Research Use and the Impact in Secondary Schools

By

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ABSTRACT

The purpose of this research was to learn more about the ways that school and system leaders, access, engage with, share, and use research in their work. This research began with a framework developed by Levin (2004) and similar framing by Nutley et al (2007) suggesting that knowledge and use of research in schools depends on characteristics of the research itself (such as accessibility and perceived quality), characteristics of the educators and context (research background, interest level, supporting processes and structures) and the role of third party facilitators (such as professional media, experts, professional development providers) as distributors of knowledge.

This study is meant to add to our understanding of the way research is taken up in secondary schools and districts by replicating and extending the recent work by Levin et al (2009) in a research study conducted with the Canadian Education Association (CEA) and the Ontario Institute for Studies in Education (OISE) entitled, “Research Use and its Impact in Secondary Education”.

In general, educators, like other professionals, have relatively limited direct knowledge of current research and rely on versions of research findings that they encounter in their daily work or from colleagues (Levin et al, 2009). This study examined the processes and practices in place within secondary schools and across a district school board to determine the facilitators and barriers to research use. The study addressed the following research questions:
1. How do secondary school leaders access and use relevant research findings?

2. What are the main perceived barriers to the use of research by secondary school leaders?

3. In what ways does the school district support or hinder the use of research?

These questions were designed to focus on the dynamics at the district level and the organizational capacity for knowledge mobilization. Data were collected through an online anonymous survey and semi-structured interviews. The online survey suggests that educators have a high regard for research in their professional practice, and that there is an array of opportunities for teachers and school administrators to engage with research. And, according to the respondents, the greatest challenge is finding the time to access the research. The findings also reveal that the although there is a high regard for research, research is generally not a priority in secondary schools and practice is based more on knowledge gained from colleagues or personal experience than from evidence-based research.

The thesis concluded that there are many factors that both enable and hinder engagement with research and research use. Findings include the importance of culture and context of the school, the relationship between leaders’ actions and expectations and practice, relevancy of research to practice, the role of facilitation, the use of technology, and starting small to build a critical mass of teachers engaging with and using research in their practice.
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CHAPTER ONE: INTRODUCTION

Statement of the Problem

There is an extensive body of research directly related to school improvement. And within this literature there has been a substantial amount of conceptual and empirical studies that support the notion of the important, but indirect, role school leaders play in improving student achievement. There has also been comparatively little work done on how system, school, and teachers use research to support their role as the instructional leader in the school (Wilson, Hemsley-Brown, Easton, & Sharp, 2003). With the focus on accountability and increasing the capacity of individuals and schools to improve, it is worthwhile to examine the knowledge mobilization strategies used by district school boards. Knowledge mobilization can be defined as efforts to integrate research evidence into policy and practice. Research evidence is considered to be data collected through systematic and established formal processes of inquiry from widely accepted bodies of empirical work (rather than from single un-replicated studies). This means that “the evidence (however construed) can be independently observed and verified and that there is broad consensus as to its contents (if not interpretation)” (Davies, Nutley & Smith, 2000, p. 2).

Knowledge mobilization is a multi-faceted process that may positively influence school change and improvement issues. Learning how system and school decision makers engage with research findings and make them accessible to practitioners and how research is brought into the decision-making processes at the school level is important work in light of the push for accountability and the emphasis on improved teaching and learning to meet the diverse needs of our changing student populations.
We are challenged in our current educational context with a provincial mandate that calls on our collective responsibility to respond to the needs of every student. With this mandate, the provincial government in Ontario, through the Literacy and Numeracy Secretariat, seems to be influencing the day-to-day practices in schools more directly. Understanding the current context in Ontario of increasing pressure for greater accountability and effectiveness in schools is an important element in the discussion of knowledge mobilization. The Ontario Ministry of Education has announced three core priorities in their improvement agenda for Ontario schools: raising student achievement, closing the achievement gap, and increasing confidence in public education (Ontario Ministry of Education, 2008). Responding to the challenge of this focus on accountability demands leaders take a different approach to meeting the needs of all students. Improving teaching and learning in our changing global community is an enormous undertaking for individual schools to tackle in isolation. Thinking that schools can do this without the structure and support from the district level underestimates the challenge. A theory of action therefore, is that improving student outcomes is fundamentally a problem of both policy and practice at both the individual and system level. Fullan (2006) states “that any strategy of change must simultaneously focus on changing individuals and the culture or systems within which they work (p. 7).” The onus on school districts to build the capacity at the organizational and individual level for meeting these ambitious teaching and learning goals underscores the importance of examining how districts are accessing and incorporating new knowledge into their organization. Pfeffer and Sutton (2006) suggest that:

“Research demonstrates that the success of most interventions designed to improve organizational performance depends largely on implementing what is already known, rather than from adopting new or previously unknown ways of doing things (p. 14).”
I feel that knowledge mobilization, in school districts, “must embrace the planned and scaffolded learning that moves districts beyond capacity-building to realization (full implementation) of research-based assessment practices that drive instructional approaches for all students by all teachers in all schools (Sharratt and Fullan, 2009)”.

Along with the call for increased accountability, we are also faced with the challenge of educating our students in a changing society. Despite the pressure for schools to adapt to the changing demands of the world around them, schools have remained relatively static in their approach to educating students. Even with the unprecedented development of new technologies and access to information via the Internet little has changed within our classrooms. Schools are faced with the challenge of preparing students for a world that does not exist today while using methodologies that were created in the decades ago. Wallis and Steptoe (2006) note that:

American schools aren’t exactly frozen in time, but considering the pace of change in other areas of life, U.S. public schools tend to feel like throwbacks. A yawning chasm separates the world inside the schoolhouse from the world outside (p. 34).

Faced with these competing issues, finding ways in which relevant research can support the work that is necessary to meet the challenges within the current educational context is an important issue. The time has come to look closely at how school districts mobilize research knowledge and use it to provide direction and solutions to the challenges school leaders and teachers face.

Linking research to practice is no longer optional, but required, for educators. We are living in a knowledge-based society and preparing students to be global citizens. With this in mind, educators need to be able to make decisions based on the most up-to-date information on what works. Practitioners are “often looking for immediate, clear, and unambiguous direction as to what to do (Levin, 2004)” in the face of the complexity of today’s education context.
Knowing ‘how to’, ‘what to’ and ‘who to’ are questions educators are constantly asking themselves as they work toward being more effective in meeting the needs of their students. The accessibility of research findings to practitioners is an issue that adds to the difficulty of directly linking research to practice. The unique nature of each school, and the loose coupling that exists within school districts, make drawing generalizations from research rather difficult. As school and system leaders look to improve learning outcomes for all students, the search to find clear solutions to their questions is underlined. How the conditions are created for research and data to be understood and taken up within schools and school districts; and what roles and infrastructures need to be in place to allow this to happen are critical questions in this debate.

**The Context: Secondary Schools in Ontario**

Ontario’s secondary schools fall under the responsibility of the provincial government. The publicly funded system currently serves over 700,000 secondary school students in over 900 secondary schools. There are almost 44,000 secondary school teachers and 2,000 principals and vice-principals supporting secondary education in Ontario. The education budget for Ontario for the 2009-2010 school year was $19.8 billion. Education is second only to health in its share of the Ontario provincial budget.

Secondary schools offer classes from Grade 9 to Grade 12. Most secondary schools split the academic year into two semesters. Students have the opportunity to enrol in four different subjects, or courses in each of the two semesters. Students earn a credit, when a course of at least 110 hours in completed successfully. In order to graduate a student must meet the graduation criteria outlined by Ontario’s secondary school curriculum. Included in this criteria, is the achievement of 30 credits (18 compulsory credits, and 12 elective credits). Students must also pass the Ontario Secondary School Literacy Test (OSSLT). The OSSLT is administered in
Grade 10. It is based on the Ontario curriculum expectations for reading and writing that occur across the curriculum and include expectations up to Grade 9. If students are not initially successful in passing the OSSLT are allowed to retake the test and are given the opportunity to enrol in a Literacy Course. The final graduation requirement is Community Involvement. Students in publicly funded secondary schools must complete a minimum of 40 hours of community involvement activities.

These new graduation requirements are part of a comprehensive government plan to overhaul the secondary school system to ensure more students stay in school until the age of 18 and more students graduate. The reform to secondary schools is part of a province-wide Student Success/Learning to 18 Strategy (SS/L18 Strategy). In 2003-04, nearly one third of students were not completing their secondary education program. The government set an ambitious target of 85% of students graduating by 2010-2011. There has been a steady increase across the province in meeting this goal and in 2009, 79% of all secondary school students were successful in obtaining all of the requirements for graduation.

The creation of the SS/L18 Strategy is aimed at supporting students in Grades 7 to 12 and has five key goals:

1. Increase graduation rate and decrease drop-out rate;
2. Support a good outcome for all students;
3. Provide students with new and relevant learning opportunities;
4. Build on students’ strengths and interests; and
5. Provide students with an effective elementary to secondary school transition.

Support for the initiative came in the form of funding, policy, and legislative changes and was rolled out in three phases. The first two phases of the SS/L18 Strategy included:
• A Student Success Leader in every board
• Funding for projects aimed at increasing credit accumulation and student retention
• Investment in technology equipment and programs
• Additional locally developed compulsory credit courses and revisions to Grades 9, 10, and applied math
• 1300 additional high school teachers and smaller class sizes in Grades 9 to 12

The government introduced Phase Three of the strategy in 2005 with the intent to shift the culture and the pedagogy in secondary schools in order to meet the diverse needs and interests of students. This approach includes the creation of high skills major credits, expansion of co-op programming, and new credit programs including apprenticeships, e-learning, and college and university advanced placement credits. All of which are designed to engage students and provide relevant learning experiences.

There have been challenges inherent in the implementation of the secondary reforms. One of the biggest challenges has been building the capacity at the local school level to implement the instructional and cultural shifts. As well as creating new structures within secondary schools to support the use of student data to support students. In the Canadian Council on Learning’s 2008 evaluation of the SS/L18 Strategy, human factors were the most cited barrier to the effective implementation of the strategy (p. 45). The SS/L18 Strategy calls for significant changes in secondary schools. The shifts require a focus on capacity building and use of research and data to make decisions that will meet the needs of a diverse population.

**Significance of the Research**

The literature suggests that there is a much broader tradition of using research to change behaviour in other fields compared with education. However, even in the healthcare field, where
there has been considerable resources to support research, a consistent finding in the literature is that “the transfer of research findings into practice is often a slow and haphazard process (Graham, et al, 2006, p. 13).” In education, there appears to be an even greater gap between research and practice (Hemsley-Brown & Oplatka, 2005). In fact, it has been said that educators are “research adverse” (Fusarelli, 2008), but there is a trend beginning where terms such as ‘evidence-based decision-making’ and ‘research-informed practice’ are being integrated into all levels of the organization. Bredeson (2003) believes that “organizations that will truly excel in the future will be the organizations that discover how to tap people’s commitment and capacity to learn at all levels in an organization (p. 44)”.

Moreover, healthcare professionals have a much richer tradition of using research to make decisions in their daily practice. In contrast, it has been argued that educators do not take this same approach to research use (Hargreaves, 1996). Although many studies have investigated the barriers and facilitators to research use in the medical field, there have been few empirical studies that have focused on factors that hinder or facilitate the use of research in education.

There have been even fewer studies that have gone beyond the individual level to investigate the organizational levers to knowledge mobilization. Seashore Louis and Jones (2001) contend that “the barriers to knowledge utilization are often to be found in organizational design” (p. 23). Many researchers (Funk et al, 1991; Helmsley-Brown & Sharp, 2003; Nutley, Jung, & Walter, 2008; Rorrer, et al, 2008) are now calling for a shift in the emphasis from the
individual level to an organizational level that examines the leadership, management, structure, and organizational culture that influence research use. According to Hemsley-Brown and Sharp:

> the main barriers to knowledge use in the public sector are not at the level of individual resistance but originated in an institutional culture that does not foster learning (2003, p. 26).

This study is significant as the role school districts play in the process of research use has been relatively overlooked in empirical studies. The neglect of recognizing the importance of school districts is one that:

> implicitly ignores the pivotal role that school boards and superintendents play in mobilizing limited resources, giving legitimacy to a reform effort and the crucial interplay between central office and school site that can spell the difference between implementation success and failure (Cuban 1984, as cited in Rorrer et al, 2008, p. 310).

Understanding this role and how organizational factors work to increase the capacity within school districts to link research to practice is an important piece to further our understanding of knowledge mobilization.

This study is framed around the replication and extension of a CEA/OISE study conducted by Levin, et al, (2009). The CEA/OISE study will be explained in detail later in Chapter Two of this thesis. Replication is defined by Gall, Gall & Borg, (2007) as:

> The process of repeating a research study with a different group of research participants using the same or similar conditions, for the purposes of increasing confidence in the original studies’ findings (p. 651).

Replication as a research strategy is not as widely used within social sciences as it is in physical sciences. Gall, Gall & Borg (2007) believe that repeating, and improving upon, a research study will add a significant contribution to the field and add to the ability to generalize the original findings. Although replication can determine if the basic findings of the original study can be generalized to other participants and settings, it is not widely undertaken by
doctoral students (Vogt, 2007). This is an appropriate research strategy for me to use, as “advances in a field are much easier if researchers systematically build on, verify, and correct one another’s work (Vogt, p. 58).

**Guiding Research Questions**

The themes that emerged from the CEA/OISE Study, and supported in the research literature, suggest that secondary school educators acknowledge the importance of research use, yet spend relatively little time engaged in research-related activities. Nor do school districts appear to provide extensive support for knowledge mobilization (Levin, et al, 2009) Respondents also reported that they rely most heavily on personal experience as an influence on their professional views, followed by colleagues or professional networks. To encourage more engagement with and use of research, the CEA/OISE study introduced intervention strategies in the participating district school boards. The themes arising from these interventions are:

1. Research use is likely to be stronger where it is supported simultaneously by organizational structures and processes as well as culture;

2. The nature and format of research material affects use;

3. Facilitation is important; and

4. Engagement with research needs to be explicitly linked to action plans to encourage use (Levin, et al, 2009)

Several key factors that influence research use in secondary schools can be drawn from these themes. Priority needs to be given to the value of engagement with research and organizational structures need to be created to assist in the sharing and use of research. If time is a key factor in the engagement with and use of research, as the CEA/OISE study shows us, then having structures and opportunities for teachers to engage with research is essential, but not
enough. Effective research use also requires a commitment and clear expectations from school and district leadership that engagement in research is important and worthwhile. Another key factor that impacts the use of research in schools and districts is the role of facilitation. The CEA/OISE study clearly articulates the importance of facilitation as a factor to increase research use in schools. Facilitation takes on many different roles including providing relevant research materials, coordinating the sharing of research, and providing focusing questions in the discussion of research.

These influencing factors, along with the themes that emerge from the literature, raise interesting questions and form a starting point for this investigation. Specifically, this research study is interested in addressing the following research questions:

1. How do secondary school leaders access and use relevant research findings?
2. What are the main perceived barriers to the use of research by secondary school leaders?
3. In what ways does the school district support or hinder the use of research?

These questions are designed to focus on the dynamics at the district level and the organizational capacity for knowledge mobilization. Inherent in these questions is the notion that school districts play a critical role in helping to encourage, support, and develop the capacity for knowledge use and that this role is part of a process that should include practices that address the access and incorporation of new knowledge into all levels of the organization.

Knowledge mobilization strategies that focus on the access to and utilization of research in order to impact school improvement are under-researched. I am interested in exploring the relationship between the strategies and structures used at a system level to support educational leaders in encountering and using research to influence policy and practice to improve teaching
and learning in secondary schools. This study examines the role the school district plays in encouraging and facilitating the use of research findings in school level practice.

An essential starting point is an examination of the literature to determine what we know about how research gets used within organizations. This examination forms the foundation of the research study. An investigation into practices that are in place in school districts and a look at the factors that facilitate or hinder how research gets used is included as well.

The study sets out to investigate practical strategies that districts can use to improve the take up capacity for research in order to increase the extent to which work in school is evidence-informed.

**Outline of Thesis Chapters**

The chapters that follow include Chapter Two, which presents useful definitions that I was able to use to frame this study. The chapter also includes a review of an exploration of the literature that pertains to different theoretical conceptualizations of research use. The literature presents a range of concepts connected to knowledge mobilization. The literature review also includes an investigation into various barriers and facilitators to the take up capacity of research. Finally, in looking at the various barriers and facilitators to research use, I sought to better understand these factors at both the individual and organizational levels.

Chapter Three outlines the conceptual framework drawn from the literature (Levin, et al 2009; Rycroft-Malone et al, 2002; Lemieux-Charles & Champagne, 2004; and Nutley, et al 2002). The literature framed for me the importance of considering multiple factors that impact the take up capacity for research use.

Chapter Four explains the methodology used in this study including the data required, sample selection, instruments, procedures, and analysis. Both the qualitative and quantitative
aspects of the study are explained in relation to the original CEA/OISE study in this chapter.

Chapter Four also introduces the context in which this study is set.

Chapter Five summarizes the study’s findings obtained from both the online survey in Phase One and the semi-structured interviews in Phase Two. Data gathered and analyzed reinforce the importance of intentional structures created at the district and school level and the need for skilful leadership. The study’s findings also highlight the significance of individual choice in accessing and using research.

Chapter Six provides a discussion and analysis of the emergent themes. Suggestions for further research and considerations for policy and practice are also presented in this chapter.

References and Appendices complete the study.
CHAPTER TWO: REVIEW OF THE LITERATURE

This chapter will explore the existing literature around the following themes:

- Research use to improve professional practice in education and in other fields
- Factors that facilitate or inhibit use of research
- Organizational factors that impact knowledge mobilization

The review of the literature not only identifies and describes current practice, but provides a basis for further research into the structures and practices that impact a school districts’ role in facilitating knowledge mobilization. Throughout the literature terms such as knowledge mobilization, research use, evidence-based practice have been interchangeable. For the purposes of this study clarification of the terms that guide this research is critical for common understanding and reference. Drawing on the existing literature, it is clear that there is a multitude of interchangeable terms associated with the concept of knowledge mobilization. Graham et al (2006) identify 29 similar terms associated with the notion of knowledge mobilization, such as knowledge translation, knowledge transfer, knowledge exchange, research utilization, and evidence-based practice, all with similar connotations related to mobilizing knowledge into action.

**Definition of Terms**

**Knowledge Mobilization:**

The definition of knowledge mobilization is multi-dimensional and draws on many different fields and contexts. Levin (2008) uses a broad definition of knowledge mobilization. He suggests that it is about “getting the right information to the right people in the right format at
the right time, so as to influence decision-making. Knowledge mobilization includes dissemination, knowledge transfer, and knowledge translation (p. 9).”

Levesque (2009) builds on the literal translation of the French word – mobilisation – to make ready for service, in his definition. The notion that knowledge mobilization is “making what we know ready for service or action is what creates value (Retrieved from: http://www.knowledgemobilization.net/archives/139).” “Value” according to Leveque comes from the social interactions in the exchange process. Levesque also suggests that knowledge mobilization is led from the middle and requires a purpose. His theory of knowledge mobilization includes the concepts of context, culture, and capacity (Levesque, 2007) and the importance of conversation that will lead to the use of research in practice.

