (i.e., teachers whose understanding of Literacy Diet concepts was assessed immediately following professional development). Although I recoded the responses of teachers in Experimental Group 1 and the Control Group to ensure that the same criteria were used for all participants, teachers' responses may reflect slight differences in professional development.

A fifth limitation of this study was that the data were not analysed until all of the teacher and school administrator interviews were completed. Analysis that is conducted during data collection enables the investigator to clarify information or expand on themes that have started to emerge. In future research, it would be advantageous not only to start looking for patterns as soon as data collection starts, but to also develop and administer a self-report instrument for participants based on these themes for the purpose of confirming their importance.

A sixth limitation was that Dr. Willows, who developed the professional development system on which this study was based as well as served as the facilitator for the in-service workshops, also provided me with supervision in conducting this study. Although we did not discuss the findings until they had been written up, the potential for investigator bias should be taken into consideration.

Finally, all of the qualitative data in this study have been based on participants' perceptions which provide valuable insight into the congruent processes of professional development and implementation of change, but are, at the same time, highly subjective. No measures were used to determine whether changes in teaching practice were consistently and effectively implemented or if student literacy outcomes actually improved. Furthermore, most of the perceptions described in this study pertained to events that had occurred a few years earlier. Recollections can fade or become distorted over time. However, because of the significant amount of consistency that I found in patterns of data from a variety of different sources within a relatively large sample, I was confident that credible findings had been produced.
Future Directions

During this investigation, various issues have emerged which, although they are beyond the scope of the present study, should be considered for future research. First, as indicated earlier, the study described in this thesis is one part of a larger, multi-dimensional research project that has been investigating the long-term effectiveness of Willows's (1994) professional development system in improving classroom teaching practices and raising the literacy levels of primary grade students. In order to determine the contributions of specific changes in teaching approach, strategies, or resource materials to student success in literacy, it would be worthwhile to link descriptive (i.e., qualitative) data with data from the detailed time-sampling classroom observations that have been conducted within the larger study (e.g., Sumbler, 1999) as well as with assessments of student literacy outcomes conducted both prior to and following professional development (e.g., Collins-Williams, 2001) in future research on the effectiveness of professional development pertaining to early literacy education.

Second, because the effectiveness of an implementation depends on a variety of context factors as shown in the present study, further research comparing various types of implementation approaches should be conducted to further elucidate which options would be most effective for different contexts. As an example, while the comparison between two in-service programs in the present study suggests that teachers may have benefited in a number of ways from more intensive professional development (i.e., workshops held twice-monthly for all primary-level teachers within a school), the more intensive program was conducted within only one school; financial or logistical restrictions (e.g., large number of schools spread out across a vast region) may preclude such a high level of intensity. In another study, which is also a part of the larger research project investigating the effectiveness of Willows's (1994) professional development system, a doctoral student is currently evaluating the effectiveness of an ongoing district-wide initiative involving all of the primary classroom teachers, special educators, and school administrators in 50 elementary schools; the effectiveness of this particular initiative, which involves only one grade level per year due to the extraordinarily large number of participants, could subsequently be compared with the effectiveness of another type of approach used in a similar context.
Finally, whereas the present study involved only one superintendent for a subset of schools rather than an entire school district (and virtually no involvement from a superintendent in the other school district), research evaluating the role of the school district in implementing change in early literacy education would provide additional insight regarding the most effective way to implement change in early literacy education. Similarly, the role of the community and the province could also be investigated.

**Concluding Remarks**

In the end it will all come down to putting children together with expert teachers who have the time and resources necessary to support the diverse groups of children assigned to their classrooms. We can and should rethink many of the features of the schools we have, but it ultimately comes down to schools staffed with high-quality classroom teachers, especially for the futures of children who find learning to read and write difficult. (Allington, 1994, p. 27)

The findings of this research suggest that it is possible to accomplish significant changes in the way that literacy is taught so that children who find learning to read and write difficult—even those in the most disadvantaged communities—experience success. While it is the responsibility of the classroom teacher to ensure that all primary grade students have access to knowledge that will enable them to succeed in literacy, it is the responsibility of school district leaders, administrators, and teacher educators to ensure that all primary grade teachers have ongoing access to the domain of knowledge that will enable them to provide excellent instruction in literacy.
References


## Appendix A

**Demographic Information: PLP Teachers and Administrators**

### Table A1

**Demographic Information: PLP Teachers**

<table>
<thead>
<tr>
<th>Teaching certification</th>
<th>Current grade</th>
<th>1994-95 grade</th>
<th>Years as teacher</th>
<th>Type of teaching</th>
<th>Additional Qualifications</th>
<th>Highest degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 1960</td>
<td>K</td>
<td>K</td>
<td>28 years</td>
<td>primary, senior, ISSP, French immersion</td>
<td>Special Ed Specialist, ESL Part 1, French Part 1</td>
<td>B.A., B.Ed.</td>
</tr>
<tr>
<td>2 1961</td>
<td>K</td>
<td>K</td>
<td>18 years</td>
<td>primary, intermediate</td>
<td>Primary Ed Part 1</td>
<td>B.A.</td>
</tr>
<tr>
<td>3 1964</td>
<td>1</td>
<td>1</td>
<td>29 years</td>
<td>primary, junior</td>
<td>Reading Diploma (in B.Ed.)</td>
<td>B.Ed.</td>
</tr>
<tr>
<td>4 1964</td>
<td>1</td>
<td>1</td>
<td>17 years</td>
<td>primary</td>
<td>Primary Ed Specialist, ESL Part 1</td>
<td>B.Ed.</td>
</tr>
<tr>
<td>5 1964</td>
<td>2</td>
<td>1</td>
<td>12 years</td>
<td>primary, junior</td>
<td>Primary Ed Specialist, Special Ed Part 1</td>
<td>B.Ed.</td>
</tr>
<tr>
<td>6 1965</td>
<td>ISSP</td>
<td>ISSP</td>
<td>31 years</td>
<td>primary, junior, ISSP, resource</td>
<td>ESL Parts 1 &amp; 2, Special Ed Specialist, Reading Part 1</td>
<td>B.A.</td>
</tr>
<tr>
<td>7 1965</td>
<td>1/2</td>
<td>1</td>
<td>33 years</td>
<td>primary, intermediate, ISSP</td>
<td>Primary Specialist, Special Ed Part 1</td>
<td>B.A.</td>
</tr>
<tr>
<td>8 1966</td>
<td>1/2</td>
<td>1</td>
<td>15 years</td>
<td>primary, junior</td>
<td>ESL Part 1</td>
<td>--</td>
</tr>
<tr>
<td>9 1966</td>
<td>2</td>
<td>2</td>
<td>25 years</td>
<td>primary, junior, French</td>
<td>Primary Ed Specialist, Reading Specialist, Special Ed Specialist</td>
<td>B.A., B.Ed.</td>
</tr>
<tr>
<td>10 1966</td>
<td>1/2</td>
<td>2</td>
<td>24 years</td>
<td>primary, ISSP</td>
<td>Primary Ed Specialist, Reading Specialist, Special Ed Specialist</td>
<td>B.A., B.Ed.</td>
</tr>
<tr>
<td>11 1966</td>
<td>ISSP/ESL</td>
<td>ISSP</td>
<td>17 years</td>
<td>primary, junior, ISSP, ESL</td>
<td>Special Ed Parts 1 &amp; 2, ESL Part 1</td>
<td>--</td>
</tr>
<tr>
<td>12 1967</td>
<td>1</td>
<td>1/2</td>
<td>16 years</td>
<td>primary</td>
<td>ESL Part 1</td>
<td>--</td>
</tr>
<tr>
<td>13 1968</td>
<td>3</td>
<td>3</td>
<td>30 years</td>
<td>primary, junior</td>
<td>Primary Ed Specialist</td>
<td>B.A.</td>
</tr>
<tr>
<td>14 1968</td>
<td>2</td>
<td>2</td>
<td>30 years</td>
<td>primary, junior, intermediate</td>
<td>Primary Ed Specialist</td>
<td>B.A.</td>
</tr>
<tr>
<td>15 1969</td>
<td>1</td>
<td>2</td>
<td>14 years</td>
<td>primary, intermediate, senior</td>
<td>Reading Part 1</td>
<td>B.A.</td>
</tr>
<tr>
<td>16 1969</td>
<td>2</td>
<td>2</td>
<td>12 years</td>
<td>primary, ISSP</td>
<td>Primary Ed Part 1, Special Ed Part 1, ESL Part 1</td>
<td>B.A.</td>
</tr>
</tbody>
</table>

*(table continues)*
<table>
<thead>
<tr>
<th>Teaching certification</th>
<th>Current grade(^a)</th>
<th>1994-95 grade</th>
<th>Years as teacher(^b)</th>
<th>Type of teaching</th>
<th>Additional Qualifications(^c)</th>
<th>Highest degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>17 1971 4</td>
<td>223</td>
<td>primary, junior, resource</td>
<td>M.Ed.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18 1972 resource</td>
<td>126</td>
<td>primary, junior, intermediate, resource</td>
<td>M.Ed.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19 1973 2</td>
<td>ISSP 14</td>
<td>primary, ISSP</td>
<td>B.A.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20 1973 ESL</td>
<td>ESL 17</td>
<td>primary, junior, intermediate, French, ESL</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21 1974 K</td>
<td>K 15</td>
<td>primary, junior, ISSP</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22 1974 2</td>
<td>ESL 17</td>
<td>primary, junior, ESL</td>
<td>B.Ed.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23 1975 1/2</td>
<td>123</td>
<td>primary, junior</td>
<td>B.A., B.Ed.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24 1975 ISSP</td>
<td>autistic class 13</td>
<td>primary, ISSP, autistic</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26 1976 2</td>
<td>114</td>
<td>primary</td>
<td>B.Sc., B.Ed.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>27 1985 autistic class</td>
<td>110</td>
<td>primary, autistic</td>
<td>B.A., B.Ed.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30 1991 1</td>
<td>K 7</td>
<td>primary, junior</td>
<td>M.Ed.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^a\) Year study was conducted. \(^b\) Includes supply teaching. \(^c\) Only Additional Qualifications relevant to literacy education.

