LITERACY-RELATED PROFESSIONAL DEVELOPMENT
PREFERENCES OF SECONDARY TEACHERS

by

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Abstract

The purpose of this study was to examine the literacy-related professional development preferences of participating secondary teachers. Through a survey, I described the form, duration, and content preferences of secondary teachers for literacy-related professional development activities; described similarities and differences in preferences for form, duration, and content of literacy-related professional development activities between teachers of different subject areas and course types; and described similarities and differences in preferences for content of literacy-related professional development activities between teachers of different subject areas and course types.

All secondary teachers in the participating school board were invited to participate in the study. Of approximately 450 secondary teachers in the school board, 100 chose to participate. The findings of this study confirm and extend existing research: the majority of secondary teachers want to engage in literacy-related professional development; secondary teachers have preferences for various forms of professional development, including duration and form; there are differences in preferences for duration, form, and content of teachers in different subject areas; and differences exist in preferences for form and content of teachers of different course types.

The findings of this study that confirmed existing research included: the preference by teachers of Science and Geography for literacy-related professional development on instruction of reading graphical text; the preference for literacy-related professional development by teachers of Math on reading word problems; the preference for literacy-related professional development that allows for teacher collaboration; the preference for literacy-related professional development that results in practical ideas and
strategies; and the preference for literacy-related professional development that meets the needs of teachers and students.

Interesting themes emerged that extend previous research: the preference for literacy-related professional development that is short in duration (between one to five hours); a higher percentage of teachers of Science, Math, and Technology wanting no literacy-related professional development; the preference by teachers of Open type courses for literacy-related professional development on differentiating literacy instruction; and a stronger focus on the content (as opposed to a focus on form) of literacy-related professional development by teachers of Science, Math, and Technology.
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Chapter 1. Introduction

Ontario’s public school system employs 120,000 teachers to educate approximately two million students (Levin, Glaze, & Fullen, 2008). To improve student achievement, the Ontario Ministry of Education has implemented strategies related to literacy, numeracy, and secondary school graduation. One initiative is to provide extensive, targeted professional development for teachers (Levin et al., 2008).

Guskey (2000) defined professional development as processes and activities that assist educators in building their knowledge and skills, which will in turn improve student learning. Ontario’s Ministry of Education (2007) is more specific, and differentiates between staff development and professional development by defining professional development as self-chosen learning activities that teachers investigate individually or as part of a professional learning community (Ontario Ministry of Education and Training, p. 3). Furthermore, the Ontario Ministry of Education and Training defines staff development as being professional learning activities that are not chosen by the teacher, and that are usually system-wide (Ontario Ministry of Education and Training, p. 3). For the purposes of this thesis, professional development will encompass both system-wide and self-chosen development activities.

Purpose

The overall purpose of this thesis was to identify secondary teachers’ perceptions about professional development in literacy. A specific purpose of this study was to identify secondary teachers’ self-reported literacy-related instructional needs.

Professional development can take many forms, include varying content, and can vary in
duration. It was the intent of this study to determine the preferred form, duration, and content of literacy-related professional development of secondary teachers in one school board in Ontario. Specifically, I examined the literacy-related professional development preferences of secondary school teachers of different subject areas, pathways, and grades.

**Rationale**

I have taught a mix of Science and Special Education classes at the secondary level. As a teacher, I have engaged in a variety of professional development activities related to literacy. These have included three Additional Qualifications courses in reading education. One was with a focus on literacy instruction for students in Kindergarten to Grade 6, and two were related to adolescent literacy. I have also participated in a variety of Board sponsored professional development opportunities related to literacy. These have run the gamut from book clubs over a duration of several months, to ‘one-shot’ workshops on science vocabulary at our Board Office, to province-wide literacy focused conferences. Moreover, I regularly read professional texts and incorporate some of the suggested strategies into my instruction, and I openly engage in dialogue with colleagues. My own feelings are ambivalent about how much these opportunities have supported me to develop my teaching skills. I believe that some of these opportunities have benefitted me much more than others. It is my belief that self-selected professional development that is based on my skills is much more beneficial than mandated professional development. It is important that teachers be provided with an array of opportunities so they can choose forms of professional development that meet their own learning styles. Therefore, I believe it is essential that providers of professional development for
secondary teachers ask teachers what content they would like to learn, and their preferred form of learning. Providers of professional development can use a needs assessment to determine which content, form and duration of professional development will best meet the learning needs of teachers. It is my belief that teachers will be more likely to choose to participate in professional development if they are provided with the opportunity for input into its content and form.

In mandatory workshops at the school level, I have heard teachers make derogatory statements, and have observed teachers sit in these workshops while engaged in unrelated activities (such as marking). My own experiences and my observations have led me to question professional development related to literacy for secondary teachers. Some teachers seem to have a negative view of literacy-related professional development. My own experiences have led me to believe that secondary teachers have preferences about professional development. My specific questions were: If secondary teachers perceive that some professional development could help them as teachers, what form, content, and duration would they most prefer? Do teachers differ in their preferences regarding professional development?

**Overview of Thesis**

The second chapter reviews the literature on Ontario Ministry of Education policies, adult learning, teacher professional development, and survey research. Chapter three outlines the methodology used in this study, including the research design, data collection methods, survey, setting and participants, and data analysis.

The fourth chapter reviews the results of the research. This includes a review of
the demographics of participants, and the responses to survey questions about the duration, form, and content of literacy-related professional development. In chapter five, the results are discussed in relation to the research questions. Teachers’ preferred duration, form, and content of literacy-related professional development are discussed in relation to research in the field. Similarities and differences between teachers of different subject areas and of different course types are also discussed.

Throughout this thesis, there are a number of terms used, including duration, form, and content of professional development. There are also terms used in relation to courses in Ontario that will be defined, to better understand the findings of this study, including terms related to subject areas, course types, and pathways.

Throughout this study, I set out to examine teachers’ preferred duration, form, and content of literacy-related professional development. Duration refers to the amount of contact time in literacy-related professional development activities. In this study, contact time was measured in hours. Form refers to the format of the literacy-related professional development activities. Examples of forms include workshops, mentoring, and online courses. Finally, content refers to the topic of the professional development activity. Examples of potential content include spelling instruction and reading strategies instruction.

I also examine the results from teachers in different subject areas, grade levels, and pathways. The term subject areas refers to the various subjects in the Ontario curriculum, and French, Math, and Family Studies are all examples of subject areas. There are four different grades at the secondary level in Ontario, grades 9, 10, 11, and 12.
In Ontario, there are seven different course types that lead to Ministry credits. Locally Developed (grades 9 and 10) and Workplace (grades 11 and 12) course types are meant to prepare students for attaining employment in the workplace after secondary school. These courses are often referred to as being courses in the Workplace pathway. Applied (grades 9 and 10) and College Preparation (grades 11 and 12) course types are meant to prepare students for the College pathway. Academic (grades 9 and 10) and University Preparation (grades 11 and 12) course types are meant to prepare students for the University pathway. Open course types are taken by students in Workplace, College, and University pathways. As well, University and College course types are meant for students in both the University and College pathways. In the participating school board, at the time of data collection, there were also several pathways for students with Special Education needs. Students in these pathways do not earn Ministry credits. The Employment Destinations Program pathway is designed to support students to gain the skills necessary to obtain employment after secondary school, and to provide students with the necessary academic skills to be successful in the Workplace pathway. As well, Regional Programs are for students with developmental disabilities designed to prepare students to live as independently as possible after secondary school.
Chapter 2. Literature Review

Overview of Literature Review

This chapter includes a review of literature related to teacher professional development. First, this literature review outlines Ministry of Education policies and describes how they have affected teachers. Next, I review the literature about adult learning theories, and how they apply to teacher professional development. Then I discuss what the literature says about policy, content, form, duration, and choice in teacher professional development. I review some research on subject area differences with regard to professional development preferences. Finally, a section on survey research is included.

Ministry of Education Policies

To understand teachers’ perspectives on professional development, I considered it vital to first examine Ministry policies, as these have a direct impact on teachers and curriculum. In Ontario, the students who entered grade 9 in 1999-2000 were the first cohort of students required to write the Ontario Secondary School Literacy Test (OSSLT). For every year thereafter, students have been required to pass the OSSLT to obtain a secondary school diploma. The OSSLT graduation requirement is designed to determine whether students have gained the essential reading and writing skills necessary for literacy, and also if they have acquired the reading and writing skills outlined in the provincial curriculum documents (Ministry of Education and Training, 1999). If students are unsuccessful on their first attempt at writing the literacy test, they may re-attempt the test. In 2003 the Ministry of Education implemented the Ontario Secondary School
Literacy Course (OLC). If the student has not passed the OSSLT, the course can be used to fulfill the literacy requirement for graduation. It is designed to support students in developing their reading and writing skills, and to provide them with an alternate method of demonstrating those skills (Ministry of Education, 2003).

The OSSLT is a high-stakes test that has a long term effect on the lives of students (Nezavdal, 2003). Because of this, there is pressure both on students to succeed and on teachers to help students succeed. Scores on the OSSLT are compiled by school, school board, and province. This allows comparison between schools and school boards. These data are publicized each year by the Education and Quality Accountability Office (EQAO). School results are published in local newspapers and are compared to other schools in the same board. In cities with multiple public secondary schools, scores can range widely from school to school. When results are publicized in local newspapers, the impact can be a more positive view of the teaching and teachers in high achieving secondary schools, and a more negative view of the teaching and teachers in lower achieving secondary schools. This can also increase pressure on teachers to implement curriculum that is thought to foster higher student achievement in literacy. The reality of the policy environment in Ontario is that pressure to increase student achievement on this high stakes test affects teachers. It may also affect teachers’ perspectives on their own needs for professional development.

Three of Canada’s highest circulation newspapers have carried stories on the Ontario Secondary School Literacy Test. Pinto, Boler, and Norris (2007) searched *The Globe and Mail, The National Post,* and *The Toronto Star* for content related to the
Ontario Secondary School Literacy Test. From 1998 to 2004, 77 articles were published in the three newspapers. One-third of those articles focussed on student achievement, with a qualitative analysis revealing particular attention to concerns about levels of failure. For example, articles citing statistics such as more than half of all students in the “Applied” stream failing the test (p. 90) suggest high levels of illiteracy in Ontario’s schools. This media acts as a force to pressure the Ontario Ministry of Education, school boards, school administrators, and teachers to attempt to raise student achievement in literacy. To address this, the Ministry of Education and Training (2007) and school boards have implemented literacy-related professional development activities for secondary teachers. These activities, whether mandatory or optional, may impact their practices and also affect teachers’ perspectives on literacy-related professional development.

Ricci (2004) outlined how the OSSLT directly impacted classroom teaching in one Ontario school board. In classrooms, changes were made to course outlines to align them with the content and skills required on the literacy test. Actions and plans were created by the school board. In one school, students in grades 9 and 10 spent one period a week preparing for the test. Schools used time earmarked for teachers’ professional development for activities such as students writing a mock test and teachers marking mock-tests written by students. Teacher participation was mandatory; teachers were not consulted during the process. This approach does not reflect the principles of adult education. Yet, Terehoff (2002) and Trotter (2006) allege that, to maximize the positive impact of any professional development, providers of professional development should
ensure that principles of adult education are incorporated into professional development programs.

**Adult Learning Theory**

Adult learning principles have been articulated by a number of different authors (e.g., Terehoff, 2002; Trotter, 2006). However, Knowles described them earlier (1984). Knowles popularized the use of the term *andragogy* to refer to the education of adults. Knowles alleged that instructors must understand how adults learn in order to be able to facilitate that learning. He postulated five characteristics of adult learners.

First, Knowles contended that adults differ from children in that they have a mature self-concept. He argued adults are no longer dependent on others, but rather are self-directing. An andragogical approach takes into account the adult self-concept, and the instructor is a facilitator who allows the adult learners to make choices that guide their learning, because adults prefer self-directed learning.

Second, as a person ages, they gain life-related and career-related experience. Knowles suggested that the experience that adults bring to the learning situation should be valued and used to guide adult instruction.

Third, adults come with varying readiness to learn. Adults are ready to learn when they experience a need for the learning. Knowles contended that learning is not a function of age for adults, but rather a function of need.

Fourth, adults are motivated to learn based on their current needs. They are motivated when the learning will address current difficulties. Adults are more ready to learn when what they are learning will help them in the present.
Last, Knowles said that adults are more internally motivated to learn. He acknowledged that adults do respond to external motivators, such as salary increases. However, he suggested that, for adults, the more potent motivators are internal (p. 12). In other words, adults are more driven to learn by internal motivators such as improved self-concept, job satisfaction, and quality of life (Knowles, 1984).

**Adult Learning Theories and Teacher Professional Development**

In 2007, Ontario’s Ministry of Education and Training published a report outlining recommendations for teacher professional development, with the intention of implementing those recommendations in the following school year. The Ministry of Education recommended that five characteristics be considered by providers of professional development. Professional development activities should be: (a) coherent; (b) attentive to adult learning styles; (c) goal-oriented; (d) sustainable; (e) and evidence-informed. In teacher professional development activities, the facilitator often adopts the role of teacher, using strategies that would be best used in an elementary or secondary classroom (Beavers, 2009). However, it is important for facilitators of teacher professional development programs to be aware of adult learning theories and to apply them in teacher professional development programs (Beavers).

In applying adult learning theories to teacher professional development, several researchers have outlined how these principles may guide teacher professional developers in creating programs that better meet the needs of teachers, and, in so doing, better meet the needs of students (Beavers, 2009; Terehoff, 2002; Trotter, 2006). Terehoff outlined seven principles of adult learning that can help to guide teacher professional
development: (a) adult-centered learning environments; (b) adult involvement in the planning process; (c) adult needs and interests being taken into account; (d) adult goals and objectives being taken into account; (e) adult learning styles being taken into account; (f) the role of the developer as a facilitator; and (g) the involvement of adults in program evaluation.

Terehoff, applying these concepts to teachers, suggests that teachers’ self-concept as it relates to learning . . . involves a sense of personal freedom to learn, choice of learning, and the relevance of experiences during learning (p. 67). As adults, teachers are self-directing, and this should be taken into account when administrators and district level personnel plan professional development opportunities. Administrators need to find a balance between the unique learning goals of teachers and schoolwide staff development (p. 67).