Knowledge mobilization practices of school districts can include, but are not limited to, accessing new knowledge from outside the organization and incorporating the new knowledge within the organization through professional development. Elements of the professional development may include networks, incentives/funding, and access to research-based resources (Wilson, et al, 2003). These practices emphasize the dissemination of research findings and focus on the role of school districts in facilitating research use for decision making and impacting practice. The understanding that knowledge is socially constructed (Seashore Louis & Dentler, 1988) has an impact on the knowledge mobilization practices employed by district school boards as they attempt to create the conditions for knowledge to be accessed and shared. Moreover, research by Kitson, Harvey & McCormack (1998) suggests that facilitation is a key variable in the research utilization process. A research report commissioned by the Australian government (Figgis, Zubrick, Butorac, & Alderson, 2001), states that “applying research in an education context requires human intervention (p. 3)” . The study emphasizes the importance of
personal contact and interaction as a knowledge mobilization strategy. Knowledge mobilization therefore, is multi-dimensional and involves both individual actions as well as social interactions.

**Research:**

Among the varied definitions from the literature, an emphasis on the knowledge base and the process in which this knowledge was obtained and shared appear. The term research is defined broadly by Hilage, Pearson, Anderson, and Tamkin (1998) in the context of education:

> It seems to be sensible to regard educational research as that set of activities which involves the systematic collection and analysis of data with a view to producing valid knowledge about teaching, learning and the institutional frameworks in which they occur (1998, p. 7).

The authors go on to support the use of research to inform practice by stating that research “critically informs education judgements and decisions in order to improve educational action (p. 2).” While noting that there are many definitions that have been advanced at various times, for the purposes of this study the definition of research to be used is taken from the CEA/OISE study (Levin et al, 2009): “the systematic gathering and use of data or other forms of evidence to address a theoretical, practical, or policy problem”.

**Use of Research:**

The concept of research use is complex and multi-faceted. The existing literature is rich with various definitions and frameworks to conceptualize the process. Nutley et al (2007), have defined research use in broad terms.

> The use of research is a varied and complex phenomenon, and what it means to use research can be defined in many different ways. Identifying different models or types of research use highlights the multiple and often subtle ways in which research can be used. (p. 58).

There is a growing body of literature that examines the relationship between research, practice, and/or policy. This collection offers a wide range of models of research use/knowledge
mobilization (Cousins & Leithwood, 1986; Nutley et al., 2002, 2003, 2007; Hemsley-Brown & Sharp, 2003). The empirical studies that have proposed models of research use provide useful conceptual frameworks for consideration. Most definitions found in the literature are primarily concerned with the use of research at the individual level, but there is some empirical work that examines research utilization in organizational settings (Cousins & Leithwood, 1986; Percy-Smith, Burden, Darlow, Dowson, Hawtin & Ladi, 2002).

In much of the literature, it is left to the practitioners to describe how they use research. In these cases, the measure of research use can be highly diverse and offer a range of activities. Measures of research use have included:

- Whether research has been accessed and considered;
- The presence of research citations in documents;
- Changes in knowledge, understanding and attitudes;
- Direct applications of research in policy or practice;
- Changes in ultimate outcomes for service users (Nutley, Walter, and Davies, p. 67, 2007)

Use can be placed on a continuum that ranges from simply raising awareness of research findings, through developing knowledge and understanding and changing perceptions, to actual changes in policy and practice (Nutley, Davies, Walter, and Wilkinson, 2004). Research use can also include locating and accessing research, sharing research, understanding research, and using research in decision making and practice. It has long been documented (Weiss, 1977 as cited in Nutley et al 2007) that research can have an impact in indirect ways over a prolonged period of time. The literature suggests that definitions of research use therefore, can vary depending on the context in which it will be used. Understanding the context within which the research will be
accessed and used is an important factor in understanding the meaning of the term. Love (1985) for instance, defines research use in a more instrumental way that highlights the direct application of research use to policy or practice. He believes that research use is “the process of applying the knowledge or information received by a potential user toward the solution of a problem or the attainment of a goal, but also includes the act or rejecting or ignoring the knowledge (p. 344).” With this definition, Love proposes a wide ranging concept of practice to include both conceptual and instrumental use of research.

Studies of the use of research also highlight the less than direct impact research has on policy and practice. Court and Young (2003) reviewed 50 case studies of policy uses of research in the area of international development. They found that research had shaped policy in much more subtle and implicit ways such as enhancing tacit knowledge and contributing to policy debates. This conceptual use of research is about engaging with research and adapting it to create personal and local meaning. Changing thinking and beliefs and using research to influence a political agenda therefore, are outcomes of knowledge mobilization.

Nutley, Walter, and Davies (2007) have engaged in a comprehensive examination of research use across multiple disciplines. They see the use of research as an ongoing process rather than a single event and propose the notion of a continuum that includes both instrumental and conceptual use. Nutley et al, offer a general theory of research use:

Research use is a complex and multifaceted process, and the use of research often means different things to different people….The common image of research use is that the findings from research have direct impact on the actions of front-line practitioners or local or national policy makers. Empirical studies have shown, however, that research use is rarely a straightforward process of simple application to policy and practice of decision making (p. 33)
This study considers the use of research in its broadest sense, which includes not only the direct (instrumental) use of research in impacting practice but also the indirect (conceptual) use of research in influencing the way people think about policy issues (Nutley, Walter, and Davies, 2007b). Among the definitions that will guide this study, Wilson and Easton (2003) refers to research use as “systematic enquiry that is shared and put into practice (p. 6)” From this belief, there is an assumption that research can be a contributor to changing practice.

**School District:**

Rorrer, Skrla and Scheurich (2008) propose a definition of school districts that is relevant to this study. Their concept of school districts includes the superintendent, school board, and/or central level administration as well as the notion of school district as an “organizational unit”. This definition will help guide the source for data collection in this study.

Empirical work on knowledge mobilization by practitioners and local policy makers in education is an area of research that, until recently, was underdeveloped. Literature in this field was limited to studies in the health care and social policy fields. Lately, however, there has been a growth of empirical studies into the ways teachers and school leaders access, engage with and make use of research. Evidence is now available into practitioners’ perceptions of the usefulness of research findings, and factors that influence the use of research in their practice (Biddle & Saha, 2000; Figgis, Zubrick, Butorac, & Alderson, 2001; Rickinson, 2005). Much of the literature is focused at the individual level. The few studies that investigate the concept at the organizational level focus on the use of student achievement or evaluation data (Hemsley-Brown and Sharp, 2003).

It is evident from a review of the literature on school districts’ role in educational change that there is a reciprocal responsibility between the district and school. Rorrer et al (2008), cite
the important function of the district as instructional leader to support school improvement. They conclude that the district has two key functions: generating will and building capacity (p. 315) - both of which are relevant to this study. The notion of capacity building put forward by Firestone, as noted in the Rorrer et al analysis, is particularly useful for this study. Capacity building requires:

- mobilizing personnel, developing functions related to change (providing and selling a vision, obtaining resources, providing encouragement and recognition, adapting standard operating procedures, monitoring the reform effort, and handling disturbances), and making district and school linkages (district consistent application of pressure on schools, targeted support, increased participation by teachers (p. 317).

Leithwood (2008) adds to the conversation about the practices of high-performing school districts by providing a framework that outlines ten characteristics of school districts who have closed the gap and raised the bar on student achievement. Among the characteristics identified by Leithwood, and pertinent to this study are: use of evidence for planning; organizational learning and accountability; investing in instructional leadership; district-wide, job-embedded PD for leaders and teachers; and building and maintaining good communications and relations, learning communities, district culture. In the Leithwood review of empirical studies, examples of the close relationship between system and schools are highlighted and the important role that districts play in school improvement is presented.

In their book, *District Leadership That Works: Striking the Right Balance*, Marzano & Waters (2009) make a compelling case for the role school districts play in student achievement. They conclude that “districts have a measurable effect on student achievement” and “when districts and schools are high functioning in terms of their leadership behaviours, they can positively influence student achievement (p. 12).”
Studying the ten best-performing school systems in the world, McKinsey and Company (2007) examined the factors that contributed to their success as well as looking at why other systems fail to improve student achievement. In their report, *How the World’s Best-Performing School Systems Come Out on Top*, the authors highlight the following three conditions that need to be in place for a school system to be high-performing: 1) high quality teachers need to be attracted into the system 2) a focus on instructional development, 3) ensuring success for every child (McKinsey and Company, 2007). These factors are relevant in the discussion of knowledge mobilization as they speak to both policy and practice at the organizational level.

**Take Up Capacity:**

There are many references to capacity and capacity building in the literature (Fullan, 2007). It is a complex process that can include both individual capacity as well as organizational capacity. The literature suggests four key factors that influence an organization’s capacity to engage with research. Organizational factors such as culture, infrastructure, resources, and leadership all have a role to play in building capacity for research to be used at both the district and the school level. In some cases, the reason school districts engage with research is to build the capacity of their teachers and leaders. In many studies, capacity has been cited in the literature when examining the barriers and facilitators to research use both at the individual level and at the organizational level. The examination of a school district’s take up capacity for utilizing research will be a focus of this study; more specifically, what resources and practices does a school district have in place to facilitate and support the conditions for knowledge mobilization.

Percy-Smith et al (2002) studied how research is used to inform policy in local authorities in the United Kingdom. The researchers surveyed 696 respondents and conducted case studies
of five local authorities. They found that organizational culture and capacity were important elements in using research within the local authorities. The study concluded that there needs to be an organizational culture in place that is supportive of research, and that central research offices need to build capacity and skill among the users of research to improve the ability to access, appraise, interpret, apply and undertake research (p. 48).

**Barriers and Facilitators to Research Use**

It is clear that there is a wide range of factors that can facilitate or hinder access, engagement, and use of research. Having insights into what can assist practitioners in accessing and using research will help us better understand the conditions and structures that need to be in place at the organizational level to support this process. In this investigation, it is important to recognize that the process is not linear and therefore, the factors that influence the process are varied and multi-layered.

Literature exists that examines the kinds of factors that create barriers or enablers for research use by “street level” (Lipsky, 1980) practitioners. Less research is available; however, that investigates how these factors interact with each other. Most of the literature originates in fields other than education. For instance, much more has been written about how nurses and doctors utilize research in their daily practice and decision making (Funk, Tornquist, & Champagne, 1989; Estabrooks, 1999; Scott, Estabrooks, Allen, & Pollock, 2008). We can learn from studying the factors that influence research use at the individual level to assist systems in identifying and supporting the organizational structures and conditions necessary for effective research utilization practices.
A growing body of research includes both empirical and conceptual studies that address the issues related to the uptake of knowledge in practice. Within the literature, many barriers have been identified to mobilizing knowledge. The literature review will include a discussion of the many findings that originate in fields outside of education including healthcare, child welfare, and public policy (Funk, Champagne, and Tornquist, 1995; Kitson, Harvey & McCormick, 1998; Landry, Amara, & Lamari, 1999; Walshe & Randall, 2001; Lavis et al, 2003; Percy-Smith, Speller, and Nutley, 2006; Nutley, Walter, & Davies, 2007) as well as in educational contexts (Hemsley-Brown, 2005; Hemsley-Brown & Oplatka, 2005; Hemsley-Brown & Sharp, 2003; Figgis, Zubrick, Butorac, & Alderson, 2001; Cordingly, et al, 2004; Rickinson, 2005; Saha, Biddle & Anderson, 1995; Wilson & Easton, 2003; Seashore Louis & Dentler, 1988). There is a great deal of similarity between the findings from the various fields. For the purposes of this paper, the barriers and issues related to the uptake of knowledge can be organized according to three main categories:

1. **Characteristics of the research**;

2. **Characteristics of the user and the organization (context)**;

3. **Role of Facilitation**.

Linking research findings to a particular local context requires capacity building at both ends of the process. Researchers need to learn how to present their findings in a manner that allows the user to make connections to their context, practitioners must develop attitudes that encourage them to engage with the research findings available to them, and organizations ought to create cultures that support engagement with and use of research.
Characteristics of the Research:

Many empirical studies have concluded that the barriers to research utilization reside on the side of the research. Issues such as quality, credibility, relevance, and the ability to generalize the findings to local context have all been cited as possible inhibitors to accessing and using research in practice (Cousins & Leithwood, 1993; Funk, Tornquist & Champagne, 1989; Hemsley-Brown, 2005; and Rickinson, 2005).

Not all educational research is created equal in the eyes of practitioners. Existing studies have shown that teachers and school administrators favour certain types of research over others (Dagenais, Janosz, Abrami, Bernard, & Lysenko, 2008; Ratcliffe, Bartholomew, Hames, Hind, Leach, Millar, & Osbourne, 2005; Biddle & Saha, 2002; Everton, Galton, & Pell, 2000). It is the qualities of the research as well as the source that appear to be determinant factors in the process of utilization. In the Everton et al (2000) study, the researchers conclude that the general trend is for secondary educators to be more interested in research about aspects of learning and research that informs classroom practice. The researchers further assert that teachers are more likely to value research that engages them personally over simply being presented with the research findings (p. 178). Teachers, it appears, have a preference for knowing “what” and “how” as opposed to knowing “why”. As Dagenais et al, (2008) conclude, for research to be valued it needs to be translated into “tangible and useful outcomes (p. 12).”

Moreover, research is more likely to influence practice when it aligns with practitioners’ beliefs or experience (Ratcliffe et al, 2005):

the evidence from large-scale studies alone was not regarded as sufficient to modify practice. Rather the extent to which research findings coincided with existing beliefs and teachers’ educational practice seemed a major determinant of whether a teacher was likely to modify their practice based on the research evidence alone.
Therefore, one can conclude that not all educational research should be treated in the same way or expected to be taken up to same degree. The aspects of the research, or the quality of the evidence, add to the complexities of research uptake as it is left up to the individual to judge the quality or relevance of the research.

The standard form of research communication often presents as a barrier and has a direct impact on practitioners. The language used in research findings is often too technical for easy translation in the field. And the route of dissemination chosen by the researcher may not be easily accessible to the intended end user. For instance, academic journals and research conferences have been cited as routes to push out findings, but present a barrier to practitioners in the field (Funk, Tornquist, & Champagne, 1989). Further to this, the nurses in the Funk, et al, study noted that the implications for practice are not always made explicit in the research findings. Cousins and Leithwood’s (1993) work came to similar conclusions. They found that teachers and principals were more likely to use school improvement information when it was timely and relevant to their local needs. Their conclusions include the need for researchers to disseminate the information in a manner that encourages adapting the information to meet local needs rather than simply presenting information that practitioners would replicate in their own settings.

According to Dagenais et al (2008) sources of information are dependent on role. For example, the Internet and websites are the sources preferred by educational consultants. School administrators prefer locally produced school-based data along with professional publications. Teachers, on the other hand, are attracted to mass media as their source of research-based information (p. 19). Biddle & Saha (2002) concur. They conclude in their study that school principals access research findings from a variety of secondary sources. The sources; however,
are all designed specifically for the education community and include professional journals and books as well as professional events. It is therefore imperative that the origin, quality, and source of the research be considered when considering uptake strategies and processes.

(2) Characteristics of the user and the organization (context):

The list of barriers to the use of research or the context within which the research will be used are also common across disciplines. Empirical studies have been conducted that investigate research utilization from the perspective of a variety of practitioners that include nurses (Estabrooks, 1999; Funk, et al, 1995), occupational therapists (Craik & Rappolt, 2006), teachers (Hammersley, 2001, and Rickinson, 2005), principals (Saha, Biddle, & Anderson, 1995); and public servants (Hemsley-Brown, 2005; Percy-Smith et al, 2006). The findings of these studies identify barriers related to characteristics and capacity of the users.

Shkedi (1998) conducted a case study of 47 teachers in Israel. The findings suggest that teachers are unlikely to turn to research to increase their professional knowledge. The teachers in the study said that they did not use research because they lacked the time to access it, could not understand the language or statistics presented in the research findings, or lacked trust in the source of the research. Many teachers stated that they found it difficult to access research in their local settings, but when they did they used research that had practical applications. Shkedi found that teachers who were engaged in academic studies were more likely to access research.

Organizational issues are attributed in several studies as a key barrier to research use. One of the most comprehensive studies that examined the barriers to research use was conducted by Funk et al (1995). This study has wide spread implications because it had a sample of 1989
nurse practitioners in the United States. The study found that the most pervasive barriers to the use of research are associated with the setting. The nurses surveyed cited lack of time to read research findings, lack of time to implement new ideas, and lack of support from doctors, as the strongest perceived barriers to research utilization. They also found that leadership is essential in setting a culture where research is valued. Consequently, the study concluded that the most effective facilitator of research utilization was “enhanced administrative support and encouragement for research utilization” as cited by a third of the respondents.

These findings speak not just to a focus on the individual, but also the need to have an organizational culture that values research and structures in place to support its use. A study of military and civilian nurses (Estabrooks et al, 2007) concludes that “individual and organizational factors interact with context in important, although not well-understood ways, and should not be ignored (p. 293).” As Seashore Louis and Jones (2001) assert, organizational factors trump practitioner factors and features of the research. In their conceptual piece Trocme, Belanger, and Roy (undated) offer key organizational practices that address these factors. The authors contend that “knowledge mobilization requires organizations have the capacity to use research, make time and resources available to support accessing research and that demonstrate this commitment by integrating research with core management structures (p. 12).”

Culture:

Many studies have identified common barriers to research use in medicine and education (Hemsley-Brown & Oplatka, 2005; Biddle & Saha, 2002; Shkedi, 1998; Funk, Tornquist & Champagne, 1989; Corwin & Seashore Louis, 1982). These studies have examined research use at both the individual and organizational level. Organizational factors such as culture, infrastructure, and leadership appear to have an impact on an organization’s ability to mobilize
knowledge to be used in practice. Culture has been defined as the core values, norms of practice, and professional beliefs (Bredeson, 2003; Syed-Ikhsan & Rowland, 2004) that are held by the system. For the purposes of this study it is useful to think about culture as:

*The pattern of basic assumptions that a given group has invented, discovered, or developed in learning to cope with its problems of external adaptation and integration, and that worked well enough to be considered value, and therefore, to be taught to new members as the correct way to perceive, think and feel in relation to those problems.* (Schein, 1984, p. 5).

Syed-Ikhsan and Rowland (2004) believe that culture is the key factor in knowledge mobilization as it establishes how knowledge is shared within the organization. Individualism as an element of culture can have a negative impact on the sharing of knowledge at both the individual level and the organizational level. Syed-Ikhsan and Rowland define individualism as a particular set of attitudes and beliefs of individuals within an organization. They identify two potential problems pertaining to individual’s attitudes and beliefs; that is, “how ready employees are to share their knowledge and how easily they can overcome the resistance to change and share their knowledge (p. 100).” Organizational values of openness, learning, and collaboration are elements of culture that have a positive impact on individual’s beliefs and attitudes and therefore on knowledge mobilization.

Ebbutt (2002) contends that the research culture within secondary schools has an important role to play in school improvement initiatives. The author defines research culture as a set of beliefs and practices that includes using research as an important component in ‘in how we do things here’. He goes on to say that research culture also includes an acceptance that research will be a component of each new teaching and learning initiative that comes forward and that school-based research provides “leverage to school improvement” (p. 132). Ebbutt examined
four secondary schools and concluded that the schools that had either an established (research findings are incorporated into practices and staff have a belief of the importance of research) or embedded (deeper, more pervasive use of research) research culture were more likely to use research in the implementation of new school improvement initiatives. Ebbutt’s findings also suggest that these schools are less likely to view certain factors as barriers to research use compared with schools who have, what he calls, an emergent research culture (p. 132). The importance of developing a culture of research within a secondary school is highlighted in this study.