Note. Participant codes have not been included in order to ensure confidentiality; table rows have been sorted by year of teaching certification. Dashes indicate the data were not obtained. K = Kindergarten; ISSP = In-school Support Program (e.g., special education); ESL = English as a Second Language; B.A. = Bachelor of Arts; B.Ed. = Bachelor of Education; B.Sc. = Bachelor of Science; M.Ed. = Master of Education.
Table A2

Demographic Information: PLP Administrators

<table>
<thead>
<tr>
<th>Teaching certification</th>
<th>Current role&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Role during in-service</th>
<th>Years as administrator</th>
<th>Years as teacher</th>
<th>Additional Qualifications&lt;sup&gt;b&lt;/sup&gt;</th>
<th>Highest degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 1962</td>
<td>retired</td>
<td>VP</td>
<td>2 as P 6 as VP</td>
<td>28</td>
<td>Principal Qualification</td>
<td>Ph.D.</td>
</tr>
<tr>
<td>2 1963</td>
<td>P</td>
<td>P</td>
<td>9 as P 3 as VP</td>
<td>23</td>
<td>Principal Qualification, Special Ed Specialist</td>
<td>M.A.</td>
</tr>
<tr>
<td>3 1968</td>
<td>P</td>
<td>P</td>
<td>19 as P 5 as VP</td>
<td>6</td>
<td>Principal Qualification</td>
<td>M.Sc.</td>
</tr>
<tr>
<td>4 1969</td>
<td>P</td>
<td>P</td>
<td>15 as P 5 as VP</td>
<td>9</td>
<td>Principal Qualification, Supervisory Officer Qualification, Special Ed Part 1, ESL Part 1</td>
<td>M.Ed.</td>
</tr>
<tr>
<td>5 1971</td>
<td>P</td>
<td>VP</td>
<td>3 as P 10 as VP</td>
<td>14</td>
<td>Principal Qualification</td>
<td>M.Ed.</td>
</tr>
<tr>
<td>6 1972</td>
<td>P</td>
<td>P</td>
<td>10 as P 3 as VP</td>
<td>13</td>
<td>Principal Qualification, Supervisory Officer Qualification</td>
<td>M.Sc.</td>
</tr>
<tr>
<td>7 1976</td>
<td>P</td>
<td>VP</td>
<td>1/2 as P 2 1/2 as VP</td>
<td>19</td>
<td>Principal Qualification, Special Ed Part 1</td>
<td>M.Ed.</td>
</tr>
<tr>
<td>8 1977</td>
<td>P</td>
<td>P</td>
<td>3 as P 6 as VP</td>
<td>11</td>
<td>Principal Qualification</td>
<td>M.Sc.</td>
</tr>
<tr>
<td>9 1980</td>
<td>P</td>
<td>3 as VP</td>
<td>2 as P VP 3</td>
<td>13</td>
<td>Principal Qualification, Special Ed Specialist</td>
<td>M.Ed.</td>
</tr>
<tr>
<td>10 1964</td>
<td>retired</td>
<td>S</td>
<td>13 as S 11 as P 5 as VP</td>
<td>5</td>
<td>Principal Qualification, Supervisory Officer Qualification</td>
<td>M.A.</td>
</tr>
</tbody>
</table>

<sup>Note</sup>. Participant codes have not been included in order to ensure confidentiality; table rows have been sorted by year of teaching certification.

P = principal; VP = vice-principal. S = superintendent of schools; Ph.D. = Doctor of Philosophy; M.A. = Master of Arts; M.Sc. = Master of Science; M.Ed. = Master of Education.

<sup>a</sup>Year study was conducted.  <sup>b</sup>Only Additional Qualifications relevant to literacy.
Appendix B

Letter to Teacher

Dear [Teacher]:

We are currently undertaking a follow-up study of The Literacy Diet professional development program in which you participated during 1994-95. Part of the study involves assessing children’s progress to determine how successful the system has been in improving student outcomes. A consent letter is being sent out to the parents of children in your class to request the participation of their child in the study.

In addition, I would like to request your participation in three aspects of the study: (1) As part of the assessment of the Primary Literacy Project, we would like to interview each of the classroom teachers who participated in The Literacy Diet professional development during 1994-95 to examine the effects of the in-service program on beliefs and practice. The interview will provide valuable information to improve the system in future. In addition, it will serve as further professional development for the teachers involved.

Because these individual interviews of the participating K, 1, 2, and 3 teachers will be quite lengthy, we are requesting that each of the teachers be released from class for one half day to participate in the interviews. In order to make this possible, we will provide payment for a substitute teacher for 1/2 day for each of the teachers involved.

We would appreciate it very much if you, as one of the teachers who took part in the professional development program during 1994-95, would agree to participate in such an interview. The interview will be conducted by a doctoral student who is very knowledgeable about The Literacy Diet framework and its implementation. The questions included in the interview will provide us with some background information about your training and experience as a teacher, as well as some specific information about the effects of The Literacy Diet in-service on your knowledge about theory and classroom teaching practices. You will be free to decline to respond to any of the questions in the interview. Your responses to the interview will be kept in strict confidence and only the interviewer and myself will have access to the data.

(2) An additional aspect of the study will involve having trained observers in your classroom to determine both the types of activities and children’s engagement in them during classroom literacy time. One or two observation periods would be undertaken during the year at times that are convenient to you. This observation is not evaluative but is simply a way of monitoring children’s engagement in literacy activities which – as you know – was a focus of The Literacy Diet professional development.

(3) A third way in which you could assist us in the project is to include a "story completion" activity in your normal writing time to obtain authentic writing samples from those children who have parental consent to participate in the project.

I hope that you will agree to participate in the study and I want to assure you that confidentiality will be maintained. Both student and teacher data will only be reported in aggregate form in all verbal and written reports, and there will be no reference to the school district, the school, or the educators involved. Great care will be taken to insure anonymity of all data included in both verbal and written reports. If you have any questions concerning the study, please direct these to me at (416) 923-6641 Ext. 2611.

Thank you very much.

Dale Willows, Ph.D.
Professor
TEACHER CONSENT FORM

I agree to participate in the data collection described in the attached letter to be conducted in our school between January and June 1998 under the supervision of Dr. Dale Willows (OISE/UT). I understand that my participation is voluntary and that I am free to withdraw from the study at any time.

__________________________  ________________  ______________________
Date  Signature  Name (please print)
Dear [Principal]:

During the Fall term, with the support of [the superintendent of schools], I submitted a research proposal to conduct a follow-up study of the effects of the Primary Literacy Project that we conducted in the ... schools during 1994-95. The goal is to find out whether the in-service professional development has had a lasting impact on literacy knowledge, attitudes, practices, and outcomes.

The project received the approval of the [school district] external research screening committee at the end of December 1997. Given the disruption created by Bill 160, we delayed the initiation of the project until things have had time to settle down in the schools. At this point, we would like to begin our work in the near future.

As indicated in the enclosed proposal, the study will involve interviews with teachers and administrators who participated in the in-service sessions, and will also involve observations of children in the current classrooms of teachers who took part in the in-service and assessment of the children's literacy achievement. I am writing you now to request the participation of your school in the project. If you are willing, we would like you to pass along copies of the enclosed letter to some of the teachers in your school. On the attached list are names of the individuals who participated in the literacy project in your school during 1994-95. I recognize that some of the teachers have moved or left since 1995, but we would like to talk to those who are still in the school to find out if and how the in-service has impacted on their current literacy programs. (I recognize, as well, that some of the teachers who were then in primary classrooms may now be in junior.) Also, it may be that there are teachers in your school now who were in another one of the participating schools during 1994-95. If so, we would like to ask for the participation of those teachers as well.

Thank you very much for your time and support in considering this research. My graduate student Karen Siegelman or I will be in touch with you soon to follow up on this letter.

Yours sincerely,

Dale Willows, Ph.D.
Professor
Dear [Principal]:

We are currently undertaking a follow-up study of the Primary Literacy Project (using The Literacy Diet professional development approach) in which you participated during 1994-95. This study is being conducted with the support of the Ministry of Education and the [school district]. I am writing you now to request your participation in this study.

As part of the assessment of the Primary Literacy Project, we would like to interview each of the school administrators who were responsible for implementation of The Literacy Diet system in their schools during 1994-95 to examine the effects of the in-service program on your beliefs and practices as a school administrator. (The study includes administrators who have left their schools.) The interview will provide valuable information to improve the system in the future.

The interview will be conducted by a doctoral student, Karen Siegelman, who is knowledgeable about The Literacy Diet framework and its implementation. The questions included in the interview will provide us with some information about your background and experience as an administrator, as well as some specific information about the effects of The Literacy Diet in-service on your knowledge about theory and practices in primary literacy. You will be free to decline to respond to any of the questions in the interview. Your responses to the interview will be kept in strict confidence and only the interviewer and myself will have access to the raw data. Moreover, I will not personally know the identity of any of the respondents because the interviewer will remove all identifying information from the interview data before I see it.

All data will only be reported in aggregate form in all verbal and written reports, and there will be no reference to the school district, the school, or the educators involved. Great care will be taken to insure the anonymity of all data included in both verbal and written reports.