Terehoff suggests that one impetus for teachers in selecting professional development activities is problem-oriented. That is, teachers tend to select professional development to help them to solve their current problems. This has implications for professional development providers. Accordingly, professional developers should organize the professional development process around specific competencies to address specific problems as identified by teachers. Those teachers who require a particular area of competency may become more motivated to engage in professional development related to that competency.

Karagiorgi (2008) explored the degree to which adult learning theories were incorporated into teacher professional development programs in Cyprus. In the study,
teacher trainers did focus on problem-solving rather than information transmission, indicating that the professional development activities were problem-oriented. Karagiorgi suggests that training could be more problem-oriented if it encouraged collective participation of teachers from the same school, where teachers could discuss potential solutions to shared problems.

Terehoff (2002) also advocates valuing teachers’ experiences. Teachers’ experiences form the basis for their professional self-concept; thus teachers may feel rejected as professionals if their experience is not incorporated by administrators in professional development activities. Their experience must be acknowledged in professional development activities. This means that teachers will seek professional development opportunities that help them with their current situations, and suggests that adult educators must tailor professional development activities to the current needs of the teachers involved. Karagiorgi, Kalogirou, Theodosiou, and Kendeou (2008), studying teacher professional development programs in Cyprus, found that teacher trainers did address the prior experiences of teachers. However, they indicated that teachers believed that the trainers needed to focus more on individualizing instruction and adapting teaching materials based on teachers’ experiences in the field.

The effectiveness of teacher professional development is related to the quality of teaching practice (Guskey, 2000). This has a direct impact on students and student learning; thus teacher professional developers must consider the principles of adult learning when designing learning programs. There is a large variety of potential content and forms for literacy-related professional development, which should allow providers of
professional development to gear their work towards the needs of all teachers. However, as Belzer (2005) indicates, professional development systems struggle with meeting the specific needs of individual teachers. One way to meet the specific needs of individual teachers is to determine the nature of those needs through teacher consultation. This would ensure that teacher professional development activities more fully meet the needs of all teachers as adult learners.

Classifying Professional Development

Professional development for educators takes many forms. It is important to understand the various ways professional development is classified in order to interpret the results of studies using various classification systems. It is also important for any qualitative study in which data on professional development needs may be coded and categorized. Studies have examined many different types of professional development activities (Erickson, Brandes, Mitchell, & Mitchell, 2005; Margolis 2008; Tyldesley, 2004; Wright, 2007). A few examples include self-directed professional development, professional development in online communities, university and school partnerships, professional learning communities, and in-services of a variety of durations and forms. Due to the variety of opportunities for professional development, researchers examining the effects of various forms of professional development (PD) have attempted to group various forms of PD into discrete categories based on characteristics (Garet, Porter, Desimone, Birman, & Yoon, 2001; Jeanpierre, Obserhauser, & Freeman, 2005; Penuel, Fishman, Yamaguchi, & Gallagher, 2007). However, discretely categorizing these professional development activities is difficult, because of the overlap of characteristics...
of various activities.

One method of categorizing teacher professional development is traditional professional development versus reform professional development (Garet et al., 2001). Garet and colleagues divided all professional development activities into these two broad categories. They defined traditional professional development activities as those that take place outside of the teacher’s classroom, such as workshops, courses, and conferences. Reform professional development activities were defined as those that related directly to the teacher’s classroom, and that sometimes take place within the classroom. Examples include mentoring, coaching, school-university partnerships that promote collaborative research, and courses tied to practice. However, Penuel et al. (2007) disputed these discrete groupings, claiming that the categories have substantial overlap, since a workshop can be reform-oriented, depending on its design, and a coaching relationship can be traditional. Instead, they argued that professional development activities are best categorized based on whether they are curriculum-linked or more general in nature. Curriculum-linked professional development ties directly to what teachers are doing in their classrooms, whereas more general professional development is theoretical in nature and does not necessarily tie directly to what teachers are doing in their classrooms.

**Characteristics of Effective Professional Development**

Guskey (2000) proposed a comprehensive model for evaluating professional development. The model suggested that to provide a complete perspective on the effectiveness of any professional development activity, researchers should evaluate five different facets of the program. First, participants’ reactions should be examined to assess
teacher satisfaction with the professional development activity through administration of questionnaires, focus groups, interviews, or personal learning logs. Second, participants’ learning should be measured to determine whether teachers have learned new skills as a result of participation in the professional development. Third, the school’s levels of support, accommodation, and facilitation should be measured to improve organizational support in future endeavours. Fourth, the quality and degree of implementation should be measured to determine whether or not teachers are applying the newly acquired skills as a result of the training. Fifth, student learning outcomes should be measured to determine whether or not the professional development activity supported student learning. Guskey contends that his model to evaluate professional development provides a comprehensive perspective on the effectiveness of the activity.

Most research has not implemented the levels of evaluation of professional development suggested by Guskey. However, researchers have studied many different characteristics of professional development in an effort to determine those that make professional development more effective (Desimone, Garet, Birman, Porter, & Yoon, 2003; Desimone, Smith, & Phillips, 2007; Langer, 2000; Van Keer & Verhaeghe, 2005). The following sections focus on five broad characteristics of PD: (a) school policies, (b) content, (c) form, (d) duration, and (e) choice in participation. School policies are those policies implemented at the school level. Content refers to what is being learned in the professional development session. Form refers to the format of the professional development, including workshops, study groups, and individual readings. Duration refers to the total number of hours of professional development or the total time span of
the professional development. For example, teachers could meet an hour a week for five weeks, in which case the total number of hours would be five, and the duration would be five weeks. Finally, choice refers to whether teachers choose to participate in professional development activities or whether their participation is mandated. Each is discussed below.

Policy.

Researchers have examined the effects of school policies on teacher participation in professional development activities (Desimone, Garet, Birman, Porter, & Yoon, 2007; Smith & Rowley, 2005). Desimone and colleagues analyzed surveys from 3,827 math and science teachers in the United States. They measured the relationship between the amount of participation in professional development and four policy attributes: (a) authority, (b) power, (c) consistency, and (d) stability. Authority was defined as the degree to which a policy is accepted by those who have to implement it. They found that math teachers who thought they had more influence on school policies were more likely to take math related professional development. Science teachers who thought they had more influence over school policies were more likely to engage in professional development related to teaching strategies. Power was defined as the degree to which there were rewards for following policy and sanctions for not following policy. Interestingly, the researchers found that policies specifically relating to teacher evaluation and high-stakes testing of student achievement resulted in a decrease in Science and Math teachers’ participation in professional development in their respective areas.

Smith and Rowley (2005) studied the extent to which teachers’ influence over
classroom and school-level decisions related to participation in professional development. They examined data gathered from teacher surveys from the National Center for Education Statistics in the United States, and used the 1999-2000 and 2000-2001 Teacher Follow-Up Survey. The analysis indicated that a one standard deviation increase in teacher influence over school policy is associated with a 9% increase in the amount of professional development taken. The degree to which teachers feel control over classroom instruction was also associated with an increase in professional development, albeit to a smaller degree. That is, a one standard deviation increase in classroom control is associated with a 42 minute increase in time spent professional development. Thus teacher influence of school policy and the degree to which teachers feel control over their classroom environments appear to influence participation in professional development (Desimone et al., 2007; Smith & Rowley, 2005). Care must be taken when applying the findings of this research in a Canadian setting. Among the many differences between the two education systems, the American education system is more centralized than the Canadian system, in which provinces maintain more autonomy in education-related decision making. However, research on the effects of American policy on teacher professional development may provide Canadian researchers with potential avenues for future research.

Content.

Research has examined the effects of content on professional development (Garet et al., 2001; Jeanpierre, 2005; Karagiorgi & Symeou, 2007). Content in relation to professional development activities refers to what is being learned. The same content
could be learned in multiple ways. Instructional methods in a specific reading strategy could be learned through participation in a variety of professional development forms by participating in book clubs, workshops, or mentoring.

Karagiorgi and Symeou (2007) surveyed elementary and secondary teachers in Cyprus. While 82.9% indicated that the subject itself was what motivated them to attend professional development activities, teachers tended to select professional development activities that developed teaching skills (53.7%). In other words, strategies used to support student learning, or philosophy of teaching (35.0%) were preferred. Only 5.9% of teachers indicated a preference for content that focussed on academic knowledge instead of teaching skills. Clearly, teachers had preferences for the content of the professional development offered, and were more likely to participate in content that focussed on teaching skills.

Van Eekelen (2006) observed and interviewed 28 secondary teachers in Holland with a minimum of seven years of teaching experience. The purpose of the study was to examine teachers’ will to learn (p. 409). Will to learn was defined as a psychological state in which the learner has a desire to learn. The results showed that teachers’ will to learn was clearly associated with the content they had the opportunity to learn. In other words, the will to learn was related to the content of the professional development activity. For example, some teachers demonstrated a will to learn more about their subject area, but did not demonstrate a will to learn about the use of technology in the classroom. Research indicates that the content of professional development activities is important because it affects teacher participation and will to learn (Karagiorgi & Symeou,
Research has examined if there is a relationship between the effectiveness of professional development activities and their form (Engstrom & Danielson, 2006; Garet et al., 2001; Penuel et al., 2007). Form has been defined as the “shape” that the activity takes (Engstrom & Danielson, 2006). Workshops, courses, conferences, study groups, and mentoring are some forms of professional development. Guskey (2000) cites seven major models of professional development: (a) training, (b) observation or assessment, (c) involvement in a development or improvement process, (d) study groups, (e) inquiry or action research, (f) individually guided activities, and (g) mentoring. The content may be the same regardless of form. For example, a teacher study group could meet with the intention of learning how to teach a particular reading strategy, while a workshop could be sponsored with the same intention. Research has indicated that the effectiveness of different forms of professional development varies (Engstrom & Danielson, 2006; Garet et al.; Penuel et al.).

One way to measure effectiveness of various forms of professional development is to ask teachers which form they prefer. Karagiorgi and Symeou (2007) not only examined what content teachers preferred in their professional development, but also what form of professional development they preferred. Both elementary and secondary teachers said that short courses, chances to exchange experience, workshops, and conferences met their learning needs. However, elementary teachers and secondary teachers differed in response. Elementary teachers tended to select workshops,
conferences, teaching staff meetings, and projects as their preferred forms of professional development. These differences highlight the need for separate research into secondary teachers’ needs.

Moreover, Boyle, Lamprianou, and Boyle (2005) sought to determine if teachers of different subject areas favoured similar forms of professional development. They surveyed a sample of schools in England, using a questionnaire that explored various forms and durations of professional development. While observation of colleagues was determined to be the most popular form of professional development across all subject areas, with English at 72.3%, Math at 72.8%, and Science at 69.0%, there were also significant differences by subject taught. English (15.4%) and Science (15.1%) teachers favoured study groups. Mentoring was preferred by English (43%), Math (35.2%), and Science (29%) teachers.

Other researchers have measured the effectiveness of professional development by asking teachers how various forms of professional development affected their learning. Garet et al. (2001) looked at a sample of 1,027 Math and Science teachers to determine if the form of professional development affected teacher learning. Specifically, they divided the form of professional development into traditional activities and reform activities. Institutes, courses, and conferences were classified as traditional professional development. Study groups, mentoring, coaching, teacher networks, and interschool visitations were all classified as reform activities. They found that the type of activity had an effect on self-reported enhanced knowledge and skills for teacher participants. Reform activities had more positive outcomes for teacher self-reported knowledge and skills than
did traditional professional development activities. More research should be conducted, using an objective measure of teacher knowledge and skills and a longitudinal design, to determine if reform activities are more beneficial for teacher learning. While evaluating the impact of which categories of professional development programs has benefits, there is also value in evaluating specific professional development programs.

Bryant, Thompson, Ugel, Hamff, and Hougen (2001) studied the effectiveness of professional development on the application of three specific strategies for reading instruction in content area classes in the United States. Ten sixth-grade teachers participated in the initiative where the researchers held staggered full-day in-services on collaborative strategic reading, word identification, and partner reading. The reading strategies were chosen based on pre-intervention interviews, where teachers asked for strategies to address specific reading problems. The in-service sessions were staggered so that teachers would have a chance to implement one strategy before beginning to implement another. In-class modelling and support meetings were also provided by the researchers. Results indicated that these teachers implemented all of the strategies to some degree. Teachers held positive views of the full-day in-services; however, they wanted more modelling to address the challenge of teaching diverse learners. Consequently, Bryant and her colleagues suggested that more in-class modelling should be used in teacher professional development because it would provide the teachers with the opportunity to see an expert applying new strategies in relation to the specific needs of their students. While the researchers measured the effectiveness of the workshops by administering several surveys to the participating teachers, and while teachers indicated
they felt the workshops helped them help their students, it is not possible to know definitively whether the workshops improved student achievement. More research should be completed using a longitudinal design and a control group.

Guskey (2009) said that workshops have been disparaged recently as being ineffective, and in particular those of short duration (p. 496). Yoon, Duncan, Lee, Scarloss, and Shapley (2007) reviewed over 1,300 studies, and determined that only nine of the studies were sufficiently rigorous enough to warrant further examination. Their examination of those nine studies revealed interesting information about how the duration of professional development relates to its effectiveness. All of the studies that confirmed a positive relationship between the length of the professional development activity and its effect on student learning were workshops or summer institutes. Research examining the effectiveness of various forms of professional development is essential to providing the most effective forms of professional development for teachers.

**Duration.**

Despite contradictions in classifying professional development activity by type, research findings on the effects of duration of professional development activity have been consistent (Boyle et al., 2005; Garet et al., 2001). For example, Garet and colleagues sampled 1,027 math and science teachers to determine the effects that various characteristics had on the quality of their professional development. Quality of professional development was evaluated by teacher perceptions of its impact on student learning. Duration was defined as having several components, including time span and contact hours. Time span was the period of time over which the activity was spread, and
was measured in days and months. For example, a group could meet several times over the course of a year. Contact hours were defined as the total number of hours spent in the professional development activity. Researchers found that both time span and contact hours correlated positively with measures of professional development that were determined to be related to quality, coherence, as well as meaningful learning and classroom practice.