Organizational Infrastructures:

Organizational infrastructure refers to the flow of information used within the school district, and the structures in place for professional learning of employees. Structures can come in the form of formal and informal organizational features that impact decision making and sharing of information. Research suggests that organizations that have “denser internal communication networks” (Seashore Louis & Jones, 2001) are more effective in knowledge mobilization. Also, practices that emphasize the social influences of colleagues have been proven to have an impact on knowledge mobilization. For example, research implementation is more likely to be successful when people in key leadership roles take an active role in research implementation or skilled facilitators work alongside practitioners in interpreting data or research (Kitson et al, 1998 as cited in Walter, Nutley, and Davies, 2003a). The place of protocols for bringing in new information and disseminating it throughout the organization is relevant in this discussion as protocols influence behaviour and the flow of information. Having individuals in boundary spanning roles that bring in new ideas to the organization has been proven to have a positive impact on knowledge mobilization (Seashore Louis & Jones, 2001).
Leadership:

Leadership has emerged as a key factor in facilitating the use of research across many studies (Hemsley-Brown, 2005, Walter et al, 2003). Leadership at all levels of an organization is an essential element in knowledge mobilization. Effective leaders set the research-informed agenda and provide the ongoing supports and conditions necessary for implementation (Walter et al, 2003). In a six-year study, “Learning from Leadership Project: Investigating the Links to Improved Student Learning”, funded by the Wallace Foundation, researchers at the University of Minnesota and the Ontario Institute for Studies in Education at The University of Toronto, the authors underscore the importance of leadership in education:

Leadership is all about organizing improvement, more specifically, it is about establishing agreed-upon and worthwhile direction for the organization in question, and doing whatever it takes to prod and support people to move in those directions. Our general definition of leadership highlights these points: it is about direction and influence (p. 10).

The study’s findings about instructional leadership have direct implications for the role that leadership plays in knowledge mobilization. Leadership is an enabling factor that can either act as a facilitator or as a barrier in the engagement and use of research in secondary schools.

A National College of School Leadership literature review (NCSL, 2003), made the case for the relationship between leadership and research engagement. The review concludes that beliefs about leadership roles is an influential factor in research use, and that leaders at the district and school levels must create the opportunities and conditions for others to engage with research. Leaders have an active role to play in establishing positive relationships with colleagues in order to create the conditions necessary for sharing of research and practice. Leaders also must take an active role in encouraging research engagement and providing
structures and processes to enable colleagues and teachers to discuss and take research-related actions.

McKinsey and Company (2007) conclude in their study of the ten best-performing school systems in the world, “that strong school leadership is particularly important in producing improvement (p. 30).” They go on to say that “top-performing school systems leverage a substantial and growing knowledge about what constitutes effective school leadership to develop their principals into drivers of improvement in instruction (p. 30).”

Leadership is an important organizational factor as it speaks to the need to have people in positions of authority and responsibility who can strategically influence the research agenda. Leadership can also exert a social influence on knowledge mobilization. District school boards that can provide direction setting and on-going support for knowledge mobilization at the different levels of the organization add to the successful practices found in research (Nutley, Walter, and Davies, 2003b).

(3) Role of Facilitation:

The final component of the literature review examines the role of facilitation as an enabler to knowledge mobilization. Many studies provide insights into the role of third parties on the uptake capacity of research use (Walter, Nutley & Davies, 2003). Many authors, including Walter, Nutley, and Davies (2003) and Hillage et al (1998), have discussed the factors and models that affect the uptake of research from the point of view of a third party mediation. Hillage et al (1998) propose that a lack of mediation is a fundamental barrier to the implementation of evidence-informed practice. The authors highlight the need for people to be engaged and processes to be established to mediate the dissemination of research in the field. According to Hillage and colleagues, strategic partnerships are key to improving evidence-based
practice. Other studies (Kitson et al, 1998; Seashore Louis & Dentler, 1988; Rycroft-Malone, et al, 2002) call for facilitators to act as boundary spanner, broker, interpreter, and consultant to locate and access information and then help people within the organization learn how to use it.

Walter et al (2003) present a number of key practices that affect the impact of research on practice. Many of their findings come from a multi-disciplinary perspective which allows them to be translated into a variety of contexts. Based on their review of the literature, the authors suggest the following practices to improve the use of research in practice. In these suggestions the use of a third party or other facilitation strategies are proposed:

- Research needs to be translated for targeted audiences so the findings can be adapted in different contexts;
- Individuals who are enthusiastic about the uptake process are essential to help facilitate the process of research impact. Personal contact and communication are effective practices.
- There is strong evidence to suggest that when research is endorsed by people who have credibility in the field then there is a higher degree of transfer.
- Research has its best chance for affecting practice when there is integration within organizational systems. All key stakeholders need to be involved for implementation to happen (p. 30).

Facilitation or third party access can be a very useful element to overcoming the barriers that originate because of the characteristics of the research or the characteristics of the user and organization. Wilson et al (2003), set out to determine the role Local Education Authorities (LEAs) had in the use of research. The researchers used an online survey to all English and Welsh LEAs, case studies of eight LEAs, focus groups of teachers and school leaders, and an
online survey of head teachers. Their findings suggest that because teachers and head teachers do not have the time or expertise to access research directly, and because research is not always presented in a form that educators see as relevant, teachers and head teachers rarely access research directly. Instead, they rely on newsletters, research summaries, and web links provided by facilitators to access the research. The participants in the Wilson, et al study also cited training programmes as a way of accessing research. Moreover, the educators cited the importance of establishing a partnership between the Local Education Authority (LEA) and the National Foundation for Education Research (NFER) as a way to overcome to the barriers to research engagement.

The role of consultants and colleagues was found to be a major enabler for educators’ engagement in research in an Australian study of how research impacts on teaching practice. Figgis et al (2001) found that consultants played a helpful brokerage role in providing access to research and facilitating the process of research itself. The researchers also found that research was more likely to find its way into practice when the practitioner encountered research through a third party such as professional conferences, the Internet, and colleagues.

Concluding Comments:

In conclusion, the literature review has focused on several key areas that are central to understanding research use at a deeper level: how research is defined in the literature, the relationship between the user and the organization as they impact research use, and the role of facilitation as a facilitator of research use are all key areas. Understanding these constructs is integral when examining research use at the individual and organizational levels. Examining the user and the context are both important considerations in this research study. As well, analysis
of the literature suggests that there are a number of other factors impacting research use across multiple sectors. These key themes are used in the creation of the conceptual framework for this study.
CHAPTER THREE: CONCEPTUAL FRAMEWORK

It is important to understand that influence happens between and among all three of the factors (characteristics of the research, characteristics of the user and organization, and the role of facilitation), and when seeking to improve the impact of research on practice, attention is required in all three elements. The relationship between the elements needs further investigation and forms the basis of the conceptual framework.

**Conceptual Framework**

The impact that schools have on student achievement has been well documented (Stoll and Fink, 1996; Levin, 2008); however improving teaching and learning in our secondary schools in order to be responsive to the needs of all students, is a complex undertaking especially for individual schools to tackle in isolation. Using research-based strategies is becoming the expectation of policy-makers; however, thinking that teachers can do this without the structure and support from the district level underestimates the challenge. As Fullan (2007) states:

…it is at the individual level that change does or does not occur. Of course, in saying that change occurs at the individual level, it should be recognized that organizational changes are often necessary to provide supportive or stimulating conditions to foster change in practice (p. 39).

The focus for understanding the impact of research on practice requires exploring the phenomenon from both the individual and organizational perspective. The investigation of inhibitors and facilitators of research use, for individuals and within a system, are based on a growing body of empirical and conceptual research (Hemsley-Brown & Sharp, 2003; Wilson et al, 2003; Hemsley-Brown, 2004; Nutley et al, 2007). Given the importance of research-based practice in our current educational context, efforts to examine how to overcome the barriers to
build the capacity for research use within our schools, need to focus on three key constructs adapted from the work of Levin (2004), Rycroft-Malone et al (2002), Lemieux-Charles & Champagne (2004), and Nutley et al (2002). The CEA/OISE study, on which this study is based, proposes that knowledge and research use in schools depends on characteristics of the research, characteristics of the educators and schools, and the role of third parties facilitators (Levin et al, 2009). The framework for this study suggests that research use in schools depends on:

![Figure 3.1: Conceptual Framework of Influencing Factors on Research Use](image)

*Figure 3.1: Conceptual Framework of Influencing Factors on Research Use*
This study primarily focuses on the second and third components of this framework: Characteristics of the Context (User and Organization) and Role of Facilitation.

Examining how secondary educational leaders access information is the focus for the second part of the online portion of the study through an examination of knowledge claims. Knowledge claims are “concepts or ideas that we believe to be true and that inform our decisions (Levin et al, 2009).” The literature suggests that educators have little time or skill to access research directly (Wilson et al, 2003), but rather rely on versions of research they acquire through various methods such as external professional learning activities or networking. Attention to how system leaders, school administrators, and subject heads access research will be examined through this framework from the CEA/OISE Research Study (Levin et al, 2009):

Figure 3.2: Knowledge Claims Framework
The research knowledge is drawn from two areas of importance to secondary education improvements: student success and student pathways. There is a considerable body of research about the factors that lead to student success and contribute to higher graduation rates. Factors may include impact of student background, engagement level of students, school supports, achievement in courses, and a school’s ability to predict and plan effectively for student choices (Levin et al, 2009). Using this framework, the study examines school and district leaders’ familiarity and acceptance of research-based knowledge and the means by which they access this evidence.

As stated earlier, the conceptual framework of this study is based on the CEA/OISE study (Levin et al, 2009).

*Replication and Extension of CEA/OISE Research Study*

This research study attempts to describe effective practices that school districts and individual schools currently use to promote the use of research. The study will focus on the use of educational research and its relevance to secondary school improvement. The first concept to be explored will be school districts’ capacity for accessing and incorporating new knowledge into the organization. Secondly, this study is rooted in the need to explore professionals’ knowledge of research findings in a key area of schooling. This study develops our understanding of the way research is taken up in secondary schools and districts by replicating and extending recent work by Levin et al. (2009) in a research study conducted in partnership with the Canadian Education Association and the Ontario Institute for Studies in Education entitled, *Research Use and Its Impact in Secondary Education*. 
Dr. Ben Levin and Dr. Cresco Sa were the lead investigators in this ongoing study which began January, 2008. The CEA/OISE study was part of a larger project in which CEA worked with approximately 100 secondary schools from a network of ten school districts from across Canada examining secondary school change. The conceptual framework and the survey instrument for this study have been adapted from the CEA/OISE study in order to examine the phenomenon of research use within a school district in Ontario. An interesting finding from the CEA/OISE study was the large variance in perceptions within districts. The CEA/OISE study is one example of how to study research impact in school districts. The study is described in detail below.

**Purpose of the CEA/OISE Study:**

The CEA/OISE study is part of a larger project in which the Canadian Education Association (CEA) is working with a network of 10 school districts (approximately 100 secondary schools) that are interested in substantial change in secondary education. The study was conducted across 11 school districts in Canada in collaboration with two educational institutions, the CEA and OISE. The purpose of the study was to learn about the ways research is encountered and used to shape policy and practice in Canadian secondary schools. Specifically, the researchers were interested in answering the following research questions: (1) how do educators learn about research findings; (2) in what ways do the schools and school systems support or inhibit the use of research; (3) what knowledge do educational leaders have about some important research findings related to their goal of improving secondary schools; and (4) what interventions might most effectively and efficiently improve the availability and use of research in and for secondary schools?
Design of the CEA/OISE Study:

The CEA/OISE study was based on the framework developed by Nutley, Walter and Davies (2007), and Levin (2004) and discussed earlier. The study was organized into two phases:

**Phase 1** used a web survey to gather data from educational leaders (superintendents, principals and others with designated leadership roles in schools or districts) in the network schools and districts about their knowledge and use of research in these areas as well as developing a better understanding of the factors supporting or impeding this use. The first part of the survey looked at research practice and research related resources, events and networks within each district and was used to construct a typology of research culture in each district. This typology provides a useful organizer for examining the research-related activities undertaken within school districts, and is supported by the existing literature. The second part of the survey focused on educators’ knowledge about areas of importance to secondary school improvement that are well documented in research: success factors for students and student pathways/trajectories. Six knowledge claims related to success factors for students and student pathways/trajectories were identified. Respondents indicated their level of agreement with each claim, and also identified the sources of their knowledge about the claim.

The online tool was helpful in establishing opinions regarding research as well as activities associated with research engagement. The tool could be improved with a review of the descriptors used for each question. Ensuring that there is sufficient descriptive content to allow the respondent an adequate understanding of what the question is attempting to address could be considered as a limitation to the survey questionnaire. As well, unpacking the barriers to research use to eliminate the default to lack of time could have been accomplished by dividing the question into two: the first question would attempt to capture data regarding factors that
pertain to the individual while the second question could attempt to address organizational factors. Finally, the tool could have been strengthened if it attempted to collect data not just about the respondents’ engagement with research related activities and resources, but also about the type of use, or intended use, of evidence and research findings in their practice.

**Phase 2** set out to examine if it was possible to shift this pattern by certain kinds of interventions, particularly through creating organizational supports and incentives for consideration of research. The research team worked with schools and districts to create organizational supports that attempted to enhance the use of research in practice. The research also included a qualitative aspect by collecting data from conference calls and other interacting with the district regarding each intervention.

**Findings of the CEA/OISE Study:**

At this point, phase two of the study has not yet been completed, so the findings reported here are for phase one. 188 secondary school educational leaders responded to the survey in the initial phase of the study on research practices and knowledge claims relevant to practice from which the researchers created profiles of the research culture in each of the school districts involved in the study. Findings from the survey suggest that all six districts report a positive research culture with a number of features that support and promote the use of research, though there were significant variances in views on this point even within districts, and some aspects of research culture were better developed than others. The findings from the CEA/OISE study showed more similarities than differences among the school districts involved in the study, but large variations is perceptions of research activity within districts. The findings indicate that educators have a strong interest in research and evidence but, consistent with earlier evidence,
tend to rely on personal and informal sources for their knowledge of research. Districts report many practices to support research use, but other evidence suggests that the survey respondents overestimate the extent to which they use evidence in their daily work.

In terms of knowledge about empirical evidence on secondary education, the strongest identified source of knowledge across all six knowledge claims was from personal experience. It is also noteworthy that of the six knowledge claims in the survey, all of which have strong empirical support, there was general agreement among respondents for three of the claims but significant disagreement on the other three. For example, a significant number of respondents did not agree with the claim that failure early in high school was a negative factor that predicted eventual non-graduation, even though there is strong empirical support this claim.

Findings from the qualitative data collected in the second phase of the study, and supported in the literature, identify four themes:

(1) Research use is likely to be stronger where it is simultaneously supported by organizational structures and processes as well as culture;

(2) The nature and format of research material affects use;

(3) Facilitation is important; and

(4) The importance of linking research to action (Levin et al, 2009)

Concluding Comments:

In summary, the conceptual framework provides a very useful organizer for this research study. The themes that emerged from the CEA/OISE research provide a platform from which to understand the use of research in schools and across the school district chosen for this study. This study provides an interesting and noteworthy contribution by building on the findings of the
original CEA/OISE study and exploring the experiences in single school district. The study also addresses the gaps in the literature by seeking to understand research use at both the individual and organizational levels. Additionally, this study provides further insights into the barriers that leaders may face in creating the conditions for knowledge mobilization in their schools or districts.
CHAPTER FOUR: OVERVIEW OF THE RESEARCH DESIGN & METHODS

If we accept the importance of the use of research in school improvement, then it follows that we need to know more about the structures and conditions that are in place within a school district which influence the uptake capacity of leaders to use research. The conceptual framework used in this study, and supported through the literature, suggests that there are factors which influence the use of research within an organization. The study is designed to replicate a collaborative study conducted by a team of researchers from The Ontario Institute for Studies in Education, University of Toronto (OISE) and the Canadian Education Association (CEA) and described early in this proposal. This study is designed to extend the findings from the original study and gain insights into how research is encountered and used within a school district by secondary school and system leaders by combining both an online survey and interviews. This two-tiered approach allows me to find out more about why such a variance in the perceptions of research activity exists.

This study explores how educational leaders within a school district access, engage, and use research knowledge to impact policies and practice. The research questions that I set out to answer through this study seek to identify and describe current practice and develop an understanding of the factors which encourage or hinder the use of research.

The questions which guide this research are the following:

1. How do secondary school leaders access and use relevant research findings?
2. What are the main barriers to the use of research by secondary school leaders?
3. In what ways does the school district support or hinder the use of research?
**Research Design**

Two methods are used to collect data for this study: a survey of secondary educational leaders and a set of semi-structured interviews drawn from a sample of the respondents to the survey. The survey is a replication of the OISE/CEA study, while the interviews are an extension of that study to open new areas of inquiry. The qualitative aspect of the study is helpful in providing insights and clarifications to the data gathered in the quantitative portion. The qualitative research approach was added to the research design because the original study was not able to explain some of the interesting results of the survey, such as the high variance in views within districts. The qualitative component allows me to gain an understanding of the context through dialogue and exploration of the individual perspectives and experiences.

**Phase One** includes an online survey instrument (Appendix A) that was distributed to the system, school and teacher leaders (superintendents, principals and others with designated leadership roles) in secondary schools in the York Region District School Board. There are many advantages in using surveys in data collection. Surveys allow respondents to provide information at their convenience, answer the items in any order, make extra comments, or skip questions (Gall, Gall, & Borg, 2007).

As in the original study, the online survey instrument gathered data through both closed and open-ended questions related to the engagement with and use of research by educational leaders and their awareness of research knowledge in two main areas of importance to secondary school improvement:

1. **Success Factors for Students**: research on the current success and failure rates of students, and the factors that may influence the likelihood of graduation.
2. Student Pathways: research on the short and long-term destinations of students and the pathways to reach those destinations.

**Phase Two** expands the data collected through the survey and provides more information about the issues identified in the survey. Through detailed interviewing, narrative data was gathered to learn about participants’ experience through a process of reflection and analysis. I am interested in how the educational leader participants make sense of their world and their experiences (Merriam, 1998).

Qualitative research provides insight into people’s lives, their stories, and behaviour and it also provides an opportunity to examine organizations and relationships (Bouma & Atkinson, 1997). That is why a qualitative aspect of the study has been added that extends the CEA/OISE study. Merriam (2001) quotes Patton (1990) who pointed out that the most common form of non-probability sampling is that which is “purposive” in nature. Patton explains that purposive sampling “is based on the assumption that the investigator wants to discover, understand and gain insights and therefore must select a sample from which the most can be learned” (p. 62). The qualitative component of the research study consists of a semi-structured interview to probe for further insights into the respondent’s experiences with research in the school district.

Each respondent in the initial phase of this research study was given the opportunity to indicate if he or she was willing to engage in an interview with the researcher. It was made clear to all participants that they could choose to participate in only the online survey and not the follow up interview. The CEA/OISE study found that there were wide variances in the perceptions within districts. Using interviews for this study allows me to learn more about why such variances exist. The outcome of this qualitative study is descriptive and conveys a broader
and deeper understanding of research use and supportive research practices within one school district.