I hope that you will agree to participate in the study. If you have any questions about it, please contact me at (416) 923-6641 Ext. 2611. Thank you very much!

Sincerely,

Dale Willows, Ph.D.
Professor
SCHOOL ADMINISTRATOR CONSENT FORM

I agree to participate in the data collection described in the attached letter to be conducted in our school between January and June 1998 under the supervision of Dr. Dale Willows (OISE/UT). I understand that my participation is voluntary and that I am free to withdraw from the study at any time.

__________________________  __________________________  __________________________
Date                      Signature                        Name (please print)
Dear [Superintendent of Schools]:

We are currently undertaking a follow-up study of the Primary Literacy Project (using The Literacy Diet professional development approach) in which you participated during 1994-95. This study is being conducted with the support of the Ministry of Education and the [school district]. I am writing you now to request your participation in this study.

As part of the assessment of the Primary Literacy Project, we would like to interview each of the administrators who were responsible for implementation of The Literacy Diet system in their schools during 1994-95 to examine the effects of the in-service program on your beliefs and practices. The interview will provide valuable information to improve the system in the future.

The interview will be conducted by a doctoral student, Karen Siegelman, who is knowledgeable about The Literacy Diet framework and its implementation. The questions included in the interview will provide us with some information about your background and experience, as well as some specific information about the effects of The Literacy Diet in-service. You will be free to decline to respond to any of the questions in the interview. Your responses to the interview will be kept in strict confidence and only the interviewer and myself will have access to the raw data. Moreover, I will not personally know the identity of any of the respondents because the interviewer will remove all identifying information from the interview data before I see it.

All data will only be reported in aggregate form in all verbal and written reports, and there will be no reference to the school board, the school, or the educators involved. Great care will be taken to insure the anonymity of all data included in both verbal and written reports.

I hope that you will agree to participate in the study. If you have any questions about it, please contact me (416) 923-6641 Ext. 261. Thank you very much!

Sincerely,

Dale Willows, Ph.D.
Professor
SUPERINTENDENT OF SCHOOLS CONSENT FORM

I agree to participate in the data collection described in the attached letter to be conducted in our school between January and June 1998 under the supervision of Dr. Dale Willows (OISE/UT). I understand that my participation is voluntary and that I am free to withdraw from the study at any time.

Date ___________________________  Signature ___________________________  Name (please print) ___________________________
Appendix C

TEACHER INTERVIEW
COVER SHEET

The information on this TEACHER INTERVIEW form will remain strictly confidential; it will not be shared with your colleagues or principal. Your name and school will be removed from all data, and will be replaced by code numbers. The data will then be grouped with all the data collected from teachers in your school as well as other schools. Once your name and school have been replaced by code numbers, only Dr. Willows and her research assistant will have access to the data for purposes of identifying general trends regarding changes in teachers' literacy programmes in response to Dr. Willows's in-service workshops. Because of the complexity of this interview schedule, we request permission to tape the interview so that important details of your responses are not lost during note-taking, and so that accuracy can be assured. Information on this tape will be strictly confidential, and once accuracy of the interview has been confirmed, the tape will be erased.

Please check either space and sign below:

I give my permission to tape this session. ______
I do not give my permission to tape this session. ______

Signed: ___________________________ Date: _______________________

I will not see teachers' names or schools; only Karen Siegelman will see this information.

Signed: ___________________________ Date: _______________________

Dale Willows, Ph.D., C.Psych.
OISE/UT

Confidentiality is assured.

Signed: ___________________________ Date: _______________________

Karen Siegelman, M.A.
Doctoral Candidate
OISE/UT
TEACHER INTERVIEW

A) BACKGROUND

1a. Tell me about your teaching history, that is, the number of years that you have been teaching, types of schools at which you have worked, and types of students you have taught.

1b. I'd also like to know about your education--where and when you did your initial teacher education, any Additional Qualifications that you have, as well as any other in-service programs pertaining to literacy in which you have participated.

B) PERCEPTIONS OF PROJECT

IN-SERVICE PROGRAMME

1a. How did you feel about participating in the Primary Literacy Project when you first heard about it?

1b. Why were you first interested in it?

2a. What was your perception of the in-service programme?

2b. Tell me about the monthly literacy workshops. What value were they to you?

2c. Tell me about the meetings that took place in your school.

   How frequent were they?
   Who led these meetings?
   What was the format of the meetings?
   How was information communicated and shared?
   Did teachers share their knowledge about literacy?
   Was an agenda set for the readings?
   Were the readings discussed? If so, how often?
   Were the meetings helpful?
   What improvements would you suggest?

2d. Did Dr. Willows visit your classroom or school that year? If so, how did you perceive the visit(s)?

3a. What was your perception of the professional development materials that were made available to you during the workshops?

   Which, if any, did you read?
   Did you make use of any of them?
   Tell me how you implemented the practices that were described in them.
   Are you still making use of any of the materials? If so, how?
   If you have stopped using any of the materials, please tell me why.
   Which materials would you recommend? Why?
3b. Please rate the following materials or activities using this scale, then tell me why you rated each material or activity as you did:

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*Classrooms That Work: They Can All Read & Write*
*Phonics They Use: Words for Reading and Writing*
*Early Literacy in the Classroom*
*Learning to Read and Write: Adapting Programs to Children's Needs*
*Jolly Phonics*
*Making Words*
*Word Wall*

**COLLABORATION DURING PROJECT**

4. Was there any collaboration among teachers during the project with respect to literacy programming? If so, describe the way you collaborated with other teachers and school administrators in developing your literacy programme.

   How frequently did you collaborate?
   When did you collaborate?

5. Is there anything else that you would like to tell us about the in-service programme as you remember it?

**C) KNOWLEDGE OF THEORY**

1. Now I am going to go through each of the "food groups" or components of *The Literacy Diet* framework. These are terms used in literacy research. I would like you to define them to the best of your ability. Also, I would like you to give me an example of an activity that you use for developing each of the components. I realize that some of these components may not be relevant to the level of children that you are currently teaching; however, I would like you to mention what you think may be good "nutritious" type of activity for each of the components. If you don't know the term, please give me your best guess.

   a) Motivation for literacy
   b) Concepts of print
   c) World knowledge
   d) Word knowledge
   e) Language development
   f) Listening/thinking skills
   g) Sight words
   h) Phonemic awareness
   i) Letter-sound connections
   j) Complex letter-sounds
   k) Letter formation
l) Spelling
m) Schema development
n) Fluency
o) Text types
p) Comprehension strategies
q) Writing conventions
r) Composition strategies
s) Written language structures

D) LITERACY PROGRAM

PROGRAM CONTENT

1. I would like you to describe your current literacy program in detail. Using your day plans, please walk me through an entire cycle or week with regard to any literacy-related activity.

2a. What kinds of reading materials do you use when you read to the children?

2b. What are your favourites? Why?

3a. What kinds of materials do you have the children read?

3b. What are your favourites? Why?

CHANGE

4a. Did you make any changes to your literacy program while you were participating in the Primary Literacy Project? If so, please describe these changes.

4b. What do you like best about the changes that you made?

4c. Did you encounter any difficulties implementing changes in your literacy program? If so, please describe your difficulties.

5. Have you modified or deleted any routines or activities that are done on a regular basis as a result of your participation in this project? If so, please describe these changes.

6. Is there anything else that you would like to tell us about your literacy program?
E) IMPACT OF PROJECT ON STUDENTS

1. Have you observed any changes in students since you first participated in the project? Describe any changes.

2. Using this scale, how strong an impact do you feel the Primary Literacy Project has had on the general literacy level of students at your school?

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<td>a little</td>
<td>moderate</td>
<td>fairly strong</td>
<td>very strong</td>
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Please explain why you rated this question as you did.

3a. Using The Literacy Diet framework, tell me what stage of literacy development you feel best describes most of the students in your class and whether they are at an early or late part of that stage.

   Stage 0: Emergent Literacy
   Stage 1: Decoding/Encoding
   Stage 2: Confirmation and Fluency
   Stage 3: Literacy for Growth

3b. How many students are in your classroom?

   How many are reading and writing below grade level?
   At grade level?
   Above grade level?

3c. How would you compare these students with students that you taught at the same grade level before you participated in the Primary Literacy Project?

4. Do you feel that the project has had any particular benefits for at-risk or special needs students? If so, why? If not, why not?

5. Has the frequency of special education referrals increased, decreased, or remained the same since the implementation year?

6. Is there anything else that you would like to tell us about the project's impact on the students?

F) IMPACT OF PROJECT ON TEACHER

TEACHING PHILOSOPHY

1a. What is your philosophy about teaching literacy?

1b. Did it change as a result of your participation in the project? If so, how has it changed?
TEACHING PRACTICE

2. What did you gain from participating in the Primary Literacy Project?

3a. What do you take into consideration when introducing a literacy-related activity?

Do you reflect on the amount of "literacy nutrition" in each activity?

4a. Using this scale, how much impact has this experience had on the way you currently teach literacy?

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<tr>
<td>1</td>
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<td>2</td>
<td>a little</td>
<td>3</td>
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4b. Please explain why you rated this question as you did.

5. Has the project affected any other aspects of your teaching?

6a. Participation in this project must have required a great amount of time. Did you find the process painful? If so, what was painful about it?

6b. If you had to participate in this project again, would you? If so, why? If not, why not?

7a. What is your perception of Dr. Willows's role in the Primary Literacy Project?

7b. Do you feel that similar outcomes could have been achieved if another individual had taken her role?

7c. Do you feel that similar outcomes could have been achieved if a teacher or administrator within your school had taken her role?

COLLABORATION

8a. Describe your relationship with other teachers in your school with respect to literacy programming.

Do you currently collaborate with other teachers?