A longitudinal study by Boyle, Lamprianou, and Boyle (2005) surveyed 509 teachers to attempt to determine whether specific durations of professional development led to improved student outcomes. They distributed a questionnaire to a sample of schools in England. The questionnaire explored various durations of professional development and whether the respondents felt that there were any changes in their teaching practice as a result of the professional development activities. Of those respondents who had attended a two-day workshop, 56.9% reported that they had changed their teaching practice. For those teachers attending workshops more than two days long, 61.1% reported changing their practice. Teachers may prefer professional development activities that last a specific duration of time, based on their previous experiences of how duration has related to the depth of their learning in professional development activities.

Choice.

A number of studies highlight the importance of choice in teacher professional development (e.g., Edmonds & Lee, 2007; Langer, 2000; Knight, 2000; Syed, 2008). Langer (2000) shadowed and interviewed 44 middle and secondary school teachers in the
United States. To be considered for participation in the study, schools had already implemented targeted interventions in English teaching and learning that were specifically aimed at raising test scores. They also had higher literacy test scores than those schools with a similar demographic, and they had to be willing to participate in the study. In these schools, it was found that teachers who were classified as successful English teachers by their administrators participated actively in professional communities. In each school, a variety of professional networks was available. However, each of these networks and how the teachers interacted within them differed. Individual teachers chose to participate in a few of the potentially available networks. The opportunity for choice allowed teachers to participate in those networks suit their interaction style, and meeting their learning needs.

Syed (2008) engaged in narrative inquiry with two elementary teachers who were enrolled in a graduate program in literacy in Manitoba. Syed sought to determine their perspectives on professional development related to literacy. He identified seven conditions necessary for professional development in literacy. One of these related directly to the provision of choice, specifically, teachers’ involvement in their own professional development in literacy education (p. 286). Both teachers reported that the school division or the school administration decided on professional development agendas, and that teachers were left out of the decision-making process. These teachers indicated that they wanted more influence over the form and content of their professional development activities. However, because the teachers were selected from a graduate program in reading instruction, it could be that these results are only applicable to those
teachers with an intense interest in literacy instruction. Perhaps teachers with other interests have different perspectives on literacy-related professional development.

Knight (2000) offered a professional development workshop on literacy for a group of middle school and secondary school teachers. Based on what she deemed to be a negative reaction from workshop participants, she sought to determine, through interviews, why the teachers acted the way they did during the workshop. One of the key points that Knight found contributed to the teachers’ negative reaction to the literacy workshop was that their attendance was made mandatory by their school district officials. The middle school teachers relayed that the content of the workshop was not related to their needs; the secondary teachers resented the fact that someone else decided what it is that they should learn. Voluntary teacher participation would have provided the middle school teachers with the opportunity to determine whether the workshop was relevant to their practice. It would also have ensured that the secondary teachers who attended were interested and motivated enough to learn from the experience.

Bainer and Wright (1998) studied teacher perspectives on a constructivist approach to professional development. Teachers were given the opportunity to participate in a one-year professional development project where a variety of options was provided for teachers up to a total of 30 hours of science-related professional development. Options included after-school sessions provided by academics, in-service days focused on grade-level science curriculum planning, weekend workshops, and a year-end session to debrief and share. As well, teachers could plan their own professional development opportunities, including field trips, science fairs, and other educational tours. Bainer and
Wright interviewed the teachers to determine how they selected experiences for their professional development. They found that teachers chose to participate in those opportunities which helped them to meet a professional need, or represented an area of interest for them. Teachers also tended to choose activities that allowed them to improve on practices which they were already using in their classrooms. Moreover, teachers saw themselves growing as professionals when they were allowed to choose their own professional development opportunities. As identified by participants, the benefit of the constructivist approach was that teachers were able to choose which opportunities to pursue. They also enjoyed the flexibility in scheduling provided by the constructivist approach and its networking possibilities.

**Subject Area Differences**

Professional development needs may vary with subject areas taught. Previous studies have indicated that teachers in different subject areas have different professional development needs (Boyle, Lamprianou, & Boyle, 2004; Fisher & Frey, 2008). While literacy instruction in the subject of English is well-established, more recently studies have examined ways that Science teachers integrate literacy instruction into science programming (Anthony, Tippett, & Yore, 2010; Hanharan, 2009).

Hanharan (2009) examined the literacy-related instruction embedded in a secondary earth science class. For this case study, the focus of the lesson was on content in earth sciences. However, literacy instruction was embedded throughout the lesson in ways that ensured that struggling readers were provided with better access to learning. The teacher used many different strategies to support student development in reading,
writing, and vocabulary building. For example, as the science teacher worked through a text with the class, she supported student comprehension by helping students use eight different reading strategies.

Moreover, differences have been shown to exist in literacy instruction between Science and English teachers. Fisher and Frey (2008) conducted a study in a secondary school in California. The school-wide focus is to integrate seven different instructional strategies into literacy instruction across the content areas. The instructional strategies include graphic organizers, anticipatory activities, note-taking, read alouds, reciprocal teaching, vocabulary instruction, and writing to learn. Teachers in all departments (English, Science, Social studies, Math, and electives) were asked to rank each of the seven strategies for different levels of importance. English teachers indicated read alouds and vocabulary instruction as their most important strategies, while Science teachers indicated the use of graphic organizers and anticipatory activities as their most important strategies. Because English and Science teachers indicate different strategies as being the most beneficial in their classrooms, they may benefit from different literacy-related professional development opportunities.

Boyle, Lamprianou, and Boyle (2004) conducted a study of secondary teachers in England to determine levels of participation in previous professional development activities, and to determine their preferred form of professional development. Interestingly, Science and English teachers varied with respect to preferred form of professional development. While both English and Science teachers favoured study groups as their preferred form of professional development, English teachers were found
to be much more involved in coaching than Science teachers. As well, English teachers were more in favour of sharing practice as a form of professional development. Thus, studies should be conducted to determine if there are differences in preferred form of professional development in different subject areas.

Survey Research

The hope in conducting survey research is that the characteristics of the population being sampled can be inferred based on the data of the sample (Floyd & Fowler, 2009). Many researchers have used surveys to gather information regarding teacher professional development (Buyukyavuz & Nul, 2008; Ogan-Bekiroglu, 2007; Torff & Byrnes, 2011; Opfer, Pedder, Lavicza, 2011; Fisher & Frey, 2008).

One area of concern with the use of surveys is sampling error. That is, the characteristics of the sample may vary from the characteristics of the population. One way to minimize this is to invite everyone in the population to participate in the survey, ensuring the sample is as large as possible. Another area of concern is bias. When participants self-select (that is, they choose whether or not to participate in the survey) they may vary from the population as a whole. In other words, those who respond to the survey may have a similar profile of interests, that differs from the profile of interests of those who choose not participate in the survey (Floyd & Fowler, 2009).

Another issue with self-administered survey research is that researchers are not able to neutrally probe unclear answers to open-ended questions (Rossi, Wright, & Anderson, 1985). Thus when participants provide vague answers to specific questions, the research team does not have the opportunity to clarify the response. Using both open-
ended and close-ended items can help to minimize this impact. In addition, it can also help to ensure survey items are specific. Often, survey research is intended to provide an initial snapshot into areas of further interest.

**Summary**

Recent initiatives by the Ministry of Education, including the OSSLT, have highlighted the need for literacy-related professional development. Facilitators of teacher professional development programs should be aware of adult learning theories and apply them in teacher professional development programs (Terehoff, 2002; Trotter, 2006). The Ministry of Education recommends that teacher professional development activities be: (a) coherent; (b) attentive to adult learning styles; (c) goal-oriented; (d) sustainable; (e) and evidence-informed (Ministry of Education and Training, 2007). Professional development with these characteristics is better able to meet the needs of teachers as adult learners.

In relation to the research question regarding teachers’ preferred duration, form, and content of literacy-related professional development, research indicates teachers have preferences for duration, form, and content of professional development activities (Engstrom & Danielson, 2006; Garet et al., 2001; Jeanpierre, 2005; Karagiorgi & Symeou, 2007). In relation to the research question regarding similarities and differences in teachers’ preferred duration, form, and content of literacy-related professional development, research indicates that teachers in different subject areas have different preferences for content, form, and duration of professional development activities (Engstrom & Danielson, 2006; Fisher & Frey, 2008; Garet et al., 2001; Jeanpierre, 2005;
Karagiorgi & Symeou, 2007). I was not able to locate research indicating preferences for literacy-related professional development by teachers of different types of courses or by teachers of different secondary grade levels, however, research does indicate that elementary teachers’ preferences differ from the preferences of secondary teachers (Karagiorgi & Symeou, 2007).

Accordingly, research should be conducted to determine the literacy-related professional development preferences of secondary teachers in Ontario. My research questions are: If secondary teachers perceive that some professional development could help them as teachers, what duration, form, and content would they most prefer? Do teachers differ in their preference of professional development?
Chapter 3. Methodology

Overview of Methodology

This chapter details the procedures that were used in this study. First, I discuss the study design, and then I provide an outline of the data collection methods. Next, I discuss the setting and participants, followed by a discussion of the data analysis. I end with a discussion of some of the limitations of the current study.

Research Design

This study employed mixed-methods, using a survey to explore the research questions. Approximately 450 teachers, from all eight secondary schools in one small school board were invited to participate. This study was undertaken as an initial exploration of teachers' perceived professional development preferences. I believed that surveys would provide an efficient method of collecting information from a large number of teachers (Drever, 1995; Gillham, 2008). Drever (1995) and Gillham (2008) suggested that administering questionnaires to attain general descriptive statistics on a topic can provide researchers with areas of interest for further exploration. It is intended that analysis of the survey data indicates the perceived professional development preferences of participating secondary teachers.

Data Collection

The purpose of the survey was to answer each of the research questions. A number of steps were taken to improve the internal validity of the survey (Given, 2008). First, the survey was vetted by my committee. The committee considered content of the survey questions, wording of the survey questions, and question sequencing. Input was
also obtained from the school board’s research committee, and then the board’s secondary literacy co-ordinator. The final survey represented a compromise between items I wanted included, and items board office personnel wanted included. After this process, several teachers read the survey and provided feedback to assist in further refining the survey items. This process led to more clarity in the survey questions. All teachers in one school board were invited to participate, to maximize participation and thereby also maximize external validity (Given, 2008).

The first research question related to preferences for content, form, and duration of literacy-related professional development. The second research question related to similarities and differences in preferences for content, form, and duration of literacy-related professional development. To ensure the data collected from the survey answered each of the research questions, the survey (see Appendix A) included questions to ascertain the teaching-related backgrounds of participants, items that required participants to rate a series of forms of professional development according to preference, and open-ended items.

Every question in the survey was designed to answer both of the research questions. To answer the first research question, each question was analyzed with all teachers’ data included in the calculation, to provide a perspective on preferences for literacy-related professional development of teachers as a whole. The second research question was answered by re-analyzing the data from each question by subject area, grade level, and pathway, to identify similarities and differences in preferences by teachers of different subject areas, grade levels, and pathways.
More specifically, the items were designed to garner information about the teaching-related backgrounds of participants and asked for information about their number of years of teaching experience. This was necessary to determine if the kinds of professional development teachers were looking for varied according to individual subject areas and years of experience.

Second, information about their teaching situations was gathered, including which of 18 potential subjects they were teaching at the time of survey completion. I also gathered information about which of 11 different pathways they were teaching, such as Academic and Applied. Moreover, I asked teachers to indicate which of the four potential grades in the secondary schools they were teaching (9, 10, 11, or 12). It was important to elicit if teachers in different subjects preferred different duration, form, and content in their literacy-related professional development. Moreover, it was important to find out whether professional development preferences varied with subject areas, pathways, and grade levels taught.

Third, the survey included a question related to participants’ preferred total contact time, (preferred duration) of professional development. This item was a checklist of six potential responses. An option of none was included for those teachers who did not want literacy-related professional development. An option of one hour was included for those teachers who wanted only one period of literacy-related professional development. The option of two to five hours was included for those teachers who wanted up to one full day of literacy-related professional development. An option of six to ten hours was included for teachers who wanted up to two full days of literacy-related professional
development. The option of eleven to twenty-five hours was included for those teachers who wanted between three to five days of literacy-related professional development. Finally, options of more than twenty-six hours were included for teachers who wanted more than one full week of literacy-related professional development. It could be that different teachers learn in different ways, and some might prefer longer durations of literacy-related professional development, whereas others might prefer shorter durations.

Fourth, information about the preferred form of literacy-related professional development was gathered. The forms of professional development included in the survey were those that were commonly offered in this school board. This list was vetted by the school board’s literacy co-ordinator, the research committee, and my committee. Participants were asked to rate each of the thirteen forms of professional development according to a 4-point rating scale of preference, from strongly preferred to strongly not preferred. An option of “no preference” was included. Typically, ratings scales, when they include a neutral option, do so in the middle of the scale. In this case, the neutral option was included at the end of the scale, to present options in order of their numerical value. Using a rating scale for each of the thirteen forms of professional development listed ensured that data were gathered regarding all 13 forms (Drever, 1995; Gillham, 2008). An open-ended, follow-up question required participants, to explain why they preferred the form they rated most highly.

Fifth, teachers were asked to select one course they were teaching at the time they completed the survey, and to answer two questions about professional development preferences in relation to that particular course. The questions were open-ended to ensure
respondents could answer according to their particular needs and those of their students. One question prompted participants to indicate the difficulties they perceived having when supporting students’ literacy development. The purpose of asking participants to indicate the difficulties that they perceived with providing literacy instruction was to elicit information about the underlying conditions that result in teachers’ perception of a need (Guskey, 2000). The second prompted participants to indicate an area of preferred professional development related to supporting students’ reading comprehension development.

Six, one open-ended question allowed participants to provide information that they deemed relevant that was not addressed by the previous questions (Drever, 1995; Gillham, 2008). The prompt, requiring participants to indicate when they prefer literacy-related professional development, further allowed participants to indicate their preferences for literacy-related professional development.