**Sample**

This study examines practice in a single school district in Ontario – The York Region District School Board. The school district has been chosen based on accessibility to the researcher and the size of the district, as well as the efforts that have been made in the district over the last years to build more awareness of and use of research. York Region is the third largest school board in Ontario. York Region continues to be in a period of growth and has opened 73 new schools since 1999 and completed major additions to 38 other schools to meet the rapidly increasing demand for classroom space. As of October 31, 2008, the York Region District School Board serves 113,000 students, 74,000 elementary students and 39,000 secondary students. There are thirty-one secondary schools in the school district serving suburban, small town and rural neighbourhoods with a wide array of racial, ethnic and cultural groups. Appendix B lists York Region secondary schools and their current enrolment.

**Personal Connection to the Study:**

I am a principal in the York Region District School Board. I currently work in the Leadership Development department. The focus of the work in Leadership Development is to promote research-based practice and to build the capacity of school leaders across the system. The primary focus is working with elementary and secondary school leaders in the implementation of the School Effectiveness Framework. Leadership Development supports professional learning for aspiring and current leaders, and the implementation of the Board Plan for Improvement. I have been interested in learning about how schools link research to practice
through my work with schools. This research study will provide new insights that I can apply to my daily work.

**Phase One: Sample and Sampling**

During this initial phase of the study, the survey (Appendix A) was distributed through York Region District School Board distribution lists. As in the CEA/OISE study, the intended respondents in this study include superintendents, secondary school principals and vice-principals, subject heads, curriculum coordinators and administrators with responsibilities for secondary schools, and others with designated leadership roles in secondary schools and across the system. The survey did not gather personal information about the respondents other than the standard demographic data such as age range, gender, years of experience, and advanced education. It was administered online through Survey Monkey to ensure anonymity. The electronic survey has features to ensure that nobody can identify who has completed or not completed the survey. Participation in the research study was voluntary. In all categories of participation, there were a number of possible respondents. The breakdown of potential respondents based on role or responsibility:

- Superintendent: 5
- Principal: 31
- Vice-Principal: 58
- Curriculum Coordinator/Administrator: 5
- Subject/Department Heads: 465 (estimation based on 15 at each of the 31 secondary schools)

Once permission from the York Region District School Board was obtained, potential respondents were asked to participate in the study via inter-board e-mail. A copy of the content of the email invitation to participate is included in Appendix C. The email invited staff to access
a confidential web site linking to the survey and included a detailed explanation of how to complete the survey.

*Phase Two: Sample and Sampling*

The online survey requested participants to indicate their willingness to participate in a follow up interview. My email address was attached to the initial invitation email (Appendix C) and embedded in the online survey (Appendix A) to enable those respondents who are willing to participate in Phase Two of the study to indicate their intent to do so. The results of the Web survey provided a list of secondary educational leaders from which a sample could be selected. Three people responded to the online survey request to participate in the follow up interview so I needed to contact other possible participants. I wanted to have a representation from all geographic areas of the Board, so a vice-principal or principal from each secondary area was contacted and invited to participate. Also, no secondary superintendent of schools responded indicating their willingness to participate so I sent a personal invitation to a superintendent for participation in the interview.

At the completion of the study, the data will be shared with the Research Department in the York Region District School Board and with senior leaders who support secondary education including superintendents and school leaders. The Board is interested in gaining insights into how to make research more readily accessible and more frequently used to support improvement in student achievement.
The Survey Instruments

Instrument: Phase One

Since this study is a replication of the CEA/OISE study, the data from Phase One of this research study is based on the survey instrument designed by the team of researchers at OISE. The survey is divided into two sections. The first part of the survey contains questions that focus on research-related activities in a school or board that the literature identifies as having a positive impact on knowledge mobilization. Respondents were asked questions about knowledge mobilization strategies such as research-related events, products/resources, and networks that make connections among people and research. The survey also asks about the respondents’ experience with research use, specific school practices related to research, and the reporting and analyzing of various data sources. The second part of the survey focuses on four knowledge claims related to success factors for students and student pathways. A copy of the survey instrument is contained in Appendix A.

In terms of gathering enough data to answer the research questions, survey respondents were given the opportunity to provide additional information to supplement their answers in the way of descriptive comments. The researcher included these open-ended responses and used them as a basis for further clarification for the interviews in Phase Two of the study.

Bouma and Atkinson (1997) suggest that in the construction of questionnaires it is important to ensure that validity and reliability are adequately addressed. Face validity refers to the degree to which an instrument appears to measure what it claims to measure (Gay, Mills, & Airasian, 2006). Bouma and Atkinson (1997) note that reliability is different from the question of validity. A measure is said to be reliable if different researchers using the same measuring device would get the same results when measuring the same event (Bouma & Atkinson,
The face validity of the survey questions has been tested through the findings of CEA/OISE Study (Levin et al, 2009). A clear explanation of the key concepts was included in the survey to assist the respondents in understanding the concepts used to frame this study, specifically the definition of research use. This explanation was provided to ensure that all respondents had a common understanding of the concepts. In addition, respondents were encouraged to contact the researcher with any questions or in the event that they require clarification.

Knowing that a low response rate to online surveys poses a challenge for this study, I took steps to attempt to increase the response rate by limiting the number of questions in the survey instrument. Keeping the survey brief adds to the likelihood of respondents completing it. Also, targeting the participants and sending an email directly to each one as well as sending a reminder follow up email added to the response rate. Embedding a direct link to the survey in the original email to participants added to the ease of access and increase response rate. Furthermore, keeping the instructions brief, but ensuring each respondent understands that their responses will be completely anonymous, allowed respondents to feel secure about their participation and allow them to give their consent and quickly get into answering the survey questions (Jensen, 2009). These measures helped to increase the response rate of the online survey instrument.

**Phase Two: Instrument**

The instrument that was used in the second phase of the study was a semi-structured interview guide (Appendix D) to be used with each interview subject. Questions were open-ended in nature and allowed participants the opportunity to provide descriptive detail of the concepts to be covered in the research questions for this study. The questions for the semi-
structured interviews were based on the responses from the first phase of the study. As stated earlier, in the original CEA/OISE Study there was a variance in online responses to factual information, such as whether or not the district had a research unit. The purpose of the follow up interviews in this study provided clarification to the data collected in Phase One and to explain any variance in responses.

Procedures

Phase One: Procedures

It was important to gain permission to conduct research in the York Region District School Board. Once permission was obtained, I sent out the email invitation to the potential participants using the distribution list in the Board. The URL to access the online survey was part of the letter of participation. Respondents indicated their consent to participate by answering “yes” to the first question of the survey. When the respondents answered “yes”, they proceeded with the remainder of the survey. If the respondents answered “no”, they were redirected to the end of the survey.

Phase Two: Procedures

Once the data from the initial phase was analyzed, and themes identified, phase two of the study began. Respondents from phase one indicated their willingness to participate in the second phase, I then invited those that indicated their willingness to participate to participate in a follow up interview, and I sent out requests to four other principals vice-principals and one superintendent of schools to invite them to participate in the follow up interview. Everyone, to whom I sent a personal request, accepted the offer to participate in an interview. The principals and vice-principals interviewed also participated in the online survey. I allowed the interview
participants to choose if they would like to have a telephone interview or a face to face interview. All participants requested a face to face interview and I allowed them to choose the location. Four of the six interviews took place in the office of the participant. The other two interviews took place in other Board locations for the convenience of the participant. I asked permission to tape their responses although and I indicated that some notes would also be taken during the interview.

During the interview process, I explored the concepts identified from the data analysis of Phase One and the results from the original CEA/OISE study which were part of the interview guide. Questions followed, but were not be limited to the questions outlined in Appendix D. Prior to starting the interview, I reviewed with the participant that he/she could withdraw from the process at any time. In addition, I tried to establish a positive rapport with the participant to maintain a comfortable interviewing experience. The interviews with the participants included questions based on the themes that emerged from the online survey. During the interview, I used the Interview Guide (Appendix D) to explore each question in depth. Each interview participant received a copy of the interview questions and concepts prior to the interview.

I provided an overview of the research study prior to the interview session and a few questions were asked about the study itself. Participants were generous with their comments and responded positively to the probing that was used to explore areas that required further explanation. There were no problems at all during the interview sessions, other than the occasional interruption that required a restatement of a question.

Upon completion of the interviews, I created detailed records of the interviews and transcribed each one which constituted the data for the second phase of this research study.
Once the data was organized and transcribed, I sent the participants their transcripts for review, clarification and/or additional comments.

I reminded interview participants of the provisions regarding anonymity. Names and school locations were used in the thesis to assure that individual participants cannot be identified.

**Data Analysis**

**Phase One:**

Descriptive statistics are essential when the objective is to find patterns and trends and describe the data in general terms. Data gathered through the online survey was analyzed through the online survey tool. SurveyMonkey was able to disaggregate the responses to assist me in analyzing each response to find emerging patterns and trends that address the organizational structures that support or hinder a research culture within the school board. The data from the online survey were analyzed to determine percentages, means, and standard deviations for each question on the survey. The items were analyzed to identify trends and patterns based on overall responses, by role, gender, and years of experience. The data from the knowledge claims section of the survey were analyzed to determine the sources of information used by educators. An essential component of the analysis from phase one is a comparison with the original CEA/OISE study.

Data gathered through each question was analyzed and displayed through graphs as a visual representation and a written description accompanies each data display.
**Phase Two:**

Phase two was a qualitative study involving three principals, two vice-principals, and one Superintendent of Schools in the York Region District School Board. Interviews were audio taped and transcribed in full. Participation were given an opportunity to read a typewritten transcript and offer further comments or corrections prior to the completion of the data analysis of the study. Two participants elaborated on comments they made. Field notes were made for each interview.

Each transcript was transcribed by me and then coded for common themes or patterns that emerged. Research questions were used as the initial strategy for organizing the data. A thematic strategy was used to analyze the data. I made a conscious effort to look for new patterns by reviewing the transcripts on numerous occasions as the transcripts were reviewed repeatedly over several weeks. I sorted through the concepts as they emerged from analyzing the text, ultimately coding data and organizing it into categories. It is important to note that the research was not limited to the research questions and that I was open to the idea of new categories emerging from the data.

Meriam (2001, p. 164) suggests that coding needs to occur at two levels: identifying information about the data as well as interpretative constructs related to analysis. A computerized data analysis system was not used as I felt it would be best to deal with the data directly. As I read and reread the transcripts, I made notes, colour coded the data, and clustered the data in categories that emerged. The emerging themes were discussed with my supervisor to ensure that the data was analyzed from multiple perspectives. Specific participant language was coded and participant voice was included in the reporting of the data to capture personal experiences.

Although thematic analysis guided the initial portion of the data analysis, a “grounded theory” approach became important. Denzin and Lincoln (2000, p. 783) describe grounded theory as “an iterative process by which the analysis becomes more and more grounded in the data and
develops increasingly richer concepts and models of how the phenomenon being studied really work.” Small samples of the text were analyzed carefully. Key emerging phrases were underlined and highlighted. Potential themes were identified by pulling real examples from the text. Denzin and Lincoln (2000, p. 522) contend that the initial research questions “may be concrete and descriptive but the researcher can develop deeper analytic questions by studying his or her data.” It was also important to ground the results of this study in existing research. Data was then connected to the conceptual framework and categories were created based on the existing literature.

For qualitative researchers, the challenge is that there are no straightforward tests to guarantee reliability and validity (Patton, 2002). Research is viewed to be valid if it addresses the questions that the study intended. This was accomplished by careful development of open-ended interview questions that were designed to elicit responses that would address the research questions for the study. These questions were carefully explained to each participant and opportunities for clarification were extended throughout the interview. It is important to note that the purpose of this study is not to make generalizations as the findings are specific to one school district.

**Ethical Considerations**

The ethics process required by the Ontario Institute for Studies in Education (OISE) was observed with diligence. When planning this study, ethical considerations were made to protect participants as well as the researcher. Interview participants were contacted by the researcher via an informed consent form (Appendix C). The consent form is a brief explanation of the study.
There was no perceived risk on the part the subjects. No mental, physiological, or social harm was likely to result from this study. As well, no aspect of this study would cause physical harm to the participant’s health, such as physical exertion. Furthermore, this study did not infringe on the rights of participants. This research did involve a topic that is likely to cause the participants emotional stress.

Participation in the study was voluntary and participants were informed that they did not have to answer questions they did not feel comfortable answering. The participants were also informed that they could withdraw at any time during the study and that they will be provided access to results. Participants were informed that records made of the interviews will be maintained in a secure location for one year after completion of the study, after which the data will be destroyed.

Steps will be taken to ensure the confidentiality and anonymity of the participants will be kept and they will be informed that the data will be stored securely. To guarantee the anonymity of the participants, numerical codes will be assigned to each participant. Numerical codes will help keep identification to a minimum when referring to individuals. All information stored electronically will be kept on a password protected computer belonging to the researcher. The data will not be viewed by anyone other than me and my supervisor.

**Limitations**

Several limitations of this study exist. My own biases and interpretations are a limitation and must be considered. In analyzing the data, I was cognizant of my own perceptions when considering the experiences and perceptions of others. As well, my leadership position in the York Region District School Board was considered. Although I have a position of responsibility within the system, I do not hold a position of authority for evaluation of performance of any of
the intended participants. Being aware that my position may have influenced the responses of the participants, I made every effort to make clear that my role in this investigation is as a doctoral student and not in my capacity as a principal in Leadership Development. Also, the survey instrument being used ensured anonymity of the participants. It was essential to inform the participants in the letter of consent (Appendix C) of the nature of the survey and the procedures in place to protect their individual identity.

One clear challenge was the use of self-reported data which is both useful and problematic. Using self-report as a method of data collection limits the interpretation of the data to espoused theory rather than observed practice or validation from the observations or reflections of others. However, such data are useful because they are richly descriptive (Merriam, 2005) and emphasize the importance of the participants’ views (Creswell, 2005). I collected the perceptions and opinions of teacher, school, and system leaders. There will be no confirmation from other ‘objective’ sources. However, there was triangulation through comparison with the views of other participants. Thus, the study was reliant on the participants’ perceptions and opinions as the sole source of data.

Another limitation that relates to self-report as the method of data collection is social desirability response bias. Participants may have felt pressure to answer the questions in a more favourable way. Using an online anonymous survey helped reduce the social desirability factor. Furthermore, the questions included in the survey construction were not of a sensitive nature. The identity of the participants were unknown to the researcher therefore the participants were more likely to provide unbiased answers to the questions.

Other limitations included participants having difficulty describing their experiences with using research. I provided a definition of research use to assist participants in gaining a deeper
understanding of the concept. In addition, participants had some difficulty recalling all experiences. Therefore, it was important to provide participants with prompts, examples, and suggestions of what may be perceived as barriers to research use as derived from the literature.

Another challenge was having teacher, school, and system leaders agree to participate in the study. Individuals within the school system are extremely busy and therefore every effort was made on the part of this researcher to be respectful of their time commitments and minimize the impact on participants’ workloads.

**Concluding Comments:**

The preceding chapter provided an in-depth examination of the research methodology used for this study. It provided an overview of the two phases of the study and detailed the limited use of quantitative data. Both data and analysis were created from an examination of experiences. The chapter outlined the study sample for both phases of the study, instruments used to collect the data, procedures followed, and a description of the analysis techniques employed. Finally, the chapter concluded with an overview of ethical considerations and limitations attended to in the study. The following chapters will provide the results of the study, discussion and analysis, and concluding thoughts on the impact of the study and possible future research options and suggestions for policy and practice.
CHAPTER FIVE: RESULTS

The purpose of this chapter is to present the results of the data gathered for the study. It includes key findings from the data gathered during Phase One of the study, the completion of the survey entitled Research Use in Secondary Schools (Appendix A). It also provides a thorough description of the findings that emerged from Phase Two of the study, the qualitative interviews. After analyzing the online survey responses, I was interested in how the interview participants described their personal experiences of engaging in and using research in their own schools and comparing the personal experiences with the findings from Phase One.

The chapter is presented in three sections. The first section deals with Phase One findings and begins by providing a brief overview of the purpose of the survey. Findings are organized according to the research questions and the conceptual framework outlined in Chapter Three. The findings from the online survey are presented and compared with the results from the CEA Study on which this study is based. The results focus on a few key areas:

- The overall perception of the importance of research in the district
- The ways that research is accessed and used
- Their opinions on certain research knowledge claims and the ways in which the knowledge was acquired

The second part of the chapter presents the results of the qualitative interviews that took place in order to gain a deeper understanding of how secondary school leaders acquire, think about, and use research with their staff. The third section presents the connection between the survey data and the interview data and presents the findings that corroborate each other and those that do not.
Phase One: Results – Online Survey: Research Use in Secondary Schools

Access to the online survey was distributed via inter-board email to a distribution list that included principals, vice-principals, curriculum consultants, curriculum coordinators, and subject heads. The subject heads group does not have an actual distribution list so the email was sent to each secondary school administrative assistant and to the principal of the school and asked to distribute to their subject heads.

The survey was intended to accumulate data regarding the ways research is accessed, shared, and conducted in secondary schools. It was also intended to gain a better understanding of the mechanisms in place, at the school and district level, that support or hinder research use.

Seventy surveys were completed online. The response rate represents 22% of principals, 26% of vice-principals, 40% of consultants/coordinators, and less than 10% of subject heads. No superintendents responded to the online survey. In the analysis of the relatively low response rate, it would appear that the lack of interest in participating in a research study about research use may be indicative of the low regard for research that secondary school educators in this district hold. Another cause for the low response rate may be related to one of the barriers to research use cited by the respondents – lack of time. The invitation to participate in this study needed to be strategically timed. There is an ebb and flow to life in secondary schools and for maximum participation, exam period, semester change over, and mid-year reporting all needed to be avoided to remove any time barriers. Another consideration is the lack of direct communication with subject heads. This school district has email distribution lists for secondary principals, secondary vice-principals, and superintendents, but does not have a direct distribution list for subject heads. For the researcher to extend an invitation to subject heads to participate in
the online survey, the email needed to go through the principal and/or the office assistant through the general school email. Perhaps this lack of direct communication to the largest potential participant pool contributed to the relatively low response rate. When looking at the achieved sample size as whole, generalizations can still be made as there is a representative sample of role, years of experience, and gender. The results have been broken down by characteristics: role, years in current role, highest level of education, and gender.

By Role:

Figure 5.1 illustrates the breakdown of the respondents by role. 7 (of a possible 31) principals responded; 18 (of a possible 65) vice-principals responded; 4 (of a possible 10) curriculum consultants/coordinators responded; and 37 subject heads responded. It is difficult to determine the total number of subject heads that received the survey, as there is not a direct distribution list for subject heads. Five respondents chose not to answer this question.

![Figure 5.1: Question 3: Survey Respondents by Role](image)
Years in Role:

Survey respondents were also asked to provide the number of years in their current role. Figure 5.2 shows the breakdown. Of the 70 survey respondents, 19% (n = 11) identified themselves as being in the role less than one year, 14% (9) one to two years, 25% (n = 16) three to five years, 24% (n = 15) six to ten years, and 19% (n = 12) more than ten years. Seven respondents chose to skip this question.

![Bar chart showing years in role](image)

**Figure 5.2: Question 4: Number of Years in Current Role**

Level of Education and Gender:

All the respondents have a university degree. The majority (51%) of respondents either have, or are in progress of completing, a Master’s Degree or above. 50% (n = 24) of the school administrators who responded to the survey either have a Master’s Degree or are completing a Master’s Degree. Level of education will discussed in the next section of this chapter as a contributing factor to research engagement. And finally, 63% of the survey respondents were female and 37% were male.