Do you collaborate with other teachers more frequently, less frequently, or the same amount since the implementation year?

8b. Have your relationships with school administrators changed or remained the same with respect to literacy programming?

9. Is there anything else that you would like to tell us about the impact of the project on you?
For teachers who have moved to a school that did not participate in the project:

10. Has your philosophy about teaching literacy changed since you moved to this school? If so, how?

11. Have you attempted to implement changes in literacy education at this school? If so, what strategies have you used? If not, why not?

Have you introduced any of the materials or activities? If so, please specify?

G) IMPACT OF PROJECT ON SCHOOL

1a. Have there been any staff changes within your school since the Primary Literacy Project? If so, have these changes affected the impact of the project on teaching practices?

1b. Have staff changes affected collaboration among teachers?

1c. Have they affected the administration of any aspects of the project?

1d. Has anything been done to introduce newcomers at your school to the project? If so, what?

2. Have there been any further professional development activities pertaining to literacy at this school since the Primary Literacy Project? If so, please tell me about them.

   What impact have they had on literacy practices?
   Have there been any more workshops on literacy?
   Have school meetings on literacy continued?
   Do teachers share their knowledge about literacy within and/or across schools?
   Is there more, less, or the same amount of focus on literacy within your school since the implementation year?

3. Research has shown that the immediate effect of experimental programming is usually positive. How would you describe the overall long-term effect of the project?

4. Is there anything else that you would like to tell us about the project's impact on your school?

5. Is there anything else that you would like to add?
SCHOOL ADMINISTRATOR INTERVIEW
COVER SHEET

The information on this SCHOOL ADMINISTRATOR INTERVIEW form will remain strictly confidential; it will not be shared with your colleagues or superintendent. Your name and school will be removed from all data, and will be replaced by code numbers. The data will then be grouped with all the data collected from principals in other schools. Once your name and school have been replaced by code numbers, only Dr. Willows and her research assistant will have access to the data for purposes of identifying general trends regarding changes in literacy programmes in response to Dr. Willows's in-service workshops. Because of the complexity of this interview schedule, we request permission to tape the interview so important details of your responses are not lost during note-taking, and so that accuracy can be assured. Information on this tape will be strictly confidential, and once accuracy of the interview has been confirmed, the tape will be erased.

Please check either space and sign below:

I give my permission to tape this session. ______
I do not give my permission to tape this session. ______

Signed: __________________________ Date: __________________________

I will not see names of school administrators or schools; only Karen Siegelman will see this information.

Signed: __________________________ Date: __________________________

Dale Willows, Ph.D., C.Psych.
OISE/UT

Confidentiality is assured.

Signed: __________________________ Date: __________________________

Karen Siegelman, M.A.
Doctoral Candidate
OISE/UT
SCHOOL ADMINISTRATOR INTERVIEW

A) SCHOOL ADMINISTRATOR’S PERCEPTIONS OF PROJECT

BACKGROUND

1a. Tell me about your background, that is the number of years that you have been an administrator, how many years you taught, types of schools that you have been at, and types of students/grades that you have taught.

1b. I’d also like to know about your education--where and when you did your initial teacher education, any Additional Qualifications, that you have as well as any other in-service programs pertaining to literacy in which you have participated.

IN-SERVICE PROGRAM

2a. When did you participate in this in-service program? Were you at this school at the time? If not, where were you and what was your role? When did you arrive at this school?

2b. How did you feel about participating in the Primary Literacy Project when you first heard about it?

2c. Why were you interested in it?

3. What strategies did you use to gain the interest and involvement of teachers in the Primary Literacy Project?

4a. What was your perception of the in-service program?

4b. Tell me about the monthly literacy workshops. What value were they to you?

4c. Tell me about the meetings that took place in your school.

   How frequent were they?
   Who led these meetings?
   What was the format of the meetings?
   How was information communicated and shared?
   Was an agenda set for the readings?
   Were the readings discussed?
   Were the meetings helpful?
   What improvements would you suggest?

4d. How were resource, support, or ESL staff in your school involved in the project? What role did they play?

5. Did any significant events take place prior to or during the Primary Literacy Project?
COLLABORATION

6a. Was there any collaboration among teachers and/or among teachers and administrators during the project with respect to literacy programming?

6b. If so, describe the way teachers collaborated in developing their literacy programs.

   How frequently did they collaborate?
   When did they collaborate?

7. Is there anything else you would like to tell us about the in-service program as you remember it?

B) IMPACT OF PROJECT ON LITERACY EDUCATION

CHANGES IN STUDENTS

1a. Have you observed any changes in students since you first participated in the Primary Literacy Project? Describe any changes.

1b. How strong an impact do you feel the project has had on the general literacy level of students at this school?

   1  2  3  4  5
   none  a little  moderate  fairly strong  very strong

   Please explain why you rated this question as you did.

1c. How would you compare it with the general literacy level of students at this school before your first participated in the project?

2. What particular benefits, if any, does the project have for special needs students?

3. Have there been any changes in the frequency of special education referrals since the implementation year?

CHANGES IN TEACHERS

4a. How strong an impact do you feel the project has had on the way literacy is now taught at this school?

   1  2  3  4  5
   none  a little  moderate  fairly strong  very strong

   Please explain why you rated this question as you did.

4b. Please describe how literacy education at your school has changed.

4c. What is your opinion of the way literacy is currently taught in your school?
5. How would you describe the long-term impact of the Primary Literacy Project on literacy education at your school?

Did the in-service programme have any lasting effects? Please describe. Are teachers following practices that came from the project? If so, tell me how.

In your opinion, are their literacy programs balanced?

6a. What was your role in facilitating change in literacy education at your school?

6b. What strategies for change do you perceive as most successful?

7. Has your school climate or culture changed since the Primary Literacy Project began? Describe any changes.

8a. Have any aspects of the project continued?

8b. Describe any sources of support that have allowed the project to continue.

9. Have there been any constraints on your attempts to improve literacy education in your school? Describe any constraints.

10. Has your role as a school administrator changed since the project began? Describe any changes.

11a. What is your perception of Dr. Willows's role in the Primary Literacy Project?

11b. Do you feel that similar outcomes could have been achieved if another individual had taken her role?

11c. Do you feel that similar outcomes could have been achieved if a teacher or administrator within your school had taken her role?

12. Is there anything else you would like to tell us about the impact of the primary literacy project?

**C) IMPACT OF PROJECT ON SCHOOL ADMINISTRATOR**

**GAINS**

1. What did you gain from participating in this project?

2. If you had to participate in this project again, would you? If so, why? If not, why not?

3. What improvements would you suggest for the Primary Literacy Project?
TEACHING PHILOSOPHY

4a. What is your philosophy about teaching literacy?

4b. Did it change as a result of your participation in the project? If so, how has it changed?

COLLABORATION

5. Describe your relationship with the teachers in your school with respect to literacy programming.

   Do you currently collaborate with teachers?
   Do you collaborate with teachers more frequently, less frequently, or the same amount since implementation year?

GOALS

6. What are your current goals regarding literacy education in your school?

7. How does your vision regarding literacy education fit with your school district’s vision?

8. Is there anything else you would like to tell us about the impact of the project?

For school administrators who have moved to another school since implementation year:

9. Has your philosophy about teaching literacy changed since you moved to this school? If so, how has it changed?

10. Have you attempted to implement changes in literacy education at this school? If so, what strategies have you used?

D) IMPACT OF PROJECT ON SCHOOL

1a. Have there been any staff changes within your school since the primary literacy project? If so, have these changes affected the impact of the project on teaching practices? In what ways?

1b. Have staff changes affected collaboration among teachers? If so, in what ways?

   Do teachers collaborate with each other more frequently, less frequently, or the same amount since the implementation year?
1c. Have they affected the administration of any aspects of the project? If so, in what ways?

2. Has anything been done to introduce newcomers at your school to the project? If so, what has been done?

3. Have there been any further professional development activities pertaining to literacy at this school since the Primary Literacy Project? If so, please tell me about them.

   What impact have they had on literacy practices?
   Have there been any more workshops on literacy?
   Have school meetings on literacy continued?
   Do teachers share their knowledge about literacy within and/or across schools?
   Is there more, less, or the same amount of focus on literacy within your school since the implementation year?

4. Research has shown that the immediate effect of experimental programming is usually positive. How would you describe the overall long-term effect of the project?

5. Is there anything else you would like to tell me about the impact of the project on the school?

6. Is there anything else that you would like to add?
SUPERINTENDENT OF SCHOOLS INTERVIEW
COVER SHEET

The information on this SUPERINTENDENT OF SCHOOLS INTERVIEW form will remain strictly confidential; it will not be shared with your colleagues. Your name will be removed from all data and will be replaced by a code number. Only Dr. Willows and her research assistant will have access to the data for purposes of identifying general trends regarding changes in literacy programmes in response to Dr. Willows's in-service workshops. Because of the complexity of this interview schedule, we request permission to tape the interview so important details of your responses are not lost during note-taking, and so that accuracy can be assured. Information on this tape will be strictly confidential, and once accuracy of the interview has been confirmed, the tape will be erased.

Please check either space and sign below:

I give my permission to tape this session. [ ]
I do not give my permission to tape this session. [ ]

Signed: ___________________________ Date: ___________________________

Confidentiality is assured.

Signed: ___________________________ Date: ___________________________

Karen Siegelman, M.A.
Doctoral Candidate
OISE/UT
SUPERINTENDENT OF SCHOOLS INTERVIEW

1. Why were you first interested in the primary literacy project?

2. How did you gain the interest and involvement of administrators in the project?

3. What are your perceptions of the project?

4. What impact has the project had on literacy programming?
    Did the in-service programme have any lasting effects?
    What is your opinion of the way that literacy is currently taught in these schools?
    Are teachers following practices that came from the project?
    Are their literacy programs balanced?