The survey took approximately 15 minutes for each participant to complete. The surveys were distributed to all eight secondary schools within a two-week time frame. The school Principals arranged to have the surveys distributed to all teaching staff. Participants were instructed to drop completed surveys off in a drop-box in their school’s main office. Surveys were picked up one week after being dropped off. After this first round of distribution, 67 surveys were collected from the drop-boxes, and returned by hand to the researcher. Reminders by word of mouth at the schools elicited 33 more surveys.
Setting and Participants

This research took place in one public school board in Ontario. At the time the survey was distributed, the school board had a total of eight secondary schools and employed approximately 450 secondary teachers. Five of the schools were located in towns and a small city, and three were in rural areas. In the last census, the largest city within the school board had 48,821 residents (Statistics Canada, 2006). According to the 2006 census, the smallest town containing a secondary school within the school board had 3,838 residents (Statistics Canada). A large military base resides within the school district. In addition, a First Nations community busses students to secondary schools in the district.

After receiving ethical clearance from the Queen’s University General Research Ethics Board and the school board in which the research was conducted, I distributed Letters of Information (see Appendix B) and surveys to all of the secondary teachers in each secondary school in the school board (approximately 450 teachers). Consents were not distributed, since completion of the survey indicated consent to participate. The Letters of Information and surveys were dropped off at each secondary school. I asked permission from the principal of each school to put a Letter of Information and a survey in each teacher’s mailbox. A drop-box was left in the main office of each school, and participants were asked to leave their completed surveys in the drop-box. After this first round, a total of 67 surveys were collected. Follow up reminders through word of mouth resulted in 33 more participants. Of these 33, 6 were returned to me through the board’s courier and 27 were retrieved from contacts in the schools.
I chose to study secondary school teachers because the majority of my own teaching experience has been at the secondary school level. I chose to invite all teachers in the board to participate to maximize participation. During the school year in which the study was conducted, the participating school board offered a variety of professional development opportunities at the board level. In addition, school groups and individual schools also offered professional development opportunities. Opportunities teachers have access to through the school board include: (a) workshops at the board office, (b) book clubs, (c) mentoring, (d) sharing practice, (e) observation of colleagues, (f) on-site workshops, (g) collaborative lesson development, (h) board sponsored presentations, (i) professional learning communities, (j) action research, and (k) teacher moderation. Opportunities teachers have access to through Ontario’s Ministry of Education and various universities include action research and online short courses. Teachers may choose to engage in independent reading.

**Data Analysis**

Data from the survey were analyzed to investigate differences in the perceived professional development needs of teachers across different subject areas, grade levels, and pathways. Where pertinent, I used descriptive statistics to describe the differences in perceived professional development needs across subject areas, grade levels, and pathways. I examined the answers to open-ended questions for themes and categorized them into any patterns or themes about the preferences for professional development of these secondary teachers. After this thesis was successfully defended, the surveys were shredded.
Data from the survey were analyzed to provide overall results for all participating teachers. That is, the data were first analyzed as a whole, to provide an overview of teachers’ preferences for literacy-related professional development. The number of participants teaching at least one course in each subject area was calculated, and the percentage of the total number of participants was determined. Similar calculations were performed for data gathered on pathways and grade levels taught during the semester in which the survey was completed.

Teachers indicated their preferred total contact time for literacy-related professional development activities. This was a closed-ended item, and the options ranged from None, to more than 50 hours (see Appendix A). The total percent of participants who selected each option was calculated to provide an overview of teachers’ preferred duration of literacy-related professional development. The responses were then analyzed by subject area groupings to determine similarities and/or differences.

Teachers were asked to rate 13 forms of professional development according to their level of preference for each form. Teachers were able to choose between strongly preferred (4), preferred (3), not preferred (2), strongly not preferred (1), and no preference (0) for each form (see Appendix A). For every form of professional development, the numerical value on the scale for each response was added, and divided by the total number of responses to provide a mean preference rating for each form of professional development. Standard deviations were also calculated. The responses were then analyzed by subject area groupings to determine similarities and/or differences. To further illustrate differences by teachers of various subject area groupings, the total
percentage of teachers responding positively (rating forms as strongly preferred or preferred) was calculated by subject area groupings.

Teachers were asked to indicate why they rated certain forms of professional development highly. Responses were grouped and regrouped to establish themes. The total percentage of responses within each theme was calculated. Responses were then analyzed by subject area groupings, to determine whether similarities or differences existed.

For all open-ended items, answers were sorted and re-sorted to establish themes, using grounded theory (Seale, Gobo, Gubrium, & Silverman, 2004). Responses were recorded on small sheets of paper, and sorted into similar concepts. From each of these concept groups, categories or themes were formed. For each open-ended question on the survey, the process was repeated to ensure accuracy. Thus data were re-sorted by the same process. The themes obtained were analyzed as a whole, to provide an overview of teachers’ preferences regarding content of literacy-related professional development. The total percentage of responses in each theme was calculated by subject area groupings to provide more insight into teachers’ preferences. The percentage of responses in each theme was also calculated by course type and grade level.

Teachers were asked to indicate one class they were currently teaching with literacy-related instructional needs. The number of responses in each subject area, grade level, and pathway was determined. Then teachers were asked to describe an area in which they would like literacy-related professional development, in relation to the particular course they had indicated as having literacy-related instructional needs.
To further establish content-related preferences, participants were asked what area of reading comprehension instruction they thought would best meet their own professional development needs. A lower number of participants responded to this item, and only some of those participants responded with an area of instruction related to reading comprehension. Therefore, the data obtained from this question was analyzed only as a whole, and not further analyzed by subject area groupings.

The final question allowed participants to state their preferences for literacy-related professional development. Data were sorted and re-sorted to establish themes, and the percentage of responses within each theme was reported. This data were then re-analyzed by subject area groupings, to determine if teachers of different subject areas have different concerns with regards to literacy-related professional development.

Summary

This chapter outlined the methods used in this study. Participants completed a survey on their professional development preferences. The data gathered from each question were analyzed as a whole, to provide an overview of teachers’ preferences. Next, the data from each question were analyzed quantitatively and qualitatively, where applicable, by subject area groupings taught, grade levels taught, and course types taught to identify similarities and differences in teachers’ preferences. Chapter four, following, presents the findings.
Chapter 4. Findings

Overview of Findings

First, this chapter discusses participants’ current teaching situations. Then findings related to duration are discussed. Next, findings related to form are discussed. Last, this chapter discusses findings related to content of literacy-related professional development. Within each of these sections, findings are first discussed in terms of teacher responses as a whole. Then findings are broken down by subject areas and subject-area groupings, where appropriate.

Teaching Situations

Information on teaching situations collected included number of years of teaching experience, subject areas, pathways, and grade levels taught during the semester in which the survey was completed. Data analysis provided an overview of the backgrounds of participants.

Surveys were distributed to approximately 450 teachers in the board; 100 teachers participated. This was a return rate of 22%. Of the 100 participants, 94 responded to the item requesting the number of full years of teaching experience. The mean number of years of teaching experience was 13.5 years.

Teachers were asked to check each subject area in which the teacher was teaching at least one course during the semester. All 100 respondents answered this question (see Table 1). A small percentage of teachers, 7.0%, indicated they taught in more than three subject areas. Instead of coding each of the subject areas, I put these responses into a separate category. They may have been responses from teachers with a credit recovery,
<table>
<thead>
<tr>
<th>Subject</th>
<th>Frequency</th>
<th>Percent of total</th>
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<tbody>
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<tr>
<td>Business</td>
<td>5</td>
<td>2.8</td>
</tr>
<tr>
<td>Civics &amp; Careers</td>
<td>8</td>
<td>4.6</td>
</tr>
<tr>
<td>Computer Studies</td>
<td>4</td>
<td>2.3</td>
</tr>
<tr>
<td>Co-op</td>
<td>6</td>
<td>3.4</td>
</tr>
<tr>
<td>English</td>
<td>23</td>
<td>12.6</td>
</tr>
<tr>
<td>Family Studies</td>
<td>12</td>
<td>6.9</td>
</tr>
<tr>
<td>French</td>
<td>3</td>
<td>1.7</td>
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<td>Geography</td>
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<tr>
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<td>5.1</td>
</tr>
<tr>
<td>History</td>
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<tr>
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<td>100%</td>
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</table>
student success, learning strategies, or resource class, since these teachers support students in credit attainment in many subject areas. Of the 93 who did not check off more than three subject areas, 61 indicated teaching in multiple subject areas. Thus, most teachers taught in more than one subject area in the semester. Teachers of English responded with the highest frequency, with 23.0% of participants indicating they taught at least one English course during that semester. A high percentage of participants also indicated they taught at least one Science course (14.0%), and Social Science course (14.0%). No participants indicated teaching Native Languages that semester. Only 3.0% of teachers taught a French course that semester.

Due to the size of the sample, data were analyzed by subject-area groupings for comparisons. Teachers were placed in subject-area groupings if they taught at least one course in one subject area in that subject-area grouping. English teachers were grouped alone (n = 23). Teachers of Social Sciences and Humanities formed another grouping (n = 42). This grouping included teachers who taught Civics and Careers, Family Studies, Geography, History, and Social Sciences. The third grouping, Science, Math, and Technology, included teachers of Science, Math, and Technology (n = 26). Science teachers included teachers of Biology, Chemistry, Physics, and Environmental Sciences. Since 61% of teachers indicated teaching in multiple subject areas, some teachers fit into more than one subject-area grouping. For example, a teacher of Math and English, would be counted in the Science, Math, and Technology grouping and also in the English grouping. Some teachers did not fit into any of the subject-area groupings (n = 28). Of these, seven were teachers who indicated teaching in more than three subject areas, and
the other 21 were teachers who indicated only teaching courses that did not fit into any of
the subject-area groupings. Examples of courses that did not fit into any of the subject-
area groupings included courses in The Arts, Business, Computer Studies, Co-operative
Education, French, Guidance, Health and Physical Education, Learning Strategies, and
Native Studies.

Participants were asked to indicate all of the course types they were teaching at
the time of completing the survey. In Ontario, seven different course types lead to
Ministry credits. Locally Developed (grades 9 and 10) and Workplace (grades 11 and 12)
course types are meant to prepare students for attaining a job in the workplace after
secondary school. These courses are often referred to as being courses in the Workplace
pathway. Applied (grades 9 and 10) and College Preparation (grades 11 and 12) course
types are meant to prepare students for the College pathway. Academic (grades 9 and 10)
and University Preparation (grades 11 and 12) course types are meant to prepare students
for the University pathway. Open course types are taken by students in Workplace,
College, and University pathways. As well, there are University and College course types
that are meant for students in both the University pathways, and College pathways. In the
participating school board, at the time of data collection, there were also several
pathways for students with Special Education needs. Students in these pathways do not
earn Ministry credits. The Employment Destinations Program pathway is designed to
support students to gain the skills necessary to obtain employment after secondary
school, and to provide students with the necessary academic skills to be successful in the
Workplace pathway. As well, Regional Programs exist for students with developmental
disabilities designed to prepare students to live as independently as possible after secondary school.

Of the 100 participants, 15 were teaching more than three course types (see Table 2). These responses were coded separately, and may have represented teachers of credit recovery, student success, learning strategies, or resource. These teachers often support students in a variety of courses. These may have also represented participants teaching split classes (classes containing students in two separate courses). Sixty-nine percent of the respondents indicated teaching two or three different course types. Thus the majority of teachers taught more than one course type. In total, these 85 teachers provided 168 responses to this item. These 168 responses were added to the seven teachers who checked off more than three course types and thus were coded as a teacher of more than three courses types, to give a total of 175 responses to the item. The most frequent course type taught was the Open type, with 48.0% of teachers indicating they taught at least one Open type course. A high percentage of teachers indicated teaching at least one Academic course (30%) and at least one Applied course (29%). A smaller number, 17%, indicated teaching at least one course in a Special Education pathway. It is important to note that I, as a teacher in a Special Education class, observed a high rate of response from teachers in other Special Education classes. This may have been because teachers in Special Education classes were more likely to know me personally, and thus were more likely to complete the survey than teachers of other pathways.
Table 2

Number of teachers teaching at least one course in each pathway (N = 100)

<table>
<thead>
<tr>
<th>Pathway</th>
<th>Percent teaching at least one course in pathway</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic</td>
<td>30</td>
</tr>
<tr>
<td>Applied</td>
<td>29</td>
</tr>
<tr>
<td>College Preparation</td>
<td>18</td>
</tr>
<tr>
<td>Community Employment Program</td>
<td>2</td>
</tr>
<tr>
<td>Employment Destinations Program</td>
<td>11</td>
</tr>
<tr>
<td>Life Skills Program</td>
<td>3</td>
</tr>
<tr>
<td>Locally Developed</td>
<td>17</td>
</tr>
<tr>
<td>Open</td>
<td>48</td>
</tr>
<tr>
<td>Practical Learning Program</td>
<td>1</td>
</tr>
<tr>
<td>University Preparation</td>
<td>24</td>
</tr>
<tr>
<td>Workplace Preparation</td>
<td>11</td>
</tr>
<tr>
<td>More than 3 pathways</td>
<td>15</td>
</tr>
</tbody>
</table>

Duration.

Teachers were asked to indicate their preferred total number of contact hours for literacy-related professional development. Options were none, 1 hour, 2 to 5 hours, 6 to 10 hours, 11 to 25 hours, 26 to 50 hours, and more than 50 hours. Ninety-seven participants responded to this item. Data were analyzed to provide overall percentages for each duration, for teachers in all subject areas. Data were also analyzed by subject-area
groupings.

Overall, the largest group of teachers preferred 2 to 5 hours of literacy-related professional development (36.1%). The next most preferred duration was 6 to 10 hours, with 22.7% of teachers selecting this option. Thus overall, the majority of teachers (58.8%) indicated they preferred 2 to 10 hours of literacy-related professional development. A smaller percentage of teachers (14.4%) indicated they preferred no literacy-related professional development, 1 hour of literacy-related professional development (11.3%), and 11 to 25 hours of literacy-related professional development (10.3%). The lowest number of teachers indicated preference for sessions of 26 to 50 hours (2.1%) and even less for 50 hours (3.1%).