The results in Phase One are presented according to the Research Questions of the study:
1. How do secondary school leaders and teachers access and use relevant research findings?

2. What are the main perceived barriers to the use of research by secondary school leaders and teachers?

3. In what ways does the school district support or hinder the use of research?

This section will initially examine the topic of access and use of research activities. It will then address the issue of perceived barriers to the use of research.

Overall the respondents were strongly positive about the extent to which research is used in the district. 78% (n = 39) of respondents, either agreed or strongly agreed that “the important role of research was evident in the ways their districts related research to practice”, Survey results and follow up interviews showed some discrepancy; however, between the reported importance of research and actual research use. As well, opinions varied significantly by role. Only a small portion of principals and vice-principals (9.5%) either strongly disagreed or disagreed with the statement. The percentage was significantly higher for subject heads where 32% of subject heads (n = 8) said they either strongly disagreed or disagreed with the statement. Overall, 91% of school administrators either agreed or strongly agreed with the statement, while 63% of subject heads agreed or strongly agreed with the statement. There was no significant gender difference in the response. 75% of males (n = 12) answered positively, while 79% of females (n = 27) answered positively.
Figure 5.3: Question 6: The important role of research is evident in the ways we relate research to practice within this district:

When asked if the district has research findings and research resources posted on the website, only 4% of the respondents answered correctly. The Board external website does not post any research findings or any research resources on their website.
Figure 5.4: Question 7: All Respondents: “Does your district have research findings and research resources posted on its website?”

When the data is separated by role, 81 % (n = 17) school administrators (principals and vice-principals) said that the district has research findings and resources posted on the website. 19 % (n = 4) did not know, and no one responded “no” to the question. Five people skipped this question. Subject heads’ responses were more closely aligned with the fact that the Board does not have research posted on the website. Figure 5.4 shows the subject heads responses. 36% (n = 9) responded yes; 8% (n = 2) responded correctly, no; and 56% (n = 14) responded “don’t know” to this question.
Figure 5.5: Question 7: Subject Heads: “Does your district have research findings and research resources posted on its website?”

More differences between respondent groups appeared when asked if “the district has joint research projects with universities and/or community organizations”. 52% of subject heads (n = 13) responded ‘yes’ and 48% of subject heads did not know. The percentage for principals and vice-principals is significantly different. 100% of principals and vice-principals (n = 20) correctly responded ‘yes’. This may be linked to the liaison responsibilities that principals and vice-principals have in developing the partnerships with outside agencies and institutions. Principals and vice-principals are the decision-makers as to whether a research project will be conducted in their school and the research project usually only involves a small portion of the staff.

Accessing Research:

The literature supports the notion that access to research is a determining factor at both the individual and organizational level (Biddle, Saha & Anderson, 1995; Shkedi, 1998; Funk et
al, 1995). The following online survey questions addressed the issue of access to and engagement with research:

- How often would you say research is discussed in your district during the following:
  
  o In-school staff meetings
  
  o In-school department/program team meetings
  
  o Monthly area principals/admin. meetings
  
  o Networks
  
  o Board Meetings
  
  o Professional development events
  
  o Parent/community events

- In the last year how many research-focused events outside of your own district-sponsored events have you attended?
  
  o Provincial/ministry sponsored events
  
  o Professional conferences
  
  o Events sponsored by an educational institute such as a college or university
  
  o Events sponsored by another outside organization (special interest group, corporation, agency)
  
  o Academic research conference (e.g. CSSE, AERA, etc)

- The school district follows these practices:
  
  o Provides funds for individual to participate in research
  
  o Encourages/facilitates action research in schools and classrooms
  
  o Encourages research related professional development (graduate studies, conference attendance)
- Sponsors/coordinates research focused events (workshops, conferences)
- Provides opportunities for informal networking related to research
- Builds on ongoing relationships with external researchers
- Circulates research articles
- Provides staff with time to engage in research related activities
- Incorporates/links data to reporting (SPCI)

How often does your school district offer the following research activities/strategies:

- Research focused events (conferences, workshops, courses, professional development)
- Research related resources (books, articles, online sources)
- Other formal and/or informal networking opportunities (to connect with others for research related support, education, sharing of research)

**Frequency of Discussion of Research at School and District Level Events:**

Survey respondents were asked how often research is discussed during certain meetings or events at the school and district level. Results shown in Figures 5.6 and 5.7 show similar patterns in responses between school administrators and subject heads. Overall, the respondents suggest that research is discussed across different types of meetings. Participants reported that research is discussed more often at networks and professional development events than at in-school staff and department meetings. Also, monthly Area Principal Meetings rated higher as a place where research is discussed compared with in-school staff or department meetings.
**Figure 5.6: Question 9: Principals and Vice-Principals: How often would you say research is discussed in your district during the following:**

<table>
<thead>
<tr>
<th>Event Type</th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staff Meetings</td>
<td>5%</td>
<td>5%</td>
<td>0%</td>
<td>0%</td>
<td>5%</td>
</tr>
<tr>
<td>Department/Program Team Mtgs</td>
<td>5%</td>
<td>29%</td>
<td>14%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Area Principal Mtgs</td>
<td>33%</td>
<td>29%</td>
<td>19%</td>
<td>19%</td>
<td>33%</td>
</tr>
<tr>
<td>Networks</td>
<td>38%</td>
<td>33%</td>
<td>38%</td>
<td>48%</td>
<td>33%</td>
</tr>
<tr>
<td>Board Meetings</td>
<td>19%</td>
<td>5%</td>
<td>29%</td>
<td>29%</td>
<td>14%</td>
</tr>
<tr>
<td>PD Events</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>24%</td>
</tr>
</tbody>
</table>

**Figure 5.7: Question 9: Subject Heads: How often would you say research is discussed in your district during the following:**

<table>
<thead>
<tr>
<th>Event Type</th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staff Meetings</td>
<td>8%</td>
<td>8%</td>
<td>8%</td>
<td>8%</td>
<td>8%</td>
</tr>
<tr>
<td>Department/Program Team Mtgs</td>
<td>16%</td>
<td>24%</td>
<td>4%</td>
<td>4%</td>
<td>8%</td>
</tr>
<tr>
<td>Area Principal Mtgs</td>
<td>36%</td>
<td>36%</td>
<td>8%</td>
<td>16%</td>
<td>44%</td>
</tr>
<tr>
<td>Networks</td>
<td>36%</td>
<td>28%</td>
<td>24%</td>
<td>36%</td>
<td>16%</td>
</tr>
<tr>
<td>Board Meetings</td>
<td>4%</td>
<td>4%</td>
<td>4%</td>
<td>0%</td>
<td>4%</td>
</tr>
<tr>
<td>PD Events</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0%</td>
</tr>
</tbody>
</table>

*Figure 5.6: Question 9: Principals and Vice-Principals: How often would you say research is discussed in your district during the following.*

*Figure 5.7: Question 9: Subject Heads: How often would you say research is discussed in your district during the following.*
These findings are consistent with the results from the CEA/OISE Study, however, later in the chapter, when analyzing the knowledge claims data, the findings show that the participants consider PD events to be the least important source of information.

**Outside District Research Related Events:**

Most respondents reported attending at least one research-focused event outside of their own district-sponsored events in the past year. Very few respondents reported attending two or more research-related events outside of their district supported events in the past year. The subject heads are more likely to attend a professional conference (53%) than the principals and vice-principals (44%). Principals and vice-principals (44%) more often attend a Ministry sponsored event than do subject heads (33%). Academic conferences were the least attended events by both subject heads (14%) and principals and vice-principals (6%).

**School District Research Related Practices:**

The respondents to the online survey reported district support for a variety of research related practices. Overwhelmingly, the respondents indicate that the Board encourages involvement in action research (94%). This finding was also supported in the follow-up interviews. The respondents also positively reported that the Board encourages research-related professional development (86%).

When examining the results by role, there are differences worth noting with the responses from subjects heads compared with the responses from school administrators (principals and vice-principals). The most significant differences occur when asked about networking. 95% of principals and vice-principals responded that the Board provides opportunities for informal networking related to research. Only 46% of subject heads knew this. Another noteworthy gap exists when asked about relationships with external researchers (which is an ongoing practice in
this district). 95% of principals knew that the Board builds on ongoing relationships with external researchers, while 58% of subject heads said they didn’t know if this was happening. 95% of principals and vice-principals knew that the Board sponsors/coordinates research focused events (such as the annual Quest conference) and only 68% of subject heads responded ‘yes’.

The differences in the responses are illustrated in Figure 5.8: Question 11: Subject Heads’ and Administrators’ Responses: This district follows these practices.

Figure 5.8: Question 11: Subject Heads’ and Administrators’ Responses: This district follows these practices

Respondents reported that the district is more likely to offer research focused events such as conferences, workshops, and other professional development on a yearly or monthly basis.

According to the responses from the online survey, research related resources are more likely
made available on a monthly or weekly. As well, overall survey respondents indicated that formal and informal networking opportunities are made available on a monthly basis. It is interesting to note; however, that almost one third of all subject heads (32%) said that networking opportunities are rarely or never provided. This finding is consistent with the results from Phase Two of the study where the principals and vice-principals interviewed reported that subject heads were not usually the staff members who attended the monthly network sessions.

70% of principals and vice-principals, on the other hand, said that networking opportunities take place either monthly or weekly.

Figure 5.9: Question 14: How often does your school district offer the following research activities/strategies?

activities/strategies?
**Barriers to Your Own Use of Research**

When the participants were asked to comment on the barriers to their own use of research, it was not surprising that overall, time was cited by 89% of all respondents as a barrier. Time is a subjective factor, and may be a proxy for something else. However, time is also contingent on the priority individuals devote to the activity and the importance that is placed on the activity from the district. Time is also related to the second most cited barrier which is “lack of support at the school or district to facilitate engagement with research” which was cited by 36% of the respondents. Time and lack of support may be both red herrings to a broader-based organizational issue. These two barriers speak to the theme of organizational structures and culture which is addressed in the second phase of the study in more detail. Figure 5.10 illustrates the responses of all respondents. Each of the barriers listed was selected by some of the respondents.

![Diagram of barriers to research use](image)

**Figure 5.10: All Respondents: Question 15: Please choose the main barriers to your own use of research**
When the responses are broken down by gender, role, and years of experience in the role, it is interesting to note the differences in responses to this question. For all respondents, time was cited as the number one barrier to research use.

The most significant differences in the response to this question occurred when analyzing who chose lack of school or district support to facilitate the engagement with research:

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Females</td>
<td>23%</td>
</tr>
<tr>
<td>Males</td>
<td>60%</td>
</tr>
<tr>
<td>Two Years or Less of Experience in Current Role</td>
<td>47%</td>
</tr>
<tr>
<td>Six or More of Experience in Current Role</td>
<td>44%</td>
</tr>
<tr>
<td>Principals/Vice-principals</td>
<td>37%</td>
</tr>
<tr>
<td>Subject Heads</td>
<td>33%</td>
</tr>
<tr>
<td>Master Degree or Higher</td>
<td>46%</td>
</tr>
</tbody>
</table>

*Figure 5.11: Lack of school or district support to facilitate engagement with research*

Females and those in their current role for six or more years had lack of school or district support tied as a barrier with use of academic language and statistical analysis (44%). Another interesting difference is lack of interest as a barrier was not selected by any respondent who had a Masters Degree or higher or who was in their current role for two years or less.

Years of experience provided the most significant difference in the “Use of academic language and statistical analysis” barrier. 13% of all respondents who had two years or less experience cited this as a barrier, where as 44% of all respondents with six years or more cited this as a barrier. Lack of interest was the least cited barrier across all groups.

When asked about lack of skill in finding and interpreting research evidence the responses were similar across groups. The largest difference appears between roles. 26% of principals/vice-principals said they lack skill and only 4% of subject heads cited this as a barrier.
Table 5.12: Lack of skills in finding and interpreting research evidence

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Females</td>
<td>17%</td>
</tr>
<tr>
<td>Males</td>
<td>13%</td>
</tr>
<tr>
<td>Two Years or Less of Experience in Current Role</td>
<td>20%</td>
</tr>
<tr>
<td>Six or More of Experience in Current Role</td>
<td>19%</td>
</tr>
<tr>
<td>Principals/Vice-principals</td>
<td>26%</td>
</tr>
<tr>
<td>Subject Heads</td>
<td>4%</td>
</tr>
<tr>
<td>Master Degree or Higher</td>
<td>21%</td>
</tr>
</tbody>
</table>

Knowledge Claims Survey Responses

The online survey asked respondents their views of four statements regarding student success in secondary schools. Each statement was based on significant empirical evidence (CEA/OISE Study, 2009) and taken directly from the CEA/OISE Study. On three of the four knowledge claims, most of the respondents “agreed” or “strongly agreed” with the statement:

- Students who fail a single credit/course in the first year of secondary year are at a much greater risk of not graduating (77% agree or strongly agree)
- Disconnection and disengagement with the school culture and school community are major contributors to students leaving school ((91 % agree or strongly agree)
- The quality of teaching and learning in the secondary school is one key factor that influences student pursuit of post-secondary education (87 % agree or strongly agree)

One of the four knowledge claims was written opposite to what the empirical evidence tells us. This was done to avoid bias in answering the questions:

- The majority of students believe that secondary school prepares them well for post-secondary school life (42% agree or strongly agree) [Note that this a reverse phrased
claim; the evidence actually indicates that most students do not feel they have been well prepared (CEA/OISE Study, 2009)]

There was no significant differences in the responses to the knowledge claims based on role, years of experience, gender, or level of education.

For all the knowledge claims, respondents report multiple sources of information that support their views suggesting that many different information sources are being accessed and hold significance for the respondents. The following charts display the responses from the survey for the four knowledge claims:

Figure 5.12: Claim One: Students who fail a single credit/course in the first year of secondary school are at a much greater risk of not graduating

![Chart showing responses to the claim](chart.png)
Figure 5.13: Sources of Knowledge for Claim One

For this claim, over three quarters of the respondents (77%, n=37) either agreed or strongly agreed with the statement. There were a few respondents (17%, n=8) who disagreed with the claim. The importance of multiple sources of knowledge is evident in this question and all of the other knowledge claims as well. Personal experience is cited as an extremely or very important source. Colleagues and professional networks along with data collected in the school and/or district is closely behind. When disaggregated based on role, data collected is rated higher by principals/vice-principals compared with subject heads. The next most cited source of knowledge by principals and vice-principals is personal experience.

Of the respondents who responded correctly to the knowledge claim (agreed or strongly agreed, n=37), the importance of data collected in their school/Board was cited as the most important source of knowledge. Personal experience along with colleagues and professional networks was close behind as important sources of knowledge for these respondents. The
respondents who disagreed or was undecided (n=11) about the knowledge claim also cited personal experience as their first choice in source of knowledge for this claim.

**Figure 5.14 Claim Two: Disconnection and disengagement with the school culture and school community are major contributors to students leaving school**

![Bar chart showing agreement levels](chart1.png)

**Figure 5.15: Knowledge Sources for Claim Two**

![Bar chart showing sources of information](chart2.png)
Overwhelmingly, respondents agreed with this knowledge claim (95%). Once again there were multiple sources of data reported by respondents. There was more equal distribution of the sources of knowledge for this claim with personal experience being ranked as the most important source of data. Colleagues or professional networks was ranked next followed very closely by research report, data collected in your school/district, and professional development event. Data collected and Research Report was more often cited by principals/vice-principals than other role groups, but principals/vice-principals listed personal experience as the most important source of data. Subject heads are more likely to cite colleagues, professional networks, and personal experience than other role groups.

When analyzing the positive responses to this knowledge claim, the results did not differ from the overall results. Of the 42 respondents who agreed or strongly agreed with this knowledge claim, 35 of them cited personal experience as a very important or extremely important source of knowledge. Data collected and colleagues or professional networks were tied for the second most cited source of knowledge. Only four respondents disagreed with this knowledge claim.
Figure 5.16 Claim Three: The quality of teaching and learning in the secondary school is one key factor that influences student pursuit of post-secondary education

The quality of teaching and learning in the secondary school is one key factor that influences student pursuit of post-secondary education. To what extent do you agree with the above statement?

Strongly Disagree Disagree Undecided Agree Strongly Agree

0.0% 4.8% 9.5% 47.6% 38.1%

Strongly Disagree Disagree Undecided Agree Strongly Agree

Figure 5.17 Sources of Knowledge for Claim Three

The quality of teaching and learning in the secondary school is one key factor that influences student pursuit of post-secondary education. Please identify the significant sources of this information that supports your knowledge of this statement and indic

<table>
<thead>
<tr>
<th>Source of Knowledge</th>
<th>Not / Little Important</th>
<th>Important</th>
<th>Very / Extremely Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research Report</td>
<td>25%</td>
<td>25%</td>
<td>43%</td>
</tr>
<tr>
<td>PD Event</td>
<td>19%</td>
<td>32%</td>
<td>43%</td>
</tr>
<tr>
<td>Colleagues or Professional Network</td>
<td>17%</td>
<td>23%</td>
<td>55%</td>
</tr>
<tr>
<td>Personal Experience</td>
<td>6%</td>
<td>23%</td>
<td>70%</td>
</tr>
<tr>
<td>Data Collected in School / Board</td>
<td>23%</td>
<td>19%</td>
<td>38%</td>
</tr>
</tbody>
</table>
The respondents overwhelmingly agreed with this claim (86%). The sources of knowledge follow the same trend as the other knowledge claims. Personal experience is the highest rank source. Colleagues and professional networks are ranked next in importance. Research reports and professional development events are ranked next in importance. Subject heads put personal experience and colleagues or professional networks higher in importance than other sources of data.

Of the respondents who agreed or strongly agreed that the quality of teaching and learning in secondary school is one key factor that influences student pursuit of post-secondary education, multiple sources of were cited as being important. Personal experiences was cited as the most important source of knowledge. There was a relatively equal distribution between research reports, professional development events, and colleagues or professional networks. Of the six people who disagreed or was undecided with this knowledge claim, the sources of data were spread across the choices with no clear favoured source of knowledge.

**Figure 5.18 Claim Four: The majority of students believe that secondary school prepares them well for post-secondary school life**

The majority of students believe that secondary school prepares them well for post-secondary school life. To what extent do you agree with the above statement?

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Undecided</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.0%</td>
<td>28.6%</td>
<td>28.6%</td>
<td>38.1%</td>
<td>4.8%</td>
</tr>
</tbody>
</table>

0.0% Strongly Disagree, 28.6% Disagree, 28.6% Undecided, 38.1% Agree, 4.8% Strongly Agree.
For this claim there was disagreement about whether the claim is true. However, this statement was written as the opposite of what the empirical evidence reveals. There were 29% that disagreed/strongly disagreed with claim, 29% of all respondents were undecided, and 43% of respondents agreed with the statement. Personal experience follows the trend of the other knowledge claims with a large percentage of respondents who said that personal experience was anywhere from important to extremely important as a source of knowledge. Colleagues or professional networks ranked equally with data collected in school/district as the second most important source of knowledge. Interestingly, professional development events was cited as not very important at the same rate as it was cited as important and more often than very/extremely important. The largest spread of responses came from looking at responses based on years of
experience. 29% of respondents that have two years or less in their current role strongly disagree or disagree with the statement, 33% are undecided, and 39% agree or strongly agree.