5a. What impact has it had on the general literacy levels of students in the schools that participated?

5b. When the PLP was initiated, these schools were among the lowest performing schools in the district. Did this change?

6. What is your philosophy about teaching literacy?

7. How do you monitor improvement in literacy instruction?

8. Describe your role and involvement in promoting and sustaining changes in literacy education in your schools.

9. What strategies are necessary for implementing changes in literacy education?

10. What obstacles do schools face in changing literacy education?
Appendix D

Coding System

Table D1
Topic Codes

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<td>long-term focus</td>
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<tr>
<td>continued practice</td>
<td>cont</td>
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<tr>
<td>support staff</td>
<td>supp</td>
</tr>
<tr>
<td>collaboration/long-term</td>
<td>coll/LT</td>
</tr>
<tr>
<td>further PD</td>
<td>PD/LT</td>
</tr>
<tr>
<td>parents</td>
<td>par</td>
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<tr>
<td>transfer</td>
<td>tran</td>
</tr>
<tr>
<td>newcomers</td>
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<td>goals</td>
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Table D2

*Theme Codes*

<table>
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<tr>
<td>theory into practice</td>
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<tr>
<td>catalyst</td>
<td>cat</td>
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<tr>
<td>early intervention</td>
<td>early</td>
</tr>
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<td>administrative support</td>
<td>admin</td>
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<td>teamwork</td>
<td>team</td>
</tr>
<tr>
<td>teacher self-efficacy</td>
<td>pride</td>
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<td>confirmation</td>
<td>phon</td>
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<tr>
<td>sustainment</td>
<td>L/T</td>
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### Appendix E

**Table E1**

*Process/Outcomes Matrix for Theme Development*

<table>
<thead>
<tr>
<th>Teacher Outcomes</th>
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</thead>
<tbody>
<tr>
<td><strong>Program Processes</strong></td>
</tr>
<tr>
<td>PD process (presentation of theory, demonstration, practice, feedback)</td>
</tr>
<tr>
<td>Implementing changes</td>
</tr>
<tr>
<td>Collaboration and Sharing</td>
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<tr>
<td>Administrator participation</td>
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*Note.* Themes are in bold type in the cells of the matrix. PD = professional development.
### Appendix F

**Table F1**

*Demographic Information: Experimental Group 1 and Control Group Teachers*

<table>
<thead>
<tr>
<th>Control Group</th>
<th>Amount of experience</th>
<th>Grade</th>
<th>Type of teaching experience</th>
<th>Highest degree</th>
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<tr>
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<td></td>
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<tr>
<td></td>
<td>32</td>
<td>K</td>
<td>primary, junior</td>
<td>B.A.</td>
</tr>
<tr>
<td></td>
<td>27</td>
<td>K</td>
<td>primary</td>
<td></td>
</tr>
<tr>
<td></td>
<td>24</td>
<td>2</td>
<td>primary, junior</td>
<td>B.A., B.Ed.</td>
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<td></td>
<td>22</td>
<td>2</td>
<td>primary, ISSP</td>
<td>B.A., B.Ed.</td>
</tr>
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<td>20</td>
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<td>B.A., B.Ed.</td>
</tr>
<tr>
<td></td>
<td>18</td>
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<td>B.A.</td>
</tr>
<tr>
<td></td>
<td>15</td>
<td>2</td>
<td>primary, junior</td>
<td></td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>1</td>
<td>primary, junior, senior</td>
<td>M.A.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Experimental Group</th>
<th>Amount of experience</th>
<th>Grade</th>
<th>Type of teaching experience</th>
<th>Highest degree</th>
</tr>
</thead>
<tbody>
<tr>
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<td>K</td>
<td>primary</td>
<td></td>
</tr>
<tr>
<td></td>
<td>17</td>
<td>K</td>
<td>primary</td>
<td></td>
</tr>
<tr>
<td></td>
<td>15</td>
<td>1</td>
<td>primary, junior</td>
<td>B.A.</td>
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<td></td>
<td>12</td>
<td>1</td>
<td>primary, ISSP</td>
<td>B.Ed.</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>2</td>
<td>primary, ISSP</td>
<td>B.A., B.Ed.</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>K</td>
<td>primary, junior, senior</td>
<td>B.A., B.Ed.</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>2</td>
<td>primary</td>
<td>B.A., B.Ed.</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>1</td>
<td>primary</td>
<td>B.A., B.Ed.</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>2</td>
<td>primary</td>
<td>B.A.</td>
</tr>
</tbody>
</table>

*Note.* Participant codes have not been included in order to ensure confidentiality; table rows have been sorted by number of years' teaching experience. K = Kindergarten; ISSP = In-school Support Program (e.g., special education); B.A. = Bachelor of Arts; B.Ed. = Bachelor of Education; M.A. = Master of Arts.
Appendix G

Suggestions for Improvement of Primary Literacy Project

The following suggestions were made by some of the PLP participants for improving the professional development program:

1. Provide an agenda for each workshop.
2. Model some of the activities so that teachers may gain a better understanding of how to implement them in their classrooms.
3. Provide teachers with time during the workshops to prepare materials for use in their classrooms.
4. Reduce resistance from teachers by requiring all staff to attend the in-service program.
5. Include a discussion on incorporating music into literacy education, particularly during phonics instruction.
6. Include training in oral language acquisition.

Suggestions were also made by participants regarding administration of the PLP within the schools:

1. Increase funding for resource materials.
2. Provide release time so that teachers can meet to discuss their plans for change.
3. Organize more classroom visits so that teachers can observe literacy classes in action, students' reactions, and the organization of reading groups.
4. Schedule regular visits by resource teachers from the school board to address teachers' difficulties in implementing changes.
5. Provide an intensive follow-up to the in-service program (e.g., an entire week of classroom visits from someone trained by the facilitator) to assist teachers in implementing changes to their literacy programs.
6. Include a formal assessment component so that the impact of the in-service training on student literacy outcomes can be measured and compared. (This suggestion was made by a participant from School District 1; student performance was formally assessed at the end of the in-service program in School District 2.)
The superintendent of schools from School District 1 argued that the in-service program should be adapted for higher levels beyond the primary division (i.e., not only the junior division but also the intermediate division). Although he recognized the importance of providing early intervention, he suggested that "if kids are in trouble in the intermediate division, what kind of future will they have?" (S1).
Appendix H

Professional Development Materials and Activities

All 30 teachers were asked to rate professional development materials and activities that were introduced during the workshops on a scale of 1 to 5; some teachers, however, did not provide a rating for particular materials or activities. Table H1 shows the number of teachers that gave a particular rating for each of the materials and activities.

Table H1

Ratings of Professional Development Materials and Activities
(Number of teachers who gave each rating)

<table>
<thead>
<tr>
<th>Practical/Theoretical Material</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Total number of ratings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classrooms That Work</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>21</td>
<td>28</td>
</tr>
<tr>
<td>Phonics They Use</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>7</td>
<td>20</td>
<td>28</td>
</tr>
<tr>
<td>Early Literacy</td>
<td>0</td>
<td>1</td>
<td>7</td>
<td>11</td>
<td>7</td>
<td>26</td>
</tr>
<tr>
<td>Jolly Phonics a</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>5</td>
<td>23</td>
<td>30</td>
</tr>
</tbody>
</table>

Theoretical Material

| Learning to Read and Write     | 2 | 4 | 9 | 5 | 2 | 22                      |

Activities

| Making Words                   | 0 | 0 | 4 | 7 | 18| 29                      |
| Word Wall                      | 0 | 1 | 1 | 7 | 21| 30                      |

Note. Teachers gave no response if they could not remember the material/activity or if it was not applicable to their grade level. 1 = no use at all; 2 = slightly useful; 3 = moderately useful; 4 = fairly useful; 5 = very useful.

a Teachers were probably rating the Jolly Phonics program itself rather than the manual.

Teachers' perceptions of the professional development materials and activities are described below.
Classrooms That Work: They Can All Read & Write (Cunningham & Allington, 1994).

Twenty-one out of 28 teachers rated this book—which contains both practical and theoretical information—as very useful particularly because of the good practical ideas that actually helped their students in reading and writing; only one teacher found it only slightly useful. One teacher, for example, found that it helped her understand how a classroom should be organized (e.g., what the classroom should look like, what materials should be in the classroom). Another teacher felt that it was well written and had a good index, and indicated that although the photographs are black and white, they provided a good visual of how the concepts described in the book would look in the classroom. A third teacher deemed the book relevant as it was written by educators.

One of the administrators said: "One of the absolute best books I think I've ever read is the Patricia Cunningham book, Classrooms That Work. That is fantastic" (P4). Perceptions from some of the teachers are illustrated in the following excerpts:

It had a lot of excellent ideas that made sense to me. I tried a lot of them. ... I was even able to adapt some ideas to the junior level a couple years later. (T20)

Everybody should read this book before they start teaching. (T3)

It had some really good ideas, specific ideas. I think what teachers look for are books that give you enough theory or, indeed, give you some things that really work, that are classroom-ready. ... That book was good because of the strategies in it and ideas you could get right into, which is what I think most of us really like. (T1)

Phonics They Use: Words for Reading and Writing (Cunningham, 1991). All teachers rated this book—which contains both practical and theoretical information—as moderately useful or higher; 20 out of 28 teachers rated it as very useful. Similar to Classrooms that Work: They Can All Read & Write (Cunningham & Allington, 1994), teachers found that they could take many well-planned activities right out of this book and use them in their classroom. One teacher noted that this book provides more specific activities for work with spelling and phonics than Classrooms That Work: They Can All Read & Write. Another teacher said that it helped her
reinforce her students' knowledge of letter-sound correspondence and sight words. A third teacher felt that it is particularly useful for teachers who are incorporating phonics instruction into their literacy program for the first time.