The 14.4% of teachers who did not want any literacy-related professional development were removed from the data. It was re-analyzed based on the 85.6% of teachers who wanted literacy-related professional development (see Figure 1). For this analysis, 1 hour was combined with the 2 to 5 hour responses because they both represent options that can be completed in one day or less. Of the teachers who preferred some literacy-related professional development, 55.5% wanted between 1 to 5 hours of contact time. Another 26.5% preferred 6 to 10 hours of professional development, and 12.0% preferred 11 to 25 hours of contact time. Only 6.0% of teachers preferred 26 hours or more of literacy-related professional development.
Comparisons by subject-area groupings were also made for duration-related data (see Figure 2). Of the 23 teachers of English who completed the survey, 22 answered the duration-related item. Of the 26 Science, Math, and Technology teachers who completed the survey, all answered the duration-related item. Finally, of the 42 teachers of the Social Sciences and Humanities grouping, 41 responded to the duration-related item. In total, 89 responses were categorized into one of the three subject-area groupings. Some teachers did not teach any of the subjects that were part of the subject-area groupings, and these responses were not included in the analysis by subject-area groupings. In addition, some teachers taught subjects from two subject-area groupings, thus, these results were counted in both of those subject-area groupings.
Figure 2. Preferred total contact hours for literacy-related professional development activities by subject-area groupings

For all subject-area groupings, the most preferred duration was 1 to 5 hours of literacy-related professional development (English, 45.5%; Social Sciences and Humanities, 48.8%; and Science, Math, and Technology, 50.0%). For all groupings, the second most frequent responses fell into the 6 to 25-hour range. English teachers responded in this category at the highest rate, 40.9%, while slightly fewer teachers of Social Sciences and Humanities, 39.0% responded with this duration. For teachers of
Science, Math, and Technology, a lower percentage of participants selected durations from 6 to 25 hours (26.9%). The third most frequent response from teachers of English was over 26 hours of literacy-related professional development (9.1%). In comparison, no hours of literacy-related professional development was the third most frequent response from teachers of Science, Math, and Technology (19.2%) and the fourth from teachers of Social Sciences and Humanities (9.8%). Only 4.5% of English teachers indicated they wanted no literacy-related professional development. The least common response from teachers of Science, Math, and Technology was that they wanted 26 hours or more of literacy-related professional development (3.8%). It is important to note that these differences could represent significant differences, or they could be due to sampling error.

**Form.**

Teachers were asked to rank 13 forms of professional development according to their degree of preference for each form. A 5-point Likert-type scale was used. A 4 indicated a form of professional development that was highly preferred. A 3 indicated a form of professional development that was preferred. To rate a form of professional development as not preferred and strongly not preferred, teachers were to select 2 and 1, respectively. To indicate no preference, teachers were to select 0. Forms of professional development included: (a) workshop at board office, (b) book club, (c) action research or inquiry, (d) mentoring, (e) sharing practice, (f) independent reading, (g) observation of colleagues, (h) onsite workshop, (i) online short course, (j) collaborative lesson development, (k) board sponsored presentations, (l) professional learning community,
and (m) teacher moderation. In the participating school board, teacher moderation refers to a form of professional development where teachers mark an assignment, and then collaboratively discuss those decisions. Of the 100 participants, 98 responded to this question by rating at least one of the forms of professional development.

Responses were first analyzed as a whole, and then by subject-area groupings. Mean preference ratings were calculated by adding all of the responses ranked 1, 2, 3, or 4, in the scale, and dividing by the total number of responses for each form (see Table 3). Ratings of 0 (no preference) were not included in this calculation.

Collaborative forms of professional development ranked the most highly. Sharing practice ($M = 3.1$, $SD = 0.84$), mentoring ($M = 2.8$, $SD = 0.90$), observation of colleagues ($M = 2.8$, $SD = 0.89$), and collaborative lesson development ($M = 2.8$, $SD = 0.89$) had the highest average ranking. The lowest ranked form of professional development was online short course ($M = 1.8$, $SD = 0.76$). Online short course also had the lowest standard deviation, indicating less variation around the mean, and thus teachers clearly did not prefer this form of professional development. The other least preferred forms of professional development were board sponsored presentations ($M = 2.1$, $SD = 0.85$), teacher moderation ($M = 2.2$, $SD = 0.77$), and workshop at board office ($M = 2.2$, $SD = 0.89$).

Data were also analyzed by positive and negative rankings. Positive rankings were those with rankings of 4 (highly preferred) and 3 (preferred). Negative rankings were those of 2 (not preferred) and 1 (highly not preferred). The frequency of positive, negative, and no preference ratings were calculated, and reported as a percentage (see
Table 3

*Mean ratings of teachers’ preferences for literacy-related professional development*

<table>
<thead>
<tr>
<th>Form</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sharing practice (n = 96)</td>
<td>3.1</td>
<td>0.84</td>
</tr>
<tr>
<td>Mentoring (n = 95)</td>
<td>2.8</td>
<td>0.90</td>
</tr>
<tr>
<td>Observation of colleagues (n = 95)</td>
<td>2.8</td>
<td>0.89</td>
</tr>
<tr>
<td>Collaborative lesson development (n = 95)</td>
<td>2.8</td>
<td>0.89</td>
</tr>
<tr>
<td>Independent reading (n = 95)</td>
<td>2.7</td>
<td>0.93</td>
</tr>
<tr>
<td>Onsite workshop (n = 95)</td>
<td>2.7</td>
<td>0.88</td>
</tr>
<tr>
<td>Professional learning community (n = 92)</td>
<td>2.5</td>
<td>0.87</td>
</tr>
<tr>
<td>Action research or inquiry (n = 98)</td>
<td>2.4</td>
<td>0.90</td>
</tr>
<tr>
<td>Book club (n = 97)</td>
<td>2.3</td>
<td>0.94</td>
</tr>
<tr>
<td>Workshop at board office (n = 98)</td>
<td>2.2</td>
<td>0.89</td>
</tr>
<tr>
<td>Teacher moderation (n = 86)</td>
<td>2.2</td>
<td>0.77</td>
</tr>
<tr>
<td>Board sponsored presentations (n = 95)</td>
<td>2.1</td>
<td>0.85</td>
</tr>
<tr>
<td>Online short course (n = 95)</td>
<td>1.8</td>
<td>0.76</td>
</tr>
</tbody>
</table>

Ninety-eight teachers responded to the question by ranking at least one of the forms of professional development. The total number of responses to each form of professional development was tabulated independently, since several teachers responded to all but a few of the 13 forms of professional development.

The three forms of professional development with the highest percentage of positive ratings were sharing practice, observation of colleagues, and mentoring (78%, 65%, and 63%; respectively). The form of professional development with the highest
percentage of negative ratings was online short course (82%). Board-sponsored presentations and workshops at the board office were also given a relatively high percentage of negative ratings (64% and 59%; respectively). A chi-square analysis was used to determine whether significant differences existed between the number of teachers rating each form of professional development positively (preferred and highly preferred) and negatively (not preferred and highly not preferred). Significant differences were found for ten of the thirteen forms of professional development (see Table 4).

An interesting item relates to responses to teacher moderation as a form of professional development. A lower number of teachers (86) responded to teacher moderation than to any other form. Moreover, of those who responded to the item on teacher moderation form of professional development, 29 responded with no preference. In comparison, all other forms had 5 or less responding no preference. Teachers may have been unsure of the term “teacher moderation” which is used to refer to activities where teachers assess the same piece of student work, and then discuss their assessments.

Responses were also analyzed by subject-area groupings. As previously noted, subject-area groupings were: (a) Social Sciences and Humanities, (b) English, and (c) Science, Math, and Technology.

Some similarities existed across subject-area groupings (see Table 5). Sharing practice had the highest number of positive ratings by all subject-area groupings. Collaborative lesson development ranked in the top three for all subject-area groupings. Observation of colleagues received the third highest percentage of positive ratings from the Social Sciences and Humanities and Science, Math, and Technology groupings.
Table 4

Preference for form of literacy-related professional development by positive, negative, and no preference ratings

<table>
<thead>
<tr>
<th>Form of Professional Development</th>
<th>Positive Rating</th>
<th>Negative Rating</th>
<th>$\chi^2(1)$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workshop at board office (n = 98)</td>
<td>37</td>
<td>59</td>
<td>5.15*</td>
</tr>
<tr>
<td>Book club (n = 97)</td>
<td>41</td>
<td>55</td>
<td>1.82</td>
</tr>
<tr>
<td>Action research or inquiry (n = 98)</td>
<td>49</td>
<td>51</td>
<td>0.04</td>
</tr>
<tr>
<td>Mentoring (n = 95)</td>
<td>63</td>
<td>32</td>
<td>10.00**</td>
</tr>
<tr>
<td>Sharing practice (n = 96)</td>
<td>78</td>
<td>21</td>
<td>31.84**</td>
</tr>
<tr>
<td>Independent reading (n = 95)</td>
<td>62</td>
<td>36</td>
<td>6.72**</td>
</tr>
<tr>
<td>Observation of colleagues (n = 95)</td>
<td>65</td>
<td>32</td>
<td>11.13**</td>
</tr>
<tr>
<td>Onsite workshop (n = 95)</td>
<td>62</td>
<td>34</td>
<td>8.01**</td>
</tr>
<tr>
<td>Online short course (n = 95)</td>
<td>15</td>
<td>82</td>
<td>44.52**</td>
</tr>
<tr>
<td>Collaborative lesson development (n = 95)</td>
<td>60</td>
<td>35</td>
<td>6.4*</td>
</tr>
<tr>
<td>Board sponsored presentations (n = 95)</td>
<td>34</td>
<td>64</td>
<td>9.04**</td>
</tr>
<tr>
<td>Professional learning community (n = 92)</td>
<td>53</td>
<td>41</td>
<td>1.39</td>
</tr>
<tr>
<td>Teacher moderation (n = 86)</td>
<td>26</td>
<td>45</td>
<td>4.73*</td>
</tr>
</tbody>
</table>

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

Surprisingly, across all three subject-area groupings, online short courses had the lowest percentage of positive ratings.

Some differences between the subject-area groupings emerged. Seventy-three
percent of teachers of English rated book club positively as a form of professional
development, whereas book club was rated less positively by teachers of Social Sciences
and Humanities (45%) and teachers of Science, Math, and Technology (19%).

<table>
<thead>
<tr>
<th>Form</th>
<th>English n = 22</th>
<th>Social Sciences and Humanities n = 42</th>
<th>Science, Math, and Technology n = 26</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action research or inquiry</td>
<td>50%</td>
<td>54%</td>
<td>35%</td>
</tr>
<tr>
<td>Board sponsored presentations</td>
<td>55%</td>
<td>34%</td>
<td>12%</td>
</tr>
<tr>
<td>Book club</td>
<td>73%</td>
<td>45%</td>
<td>19%</td>
</tr>
<tr>
<td>Collaborative lesson development</td>
<td>71%</td>
<td>63%</td>
<td>62%</td>
</tr>
<tr>
<td>Independent reading</td>
<td>57%</td>
<td>61%</td>
<td>50%</td>
</tr>
<tr>
<td>Mentoring</td>
<td>57%</td>
<td>58%</td>
<td>50%</td>
</tr>
<tr>
<td>Observation of colleagues</td>
<td>50%</td>
<td>71%</td>
<td>65%</td>
</tr>
<tr>
<td>Online short course</td>
<td>5%</td>
<td>18%</td>
<td>8%</td>
</tr>
<tr>
<td>Onsite workshop</td>
<td>55%</td>
<td>68%</td>
<td>46%</td>
</tr>
<tr>
<td>Professional learning community</td>
<td>71%</td>
<td>53%</td>
<td>27%</td>
</tr>
<tr>
<td>Sharing practice</td>
<td>86%</td>
<td>80%</td>
<td>65%</td>
</tr>
<tr>
<td>Teacher moderation</td>
<td>43%</td>
<td>28%</td>
<td>25%</td>
</tr>
<tr>
<td>Workshop at board office</td>
<td>64%</td>
<td>49%</td>
<td>19%</td>
</tr>
</tbody>
</table>
Workshops at the board office received a relatively high percentage of positive ratings by teachers of English (64%), a mediocre percentage of positive ratings by teachers of Social Sciences and Humanities (49%), and a low percentage of positive ratings by teachers of Science, Math, and Technology (19%). A similar pattern across subject-area groupings was evident for board sponsored presentations. Board sponsored presentations received the highest percentage of positive ratings from teachers of English (55%), fewer by teachers of Social Sciences and Humanities (34%), and the lowest percentage by teachers of Science, Math, and Technology (12%).

Differences also were evident in number of forms of professional development receiving over 50% positive ratings. Fifty percent or more of teachers of English rated 11 of the 13 forms of professional development positively. Teachers of Social Sciences and Humanities rated only 8 of the forms of professional development positively, as indicated by percentage of positive rankings over 50%. For teachers of Science, Math, and Technology, only five of the forms of professional development had at least 50% of teachers providing a positive rating.

After rating the 13 forms of professional development, participants were asked: For the form that you prefer the most, please explain why. Of the 100 participants, 103 responses were provided from 91 teachers. Responses were examined for themes, and were coded into twelve separate categories based on the themes that emerged. This included a category called “Other,” which included responses that were unique to the sample, and did not match with any other responses. All categories for which there were at least two responses were coded into a category outside of “Other.” Themes that
emerged were (a) flexibility, (b) self-direction, (c) meets needs of teacher or students, (d) minimizing time out of class, (e) course specific, (f) collaboration, (g) practical ideas or strategies, (h) ready-to-use resources, (i) no travel time, and (j) non-repetition.

The most common reason for rating forms highly was a preference for professional development that results in practical ideas or strategies (27.2%; see Figure 3). In other words, teachers preferred forms that can be directly applied to real classrooms. Teachers who indicated that practicality in professional development was important to them wrote responses like “Mentoring/sharing of resources – practical and [I] can see how strategies are implemented.” Teachers also equated practicality with strategies that work in real classrooms, “Observation of colleagues – provides practical ideas that work.”

Another common reason for rating forms highly was the opportunity for collaboration with colleagues (23.3%). Teachers indicated that they valued learning from colleagues in their subject areas, such as the teacher of Science who wrote “Any form where a colleague with expertise is supporting me. Those are the best ways to generate ideas and really see what is practical and achievable in the classroom.” Some teachers who valued collaboration pointed to the importance of sharing knowledge laterally among teachers, instead of top-down direction. For example, a Guidance teacher succinctly shared “Collaboration – not top-down direction.” One teacher of The Arts and Family Studies pointed to a lack of time for collaboration, “It’s nice to have time with other teachers to talk and share. We don’t get enough of this time now that PA days are so heavily structured.” A Science teacher with eight years of experience wrote
“Observation of colleagues – generates insights and ideas. Serves [as] a good starting point for a P.L.C. and/or for more development. Generally not offered.” Clearly, this teacher feels that she or he would get good ideas through observation of colleagues.