Of the 28 respondents who disagreed with this statement, there were multiple sources of data cited. There was a very close distribution of responses across all sources and all levels of importance:

**Figure 5.20 Claim Four: Respondents who strongly disagreed with knowledge Claim Sources of Knowledge**

There were 20 respondents who agreed that the majority of students believe that secondary school prepares them well for post-secondary school life. The distribution of responses were spread across all sources of knowledge with once again personal experience cited as the most important source of knowledge by those that incorrectly agreed with this claim.

Overall, in terms of knowledge about empirical evidence on secondary education, the findings from this study align with the findings from the CEA/OISE study. The strongest identified source of knowledge across all knowledge claims was from personal experience.
Respondents reported weaker use of evidence-based sources, such as research reports and data collected. However, this finding differs from the CEA/OISE study where percentages for evidence-based sources of knowledge were fewer than a 40% rating for very or extremely important. In this study evidence-based sources range from a low of 24% for research report for Claim #4 to a high of 67% for Claim #1 for data collected in the school/Board.

It is also worth noting, that of the four knowledge claims used in this study, all of which have strong empirical support, there was general agreement among respondents for three of the claims. The fourth claim, which was written so people could disagree was not widely supported. In the CEA/OISE study, the Knowledge Claim 1, about failure early in a student’s high school career as a negative factor that predicted eventual risk for graduation was not widely agreed upon. A quarter of the respondents in the CEA/OISE study disagreed with the claim; whereas, in this study, over three quarters (77%) of all respondents agreed with the statement. This finding may be related to the work currently in place in the Board to examine graduation rates and risk factors.

In relation to the factors influencing respondents’ views of the knowledge claims, this study aligns with the original CEA/OISE study by having respondents report an array of sources of influence on their views. In the original study, where the responses to the knowledge claims were most in line with empirical evidence, respondents also reported more influence of research on their views. This finding is consistent in this study. In Claims One, Two, and Three, research reports and data collected have a higher degree of influence on the respondents’ views than in Claim Four (where is a little agreement of the claim). This suggests that engagement with research may be related to a greater understanding of secondary school teaching and learning as was the case in the original study.
In summary, the sources of knowledge that validated respondents’ answers to the knowledge claims are ranked below from most important to least important. The number in brackets is the ranking of the source from the CEA/OISE study:

1. Personal experience (1)
2. Colleagues or professional network (2)
3. Data collected in the school/Board (3)
4. Research Report (4)
5. PD events (5)

As in the CEA/OISE study, personal experience was ranked as the most influential source of data followed by colleagues or professional network.

Concluding Comments:

In summary, the results from Phase One provide insights into the three research questions that guide this study:

1. How do secondary school leaders and teachers access and use relevant research findings?
2. What are the main perceived barriers to the use of research by secondary school leaders and teachers?
3. In what ways does the school district support or hinder the use of research?

Overall there is a positive attitude about the value of research in this school district; and the findings indicate that school leaders and teachers have multiple access points to research. However, depending on your role, you are more aware of the diversity of opportunities to engage with research. It appears that principals and vice-principals are more aware of opportunities to
engage with research than subject heads. Subject heads were unaware of the deliberate research-based activities such as partnerships with universities and research-focused events/conferences that are offered in the board. Also, almost one third of subject heads did not know about networking opportunities where research is shared. This is an interesting finding considering that there are many monthly networks occurring in the board where research is shared. Staff from secondary schools is involved in literacy teacher networks, student success teacher networks, area administrator networks, and “Positive Climates for Learning” networks. The information that is shared at each of these networks is research-based. This finding will be discussed later in the Phase Two section as it pertains to the involvement of subject heads in networks and the instructional leadership in secondary schools.

In addressing the second research question, the findings indicate that the main perceived barriers to research use are time and lack of support from the school and district. Time was overwhelmingly cited as the greatest barrier to research use. As the results from Phase Two will indicate, time is a complex factor that appears to be connected to both individual choice and organizational expectations and support. Interestingly, lack of skill in finding and interpreting research was cited by 26 % percent of principals and vice-principals, but only 4 % of subject heads think they lack the skill to find and interpret research.

Finally, the findings provide some insights into how the district supports research use. The respondents had positive responses when asked about the support for action research and research-based professional development events. Knowledge of district research-related practices however was much more familiar to principals and vice-principals than subject heads: an issue that will be addressed later in the study.
Phase Two: Results – Interviews: Research Use in Secondary Schools

As a follow up to the online survey, participants were asked to indicate their willingness to participate in a follow up face-to-face interview. Participants in the follow up interviews included three principals, two vice-principals, and one superintendent of schools. Interviews were completed over a four week period. Most of the interviews took place in the respondents’ own schools, behind closed doors, in the respondent’s office. Interviews were completed in just over an hour or less, and all were tape-recorded for later, verbatim transcription. One interview took place in my office, and one other interview took place at another Board Office location. All interview participants agreed that their interview could be recorded and transcribed. The results of the interviews are organized according to the three research questions and the conceptual framework that form the basis of this study.

All the participants were articulate in their responses and were able to answer each of the interview questions. The participants expressed very similar views regarding the importance of research in secondary schools. They had differences in opinion; however, regarding their perceptions of teachers’ views on research use. Most of the participants thought that teachers valued research, but one participant thought the lack of use of research by teachers could be attributed to the anti-intellectualism of teachers.

Each of the participants was provided with the definition of research use being used in this study so there was a common understanding of the terminology in the questions. Because the definition was provided to the participants ahead of time, when each of them refers to access to and engagement with research, I believe they are all discussing the same constructs.

The first research question addresses access and use of research by secondary school leaders and teachers. All of participants spoke about their own experiences with staff accessing,
engaging with and using research. Throughout the presentation of the results, participant voice is used to demonstrate a point of analysis, but individual participants are not identified to maintain anonymity. The Phase Two results are presented according to the categories that emerged from a clustering of coded responses from the participants. The analysis shows that research is accessed and used in various ways. Highlights of the data include the indication that there are two distinct ways in which research can be accessed: school/area-directed and self-directed, as well as contributing factors that enable or inhibit research use in schools. This first section discusses the terminology that was used by the interview participants. The terminology may be unique to the York Region District School Board as it describes the structures and practices that are in place across the system. Defining the terms upfront will be useful to the reader in order to create some common understanding of terms that appear in the comments of the participants. All the participants in the study had a common understanding of these terms and used them easily throughout our interviews. As a staff person of the Board, I too have a common understanding of the roles, structures, and practices discussed therefore defining the unique terms was not necessary during the interview process.

The next section of the chapter describes how school and district leaders “push” research out to make research accessible to staff members. In this type of access, the administration of the school has a pivotal role to play in how staff members acquire and engage with research. The next section is a discussion of the findings that support access and use of research that is self-directed by individuals and their involvement is voluntary in nature. The final section of this chapter relates to the factors that influence the uptake of research, including context and culture, use of technology/electronic communication, role of facilitation, and leadership actions and expectations.
York Region District School Board Terminology

The participants use terminology that is unique to the school district. The terms used in the interview excerpts include practices and structures such as Literacy Collaborative, Learning Networks, Walk Throughs, and School Effectiveness Framework. The participants also talked about specific roles such as Literacy Teacher and Student Success Teacher. These terms are defined to provide clarity for the reader and an understanding of the established structures, practices, and roles that exist within the school district.

Literacy Collaborative:

The Literacy Collaborative (LC) is the comprehensive literacy plan for the school district. It is a district-wide structure that promotes research-based professional learning. The Literacy Collaborative provides a framework for change at the school and classroom level through core components including continuous improvement sessions, intensive support for low performing schools, literacy walk training, Literacy@School demonstration classrooms, learning networks, and a literacy learning fair.

The continuous improvement sessions (LCCI) are coordinated with external research partners from University of Toronto's Ontario Institute for Studies in Education (Retrieved from https://bww.yrdsb.ca/C13/C10/LiteracyCollaborative/default.aspx on July 14, 2010). The sessions are focused on building capacity in leadership, data management and change. There are three sessions throughout the year. The expectation is that each school will send a team of at least three consisting of a school administrator (principal or vice-principal) and teachers to the sessions.
Action Research:

Action research is a strategy that has been connected with the York Region District School Board’s overall literacy strategy for the past ten years. All schools receiving the intensive support of consultants from the Curriculum and Instructional Services department have been expected to have a team of teachers engage in action research based on a question of their own inquiry. Action research is described as a process of collaborative inquiry:

the process of collaborative inquiry involves school teams asking questions about how to improve practice at the classroom or school level. They develop data collection plans that will help answer their question. They collect, analyze, and interpret the data and then share their findings within learning networks and at the literacy learning fair held each year.


The practice of action research is documented in the literature as an effective strategy to encourage teachers to engage with research. Action research encourages inquiry into practice and is an approach that has the potential to link practice with theory. Cordingley (2009) and Figgis et al (2001) argue that action research is an effective strategy to make teachers more comfortable engaging with research beginning with their own.

Learning Networks:

Every school in the district is involved in learning networks. A learning network is a group of schools organized around an improvement focus based on an identified student learning need. Student achievement data is used to determine the network learning focus and the impact of the professional learning. The district has been working with external research partners,
Lorna Earl and Steven Katz to establish networks and evaluate their impact. Each learning network involves monthly sessions with superintendent of schools, principals, vice-principals, and literacy teachers attending. Learning networks have been in place in elementary schools for a number of years, but were just introduced in secondary schools across the district this past school year.

**Literacy Walks:**

Literacy Walks is a practice that involves principals and vice-principals visiting classrooms in their schools to observe literacy instruction. The objective of the “walk” is to learn how to best support the learning that takes place in classrooms. The district has mandated Literacy Walk training for all new administrators. Experienced principals and vice-principals may also participate in the training sessions. The four-part training sessions focus on understanding classroom practice, patterns and trends in a school, and the support that an administrator can provide to teachers and students. The program involves two sessions to acquire a framework for observing classroom practice and two sessions where administrators work to develop their coaching skills and refine their observation skills (Retrieved from [https://bww.yrdsb.ca/C13/C10/LiteracyCollaborative/Page%20Library/litwalkthrough.aspx](https://bww.yrdsb.ca/C13/C10/LiteracyCollaborative/Page%20Library/litwalkthrough.aspx) on July 14, 2010).

**School Effectiveness Framework:**

The School Effectiveness Framework (SEF) is a Ministry of Education resource. The SEF document outlines key classroom and school practices that are research-based. The district has created a SEF process that involves either a school self-assessment using the SEF document
or a district support visit to determine the focus for improvement. The SEF process also includes
the allocation of resources for teacher release time to provide professional learning during the
instructional day. The professional learning that is implemented is centered on combining the
knowledge of the teachers within the school with knowledge from theory and best practice
research to collaboratively create new knowledge about instructional practice.

**Literacy Teacher:**

The position of literacy teacher is outlined in staffing memos and the secondary
collective agreement. The role and responsibilities of the literacy teacher is outlined in
Appendix E. The literacy teacher is a member of the school’s leadership team and plays an
important role in the school supporting both teachers and students. One of their main
responsibilities is to promote and facilitate professional learning of staff in the area of literacy.
Their understanding of school and system data is essential and the expectation is that the literacy
will interpret data to build the assessment capacity of classroom teachers. Literacy teachers are
also expected to share and facilitate the sharing of exemplary practice across the whole school.
According to the role description, the literacy teacher is responsibility to “model and coach
research-based instructional approaches to improve students’ literacy achievement, emotional
safety, retention and transitions (Staffing Memo #9, 2010, p. 14).” The literacy teacher is also
expected to facilitate the engagement with new teacher learning resources and “bring key
messages and new learning back to support staff learning” after attending central professional
learning workshops and sessions. The literacy teacher is a facilitator of learning for the staff and
acts in a leadership role along with the principal and vice-principal. Each secondary school has
been allocated staffing to hire a .67 literacy teacher. A subject head may be assigned literacy teacher duties, but the assignment cannot exceed a third of their overall responsibilities.

**Student Success Teacher:**

The student success teacher is also a member of the school’s leadership team. Their primary responsibilities (Appendix F) are to support students at risk and to support staff in the delivery of research-based instruction that supports the needs of all students. Student success teachers are also expected to be proficient in using school and system data and building the capacity of staff to use data to better support students. Like their literacy teacher colleagues, student success teachers have the responsibility to provide school-wide professional development. They are expected to attend board-wide professional learning sessions and deliver the key messages and new learning back at the school. Student success teachers are meant to be liaising with other schools from across the board to share best practice. Each secondary school receives funding for one student success teacher to be assigned and subject heads are not permitted to assume the role of student success teacher, unlike that of literacy teacher.

**Research Question #1: How do secondary school leaders access and use relevant research findings?**

**(A) School and Area-directed:**

Accessing and using research can include a wide range of activities or understandings. Accessing research is about having an awareness or knowledge about research or connecting with research either with colleagues or on one’s own. It can also include sharing and
disseminating one’s own research or sharing synthesized research findings of someone else
(Wilson and Easton, 2003). In some schools, use includes connecting with research on an
intellectual level and relating it to one’s own practice; using research findings to change practice;
or it can mean conducting an original investigation such as action research (Wilson and Easton,
2003). The participants in this study view the access to and use of research as something that is
either engaged in by individuals because of self interest or because the school or district directs
the staff to be involved. When the participants discussed professional learning or professional
development, this is a form of accessing research since the schools and district are basing the
professional learning on specific research findings. Researchers such as Marzano, Stiggins,
Hattie, and Davies were among the names used by the participants in discussing the basis for the
professional learning in their schools.

All of the participants in the study commented on the challenges associated with research
engagement. One participant commented on the difficulty she has experienced at her school with
staff engagement with research:

Professional learning in this building has had a lot of stops and starts. We’ve had
literacy teachers in the past that have used lots of research, but it really didn’t spread to
the school that much.

Conversely, another participant articulated the strength of his team of teachers who lead
professional learning at staff meetings. He has worked at developing the informal leaders in his
building over the past several years so they are leading the learning:
Part of the move also for us was to have a purposeful focus on staff meetings being used only for PD and we married that in with our paperless system so that all the ‘admin-trivia’ stuff started to go out electronically. And the staff lead it.

Additionally, each of the school administrators in this study did note that staff meetings were the place where most research is accessed and discussed by teachers. Unfortunately, carving out time for professional learning that includes engagement with research can be challenging as noted by most of the participants. One participant stated in a matter of fact way:

So the most common standard structure I would say is through staff meetings that are based on professional learning. That’s not very time intensive. We usually have only half an hour. It’s always treading that fine line between how much do I want to get into the background and the research that supports it and how much do I want to get into the application and what the teachers can do with it.

Adding to this, a common challenge associated with the staff meeting as the venue for accessing and engaging with research is the notion of who has the capacity on staff to lead the learning. A participant captures this idea when she discussed the situation at her school.

So one of the things we have committed to among the admin team is that we would do professional learning at every staff meeting even if it meant that we would lead it because at this point we’re not ready, or we don’t have leaders to lead a full staff meeting.
During this research study, the participants were asked to volunteer examples of structures that had been created within their school to facilitate the engagement with research. Each participant was also asked to think about an initiative that had been introduced in the school that was based on research, and talk about how it was shared with staff and the process of integrating it into practice. The principals and vice-principals spoke about a variety of activities or structures that have been created in their schools to make research more readily available to teachers. In most cases, participants acknowledged that most uptake of research is done on an individual basis. Teachers will engage when they see the relevancy of the research to their own practice. Some participants commented on the relationship between relevancy and ‘buy in’ for teachers. One participant shared her experience with her staff when they were introducing some new professional learning. In order for the staff to ‘buy in’ to the new expectations for instructional practice in their classrooms, she decided to share the research that supports the practice. As she described to me, this approach was a risk. She felt she needed to share the research behind the practice.

But also, people here don’t always buy into, as at most schools, so what can we do? So at one staff meeting [I used a research study], The research I used was the Hattie meta-analysis to introduce this new direction of PD. Here’s sort of some research about things that matter and that have the highest impact and we don’t want to waste your time so we want you to be confident that the things we are doing in professional learning are things that will make the biggest difference, otherwise why would you spend your time on them. I want to give you one article. This is a meta-analysis that covers something like 895 studies. So this is the best information right now about what matters.
A solid body of literature exists that supports the notion that principals play an important role in shaping school culture and practice (Leithwood & Riehl, C., 2003; Fullan, Hill, & Crevola, 2006; Stoll, & Fink, 1996). This study suggests that principals play a key role in creating structures or processes that enable the acquisition of research knowledge. Interestingly, interview participants were able to volunteer close to thirty different activities or structures that are in place to assist with the engagement with research for them or their staff members. Figure 5.21 is entitled, *Accessing and Engaging with Research: School and Area-Directed*. It presents a comprehensive summary of the interview responses that show the involvement of school or system leaders in the creation of strategies to promote the access to and engagement with research. The list shows the raw data in terms of the number of participants that mention each item (number of participants in brackets).

<table>
<thead>
<tr>
<th><strong>Accessing and Engaging in Research: School and Area Directed</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Literacy Teacher or other staff presents at staff meeting (5)</td>
</tr>
<tr>
<td>• Action Research (4)</td>
</tr>
<tr>
<td>• Book Study (4)</td>
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<tr>
<td>• Heads’ Retreat (3)</td>
</tr>
<tr>
<td>• Leadership teams at the school (3)</td>
</tr>
<tr>
<td>• Board Partnership with Ministry research Project: Math Assessment Project (3)</td>
</tr>
<tr>
<td>• Literacy Teacher and School Initiative Facilitator (SIF) roles in school (3)</td>
</tr>
<tr>
<td>• Team attends Board professional learning activities (Literacy Collaborative) and brings ideas back to share with staff (3)</td>
</tr>
<tr>
<td>• Using school data (3)</td>
</tr>
<tr>
<td>• Admin giving out articles from personal professional reading (2)</td>
</tr>
<tr>
<td>• PD at Subject Heads’ meeting (2)</td>
</tr>
<tr>
<td>• Lunch and Learns (teachers come to learn about specific topic, voluntary) (2)</td>
</tr>
<tr>
<td>• Secondary Learning Networks (2)</td>
</tr>
<tr>
<td>• Professional Learning Library with resources staff can access</td>
</tr>
<tr>
<td>• Students involved in data gathering (surveys)</td>
</tr>
<tr>
<td>• Literacy Team created a video on effective instructional practice</td>
</tr>
<tr>
<td>• Curriculum Consultants</td>
</tr>
<tr>
<td>• Use of technology to access articles: Moodle</td>
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<tr>
<td>• On staff focus group</td>
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<tr>
<td>• Learning Centre: Board designated demonstration classroom within school</td>
</tr>
<tr>
<td>• Professional Learning Day</td>
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<tr>
<td>• Learning Networks</td>
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<tr>
<td>• Area Administrator Meetings</td>
</tr>
</tbody>
</table>
• Go to conferences and share back at staff meetings (2)
• Open Doors (2)
• Bring in outside experts (2)
• Align work with the School Plan (2)
• Literacy Development Team (2)
• Literacy Collaborative (2)

Figure 5.21: Accessing and Engaging in Research: School and Area Directed Activities

An interesting feature of this list is the absence of connection with researchers or research institutions even though results from the online survey indicate that respondents were well aware (96% of principals and vice-principals) of the partnerships that exist between the board and external researchers. Some specific examples from the list are highlighted below. Although results from the Phase One survey did not indicate that these activities were accessed by all teachers, the data gathered during the interviews show that the interview participants are actively engaged in promoting the use of research data in professional learning activities. For example, one participant commented on the creation of a professional learning library at his school where staff can access resources depending on their own interest. He shared the inspiration for doing this as the need to create “just in time” learning which created the need to have resources in place for teachers to access.