Some teachers commented that they felt that this book was more relevant for the early grades (i.e., Kindergarten, Grade 1, Grade 2). A teacher who was teaching a Grade 3/4 class when she was interviewed was hardly using it anymore except to find ideas on activities to use with ESL students in small groups.

*Early Literacy in the Classroom* (Depree & Iverson, 1994). This book, which contains both practical and theoretical information, was rated most often as fairly useful (11 out of 26 teachers). Many teachers reported that they had used it to set up their guided reading programs. One teacher reported that she used a check-list that she found in the book as an assessment tool at the beginning of each school year. Another teacher reported that she got an idea from this book for a task board for students who were supposed to be working independently while she was doing a guided reading lesson with a small group. A third teacher, who was teaching special education at the time that she was interviewed, felt that the material in this book could be easily adapted to older students. A fourth teacher, who found this book very useful, indicated that it helped her explain to parents why she was no longer using a "language experience" approach to literacy instruction, and provided her with explanations of specific literacy terms and definitions.

One of the teachers who rated the book as only moderately useful felt that it did not provide her with enough ideas for enjoyable activities, and indicated that she used it mainly for ideas about organizing the classroom. One teacher rated it as only slightly useful because she did not like the size of the book or the way it was laid out, and she found it more difficult to read than the other materials.

*Jolly Phonics*. The manual for the Jolly Phonics program contained both theoretical and practical material; however, when asked to rate Jolly Phonics, teachers were most likely thinking about the program itself rather than the manual (i.e., they were not asked to distinguish one from the other). Twenty-eight of the 30 teachers who rated Jolly Phonics felt that it was either fairly or very useful. One of the teachers who found it very useful, for example, said that her students like using the program so much that they did not even realize that they were working. A
Kindergarten teacher remarked that it is easy to use and contains everything that is needed for phonics instruction. A third teacher who taught ESL while attending the professional development program felt that Jolly Phonics is particularly useful for teaching letter-sound correspondence to young second-language learners and providing them with a good foundation for reading. Finally, a teacher, who never actually used the program as she had been teaching Grade 2 and higher grades, credited this program for the high level of student success that had been reported at her school.

Only two teachers rated it as moderately useful. One of these teachers explained that she preferred *Phonics They Use: Words for Reading and Writing* (Cunningham, 1991) and felt that it she could have achieved the same results with it, while the other teacher, who taught ESL, indicated that she preferred using her own method of phonics instruction.

*Learning to Read and Write: Adapting Programs to Children's Needs* (Willows, 1993). While nine teachers found this booklet, which contains only theoretical material (i.e., it contains no practical information) moderately useful, eight teachers were unable to rate it as they did not remember it. Many teachers recalled that it contained theoretical material; however, they differed in their perceptions of how useful the theory was to them. One teacher with about 15 years' experience, for example, found it very useful and recalled learning about many different types of learners. Another teacher, who had been teaching for three years, reasoned that while the book contained essential information such as the value of phonics instruction, explanations regarding the stages of literacy development, and profiles of different types of readers, some teachers prefer to receive only practical information.

Although some teachers found this material useful at the beginning of the project, they indicated that they did not need to refer to it again after reading it once. One teacher with 25 years' experience, for example, felt that it provided a very good academic overview of the processes of learning to read and write, but she did not refer back to it as much as the other books. Another teacher with about 23 years' experience indicated that although the book set her frame of mind at the beginning of the project, she no longer referred to it. A special education teacher with about 30 years' experience, who rated the book as moderately useful, stated that it is
important to have a theoretical background in addition to practical knowledge; however, she rated each of the other materials as more useful.

Some teachers reported that they found the book difficult to read. A teacher with about 10 years' experience, for example, reported that she did not find it as interesting as the other materials and noted that she did not read the entire book. One teacher with nearly 30 years' experience felt that it was "heavy" and difficult to read; conversely, a Kindergarten teacher with six years' experience found it easy to understand. A teacher with seven years' experience, who felt that it was of no use at all, reported that she just skimmed through it once she saw that there was so much print because she felt that she was too busy to read it. Similarly, a teacher with about 30 years' experience indicated that she found it too difficult to read and that she acquired little more from it than an understanding that literacy has many different components.

Making Words. All 30 teachers rated this activity, which was described in Classrooms That Work: They Can All Read & Write (Cunningham & Allington, 1994), as moderately useful or higher; eighteen teachers found it very useful. Many teachers reported that their students really enjoyed it, particularly its tactile aspect. A Kindergarten teacher felt that it was very useful for helping students learn about concepts of print and providing them with practice in associating letters with the sounds that they hear. Two teachers reported that they found that the activity is useful in identifying students with difficulties. Another teacher reported that she used this activity with a small group of students who need remedial help. A fifth teacher reported that she occasionally used this activity to help students who were looking for words to use in their stories.

Four teachers rated Making Words only moderately useful. Three of these teachers were Kindergarten teachers; they felt that Making Words was not relevant for their students as they were just starting to learn how to read and were not yet familiar with enough words. The other teacher who rated the activity as only moderately useful felt that it was not much more than word lists. Another teacher commented that it was a "nice review, but we could have been doing other things" (T27). She felt that it was useful with Grade 1 students, but less useful with Grade 2 students as they tended to already be familiar with many of the words; conversely, another teacher found it very useful for all ability levels, even higher levels. Finally, one teacher
commented that although most students understood the concept of Making Words, they did not tend to use it as a strategy when reading unfamiliar words.

**Word Wall.** Twenty-one of the 30 teachers found this activity, which was also described in *Classrooms That Work: They Can All Read & Write* (Cunningham & Allington, 1994), to be very useful. Several teachers indicated that they had been writing "WW" next to students' spelling errors (i.e., Word Wall words). One teacher, who described it as "the most successful program for teaching writing and spelling," suggested that it "standardizes words that may be used for each grade level as well as eliminates the need to purchase spelling programs" (T30). Another teacher, who described it as an extremely useful activity, felt that it gave her "great power because I was able to hold students accountable for their spelling. It became an open dictionary" (T26). A third teacher, who also found it very useful, felt that it helps build confidence as students realize that they can recognize some words. She added that the Word Wall was particularly helpful to students with lower levels of reading ability. A special education teacher, who had tried in vain to teach Grade 5 students with a poor sight word vocabulary, felt that the Word Wall was an excellent resource to help students write. Finally, a Kindergarten teacher remarked that her students would not have done any writing if she had not introduced the Word Wall.

Only one teacher, who taught Grade 1, felt that the Word Wall activity was only slightly useful. She reported that while she had a Word Wall in her classroom, she had not been using it very often because some students became confused with the words and did not understand how to use it unless she provided additional direction. Moreover, she felt that students who did not require any additional direction did not really need it.
Appendix I

School Literacy Meetings

The following summaries of participants' reports regarding school literacy meetings are based on data from all teacher and school administrator interviews. As there was some inconsistency among participants' recollections of these meetings, these descriptions are based on data in which there was a consensus among the majority of participants at a school.

School A. Teachers who participated in the in-service program met at lunch-time to talk about the PLP. After the first meeting, which was led by the principal, teachers took turns leading the discussions. At each meeting, the leader presented a summary of the professional development materials that they had read since the last meeting, then led the discussion that followed. One teacher, who reported that she felt overwhelmed at first by the amount of material that they were supposed to read, remarked that she preferred this approach rather than trying to absorb the material on her own. Another teacher also found the approach helpful as it encouraged her to make time to read the material.

During these meetings, participants also discussed practical applications of the material, such as their experience with activities that they had been trying in their classrooms (i.e., which activities were successful, possible modifications), student progress, materials that the children were reading, as well as suggestions on various strategies to use for children with difficulties. They also shared samples of their students' writing. According to the former school administrator, the discussions and sharing served as an incentive for teachers to participate in the meetings; furthermore, teachers who were not prepared lost the respect of their colleagues. One of the teachers remarked that the discussions were helpful and motivated them to think about what they were doing in the classroom. Other staff members as well as teachers from other schools occasionally attended these meetings.

School B. At each of their school meetings, teachers discussed what they had learned at the previous in-service workshop and how the material was related to their students. They also shared samples of their students' writing, worked on the assignment from the previous workshop, and decided how they were going to train the rest of the staff. Although the discussions were generally about practical matters, they sometimes discussed the professional development
materials. Teachers also discussed what they were doing in their classrooms during grade level meetings that included teachers who were not participating in the in-service program.

Teachers also presented key ideas from the workshops and resource materials to the rest of staff during a few primary division meetings. According to some of the teachers, there was a great deal of resistance at first from some other staff members who had the impression that the PLP was focused entirely on phonics instruction. Consequently, discussions during some of the meetings became quite heated at times.

School C. Teachers met after some of in-service workshops to discuss what they had learned and talk about how they were implementing practices in their classrooms, share samples of their students' work, and discuss some of the material that they had read to make sure that they understood it. The vice-principal reported that the meetings provided teachers with an opportunity for leadership and growth as they also made decisions about how they were going to educate the rest of the staff.

The PLP was formally implemented in School C during the year following the in-service program. At this time, teachers who had participated in the in-service program shared their knowledge and experience that they had gained with the rest of the staff through modeling and discussions during primary division curriculum meetings.

School D. Although there were not any formal meetings, teachers discussed their perceptions of the project with each other on an informal basis (e.g., chatting in the staff room). Teachers did not share their knowledge on literacy or discuss the professional development material; however, one teacher reported that they met a few times at the beginning of the project to discuss which guided reading materials they planned to purchase.