Teachers also indicated preference for forms of professional development that meets their needs or the needs of their students (14.6%). One teacher claimed “Independent reading allows us to choose topics or strategies to research that suit our personal styles or strengths,” and another echoed “. . . independent reading always meets my needs since I can learn exactly what I need to learn instead of what others decide.” A teacher with two years of experience also pointed to the positive benefits of mentoring allowing for individualization, “. . . can speak to you about your needs, wants, desires for
your classes.” A teacher of English and Fashion did not rate any of the forms of professional development in the preceding question, but wrote a long response. The response echoed the importance of individualization in the professional development process, and provided more insights:

There is no opportunity to increase one’s expertise and teachers seem to be required to repeat the entire training at a “basic-to-medium” level rather than being able to review past learning and improve beyond that. The one-size-fits-all model is frustrating and tedious and wastes the time and energy of those who actually have already mastered varying levels of competence.

All other themes formed less than 5% of the total. Data were not analyzed by subject-area groupings, since 11 themes emerged, analysis by subject-area groupings would have resulted in very small numbers within each theme within each subject-area grouping.

Content.

Participants were prompted for the course code for one class they were teaching with literacy-related instructional needs. Teachers of Special Education pathways were asked to indicate the specific Special Education pathway. Of the 100 participants, 84 teachers provided some form of response, but only 63 provided full course codes to this item. Full course codes in Ontario indicate the subject area, grade level, and course type. For example, SNC2P, the SNC represents the subject area of Science, the 2 represents grade 10, and the P represents the Applied course type. Four teachers provided answers such as “All” or “Any,” indicating they felt students in all of the courses they taught had literacy-related instructional needs. As well, 15 teachers did not provide full course codes, but only provided subject areas (such as SNC for Science or a word representing a
subject area such as Co-op). One teacher indicated that none of the classes she or he taught had literacy-related instructional needs. Finally, one teacher indicated only the grade level and pathway, not the subject area.

Analysis indicated teachers responded that many subject areas had literacy-related instructional needs (see Table 6). Only Computer Studies and Native Languages were not listed as courses with students with literacy-related instructional needs (no teachers indicated teaching Native Languages). Teachers of Guidance left this question blank. Teachers of Computer Studies who completed this survey were all also teachers of other subject areas, and selected to list their instruction, instead of one of their courses in Computer Studies.

Within the Science, Math, and Technology groupings, teachers of Science were over-represented in the sample population as having literacy-related instructional needs (12.8% of total responses), in comparison to teachers of Math (3.8%) and Technology (3.8%). Within the Social Sciences and Humanities subject-area grouping, the percentage of the total ranged from Social Sciences (2.6%) to Geography (9.0%). Within the Other category, that is subject areas that did not form part of one of the subject-area groupings, Health and Physical Education was the most frequent response (7.7%).

When asked to indicate a course with literacy-related instructional needs, 96% of teachers indicated a course type (as opposed to listing only the subject area). Locally Developed, Applied, and Academic are all course types for grade 9 and 10 students only. Workplace Preparation, College Preparation, and University Preparation are all course types for grade 11 and 12 students only. Generally, Locally Developed courses lead into
<table>
<thead>
<tr>
<th>Subject</th>
<th>Percent of total responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Science</td>
<td>12.8</td>
</tr>
<tr>
<td>Math</td>
<td>3.8</td>
</tr>
<tr>
<td>Technology</td>
<td>3.8</td>
</tr>
<tr>
<td>Family Studies</td>
<td>5.1</td>
</tr>
<tr>
<td>History</td>
<td>3.8</td>
</tr>
<tr>
<td>Social Sciences</td>
<td>2.6</td>
</tr>
<tr>
<td>Civics &amp; Careers</td>
<td>5.1</td>
</tr>
<tr>
<td>Geography</td>
<td>9.0</td>
</tr>
<tr>
<td>English</td>
<td>23.1</td>
</tr>
<tr>
<td>Business</td>
<td>3.8</td>
</tr>
<tr>
<td>Learning Strategies</td>
<td>2.6</td>
</tr>
<tr>
<td>Art</td>
<td>3.8</td>
</tr>
<tr>
<td>French</td>
<td>2.6</td>
</tr>
<tr>
<td>Co-operative Education</td>
<td>5.1</td>
</tr>
<tr>
<td>Native Studies</td>
<td>1.3</td>
</tr>
<tr>
<td>Health and Physical Education</td>
<td>7.7</td>
</tr>
<tr>
<td>Ontario Literacy Course</td>
<td>3.8</td>
</tr>
</tbody>
</table>
Workplace Preparation courses, Applied courses lead into College Preparation courses, and Academic courses lead into University Preparation courses. Thus for data analysis, course types were paired into pathways. The Locally Developed course type was paired with the Workplace Preparation course type, to form the Workplace pathway, the Applied course type was paired with the College Preparation course type, to form the College pathway. Last, the Academic course type was paired with the University Preparation course type, to form the University pathway. Open course types and College/University course types were not paired to form a pathway, since students from any pathway may take them.

The course type chosen by teachers most frequently as having literacy-related instructional needs was Open (see Table 7). Thirty-eight percent of participants who responded to this item, and who included a course type (n = 81) in their response (as opposed to a subject area only), selected an Open course. The most frequently mentioned pathway was the College pathway, which was composed of all Applied and College Preparation course types (19%). The Locally Developed and Workplace course types composed 16.5% of the responses. Special education classes made up 15.2% of the responses. The Academic and University course types were mentioned much less, only 8.9% of the time. While the University/College course type composed only 2.5% of the responses.

Participants were asked to indicate an area in which they would like literacy-related professional development. The question was open-ended and vaguely defined so that participants could indicate any area of literacy instruction they believed was an area
of need, to avoid encouraging answers in a specific area of literacy, such as reading or writing. Responses were examined for themes, five of which emerged (a) differentiation, (b) reading, (c) writing, (d) motivation, and (e) other.

Table 7.

Course with literacy-related instructional needs by pathway (n = 81)

<table>
<thead>
<tr>
<th>Course type</th>
<th>Percent of total responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open</td>
<td>38</td>
</tr>
<tr>
<td>Applied and College</td>
<td>19</td>
</tr>
<tr>
<td>Locally Developed and Workplace</td>
<td>16.5</td>
</tr>
<tr>
<td>Special Education</td>
<td>15.2</td>
</tr>
<tr>
<td>Academic and University</td>
<td>8.9</td>
</tr>
<tr>
<td>University/College</td>
<td>2.5</td>
</tr>
</tbody>
</table>

The most common theme was reading, which was composed of all responses related to reading instruction (37.6%; see Figure 4). This theme included responses that indicated only “reading.” It also included more specific responses, including reading comprehension, understanding word problems, reading to be able to answer questions, following written instructions, implicit reading, reading graphical text, making connections, and reading for a purpose.

Issues related to differentiation emerged as another common theme, composing 27.1% of the responses. This theme included responses indicating teachers had difficulty teaching students with a wide range of reading abilities, and difficulty finding texts
written at a range of reading levels. As a teacher of an Open course type Civics and Careers class indicated, “... finding tasks that are challenging and serve to develop literacy skills across all ability levels found in an open class.” This is echoed by a Health and Physical Education teacher who wrote “open level course. . . such a wide variety of abilities.” Another Civics and Careers teacher pointed to the non-diverse curriculum within the Open type class as causing problems.

Writing composed a smaller theme (11.8%), but within the theme, teachers provided specific skills in which they would like professional development, and these varied widely. For example, one teacher of an Applied type Science course indicated students are unable to use written language effectively. One teacher of a grade eleven Social Sciences and Humanities course listed all of the following, teaching footnoting, relating opinion and evidence, and the necessity of a strong conclusion as being areas of
Responses related to special education (such as assessing non-verbal students) composed 7.1% of the total responses. Teachers discussed issues with developing oral language skills, “I have difficulties conversing with my non-communicative students. I need more strategies to engage them and assess their learning”. Not all responses from teachers of Special Education fit into the Special Education theme.

The theme with the least number of responses was motivation (4.1%). Teachers who indicated a preference for professional development on motivation said they wanted strategies on motivating students to read voluntarily and to write full answers. For example, a teacher of the Community Employment Program, a Special Education pathway, suggested motivation to read was an area in which she or he would like professional development, “I struggle with how to encourage my students – who are capable – to read in their leisure time . . . motivation gets lost while they are away from school.”

Responses that did not emerge as a theme were grouped into a category “other” (11.8%). The other category included responses that were unique to the sample. A few teachers indicated areas outside of their control, such as “. . . lack of time when students are at placement.” Other examples of responses in this category included cursive writing and using online literature databases. One teacher used this opportunity to make a complaint about lack of availability of text to voice technology.

Due to the low number of responses, data were not analyzed quantitatively by subject-area groupings. Data were analyzed by pathway. Due to the low number of
responses for Academic, University Preparation, University/College Preparation, and Special Education pathways, these were not included in the quantitative analysis.

Differences did emerge between pathways (see Figure 5). For courses in the Workplace Pathways (53.8%) and Open course types (41.4%), the highest percentage of responses related to reading. A teacher of a tenth grade Locally Developed course stated “Many students simply have no reading comprehension. They can read a passage repeatedly and still not comprehend.” For the Applied and College Preparation course types, only 29.4% of the responses related to reading, compared to 35.5% of the responses that were related to differentiation.

Differentiation was the second most commonly cited area of preference for professional development for teachers of Open course types (31.0%). Teachers of Open type courses tended to cite a difficulty in meeting the wide variety of abilities inherent in their classrooms, “... finding tasks that are challenging and serve to develop literacy skills across all ability levels found in an open class.” Writing instruction was not cited by any teachers as an area of preferred professional development in the Locally Developed and Workplace courses, however, it was cited by 11.8% of teachers in the Applied and College Preparation course types and by 13.8% of teachers of Open courses.

While data were not analyzed for overall percentages between subject-area groupings, some patterns, worth further investigation, did emerge in specific subject areas. For example, four teachers cited Civics and Careers as being a course with literacy-related instructional need, and all of them cited differentiation as being their area of literacy-related instructional need. Civics and Careers is an Open type course that all
Figure 5. Preferred content of professional development by pathway

students must take in order to earn an O. S. S. D. Teachers tended to cite the wide variety of ability levels as being difficult to address.

A similar pattern emerged among responses from teachers who listed Health and Physical Education as being a course with literacy-related instructional needs. Six teachers listed Health and Physical Education as the course, and five of those teachers provided six responses to this item. Four of these five responses related to differentiation. For example, a teacher who did not indicate the grade level of her or his Health and Physical Education class suggested that they did not know where to start with such a wide variety of needs, “Where do you start when the needs in the class are so varied?”

For teachers who cited Geography as being a course with literacy-related instructional needs, four of five answered the open-ended question. Two of those teachers indicated they needed help in supporting students in reading graphical text. For example,
one teacher of ninth grade Academic Geography stated “Although graphical text is used, it’s probably the area in which I require more development.” The other two responses were by teachers who indicated a need for help in motivating to write. As one teacher of a ninth grade Applied Geography course wrote, “Motivation to write out complete answers. The students hate to write.”

Four teachers cited a Math course as having literacy-related instructional needs, and three of those teachers responded to this open-ended question. All three of the teachers indicated that reading to understand word problems was an area of literacy-related instructional need. A teacher of eleventh grade workplace Math wrote “In Math, especially this everyday, workplace math, I find my students have difficulties ascertaining what is being asked of them especially with word problems. They seem to have difficulty sorting through the written lesson part with examples in combination with the numeracy requirements of each task.”

While the first content-related question was left open-ended in order to allow responses from any area of literacy instruction, a second content-related question was included that prompted teachers to provide an area of reading comprehension instruction that would support their literacy-related instructional needs. It was the intention of this question to garner only responses related to reading comprehension (as opposed to writing or differentiation). Only 55 participants provided a response to this item. Five participants provided two responses, for a total of 60 responses. A high number of participants did not respond to this question, or provided responses related to an area of literacy instruction other than reading comprehension (n = 32). One teacher of Co-
operative Education wrote “No comprehension needed,” while a teacher of tenth grade Academic science wrote “I’m not sure I know the areas of reading comprehension instruction to best answer this question.” Most startling, only 36% provided a response to this question that related to reading comprehension instruction. This indicates that some teachers may not have known the areas of reading comprehension instruction in order to be able to answer the question. It is important to note that teachers have a multitude of responsibilities, and are expected to support student development in a variety of areas. Some teachers may be more focused on providing instruction in these other areas, such as character development or numeracy, than on developing skills in literacy.

Of the 60 responses, only 36 related to reading comprehension (see Figure 6). One third were general answers that mentioned only reading comprehension or reading strategies, but did not further specify. For example, a teacher of tenth grade Locally Developed English wrote “I would like anything on how to increase reading comprehension. Any strategies would be helpful.” A teacher of twelfth grade English wrote “Problem solving skills to determine meaning,” which was also categorized as a general reading comprehension response, since the teacher did not indicate a specific skill on which to work.

The second most common answer related to text structure and signal words. Six teachers indicated they would like professional development in this area. Three of these responses came from teachers of Science, and one each from teachers of Math, English, and Technology. Teachers who responded to this question tended to state simply that they would like professional development on using text structure, signal words, or key words.
One teacher of Science elaborated to provide some of the underlying reasoning “... Class doesn’t understand all words used and tends to just edit out words instead of understanding context.”

Five teachers indicated they would like professional development related to supporting students in reading graphic texts. Two of those responses came from teachers of Geography, and three came from teachers of Science. No teachers of other subject areas listed reading graphic text as being an area of need.

Finding the main idea and making connections were cited by only two teachers each. Nine teachers provided responses that related to reading comprehension, but that were unique to the sample, and did not form a theme, and thus were grouped into the
category other. For example, a teacher of tenth grade Applied Science wrote, “How to help students access details in the text and connect them to their understanding of the topic. If information is not explicit and worded exactly as they expect, they miss it.” This particular response fit into the theme of making connections, but also into other, since no other teacher suggested professional development related to helping students access details in the text. A teacher of an eleventh grade University/College Preparation Social Sciences course indicated “How to interpret and analyze primary research articles and to distill information and summarize.” This teacher has listed a number of separate skills relating to reading comprehension, including interpretation and analysis of texts, which are higher-level comprehension skills.