Staff Meetings:

All interview participants commented on the use of staff meetings as the forum for sharing research and other data related to student achievement and instructional practice. Although staff meetings are used for the presentation of research, several interview participants lamented on the lack of time available to them at staff meetings to engage the staff in professional learning. This finding from the interviews is supported from the online survey which rated staff meetings high in terms of where research is shared.

One participant talked about how they have structured their staff meetings:
So the first year was just about getting to know people and trying to facilitate how they can get involved like going out and coming back to do a presentation at a staff meeting. Then we moved away from staff meeting presentations to how are we planning our PD to be more purposeful.

One of the key findings that emerged from the data was the importance of creating a school-based team of teachers that would be part of the planning process and the presentation team at staff meetings. Another finding was how Literacy Teachers and Student Success teachers are essential elements in the facilitation of research engagement. Facilitation will be discussed later in this chapter. The importance of school embedded facilitators was discussed by one participant:

*We were more focused on finding experts within the school to teach people different skills whether it was explicit literacy, or digital literacy, or anything else. And that was the focus. We talk about building capacity for leadership and we know the best way to build capacity is have staff lead different things.*

The respondents in the online survey cited colleagues or professional networks as the second most likely source of knowledge behind personal experience. This is supported in the literature and the CEA/OISE study as well. The school leaders that were interviewed have all created structures within their buildings to accommodate this style of learning. School-based examples of this include Heads’ Retreats and Program Teams. Heads’ Retreats provide an opportunity for the school administration to gather all subject heads and other teachers in less formalized leadership positions within the school (Literacy Teacher, Student Success Teacher, and School Initiative Facilitator) to focus on professional learning and sharing of school data.
The objective of these Heads’ Retreats is to meet in an off-campus location for a full day of discussion and professional learning. The principals and vice-principals in this study commented on the marginalization of subject heads since the creation of other key leadership positions within the school, namely Literacy Teachers and Student Success Teachers. The interview participants felt it was important for schools to establish their role as instructional leaders within the school. Heads’ Retreats are forums for sharing research and expectations for the engagement with and use of research in each department in the school. One participant states the importance this way:

So we are cognizant that since the onset of Student Success and Literacy Teachers, schools have generally spent a lot of time building the capacity of those teachers to lead within the school and those are people that the current administration hand selects for those jobs. Department heads, on the other hand, are different because some of them we’ve selected and some of them we’ve inherited. We feel that department heads need to have their instructional leadership capacity developed as well so we have tried to give them a voice.

**Board/System Level Workshops:**

Another finding that is consistent with the online survey is the mixed reaction about the effectiveness of Board-level workshops and learning networks. Some participants found the learning networks to be an excellent forum for being exposed to new research findings and engaging in professional dialogue about what the research says. Research on assessment for learning has been a particular focus on network learning over the past year. Networks are a place to introduce relevant research to larger groups of individuals from a group of schools. In most
cases, one administrator will attend the network session along with two or three teachers. Most likely, the teachers that attend the network are the Literacy Teacher, Student Success Teacher, and one other interested teacher. This model does not always lead to transfer of knowledge back at school. As one participant points out:

And the research indicates that the two or three who go, the learning doesn’t get transferred to rest of the school. I know we do make an effort to not send lone participants to avoid that, but even so I think the transfer back at the school is very low.

On the other hand, another participant comments on the impact of the sharing from the network back at the school:

We picked the people for the Network. One is a math teacher, a History Head, and our Head of Library. So we wanted something fairly cross-curricular. They are all excellent instructional teachers and they all have good leadership skills so they were chosen for those reasons. And I think they’ve done some really neat stuff.

Participants commented on how, although with best intentions, the Board’s structures have added to the feelings of overload among school staff. One of the participants described the need to streamline the structures created to support professional learning:

It’s hard to get people to go to that right now because it is so repetitive of the same themes over the past two years. No one wants to go. I actually had a meeting last week with the three Network people just to say “we’re almost through a full year of Network learning, why are you doing this? Is it valuable? What are you thinking?” This is really just a sidebar, but my feeling is we are just caving in under the weight of all this stuff. Either we needed to have Literacy Collaborative or we needed to have a Network, but trying to do both is just killing us.
This comment addresses the notion of both time and support from the Board and school. The impact on individuals may not align with the intent proposed by the school and Board when initiating these activities. The Board sees itself as being supportive by offering these opportunities, but when the individuals who are supposed to benefit from them have differing opinions, it becomes counter-productive. This may be one explanation of why the second most cited barrier in the online survey was lack of Board or school support for research use.

**Administrator Learning Networks/Area Meetings:**

Another structure created at the system level is the learning opportunities provided to principals and vice-principals. Several of the participants talked about the value of their own administrator learning. One example of this is illustrated in Figure 5.22 which is a portion of a transcript from one participant:

(P) I really enjoy working in the (Area), because our Superintendent has set up a structure where the meetings are co-planned by a leadership team, but also by the school. Each month a different school hosts.

(I) Is this the Network?

(P) No, this is our administrator meeting. For example, we will have a planning meeting, and the host school and the leadership team will come together. The host school will talk about their focus. We have Curriculum Consultant, and we have people who are interested in theory as part of that team, we will propose, or the school will bring forward an article that we read and it’s posted to the Moodle (online discussion forum and sharepoint site) and we read it in advance. The administrators are expected to read it and then we discuss the theory in some way. And then the theory is then linked to the focus of the walk-through.

(I) That sounds very exciting.
That’s the best learning that I do.

Figure 5.22: Transcript of School Administrator

Each participant who indicated the learning they receive in their individual family of schools or area structures pointed to the importance of both the leadership of their superintendent and the valuable role facilitators play in sharing research. These area meetings and administrator learning networks are not optional. Attendance is mandatory each month. The format of the meetings; however, differ depending on the superintendent and the support from the leadership from the administrators involved.

These findings relate to the need to create organizational structures both in school and across the system in order to support the engagement with and use of research by individuals and collectively. This is consistent with the CEA/OISE study findings and the related literature on knowledge mobilization. A study commissioned by CUREE (NCSL, 2003), “Leading the research-engaged school: Why and how school leaders engage with educational research” supports the notion of providing school leaders with a variety of opportunities to engage with research and learn within networks of their colleagues.

While participants supported the need for organizational structures to enable the engagement with and use of research, they also reported the importance of the organizational culture. A positive organizational culture that values sharing of practice and learning from colleagues has a positive relationship with research use. The school administrators that reported a strong collaborative culture also discussed more structures in place to share and engage with research. This finding is consistent with comments made by Wilson, Hemsley-Brown, Easton, and Sharp (2003) in a report, “Using Research in School Improvement: The LEA’s Role”. The authors note the need for a supportive climate among other enabling factors.
(B) **Self-Directed/Voluntary:**

The next section of this chapter explores the data relating to self-directed activities designed to enable the access and engagement with research. What became obvious in the findings was that although principals and system-level leaders play an important role in creating the culture and structures to enable the access to and the engagement with research, most of the activities/structures listed in Figure 5.21(above) are voluntary in nature. Teachers and other staff members are able to choose to participate. Volunteerism; therefore is an important theme that emerged from the study. Many of these activities take place during the instructional day with occasional teacher coverage provided so classroom teachers can participate. Activities such as action research, Open Doors, Learning Centre classrooms, Heads’ Retreats, learning networks, and Literacy Collaborative are some of the activities that have been created in their schools or at the system level. Other activities created by the school, but take place during non-instructional time including lunch hours or after school and include, Lunch and Learns and book studies. These voluntary activities have the potential to engage teachers and administrators in accessing and sharing research. Unfortunately, because participation is voluntary, not all staff members choose to engage. The results from the online survey indicated that the top two barriers to research use were lack of time and lack of support at the school or district-level. It is somewhat surprising then to see that individual schools and the system provide both structures and time to participate, yet in many cases the involvement is left up to individual choice.

Data in this study brought forward examples of self-directedness when it came to accessing, engaging with, and using research. Staff meetings are mandatory, but all of the interview participants described other learning experiences that are voluntary for interested staff members. The study’s participants highlighted the following activities:
• Book study (6)
• Action research (some teachers have a choice to engage in Action Research)(4)
• Voluntary participation in school professional learning teams (4)
• Teachers will access research if they can apply it in their classrooms immediately (3)
• Lunch and Learn (2)
• Open Doors (2)
• Professional learning library with resources staff can access
• Teachers taking AQ courses or graduate courses
• Internet research by individuals

It would appear through the analysis of participant data that structures within schools can facilitate access to and the engagement with research. While the structures are important, individual choice appears to be of primary importance. The activities provided by the school bridge the divide between school-directed and self-directed learning opportunities. In most cases, the school administration provided the resources, created time to meet, but allowed teachers to choose whether to participate.

Action Research:

Action research is one example cited by four of the school administrators as an activity that is occurring in their schools. In each case, action research was being conducted by a small group of teachers based on their own areas of interest. Participation was voluntary and in some cases, based on teachers asking colleagues to join them in this inquiry approach. In one example shared by a participant, teachers were exploring the use of reflective journals by their students. The inquiry question was examining if the use of reflective journals by students lead to an improvement in achievement. One participant commented on a particular action research project in her school:

*Our Action Research Team is doing the value of reflective journals to improve student learning. And they do have some articles that they use, but there again it is a very, very*
small group.....They put a group together. They said who wants to do some action research and people volunteered.

And when asked if there is an expectation for this team to share their research findings with the rest of the staff, the answer was “no”.

One participant was very clear in recognizing the intentionality of the action research occurring at his school:

As far as how many are doing their own action research is was much higher the first three or four years because that’s what we kept pushing. What are you doing in your class, what’s your learning question? We had more the second and third year. We wanted to get more specific. Let’s use the concept of organized abandonment to get rid of stuff that’s not working. So right now we probably have six or seven on a staff of 65.

And when asked about the expectation for these teachers to share their research findings with the rest of the staff, the response was:

They share at staff meetings. They’ll share out at Program Team Meetings. And they’ll share out at Leadership Team meetings.

Contrary to this, one administrator, when asked about action research, said that there was no action research happening at her school because of the turnover in administration and the need to create a culture among staff that inquiry and change is needed. These data indicate that although action research is a research-based practice in many schools, the impact on daily classroom practice is minimal. In most cases the impact is restricted to the small group of teachers engaged with the action research project, and the lasting effects of the new learning is minimal. This finding was also shared by the superintendent of schools. He believed that:

action research had little to no impact on classroom practice.
**Book Studies:**

Another activity within the school-directed, but voluntary category is book studies. They appear to be popular activities at schools for introducing new ideas to staff and sharing research findings. The resources selected for the book studies could be classified as trade publications and covered a variety of topics. Once again, the choice of topic and title were locally determined and participation was voluntary. In some schools, book studies have grown over the years as a forum for learning about instructional strategies and a vehicle for exploring other educational issues. The enthusiasm for book studies was evident from the school administrators. Interview participants spoke of the success of their book studies:

*Every year we’ve done a book study. And we have 10 or 11 people involved. We meet every three weeks after school. And different teachers take on the role of facilitator. The last couple of years we’ve done gender-based books. And again we’ve had about 10 people each year. People have really enjoyed it.*

Even though each participant commented on the creation and facilitation of book studies, few participants could talk about the impact on classroom practice. Although the participants described the book studies in positive terms, the staff members who participate make up a relatively small proportion of the overall staff. The portion of staff that participates varies. One participant talked about having ten or eleven teachers participate out of a possible eighty teachers on staff (12% of the teaching staff), while another participant had twenty-seven people participate in their last book study which is approximately 45% of the entire teaching staff.

**Open Doors:**

In the knowledge claims section of the online survey, the respondents indicated that learning from their colleagues was an important source of knowledge. A very interesting trend
that emerged from the data in Phase Two of the study was the concept of “Open Doors”. Open Doors is a structure created in individual schools to allow teachers to visit each other’s classrooms in order to observe practice and engage in inquiry around an instructional question. It is not a Board mandated activity, but some schools have attempted to organize this format within their school so teachers can share practice and learn from their colleagues during the instructional day. One participant talked about the growth of Open Doors in his school:

*The first time we did Open Doors we had 6 participants which were all the people on the committee, but the last one we had just under 20 people in two different sessions.*

Not all participants; however, have experienced success with Open Doors. One participant described her personal experience of Open Doors:

*I don’t think people trust research, but their colleague they will trust. One of the things I’ve really tried to emphasize over the past year is that the most important, and probably, best learning you’re going to do is with each other, not with a specialist, not with a researcher. That’s why it’s important for us to visit each other’s classrooms so we tried to do Open Doors in the Fall. There were 1000 things going on and it wasn’t well attended. The teacher that chairs our A & E committee came in to talk with me yesterday. And she said, ‘I’m really having a hard time getting people to open their doors. They are reluctant to let their colleagues come in.’ You know how disappointing that is to hear because I have very deliberately built in things at staff meetings where*
teachers get up and talk about what they are doing in their classrooms and encouraged teachers to visit other classrooms, but they are indifferent.

This quote gives insight into this principal’s views about the relationship between teacher beliefs and culture. A very interesting finding that emerged from the discussion around Open Doors was the importance of having a culture of trust and collegial learning. This will be discussed later in the chapter. It is important to note that participants spoke of how valuable it is for teachers to learn from each other, but they also spoke about the need to de-privatize classroom practice and the culture that exists in their schools that make this difficult. As the participant above notes, teachers are reluctant to let their colleagues come in. So, although Open Doors appears to be a promising approach to enable teachers to learn from their colleagues, this is not a common practice across and within schools. Considering this and the findings from the Knowledge Claims in Phase One where teachers speak about the importance of learning from colleagues, it appears at this school that this is true only when teachers can make an individual choice to do so. Simply creating the structure (schedule and use of release days) to enable teachers to visit classrooms, does not guarantee participation by teachers. The study’s findings would indicate that a culture that encourages collaborative learning is essential.

Internet Research:

Interestingly, only one participant talked about the use of the Internet in accessing research. She noted in her school that most teachers are making use of Internet research:

Most teachers you talk to have all kinds of sites that give you information related to their subject area or technology sites. I do think they are using the Internet.
In fact in this case, the participant was equating using the Internet for classroom resources as an example of using the Internet for research. Clearly, seeking out classroom resources may not necessarily involve accessing research.

**Research Question #2: What are the main perceived barriers to the use of research by secondary school leaders?**

One of the key research questions of this study examines the barriers and enablers to research use. What was apparent in the analysis of the data that emerged from the interviews is that there appears to be common contributing factors that influence the engagement with and the use of research in a school. The experiences of the participants have been analyzed to address the second research question of this study. The themes that emerged have been organized into the following headings and include the importance of culture and context of the school, the relationship between leaders’ actions and expectations and practice, relevance of research to practice, the role of facilitation, the use of technology, and starting with a small group of staff before going to scale.

**(1) The Importance of Culture and Context:**

All of the participants made comments that directly related to either the context of their school or the culture within it. I use context to refer to the specific nature of the working environment – a large school, or a school that has experienced turnover in administration, for example. Many of the interview participants shared their thoughts about the influence of the context of their school. Turnover is an issue that many schools are facing. Turnover of teaching staff and turnover of administration are seen by the participants as barriers to research use. One participant spoke of the issue with having three new administrators in the building as a barrier to
moving things forward. She saw this as a barrier because each new administrator had their own perceptions of the value of professional learning for staff. She also believed strongly in the importance of building relationships in order to change practice and the time required to build those relationships. Each new administrator required time to make the connections with staff and establish their expectations for teacher learning.

Another participant commented on the decline in student enrolment leading to staff numbers being cut:

In a 6 to 7 year period, the population has almost been cut in half. We had 17 surplus teachers last year and now 5 or 6 this year. So you are having surplus people who are my age, no one new has been hired since 2002.

Other participants talked about the traditional organization of secondary schools. Some participants saw the structure of working in departments as a factor contributing to the lack of interaction with colleagues to discuss research:

The reality is in any secondary school that the most professional learning goes on in a workroom. And in some cases you have more than one department in a workroom and that leaves you with opportunities for some pretty rich professional learning. Yes, it’s true that some of it is really what you would call the collegial dialogue, but I think that some of it is really more what you would call that collaborative dialogue. So that is a huge strength. And it happens from the time people arrive in the morning until they go home when they leave at 4:30 or 5:00 at night. But, it’s the weakness because you are talking with the same people all the time. It’s one thing to talk with people and another thing to actually go in and watch their practice.
Another participant spoke of the organizational structures within her school that create a challenge:

_The school was built 20 years ago. It was built with department workrooms. I have teachers at this school who have been working for 10 to 15 years there and will ask me the names of other staff members who have been there for 5 or 10 years. It’s on three floors, it’s spread out. My school is very much silo-ed. And it’s very much subject-based._

In one way, department structure is clearly seen by the participants as a barrier to having staff share and engage with research collectively. In another way, traditional department structure could provide a natural learning community that could be a main vehicle for bringing research to practice.

Context can also be examined from the system level. All of these schools are in a system that has been recognized internationally for its innovation and improvement. However, at the school level, system standards and expectations can actually be a deterrent for some staff members. One participant talked about feeling like he was on a treadmill. Another put it this way:

_We keep loading, and loading, and loading on research that people may have time to read, and they are interested, but then it seems we are on to the next thing before a bulk of people have a chance to internalize, apply, reflect._

Balancing initiatives with the capacity at the school level to interpret and implement has a direct link to impact on practice.

Organizational culture has a lot to do with creating the conditions for building research take up capacity. Embedded in this theme is the notion that culture impacts how people work
together, use time, and the value individuals place on engaging with colleagues and trying new things. Almost all the school administrators interviewed indicated the need to “de-privatize” classroom practice. The importance of making practice transparent and the willingness to share and engage with colleagues has been widely written about (Sharratt & Fullan, 2009). Several of the study’s participants commented that they worked in cultures that did not support teachers sharing with colleagues:

    With Open Doors it’s a risk because it becomes very passionate in there so you have to have that safety built. You also have to be confident in your practice, and confident as a learner. A lot of our teachers who haven’t participated are the same people who over and over again don’t want to de-privatize their classroom. They don’t want to put themselves on the line. They think it worked for them 10 years ago, why can’t it work for them now.

Another participant indicated that individual willingness needs to work in combination with a strong collegial culture:

    I think as well it is a lack of time to appreciate good practice. And so people who might try things differently and are looking for affirmation of work or changes in practice and who don’t get that it’s often very discouraging. So you want me to try something and it’s working well, but do we even know what’s working well in our buildings? So here again that is part of the de-privatization that needs to happen. Our walls are walls in more ways than one. So the opportunity to celebrate with staff, the opportunity to celebrate good work when we see it, the opportunity to promote the transfer of knowledge and learning by having those open conversations and open doors is important.
One of the participants shared her insights into her school culture. This quote illustrates the intersection of many of the contextual and cultural factors:

*When I find something I will fire it off to a specific teacher that I think is going to benefit from it. So I do a fair bit of that because I’m simply trying to create a climate that says “research is important to us”. I think there is a level of anti-intellectualism in teaching and I wonder if it’s because people are feeling so overwhelmed that it’s a defence mechanism that says “well some researcher wrote that, let him try to deal with 32 kids in my class.” I think that is part of what is going on there. I think, very legitimately, it is “I just can’t take in one more thing after Differentiation, etc, etc.” I think people are genuinely, and sincerely, overwhelmed.*

**(2) Influence of leadership actions and expectations:**

This theme has emerged as several leaders recognized the impact of their leadership in engaging their staff with research. Leadership has been suggested in the literature as a key facilitator to research use. Walter et al (2003) make the case for the many functions of leadership, “leadership support needed to be provided at a sufficiently high level – strong and visible leadership, helped provide motivation, authority and organizational integration.”