School E. Teachers discussed what they had gained from the in-service workshops, shared their experiences with activities that they had implemented in their classrooms during their meetings and occasionally discussed portions of the professional development materials that they had all read. At other times, they worked together on assignments they had received during the workshops. One teacher felt that the meetings were helpful as they provided her with time to meet with her colleagues; conversely, another teacher indicated that the meetings were not necessary as she did not need any help or motivation.
According to the former principal, the participants provided professional development to the rest of the staff at primary division and grade level meetings.

*School F.* During their meetings, teachers addressed questions and concerns about the PLP, discussed possible applications of theory that had been reviewed during the workshops, and shared their experiences implementing strategies in the classrooms. They also discussed the homework assignment, made decisions about reading materials that they wanted to purchase, and developed their guided reading program during these meetings.

A part-time teacher commented that teachers generally do not read material for meetings, even if they had been requested to do so.

*School G.* According to the former vice-principal of this school, teachers were very interested in leading school meetings and sharing their expertise. Teachers frequently shared highlights of their successes with each other by demonstrating games and innovative ideas (e.g., rap songs to help students learn Word Wall words). They did not discuss the professional development materials during these meetings as they had read them during the summer prior to the in-service program. One teacher indicated that she found the meetings helpful as each teacher had her own strengths and they were able to learn from each other and expand their repertoires accordingly. However, she felt that the discussions would have been more helpful if an agenda had been prepared for each session.
Appendix J

Table J1

One-way Analyses of Variance for Mean Scores on Literacy Diet Term Definitions
(Experimental Group 1, Experimental Group 2, Control Group)

<table>
<thead>
<tr>
<th>Literacy Diet term</th>
<th>$F(2, 45)$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motivation for literacy</td>
<td>5.29**</td>
</tr>
<tr>
<td>Concepts of print</td>
<td>7.93**</td>
</tr>
<tr>
<td>World knowledge</td>
<td>5.93**</td>
</tr>
<tr>
<td>Word knowledge</td>
<td>2.10</td>
</tr>
<tr>
<td>Language development</td>
<td>3.79*</td>
</tr>
<tr>
<td>Listening/thinking skills</td>
<td>5.82**</td>
</tr>
<tr>
<td>Sight words</td>
<td>1.19</td>
</tr>
<tr>
<td>Phonemic awareness</td>
<td>2.36</td>
</tr>
<tr>
<td>Letter-sound associations</td>
<td>5.76**</td>
</tr>
<tr>
<td>Complex letter-sounds</td>
<td>0.69</td>
</tr>
<tr>
<td>Letter formation</td>
<td>5.52**</td>
</tr>
<tr>
<td>Spelling</td>
<td>2.86</td>
</tr>
<tr>
<td>Schema development</td>
<td>13.51***</td>
</tr>
<tr>
<td>Fluency</td>
<td>0.27</td>
</tr>
<tr>
<td>Text types</td>
<td>2.15</td>
</tr>
<tr>
<td>Comprehension strategies</td>
<td>6.75**</td>
</tr>
<tr>
<td>Writing conventions</td>
<td>9.64***</td>
</tr>
<tr>
<td>Composition strategies</td>
<td>5.66**</td>
</tr>
<tr>
<td>Written language structures</td>
<td>0.07</td>
</tr>
</tbody>
</table>

*p < .05.  **p < .01.  ***p < .001.
Appendix K

The Role of Support Staff

The following data regarding support staff were acquired through interviews with all school administrators. As the administrator of School F was not interviewed, there were no data regarding support staff involvement at that particular school.

School A. Resource teachers from the school board visited classrooms and shared ideas on activities that teachers in some of the other participating schools were trying. In addition, the special education and ESL teachers assisted regular classroom teachers in program planning.

School B. The special education and ESL teachers attended the workshops and were involved in training staff that did not attend the in-service program.

School C. The support staff attended the workshops and the school meetings, shared knowledge and ideas with regular classroom teachers, made sure that teachers got the resource materials that they needed, and helped them implement changes in their literacy programs. Moreover, they "helped celebrate the recognition of teacher leadership in our school" (P7).

School D. A speech-and-language pathologist from the school board gave some workshops on phonemic awareness and discussed the use of phonics in the classroom.

School E. The special education teacher, who had a strong, positive influence within the school, helped gain the interest and involvement of the rest of the staff. She also helped teachers understand how to implement practices described in the professional development materials, and collaborated with them in preparing materials for the classroom. Additionally, a resource teacher from the school board with a good understanding of the project visited the school once a week to help teachers implement changes in their programs.

School F. No administrators from this school were interviewed.

School G. The special education and ESL staff attended the workshops and provided a great deal of support to the regular classroom teachers.
Appendix L

Collaboration and Sharing Since Implementation Year

The following summaries of participants' reports regarding collaboration and sharing since the implementation year are based on data from the interviews with the five administrators and 27 teachers who were still situated at schools that had participated in the PLP, as well as the former administrator of School G.

School A. According to the school administrator, teachers had been enriching and extending the effects of the PLP as they "add more and exotic fruits to the diet" (P9). She also felt that her school was remarkable as teachers tended to collaborate quite often with each other through programming, sharing preparations (e.g., acquiring and grading new reading materials), as well as discussing classroom experiences. She felt that the cohesiveness that existed among staff members had been fostered through their involvement in school success planning as well as training in collaboration and teamwork. She reported that her teachers continued to discuss issues related to literacy at their weekly primary division meetings.

Two of the teachers at this school also reported that they were collaborating a great deal and, in fact, felt that they were collaborating more frequently since the in-service program due to demands placed on them by changes in curriculum and report cards that had been mandated by the Ministry of Education (e.g., using letter grades to assess students' work). They reported that they often shared reading materials as well as experiences and ideas, (e.g., tips for increasing the length of written work, books for stimulating writing ideas). The Kindergarten teacher who was interviewed, however, complained that she felt isolated since the in-service program ended as there was no longer any reason to be involved with the other teachers (i.e., she was not involved with reading initiative groups); consequently, she was only sharing programming ideas with the other Kindergarten teacher who was teaching only half-days.

The school administrator reported that teachers from other schools had visited to observe how her teachers were working in teams, organizing their students in "reading initiative" groups, and managing their timetables. Moreover, some teachers had given presentations to other schools at a conference on literacy.
School B. The principal indicated that teachers continued to meet every two weeks to discuss various aspects of the curriculum which included literacy; before the in-service program, these sessions were strictly business meetings. Two support staff teachers indicated that they were collaborating daily with regular classroom teachers regarding students' needs. Furthermore, teachers were sharing experiences with their teaching partners and other teachers in the same grade level. Another teacher explained that teachers had to meet regularly to discuss various issues such as skills that need to be reinforced, particularly due to the changes mandated by the Ministry of Education. She also noted that one of the four school success teams was responsible for literacy and numeracy (e.g., purchasing books), and that the staff on this team had been focusing on the new literacy curriculum and report cards.

According to the school administrator, teachers had been sharing knowledge that they had gained through the project with teachers from other schools. Some of the teachers, for example, had made presentations at two different conferences as well as provided workshops on portfolio assessment at a few schools. Moreover, the school administrator reported that teachers from other school boards had visited the school to find out about guided reading. Another teacher reported that staff met with other teachers within the family of schools a few times following the in-service program to discuss various issues which included literacy.

School C. Four of the five teachers mentioned that they were sharing reading and other materials with each other. One of these teachers commented that "teachers hate meetings, especially after school" (T2); however, she added that they were seeking advice from each other. Another teacher contended that all teachers were working together as a cohesive unit, particularly within grade levels. Only one teacher felt that teachers at this school did not collaborate with each other except to discuss reading initiative groups.

The principal remarked that teachers had been sharing their knowledge on literacy both within the school (e.g., workshops, primary division meetings) as well as across schools (e.g., school visits). One teacher reported that several teachers had presented some of the concepts that had been discussed in the in-service program at a conference given by the school district the following year.
School D. Three of the four teachers felt that collaboration—which was relatively nonexistent during implementation year—had increased since then. Two of these teachers felt that teachers were close since they worked at a small school, and maintained that they had been sharing resource materials as well as working together on tasks such as planning units for environmental studies. One teacher added that their primary division meetings had become more organized and more frequent. On the other hand, one teacher felt that there was not much collaboration among teachers since the in-service program, particularly since they were no longer required to contribute anything.

There were no reports of sharing with teachers from other schools.

School E. The school administrator described the staff as a cohesive group of teachers that tended to create time to talk with each other. Although teachers developed their programs independently, they collaborated with each other on various issues such as purchasing games and reading materials, and were still meeting regularly to discuss pedagogy.

Two teachers reported that since all teachers were still following many of the practices that came from the project (e.g., Jolly Phonics, guided reading, Word Wall, Reading and Writing Blocks), they had been comparing what was happening in their classrooms. As one of these teachers remarked, whenever an issue pertaining to early literacy arose, they discussed it at a staff meeting. She also mentioned that the focus was still on literacy even though it was expected to be on mathematics. A third teacher agreed that it was necessary to discuss literacy issues regularly, especially since they were required to follow the new curriculum mandated by the Ministry of Education; however, she felt that teachers had been collaborating less frequently since the in-service program. Most collaboration, according to her, was occurring between team partners.

During the year following the in-service program, School E sponsored a conference on literacy in the primary grades. According to the school administrator, this event was "a celebration of work teachers had been doing" (P2). Following the conference, the teachers were asked by the superintendent to talk to a group of administrators in their family of schools; five teachers and the school administrator split into four groups, each of which gave a presentation on
a specific topic. They subsequently repeated these presentations at two schools as well as to the parents of their students.