**Open-ended Question**

Participants responded to the following prompt: I prefer literacy-related professional development when it . . . This item was open-ended, meaning that participants could provide preferences related to content, form, or other areas of literacy-related professional development. Ninety-one participants provided 118 responses to this item. Twenty of these responses were from teachers who did not fit into any of the subject area groupings and are not reported on in Table 8. Some of the responses fit into more than one subject area grouping. Data were examined for themes, three emerged: (a) topics related to form, (b) topics related to content, and (c) other. A category called “other” emerged, examples included responses such as innovative, fun, and provides handouts. Responses categorized as being related to form of professional development were those relating to flexibility, hands-on learning, timing of activity, location of
activity, opportunity for collaboration, and provision of time to create resources.

Responses relating to relevancy, practicality, student achievement, and curriculum were categorized as being content related.

The most common responses were those related to the content of professional development activities (49.2%). Responses related to form composed 34.7% of the total. Data were also analyzed by subject-area groupings (see Table 8). Some similarities emerged. A similar percentage of responses by teachers of English (44.4%) and teachers of Social Sciences and Humanities (45.1%) were content-related. The percentage of form-related responses was 37.0% for English teachers and 43.1% for Social Sciences and Humanities teachers. Differences emerged between teachers of English and Social Sciences and Humanities and teachers of Science, Math, and Technology. A high percentage of the responses of teachers of Science, Math, and Technology were related to content of professional development (60.7%), and a smaller percentage of responses were related to form of professional development (25.0%).

Table 8.

Percentage of responses to preferences for literacy-related professional development (N = 118).

<table>
<thead>
<tr>
<th></th>
<th>English (n = 27)</th>
<th>Social Sciences and Humanities (n = 51)</th>
<th>Science, Math, and Technology (n = 28)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>37.0%</td>
<td>43.1%</td>
<td>25.0%</td>
</tr>
<tr>
<td>Content</td>
<td>44.4%</td>
<td>45.1%</td>
<td>60.7%</td>
</tr>
<tr>
<td>Other</td>
<td>18.5%</td>
<td>11.8%</td>
<td>14.3%</td>
</tr>
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</table>
Summary of Findings

In this sample, secondary teachers had preferences for form, content, and duration of literacy-related professional development. Moreover, teachers of different subject areas had different preferences for form, content, and duration of literacy-related professional development. Teachers of different course types also had different preferences for content of literacy-related professional development. Moreover, teachers of Science, Math, and Technology surveyed tended to focus on content of literacy-related professional development, as opposed to form. Teachers of English, and of Social Sciences and Humanities surveyed tended to focus more equally on content and form.
Chapter 5. Interpretation and Conclusion

Overview

This study explored the literacy-related professional development preferences of participating secondary teachers in one school board in Ontario. Participants completed a survey designed to gather information on their preferences for form, content, and duration of literacy-related professional development activities. For each question, data was analyzed as a whole to provide an overview of the literacy-related professional development preferences of participating teachers. Then, data for each question was analyzed, where applicable, by subject area groupings, pathways, and grade levels, to determine if similarities or differences existed between teachers of different subject areas, grade levels, and pathways. Preferences emerged for duration, form, and content of literacy-related professional development. Moreover, differences in preferences for duration, form, and content of literacy-related professional development emerged between teachers of various subject areas and pathways. The findings of this research are directed to providers of literacy-related professional development in the participating school board, including literacy co-ordinators, and lead literacy teachers. The findings may also be of interest to providers of professional development in other school boards.

This chapter discusses answers to the first research question, within the context of secondary teachers in the participating school board: If secondary teachers perceive there is professional development that could help them as teachers, what duration, form, and content would they most prefer? Answers to the second research question are also discussed: Are there differences in the preferences of teachers of different content areas,
different grade levels, and different pathways? The existing literature is discussed in relation to the findings of this study. To answer the first research question, results are first discussed in terms of participants as a whole. To answer the second research question, results are discussed by subject areas, grade levels, and pathways, where applicable. Last, limitations of this study, next steps in research, and recommendations for educators offering literacy-related professional development in the participating school board are discussed.

Teachers’ Preferred Form of Literacy-Related Professional Development

Duration.

The majority of secondary teachers who participated in this survey would prefer at least some professional development in literacy. Participants were from many subject areas, thus indicating that, in the participating school board, teachers from a wide variety of subject areas are interested in literacy-related professional development.

Most teachers surveyed preferred literacy-related professional development that is short in duration (between one to five hours). Teachers who selected short durations of professional development may have had a variety of reasons for so doing. For example, some teachers who value literacy-related professional development may have felt the need to balance the pursuit of professional development, with the drawbacks of missing classes. While literature has recently focussed on the positive effects of continuing professional development (professional development that is on-going and therefore longer in duration), some research also suggests that short-duration, well-structured professional development that involves entire school departments can have a positive
impact on teaching practices (Lydon & King, 2009). Because the majority of teachers surveyed preferred literacy-related professional development of short duration, literacy leaders in the participating school board should design such professional development, but well-planned, to maximize impact. It is also critical that these opportunities for professional development be disseminated to teachers of all subject areas, since teachers of many subject areas have indicated preferences for short-term literacy-related professional development activities.

A smaller percentage of teachers preferred a longer duration of professional development of 11 or more hours (15.2%). Garet et al. (2001) found that professional development was more likely to include features correlating with positive learning outcomes when it was longer in duration. Because of the positive outcomes associated with longer durations of professional development, the participating school board should consider offering literacy-related professional development that is longer in duration to those teachers willing to participate. Because of the expense of providing long-term professional development, teachers who so desire should have some input into the content, in order to ensure that the learning taking place will benefit them. It would not make sense to invest a great deal of resources in long-term literacy-related professional development unless the professional development activities take into account the knowledge and skills of the teacher. This will help ensure that the content of the literacy-related professional development meets the needs of the teachers involved, and is neither too basic, nor too advanced.

Some participants, 14.4%, indicated they did not want any professional
development. While previous studies indicate that recent experience of professional
development is widespread among effective teachers of literacy (Poulson & Avramidis,
2003), responses to open-ended questions illustrate that the reasons for a teacher
indicating they want no literacy-related professional development vary widely. For
example, one teacher claimed “. . . I have already trained for several courses/years at the
post-grad level in [literacy] so do not want more . . . I believe that what will be offered
will be below the level of expertise I already have.” As discussed in the results, in
response to the item “I prefer literacy-related professional development when it…,” the
teacher responded “assesses the level the teacher is already at rather than repeatedly
addressing the minimum level of basic competency. There is no opportunity to increase
one’s expertise and teachers seem to be required to repeat the entire training at a “basic-
to-medium” level rather than being able to review past learning and improve beyond
that.” This case illustrates the possibility that some teachers who have already pursued
literacy-related professional development may not prefer additional literacy-related
professional development because they feel that board organized professional
development will not result in meaningful learning for them.

Moreover, a different teacher, who also indicated he or she wanted no literacy-
related professional development, attached the following response to the survey “…Most
of my students are as innumerate as they are illiterate. Math skills are more important in
technology than literacy…I only have 110 hours for subject material and catching
students [up] on other things that are missing.” This teacher feels that in his subject area,
numeracy is more important than literacy. The response demonstrates that some teachers
may have indicated lower preferences for literacy-related professional development due to a focus in other areas of instruction.

**Form.**

Teachers expressed varying degrees of preference for the forms of professional development listed in the survey. The forms included: (a) workshop at board office, (b) book club, (c) action research or inquiry, (d) mentoring, (e) sharing practice, (f) independent reading, (g) observation of colleagues, (h) onsite workshop, (i) online short course, (j) collaborative lesson development, (k) board sponsored presentations, (l) professional learning community, and (m) professional learning community. These results support findings of previous research that showed that teachers have preferences for form of professional development (Boyle, Lamprianou, & Boyle, 2005).

**Collaboration.**

The four most highly rated forms of professional development were sharing practice, mentoring, observation of colleagues, and collaborative lesson development. A key structural feature of all of these forms of professional development is teacher collaboration. Responses to the open-ended question about why participants rated forms of professional development highly indicated teachers preferred forms of professional development that allow them time to talk and share ideas with colleagues. Thus participating teachers preferred collaborative forms of professional development, rating such forms of professional development highly.

Teachers also provided responses indicating why they valued collaboration in professional development. Teachers claimed that working with colleagues gave them the
opportunity to learn practical teaching strategies, those that work in real classrooms. They also equated collaboration with the opportunity to learn from other teachers in their subject areas. Sharing practice, mentoring, observation of colleagues, and collaborative lesson development all provide teachers with the time to talk with colleagues about specific problems in their practice. When teachers have the time to share with colleagues within their schools, they can discuss student needs specific to their classes (Garet et al. 2001).

**Differences Between Subject Areas for Preferred Form**

A higher number of Science, Math, and Technology teachers indicated they wanted no literacy-related professional development, and a lower number wanted longer durations of literacy-related professional development. A variety of reasons could account for this result. Teachers of Science, Math, and Technology may prefer professional development in areas other than literacy (such as numeracy). They may have experienced previous literacy-related professional development that did not address specific literacies essential in their fields, or previous professional developers may have promoted questionable instructional practices.

In the efforts of finding possible reasons for the differences in the literacy-related professional development preferences of Science, Math, and Technology teachers compared to teachers in other subject areas, I reviewed more literature. One issue that emerged is that messages to content area teachers about literacy tend to neglect, deemphasize, or misrepresent the literacies used in Math (Siebert & Draper, 2008). Teachers of Science, Math, and Technology may prefer literacy-related professional
development that addresses the specific literacies necessary in their fields.

Numeracy, as was pointed out by one teacher of Technology, plays a fundamental role in the subject areas of Science, Math, and Technology. Because all of the questions in the survey related specifically to literacy, including the form question, it could simply be that Science, Math, and Technology teachers would prefer professional development in areas other than literacy. Thus teachers of Science, Math, and Technology may prefer some forms of professional development, but rated them low because they are not interested in literacy-related professional development.

Siebert and Draper (2008) examined documents written to support teachers in implementing content area literacy strategies. In these documents, the terms reading and writing, tended to refer to traditional print material in the form of words and sentences. However, Math teachers use many other symbols to communicate meaning. Math teachers use graphs, diagrams, tables, and symbols to represent mathematical concepts, and they need to be able to support students in reading and writing these forms of texts. Teachers of Science and Technology also use graphs, diagrams, tables, and symbols to represent concepts in their respective disciplines. For example, teachers of Science use a variety of symbols to represent atomic structure, and students are required to use the Periodic Table as a symbol system.

Moreover, teachers of Math have been encouraged to incorporate fictional novels, with math content, into their practice (Siebert & Draper, 2008). Siebert and Draper (2008) noted that there is generally very little math content in fiction texts, and the math content tends to be superficial in relation to the expectations of the course. Moreover,
because these texts are not generally used in the field of math, reading novels or listening to fictional read-alouds, does not adequately support students in developing their ability to read and write mathematically. As a teacher of Science, I have been encouraged to use science-fiction novels in my teaching practice. This sends the message that Science literacy is related to reading and writing traditional print texts, composed of words and sentences, instead of focusing on a broader definition of Science literacy. A broader definition might include and acknowledge the role that symbolic systems play in Science communication.

**Differences in Ratings of Form of Workshop at Board Office**

Key differences in the ratings of form among the subject areas emerged. The first key difference was that teachers of Science, Math, and Technology surveyed tended to rate all forms of professional development as being less preferred than teachers in the other subject-area groupings. This was true for workshop at the board office. While it could be that teachers of Science, Math, and Technology may prefer all of the forms listed in the survey less than teachers of other subject areas, there are alternate explanations to consider.

The question requiring participants to rate the forms of professional development qualified that they were rating them in relation to literacy-related professional development. Thus, participants were not asked to rate workshops at the board office as a form of professional development. Rather, they were asked to rate workshops at the board office as a form of, specifically, literacy-related professional development. Teachers of Science, Math, and Technology may have rated the forms of professional
development differently, if the topic were a different one, such as numeracy.

Teachers of Science, Math, and Technology may prefer professional development in areas other than literacy. Numeracy, as was pointed out by one teacher of Technology, plays a fundamental role in the subject-areas of Science, Math, and Technology. Because all of the questions in the survey related specifically to literacy, including the duration question, it could simply be that Science, Math, and Technology teachers would prefer professional development in alternate areas.

It could be that teachers of English have had more positive prior experiences in literacy-related workshops at the board office. Professional developers in literacy tend to be teachers of English, and it could be that teachers of English provide stronger professional development for other teachers of English, than for teachers in other subject areas. Teachers of Science, Math, and Technology may have had more negative workshop experiences in sessions facilitated by a teacher of English. Alternately, it could be that the person facilitating workshops in Science, Math, and Technology is less able to provide quality professional development than the individual offering workshops for teachers of English.

**Teachers’ Preferred Content of Literacy-Related Professional Development**

Some patterns emerged with regard to teachers’ preferred content of literacy-related professional development. The two content-related questions were both open-ended. The first allowed teachers to indicate any area of literacy-related instruction in which they would like professional development. The second requested teachers provide an area of reading comprehension instruction in which they would like professional
development.

Teachers of Open type courses tended to cite differentiation as being an area of need. Open type courses may be taken by students in any credit-bearing pathway. Thus these courses serve students working at a wide range of skill levels. Overwhelmingly, teachers of Civics and Careers and Health and Physical Education, which are Open type courses, indicated that they want literacy-related professional development that helps them meet the needs of students working at a wide range of ability levels. Differentiation is a common topic of professional development activities in the participating school board, but teachers of Open type courses specifically want to learn how to differentiate their literacy instruction to meet the wide variety of needs of students in those courses. Thus, it would make sense to further explore these trends in future research, and for professional developers to take this into account when planning literacy-related professional development in these subject areas.