**School F.** All of the teachers reported that colleagues were constantly exchanging ideas and experiences as well as supporting each other on an informal basis. One teacher suggested that it was easier to collaborate with just one colleague (e.g., a teaching partner) than to discuss issues within a larger group. The special education/ESL teacher reported that she did not usually have time to attend team meetings, but indicated, however, that teachers were still sharing with each other as literacy was integrated throughout the curriculum. She added that she often talked to colleagues after school hours or during lunch-time.

One of the participants reported that some teachers gave a presentation at a conference based on the PLP during the year following the in-service program. She also stated that she and her colleagues had met a few times with teachers from Schools D and E; however, sharing between schools had decreased as there had been "so much thrown at us" (T17).

**School G.** All teachers reported that they collaborated with each other quite often, both at staff meetings as well as on an informal basis. One teacher said that she and her colleagues were very good at sharing things that they had prepared for their students (e.g., novel studies questions, Word Wall activities, guided reading strategies), and that this sharing had helped reduce planning time. She felt, however, that collaboration had decreased since the in-service program. Similarly another teacher mentioned that collaboration on literacy issues had decreased as the focus had shifted to the new curriculum and report card.

The former vice-principal gave several examples of how teachers had shared knowledge that they had gained from the project with teachers from other schools. First, teachers had conducted workshops based on classroom activities at various schools within the school district as well as at schools in other cities and at conferences. Second, some teachers had made a video that they could use in their presentations. Finally, groups of teachers from many schools, who had heard about the work that they were doing, had visited their school. All teachers confirmed that there had been an abundance of visitors to their school; in fact, one teacher reported that their school was described as a "demonstration school."
In the following excerpt, the former vice-principal discusses her perceptions of these school visits:

We had 50 some visitors [i.e., schools] from January to June. It was just incredible, the number of people that wanted to come and see what was happening. . . . Anybody who came to that program and saw what was going on would leave totally enervated [sic] to try it. But they would say without an administrator involved, I don't think it would work. Your staff is very lucky to have an administrator that supports it. (P3)
Appendix M

Further Professional Development

The following summaries of participants' reports regarding professional development activities in which staff had been involved since the in-service program are based on data from the interviews with the five administrators and 27 teachers who were still situated at schools that had participated in the PLP, as well as the former administrator of School G.

School A. According to the school administrator, some of the primary teachers had attended a series of four after-school workshops during the previous year. One of these teachers indicated that she had tried some phonemic awareness activities that were described in an article that she had received at one of these workshops. Another teacher mentioned that teachers at other schools had given workshops in which they shared information about their literacy programs.

School B. The school administrator reported that some of the teachers had been attending a greater number of conferences on literacy and were also reading professional articles on a regular basis. This administrator also indicated that they had visited School G because they had heard that the teachers at that school had been very involved in the project. The administrator believed that the conferences and school visits had increased teachers' level of professionalism and had helped them improve their literacy practices (e.g., analysing their program to determine where change was needed).

Teachers reported that they had been educated by staff from another school on how to use running records (i.e., a method of monitoring students' progress) in their guided reading practice. Another teacher added that the area resource teacher had visited the school to talk about writing descriptors (i.e., criteria for evaluating students' use of writing conventions, grammar, content, etc.). One teacher mentioned that the speech pathologist had visited to discuss phonemic awareness and that teachers had received training in the use of various computer programs, some of which were on literacy. Teachers were also attending optional workshops given by the school district and "lunch and learn" sessions, as well as participating in book clubs.

School C. The school administrator mentioned that the teachers had visited other schools to observe how others were teaching literacy. According to the teachers, there had not been
much professional development since the in-service program. One teacher indicated that the facilitator of the in-service program had returned the following year to give a workshop. Another teacher mentioned that the teachers who had participated in the in-service program had subsequently attended a conference on literacy.

School D. The school administrator and three teachers mentioned that they were planning to implement the writing component of First Steps and that two teachers, one from each division, were going to learn how to use it then train the rest of the staff.

Some teachers had attended the "Reading for the Love of It" conference. One of these teachers described it as "a good boost" (T1) and reported that it had reinforced knowledge that she had gained through the PLP (e.g., she acquired new ideas for guided reading). She added that teachers at her school had received training in how to use writing scales which they were going to use for assessment of student progress.

School E. Two teachers at this school mentioned that they had attended two conferences--"Reading for the Love of It" and "Literacy in the Primary Grades"--along with a few other teachers and had subsequently reported on them to the rest of the staff. One of these teachers remarked that the conferences had helped increase her knowledge as well as made her aware of additional resources. Furthermore, resource teachers from the school district had been giving after-school workshops on the use of reading descriptors (i.e., stages of reading development for reporting student progress) as well as on writing activities that could be used in the classroom. Finally, various publishers had visited the school to make teachers aware of new reading materials that they could purchase for their classrooms.

School F. One of the teachers reported that all staff had received professional development in the use of writing descriptors by resource teachers over a two-year period; she felt that these sessions had complemented the PLP. The other two teachers added that the resource teachers had also provided sessions on guided reading. They felt that these sessions had improved their awareness of how to assess literacy as well as their ability to develop literacy programs that would meet students' needs.
School G. Four teachers mentioned plans to implement the writing component of the First Steps program which, according to a former administrator of this school, had recently been mandated in School District 2.
Impact of Staff Turnover on PLP

The following summaries of participants' reports regarding the impact of staff turnover are based on data from the interviews with the five administrators and 27 teachers who were still situated at schools that had participated in the PLP.

School A. The school administrator and teachers felt that the turnover at their school had not had any impact on either collaboration or maintenance of teaching practices that came from the PLP.

School B. All participants at this school commented on the high turnover in staff that had taken place since the implementation year; however, they all agreed that the staff was continuing to follow practices from the project. The special education teacher, for example, felt that the turnover had affected collaboration, but added that teachers were still following practices from the project although they were no longer meeting to discuss it. An ESL teacher, who also attributed the decline in collaboration in one particular grade level to the high turnover, stated that some teachers continued to share knowledge with others on their team.

School C. One teacher remarked that about half of her team had left the school at the end of the implementation year; consequently, she had to educate a new group of teachers the following year, "so it wasn't really the same" (T25). She also felt that the turnover may have had a negative impact on collaboration among teachers. The other participants from this school, however, did not feel that staff changes had made any impact on the project.

School D. According to a former teacher, newcomers had interrupted the continuity of the project. Another teacher, who remarked that teachers had attempted to maintain consistency in their practices across the grades with the Jolly Phonics program admitted that some new teachers know nothing else about the project.

School E. The current administrator at School E reported that their had not been much turnover in staff other than some changes between primary and junior divisions; as a result, staff changes had not had much impact at this school either.
School F. One teacher remarked that newcomers were not following any practices from the project except for a Grade 1 teacher who was using parts of Jolly Phonics. Two other teachers complained that guided reading had been discontinued because there were fewer teachers at the school and increased class size. One of these teachers added that the turnover had affected collaboration among teachers because the new teachers were using their own strategies.

School G. Although teachers at this school appeared to be making a substantial effort to immerse new staff in the PLP, most of the teachers felt that staff turnover had made some type of impact on continuation of the project. One teacher, for example, remarked, "We try to share, but it's not the same as having been there. Although we make it known that we expect [the PLP] to be carried out, some people aren't as easy to get along with and go their own road" (T26). Similarly, another teacher remarked that it takes time to bring newcomers to the same level as teachers experienced with the project as they are learning on the job without in-depth training. She also remarked that staff meetings on curriculum had changed since they no longer involved only participants from the in-service program.

According to another teacher, some newcomers were doing things against which the in-service facilitator had advised (e.g., supplying students with words to use in their stories). She reasoned, however, that newcomers "do not get the whole training and it doesn't occur to us to tell them everything" (T29).

Despite the impact of staff turnover, all of the teachers at this school agreed that the staff was still following practices from the project. One teacher reported that a newcomer who refused to participate had left the school. Another teacher remarked that the turnover had not affected collaboration among teachers, however, because the "core group of original participants continues to work on cohesiveness" (T26). One of her colleagues, however, observed that some newcomers felt like outsiders because they were not involved in sharing with other schools. Moreover, according to her, new staff viewed the original participants as "a select few who get attention" (T29).
Educating New Staff

All five administrators who were still at schools that had been involved in the in-service program during the implementation year indicated that they and their staff had made an effort to introduce new teachers to the PLP. A summary of attempts that had been made in each of the schools to involve new staff in the project is provided in Table N1.

Table N1

Teachers' Efforts to Involve New Staff

<table>
<thead>
<tr>
<th>School</th>
<th>Educating new staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>professional development materials available in library; teachers meet with new staff each September to discuss literacy instruction</td>
</tr>
<tr>
<td>B</td>
<td>briefed on practices from project by original participants and expected to follow them; new staff aware of name of in-service facilitator and following practices</td>
</tr>
<tr>
<td>C</td>
<td>3 or more workshops each year; new staff receive own professional development material</td>
</tr>
<tr>
<td>D</td>
<td>new staff told only about Jolly Phonics program; professional development material available in library</td>
</tr>
<tr>
<td>E</td>
<td>new staff must have compatible philosophy on literacy instruction to be hired; expected to follow practices from project; new staff immersed in tenets of project and receive help from rest of staff</td>
</tr>
<tr>
<td>F</td>
<td>informal sharing only</td>
</tr>
<tr>
<td>G</td>
<td>new staff immersed immediately; receive own professional development material; help with time management (e.g., timetabling); videos on literacy practices (e.g., guided reading); modeling by special education specialists; team teaching; staff act as mentors; grade level meetings; workshops by in-service facilitator</td>
</tr>
</tbody>
</table>