Also of interest is that the majority of teachers of Locally Developed and Workplace Preparation type courses indicated reading as being an area in need of literacy-related professional development. Students in these courses tend to struggle with literacy skills, including reading and writing. Responses indicating differentiation in literacy instruction as being an area of need were much lower in the Workplace pathway than in the College pathway. This could be because many of the students in Locally Developed and Workplace Preparation courses struggle with reading, and there is less variation in student abilities than in College Preparation pathways or in Open type courses. Also interesting is that no teachers of courses in the Workplace Preparation
pathway indicated writing as being an area of need. It could be that when students are struggling with both reading and writing, teachers would prefer to focus on supporting reading development. Another possibility is that the demands related to writing may be lower in courses in the Workplace Preparation pathway than in the College Preparation pathway.

When asked for an area of reading comprehension instruction in which they would like professional development, only 36 participants provided a response that related to the question. Thirty-eight teachers provided responses that did not relate to reading comprehension instruction. It could be that the high number of teachers who did not answer the question, or who indicated an area other than reading comprehension, did so because they were not familiar enough with the areas of reading comprehension instruction to be able to indicate an area in which they would like literacy-related professional development. More research should be conducted to determine the extent of teachers’ understanding of reading comprehension instruction. Arguably, reading comprehension instruction is a critical area of literacy instruction at the secondary level. Therefore, it is also critical that teachers have a solid understanding of instructional practices in this area. More research should be done to determine if and where gaps exist, and how best to build staff capacity to deliver reading comprehension instruction.

Responses to the final open-ended question were grouped into themes, and the majority of responses were either content-related or form-related. Most of the results were similar across subject area groupings. However, there were interesting differences among teachers of Science, Math, and Technology, who indicated more interest in the
content of literacy-related professional development than its form. Responses by teachers in other subject area groupings were more evenly distributed between form and content. It could be that teachers of Science, Math, and Technology simply care more about the content of literacy-related professional development than its form. Another possibility is that teachers of Science, Math, and Technology have attended more literacy-related professional development that they believe does not meet their particular subject area needs, and thus are now more focused on attaining professional development that meets their subject area needs.

More research should be carried out to determine the specific literacy-related professional development needs related to content in various subject areas. Science teachers tended to cite one of two areas of literacy-related instruction as being areas of need: (a) using text structure, signal words, or key words to help comprehension, and (b) reading graphic text. Math teachers tended to cite reading word problems as being an area in need of professional development. Professional developers in the participating school board should offer professional development opportunities in these specific areas.

**Limitations**

One limitation to this study is the validity of the survey. In order to minimize this threat to validity, the survey was collaboratively designed by the researchers, my committee, and board personnel. Vetting by board personnel included members of the research approval committee, and the secondary literacy co-ordinator, who was responsible for providing literacy-related professional development within the participating school board. Moreover, the survey structure and content were informed by
current research in the field. The survey was tested on several teacher volunteers, who provided feedback that improved clarity of some survey items. The methods were also informed by other, similar, research studies.

The validity of the items requesting participants rate various forms of professional development may have been affected by the format of the scale. Typically, ratings scales include the neutral option in the middle of the scale, with positive responses on one side of the neutral response, and negative responses on the other side. In this study, the rating scale included the neutral response at the right-most side of the scale. This is because I wanted the options to be in order of their numerical value, from highest to lowest, with the lowest being the neutral response. However, this might have caused problems for participants who were used to seeing the neutral response in the middle of the scale. Hopefully, this was minimized by the clearly labeled headings at each point on the scale.

Another limitation lies in the self-selection of participants. All 450 secondary teachers in the school board were invited to participate, however, since participation was optional, participants were self-selected. This could have skewed the data because the sample of teachers who responded may not have been representative of all secondary teachers in the school board. Participants who chose to complete the literacy-related survey may have been more interested in literacy-related professional development than teachers who chose not to participate. As well, participation was not equal between schools. Some schools had many more participants than others.

Another limitation to this study was that the results cannot be generalized to all secondary teachers in Ontario. The population sampled was the population of secondary
teachers in one school board. Care must be taken when applying the findings of this research outside of the context of the participating school board, since there are a multitude of factors that could affect teacher preferences in various school boards across Ontario. While literacy professional development is mandated, school boards do have some latitude in its delivery, and therefore teachers in various school boards may be influenced by their individual contexts. Furthermore, because participants were self-selected, participation rates varied between subject areas, and thus less data were gathered from teachers in certain subject areas.

Another limitation is that this research was cross-sectional, and was intended to be a snapshot of the perceived literacy needs of teachers at the time of survey completion. It could be that factors such as government policies, practices of professors in teacher education programs, and current research have an effect on the perceived, evolving professional development needs of teachers over time.

**Next Steps in Research**

One hundred teachers participated in this study. A logical next step would be to survey a much larger number of teachers, to elicit a larger number of responses from teachers in each subject area. Doing so could provide more definitive information about literacy-related professional development preferences, and more areas of potential further research.

Because many teachers taught in multiple subject areas, it would have been beneficial to include a question ascertaining how many courses in each subject area each participant taught. This could have been accomplished by asking participants to record
the number of courses taught in each subject area, instead of checking off a box.

Participants responded at a low rate to the open-ended question eliciting areas of interest in professional development in reading comprehension. Many teachers responded that they did not know areas of reading comprehension instruction to be able to answer the question. Considering the unexpectedly low response rate to this question, it may have been beneficial to have used a closed-ended question in the form of a checklist.

As indicated by the low response rate, participants also responded at a lower rate to the item asking them to provide a preference rating for teacher moderation as a form of professional development. Providing a definition for teacher moderation may have resulted in more responses to this item. Alternately, more responses may have been elicited if teacher moderation had been termed collaborative marking. The term collaborative marking is more logical, and teachers who were not familiar with it as a form of professional development may have better predicted its meaning.

More research should be conducted into areas of interest that emerged in this study. This includes further exploration of the preferences of Science, Math, and Technology teachers. In particular, the reasons for surveyed teachers of Science, Math, and Technology preferring less literacy-related professional development should be explored. Moreover, the particular content preferences of literacy-related professional development for teachers of Math, Science, and Technology should be explored. Research should also be conducted to determine what strategies can help teachers of Open type classes differentiate literacy instruction.
Recommendations

The findings of this study are primarily directed to literacy co-ordinators in the participating school board. Individuals responsible for providing literacy-related professional development in other school boards in Ontario may want to take into account the findings of this study, when planning professional development activities. Based on my interpretation of the data, I am making the following recommendations that educators might want to consider when designing professional development programs in Ontario:

1. A variety of forms of literacy-related professional development opportunities, that are short in duration (between one to five hours), should be made available to all teachers in the board.

2. Board professional developers should offer professional development at a wide variety of skill levels so that teachers with varying levels of expertise are able to find literacy-related professional development opportunities that will result in meaningful learning. These opportunities should be disseminated to all teachers, so that teachers are able to select opportunities that best meet their needs.

3. Literacy-related professional development should include opportunities that are geared towards specific subject areas. For example, professional development on instruction related to reading graphic texts should be designed to help meet the needs of teachers of Science and Geography. Teachers of Science, Math, and Technology may benefit from literacy-related professional
development in symbol systems.

4. Ministry and School Board professional developers should focus on providing literacy-related professional development in differentiated literacy instructional practices to better support the needs of teachers of Open type courses.

**Summary**

Participating teachers had preferences for literacy-related professional development activities. Specifically, they had preferences for duration, form, and content of literacy-related professional development activities. It is vital that professional developers gather as much information as possible in order to create professional development activities that meet the needs of teachers, and thereby also meet the needs of students. One method of gathering relevant information is to ask teachers about their preferences regarding literacy-related professional development.

In this study, 100 teachers were surveyed to determine their preferences with regard to content, form, and duration of literacy-related professional development activities. Results indicated these teachers preferred forms of professional development that provide opportunities for teacher collaboration and practical ideas and strategies. Results also showed that teachers of different subject areas had similarities and differences in their preferences for forms literacy-related professional development. Moreover, preferences for content of literacy-related professional development also varied by teachers’ subject area and course type. Teachers of different subject areas and pathways had similarities and differences in their preferences for duration, form, and
content of literacy-related professional development activities. Research should be conducted to further examine the literacy-related professional development preferences of teachers in Ontario and, more broadly, across Canada.
References


doi:10.1080/02619760701275487


Appendix A

Survey For Teachers

Literacy-related professional development preferences of secondary teachers

Please drop the completed survey off in the drop box in the main office.

PART I: BACKGROUND INFORMATION

1. To date, how many full years of teaching experience have you accumulated? ______

2. Check all of the boxes that correspond to subjects you are teaching this semester.

<table>
<thead>
<tr>
<th>The Arts</th>
<th>Family Studies</th>
<th>Math</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business</td>
<td>French</td>
<td>Native Languages</td>
</tr>
<tr>
<td>Civics and Careers</td>
<td>Geography</td>
<td>Native Studies</td>
</tr>
<tr>
<td>Computer studies</td>
<td>Guidance</td>
<td>Science</td>
</tr>
<tr>
<td>Co-op</td>
<td>Health and Physical Education</td>
<td>Social Sciences</td>
</tr>
<tr>
<td>English</td>
<td>History</td>
<td>Technology</td>
</tr>
<tr>
<td></td>
<td>Learning Strategies</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>other: ____________</td>
</tr>
</tbody>
</table>

3. Check all of the boxes that correspond to pathways you are teaching this semester.

<table>
<thead>
<tr>
<th>Academic</th>
<th>Employment Destinations</th>
<th>Practical Learning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applied</td>
<td>Program</td>
<td>Program</td>
</tr>
<tr>
<td>College Preparation</td>
<td>Life Skills Program</td>
<td>University Preparation</td>
</tr>
<tr>
<td>Community Employment</td>
<td>Locally Developed</td>
<td>Workplace Preparation</td>
</tr>
<tr>
<td>Program</td>
<td>Open</td>
<td></td>
</tr>
</tbody>
</table>
4. Check all of the boxes that correspond to **grades** you are teaching this semester.

9  10  11  12

**PART II: PROFESSIONAL DEVELOPMENT PREFERENCES**

A. Place one checkmark beside your preferred total contact time for literacy-related professional development activities.

<table>
<thead>
<tr>
<th></th>
<th>6 to 10 hours</th>
<th>26 to 50 hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 to 5 hours</td>
<td></td>
<td>more than 50 hours</td>
</tr>
</tbody>
</table>

B. Place one checkmark beside your preferred duration of literacy-related professional development activities.

<table>
<thead>
<tr>
<th></th>
<th>1 week to 4 weeks</th>
<th>41 weeks to 80 weeks</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 day</td>
<td>5 weeks to 20 weeks</td>
<td>more than 80 weeks</td>
</tr>
<tr>
<td>1 day to 4 days</td>
<td>21 weeks to 40 weeks</td>
<td></td>
</tr>
</tbody>
</table>
C. What is your preferred form of literacy-related professional development? Rate them, by circling the number corresponding to the answer which best indicates your preference for each form of professional development. Circle four to indicate a strongly preferred form of professional development and 1 to indicate a form of professional development that is strongly not preferred.

<table>
<thead>
<tr>
<th></th>
<th>Strongly preferred</th>
<th>Preferred</th>
<th>Not preferred</th>
<th>Strongly not preferred</th>
<th>No Preference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Workshop at board office</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>2.</td>
<td>Book club</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>3.</td>
<td>Action research or inquiry</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>4.</td>
<td>Mentoring</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>5.</td>
<td>Sharing practice</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>6.</td>
<td>Independent reading</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>7.</td>
<td>Observation of colleagues</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>8.</td>
<td>Onsite workshop</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>9.</td>
<td>Online short course</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>10.</td>
<td>Collaborative lesson development</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>11.</td>
<td>Board sponsored presentations</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>12.</td>
<td>Professional learning community</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>13.</td>
<td>Teacher moderation</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>
D. For the form that you prefer the most, please explain why.

_________________________________________________________________
_________________________________________________________________
_________________________________________________________________

E. Choose one class you are currently teaching with literacy-related instructional needs. What is the course code? ____________ If it is a K-course code, please indicate whether it is EDP, PLP, CEP or LSP ____________

F. For the specific course listed above, describe an area you struggle with in supporting the literacy needs of your students.

_________________________________________________________________
_________________________________________________________________
_________________________________________________________________

G. For the specific course listed in question E, what area of reading comprehension instruction do you feel would best meet your own professional development needs? Please explain in detail, e.g., How to use text structure and signal words to improve comprehension.

_________________________________________________________________
_________________________________________________________________
_________________________________________________________________
H. I prefer literacy-related professional development when it . . .

__________________________________________________________

__________________________________________________________

__________________________________________________________

Thank you for taking the time to complete this survey!
Appendix B

Letter of Information

Secondary teachers’ literacy-related professional development preferences

You are invited to participate in a study about the literacy-related professional development preferences of secondary teachers. All secondary teachers in your school board are being invited to participate.

This research study is being conducted by Shara Jones, a graduate student working with Dr. Elizabeth Lee from the Faculty of Education at Queen’s University in Kingston, Ontario, Canada. This study was granted clearance by the General Research Ethics Board for compliance with the Tri-Council Policy Statement: Ethical Conduct of Research Involving Humans, and Queen’s policies. It was also granted approval by your school board.

This study will examine the literacy-related professional development needs of secondary teachers. You are invited to complete the attached survey asking for items such as subject areas, grade levels, and pathways you are currently teaching, and then your preferred literacy-related content, form, and duration of professional development. It will take you about 10 minutes to complete the survey.

There are no known risks associated with your participation in this study. Participation is completely voluntary. You are free to withdraw at any time for whatever reason without penalty by just not returning the survey. You are not obliged to answer any questions that you find objectionable. You will not be identified in any way if the results are published and nothing will connect you to your responses. All coded data will be stored in a secure computer file accessible only to the researchers. Data will be retained for a minimum of five years, after which the data will be destroyed. The surveys will be shredded after the thesis is successfully defended.

Any questions about study participation may be directed to Shara Jones at 3slj1@queensu.ca or my supervisor, Elizabeth Lee, at elizabeth.lee@queensu.ca and 613-533-6000. Any ethical concerns about the study may be directed to the Chair of the General Research Ethics Board at 613-533-6081 or chair.GREB@queensu.ca

Thank you for considering this request,

Shara Jones – Graduate Student
Dr. Elizabeth Lee – Faculty Supervisor
If you consent to participate in this study, complete the survey and drop it in the drop-box in your school’s main office.