Several of the participants in this study suggested the importance of both formal and informal leaders. Department heads, literacy teachers, student success teachers, and school initiative facilitators all play a critical role in the uptake of research. These data suggest that it is both the actions and beliefs of school leaders that impact research use.

Several participants spoke about the need to build skills of the school leaders to increase capacity for research use. Participants spoke about the need to build the capacity of both
department heads and other assigned teacher leaders (literacy teachers, student success teachers, and school initiative facilitators). In some cases, participants suggested that department heads have been marginalized and are not effective in using research because the school has not spent the time building their skills. One participant noted:

*I spend thirty percent of my day, everyday I’m in the building with the Literacy Teacher or Student Success Teacher.*

The implication of this statement is that this participant does not spend the equivalent amount of time with subject heads.

Another participant concurred and spoke about the need to build the leadership capacity of the department heads in order to make this group effective in being instructional leaders:

*We have found that our Heads, like in many other schools, feel somewhat disenfranchised. They feel disenfranchised for a number of reasons including losing the admin period that they used to have. They also feel disenfranchised given the significant acknowledgment that has been attached to new leadership roles in schools such as Student Success, Literacy, or what used to be the professional learning committee, and is now the School Initiative Facilitator and so on. And our Heads have expressed that they want to feel more a part of the leadership of the school. Part of the challenge is that they’ll say that, but they are also lacking in a number of skills. And they are now coming to terms with admitting that which is huge.*

In some schools, it is not just the department heads that lack skill. It is the administrators themselves who need to develop their skill in bringing in new ideas and leading implementation. One participant suggested that one of the challenges of sharing back at the school the research learned at network sessions is the lack of skill of the administrator attending the network session.
There is a need to develop administrator leadership skills as well as teacher leadership skills to lead the learning back at the school.

It would appear through the analysis of participant data that the relationship between leaders’ beliefs and actions can facilitate engagement with and use of research. The school administrators talked about their expectations of staff and themselves. One participant spoke about her experience with graduate courses as a catalyst for valuing research and linking research to practice. She believes strongly that administrator practice needs to be grounded in theory:

*I put all of my responses in the context of doing my Masters because I feel now I’m really well read as opposed to three years ago not feeling the same way. I think generally schools don’t place enough importance on theory so therefore, time is not created to study the theory. Administrators need to know the theory. They definitely do. Because if they don’t know the theory that’s when you get people saying, “but I’m always doing operational all the time”. And we are doing operational all the time. I mean that’s a given, but we’re also building the time, and it might be on a Saturday, or long after everybody is gone, or it might be through email or whatever, but we are also making the time to build in the instructional leadership part.*

This point raises the issue of where, if at all, graduate study comes into play as an explicit way to increase research use. It also illustrates the importance of how personal commitment can overcome the perceived barrier of time. This participant was able to articulate how she is able to find the time to engage in graduate studies, manage the day to day operations of a busy school and see herself as an instructional leader within the school. Overcoming barriers, it appears, is a function of priority and commitment.
In examining the enablers to research use and the impact on practice, a theme that emerged was the need for high expectations and holding people accountable for applying the learning in their classrooms. Other participants spoke about having high expectations and holding staff accountable:

*And it's having expectations and holding them to them. So one of [the principal’s] next plans is between now and the end of the school year is that [one of the administrators] will go to every department meeting and lay out our expectations in a small group setting. So we will communicate that you will try to use Learning Targets. You will engage in.... here's what we expect.*

Another participant described the deliberate process created at her school by the administrators. A focus group of teachers was created so the principal and vice-principals could share research with a small group of teachers before introducing to the entire staff.

*They’re getting the theory and there is always a link to practice. There is always a link between theory and practice. And there is always a take away task. There is more accountability in the focus group than the Heads group because we have more time with the focus group than the Heads group.*

As one participant expressed very clearly in terms of her approach to sharing research, her actions were very deliberate and based on her own belief in the importance of research:

*My approach with staff is I try.... I hate it when people stand up there and quote.... But I do try and throw out that “there is some research that says” or “I read something really interesting” or I’ll read a line out of Ed. Leadership and say “this is interesting” so I’m...*
always dropping little pieces because I am trying to create this climate that says research is interesting and it’s important to do.

However, this participant does not feel that this belief in the importance of research is shared by her administrator colleagues:

As an observation, I will say that in my experience I don’t think that many of my colleagues do much professional reading. I can go home for an hour and do some reading... and I find it really interesting. I read Ed. Leadership. I always have at least one educational book on the go. I do a lot of professional reading, but I honestly don’t know any other colleagues that do that. I’m not saying they’re not, but we never really talk about it.

Overall, the participants spoke about deliberate actions that are based on their beliefs. The intersection of structures, culture and leadership is a function of the actions and beliefs of the leaders. For example,

The culture was created by providing the opportunities to identify who has ability to move forward and who wants to move forward. So the first year was just about getting to know people and trying to facilitate how they can get involved like going out and coming back to do a presentation at a staff meeting. Then we moved away from staff meeting presentations to how are we planning our PD to be more purposeful.

Although the data collected from Phase One of this study indicated that the use of research reports and professional learning events were not the main source of knowledge for the respondents, the data collected in Phase Two of the study revealed that leaders in this study are aware of current research. They were able to talk about specific research that they are trying to
incorporate into the professional learning activities in their schools, and it was acknowledged by one participant that this is essential for improving classroom practice:

*Having situations like book studies where you can use the research that is out there, especially when it has an effect size so you can see what impact is it really having and then being able to reflect on our own practice, deconstruct it with your colleagues, and move forward.*

In summary, the participants talked about staying current, coordinating leadership, and balancing top down expectations with the need to be directed by grassroots needs. This clearly relates to the earlier presentation of data regarding school-based structures and self-directed participation.

**(3) Time:**

Not surprisingly, connecting organizational culture to the use of time appeared in the participants’ responses as a contributing factor. The use of time; therefore, is another contextual factor that influences the uptake capacity of research. One participant suggests:

*...time is of the essence and I think the time piece also translates to a perception of a lack of support because if the time is not there to do the work then folks will not be as receptive to other changes that need to be embraced.*

The literature supports the importance of providing time to engage with the research. Ebbutt (2002) suggests that schools that have a well-established, embedded culture of research are able to provide the time needed to engage with research and to embed research in school practices so it does not become an add-on that takes extra time. As noted earlier in the chapter, time was cited by the online respondents as the number one barrier to research use. All
participants were able explicitly to connect the issue of time to research use in their schools. They talked about the timing of new initiatives, lack of time to work with colleagues, time out of their classrooms, time allocated at staff meetings for professional learning, and the time it takes new administrators to build relationships with teachers. One participant describes the impact of school culture on the use of time in her building:

*So in this building lack of time is something in everything, but there is a huge percentage in this building who work a very short work week and that’s become the norm. If you have kids under the age of 10, it’s assumed that you will leave by 3:30. So that is common. So if you are only going to work 35 hours a week then of course you are not going to have time. People who have time to do it are the ones who work 45 hours or 50 hours a week.*

This quote gives insight into one leader’s view that reveals the conflict between the norms and expectations that exist in a school.

The strategic use of resources to support the creation of time for teachers is described by another participant:

*Time is even more expensive than the funds. For us the SEF has been a godsend because we’ve used the SEF days. I would say most of our progress is a result of SEF because it gives us that kind of release time, and the nice thing is it grows. It becomes a part of the culture of the building.*

Another participant suggested that the issue of time is something that needs to be addressed at the system level. Time is linked to the number of initiatives and to the overall climate that exists in schools. When asked what the district could do to support the engagement with research, this participant offered the following:
Filter, not everything that is out there is worth bringing in. Not everything that is out there serves us well in terms of where we are currently. Not that it is bad, it’s about timing. The timing piece is what I think our Board needs to seriously rethink in terms of the number of things that we do to fill up our day.

Addressing time as a function of the context and culture is important in understanding the use of research at both an individual and organizational level.

(4) Relationships and Trust:

The study’s participants have highlighted for me that clearly, context and culture matter. Underlying many of the comments, it would appear, are not just the use of time, but also issues of trust and relationships. Trust can be a facilitator to research use and conversely the lack of trust can be a barrier. One participant felt that at her school lack of trust was not directed toward individuals in her school, but rather toward the research itself. She declared:

I don’t think people trust research, but their colleague they will trust.

On the other hand, a lack of trust with colleagues has been noted by several participants as a barrier in sharing practice within the school. It is imperative to promote an environment of trust so that teachers are willing to share their knowledge. As one participant stated:

On the one hand, we try to make provision for staff who feel the need to participate, but we are also working hard as a school to promote a certain kind of honesty in terms of doing our work. In other words we have to create a very safe space where teachers will admit their need for growth and admit their need for support and then take up on the offer.

Another issue brought forward by the participants is the need for trust in the leaders in the school. One participant put it this way:
I think the notion of trust in leadership is critical. When it is we get on the same page and we realize that we are about the same goal, whether our methods are different or not. You know it takes us to have conversations to recognize that we are on the same page and a lot more is happening in our school.

A finding that emerged when discussing the issue of trust is the need to develop trusting relationships. One participant was very clear in recognizing how the context of the school (large staff and new administrators) had an impact on implementing new initiatives. She summarized the importance of strong positive relationships as an enabler in the process:

Because when you are trying to affect change, and you are trying to build relationships at the same time, sometimes the two aren’t parallel. So sometimes you have to make a choice. And I think that choosing one over the other impedes progress over the other. Like for example, personally I think we are moving too fast in our change. I don’t think we have spent enough time building the relationships. I also wonder too if there is an optimum number for secondary staff. We have 107 teachers and we have 15 EA’s. It’s a big staff to move. And it’s also a big staff to build relationships with and the other part is that I might have built a relationship with you, but my co-VP hasn’t yet. So that can be part of the barrier.

This quote illustrates the complexity of managing organizational structures and organizational culture. To address the complexities, the data suggests that leadership has a role in creating a favourable culture to enhance uptake of research.

(5) Unionized Environment:

Another theme that emerged from the data was the barrier that exists by the politicized nature of secondary school teachers. Many of the participants expressed concern that their
efforts to impact practice were hindered by the collective agreement. One participant described her experience of staff calling federation to complain about an idea being introduced to staff. In this school, when a group, that included the school administrator and teachers, attended a conference and learned about using teacher moderation and then tried to introduce it back at school; teachers on staff called the federation to complain. The administrator described the nature of the complaint from the teacher by stating:

*It was a workload issue. “Why should we be marking the Literacy Teacher’s work?” They didn’t see it as a chance for professional dialogue even after we gave them the theory, there were still complaints.*

It appears that in this case some teachers use the collective agreement and the federation as ways to express their displeasure with school practices, and as the principal explained, this is a pattern of behaviour when any new initiative is introduced.

Another participant spoke about how the collective agreement has limited the time they can take at a staff meeting for professional learning as well as dictate the start and end times of staff meetings. She describes what happened at their most recent staff meeting:

*So at last night’s staff meeting, there was virtually no time for PD. So this was our staff meeting last night....(showed all the various presentations)...so for professional learning, we got to spend all about 4 minutes on it.*

This contextual factor also creates cultural operating norms for staff. The issue is not necessarily consistent across the district, but the principals in the study discussed the challenges of dealing with the federation with issues of professional learning.
(6) Participation in Graduate Studies:

51% of the survey respondents have completed, or are in the process of completing, a graduate degree. All of the administrators that participated in the follow up interviews have completed, or are in the process of completing, a Master’s Degree. It became clear during this study, that the administrators that were currently working on graduate studies, or had just completed a graduate degree, spoke positively about the use of research in their own leadership practices. Comments were made to indicate that involvement in graduate programs acted as a facilitator to research use in their daily practice. One participant stated:

*If I had not done my Masters, I would not know any of this stuff. What I was finding when I was doing my Masters was that I was reading the theory and I was going back to the school and saying, ‘this is what is happening here in the change process’.*

This finding is supported in the literature. As Biddle and Saha (2005) contend in their book, *The Untested Accusation: Principals, Research Knowledge, and Policy Making in Schools*, principals who have higher levels of educational qualifications, are more likely to use scholarly sources of knowledge and have more positive responses toward research.

Moreover, one administrator indicated that teachers who are engaged in graduate courses are more likely to come to her to access or discuss research as part of their course studies. Three participants talked about the engagement in graduate studies as an enabler for research use. What stands out is their personal commitment to using research in their own practice and an overall positive attitude toward using and sharing research with colleagues.
(7) **Relevance of Research to Practice:**

A recurring theme that emerged was the need to ensure that the research and the activity held personal relevance for the teacher. This appeared to be a significant factor in engaging teachers with research.

One participant commented on the significance of making the direct link to classroom practice when introducing new research:

*You know if they say, I have some new ideas about literacy, teachers go screaming in the opposite direction. But if you can come in and say, hey I’ve got some really neat Bitstrips thing you can do with your class, they’ll let them in to do that.*

One participant discussed the tension between relevancy and research:

*So for example, at our staff meeting yesterday we used one of the articles you sent us for our staff. But how often at a staff meeting do we say, “take the next 40 minutes and read this article and talk to colleagues about it.” Because we know when teachers do professional learning they want something they can use the next day. Which is something we can argue is not always the best form of professional learning, but when you are trying to appeal to that mentality versus spending the time disaggregating an article or debating the theory it seems the first always wins out.*

Relevance to practice is considered in the literature (Helmsley-Brown, 2004) to be a contributing factor in the engagement with research. Linking research to the needs of the user was also a finding in the CEA/OISE Study. The participants in this study concur and spoke about the need to bring accessible research to the staff that can be applied to classroom practice.
(8) Starting Small/Building a Critical Mass:

A further interesting theme that emerged was the idea of beginning with a small group of staff members and building a critical mass of teachers and administrators who are committed to using research as a strategy to engage with research. Each of the administrators related their experience of working with a small number of staff members in order to create buy in. One participant talked about the need to proceed slowly with the number of new research to introduce to the staff:

*That's why we want to go very slowly with this Stiggins’ stuff. I don’t care if it takes you a year and a half to do learning goals. We are not going to keep introducing a bunch of new stuff and research until we get this because that is the only way for us to see impact. And that to me is the only way they are going to buy into it is if they see that it works.*

Another participant talked about building the critical mass from a small group of interested teachers:

*So our plan for rolling that out is that we have two leadership groups to start with. One group is just a group of teachers that we have seen some leadership and promise in their practice. And we have made sure that their timetables all have a common prep and we bring in lunch for them and we do some professional learning once every three weeks. And we started with that group. It’s growing. It’s now at 14 and we started with 9.*

Clearly, administrators had mobilized both internal and external support to work with a critical mass of teachers. The notion of starting small and learning from this group is used in conjunction with the value of facilitation as an enabler to research use. The administrators held the belief that starting small is a high yield strategy that may lead to a tipping point among staff.
Research Question #3: In what ways does the school district support or hinder the use of research?

(1) Facilitation:

Not surprisingly, a theme that emerged from the findings is the key role that facilitation plays in supporting the use of research in schools. The literature also supports this finding (Cordingley et al, 2004, Figgis et al, 2001, Hemsley-Brown, 2004). In her article, “Using research to support management decision making within the field of education,” Hemsley-Brown (2005) discusses the important role facilitators play in accessing, linking and sharing research. The author states that “the greatest potential in the use of research is in helping management ask the right questions (p. 693).” Facilitators can assist in accessing, collaborating, and disseminating research.

The data gathered from the participants in this study suggested that facilitation can bridge the gap between school-directed and self-directed practice. All of the participants spoke of the importance of facilitation to assist with the sharing of research. Most of the participants stressed the need for staff to take the role of facilitator. In one case, the participant described the value of internal facilitators as they are aware of the needs of the schools and can be responsive to the staff:

Our literacy folks for example, created a video on effective classroom teaching practices from a student perspective and brought it to a staff meeting and said “this is what the students are saying”. And I have found that in our school that seems to work really well when it’s not a thou shall, but it’s a grassroots piece. Or it’s not a “here’s what the experts are saying” but rather “here’s what’s going on in our school”. We need to be responsive.
This supports the findings from Phase One of this study that found that for most of the secondary educators the preferred source of knowledge was their colleagues or their own experience. Facilitating the sharing of practice as well as research is an important role in this school. In this school therefore, there are clear expectations that the designated leaders on staff facilitate the sharing of research with the rest of the staff:

*Research and best practice drive a lot of what we do specifically around the professional development opportunities we provide for our staff. Our Literacy Lead presents work that is grounded in theory. Our School Initiative Facilitators promotes professional learning for the staff through our Program Teams and Subject Heads groups.*

The facilitation in this case, involved key individuals attending board supported networks and other learning opportunities and bringing back the key messages to support the professional learning focus in the school.

In another school, the facilitation came from the administration:

*So one of the things we have committed to among the admin team is that we would do professional learning at every staff meeting even if it meant that we would lead it because at this point we’re not ready, or we don’t have leaders to lead a full staff meeting.*

The administrators are building internal capacity for facilitation through a focus group structure where the administrators bring research to a small group of teachers and then this group assist in facilitating the discussion across other professional learning structures in the school:

*We do it with the focus group first and then we do the exact same professional learning with the Heads group, but we also have the advantage that some of the same people from our focus group are in the Heads group so we have a link so we have some people that can facilitate a little bit.*
Some of the participants talked about the need to bring in external facilitators to share research and assist the staff in engaging with research. The school administrators decided that outside facilitators would increase the impact of the message with staff:

*We try to vary the voices for huge impact. We have had to do some significant learning about where do we have the most significant yield for the investments we are making. And on occasion, we found that the internal voices can only go so far so we bring in voices from the outside who will reinforce some of the same messaging and who will perhaps be more formal of the integration of the actual theory and practice.*

In another school, the study participant spoke about the change at the school over the past several years to the point where teachers on staff facilitate all of the professional learning. They work collaboratively to bring learning back from network sessions to share with staff. It was a deliberate focus of the school administrators to cultivate this level of wide-spread facilitation:

*The big thing is building the relationships and identifying who your leaders are because if you don’t have leaders in the building, you can’t do it on your own. That’s the key piece. So you have to be able to identify potential.*

For another participant, the key facilitators on staff are charged with accessing and then sharing the research. He is not convinced; however, that this has had a huge impact on practice due to other barriers such as time and collective agreements.

*We send a team of teachers including our Literacy Lead and our Vice-principal who is most in charge of literacy development. We have a literacy development team in our school so membership of that team would go off to the Collaborative and bring back ideas and then seek to disseminate within the school. How much yield is there? I think it*
is somewhat limited. Again it is a question of time and we have collective agreements that get in the way.

At another school, the key facilitators were the curriculum consultants. The study participant spoke about the value of having the curriculum consultants come into the school to work with teachers.

*Although they were in and out of classrooms to an extent and although they presented at staff meetings, a lot of their time was spent with a core group. Like with the literacy teachers. With that sort of team… so it was intensive capacity building with 5, 6, 7, 8 teachers that is a critical mass. 1 or 2 people on staff who know everything is not enough. So it helped those people to have someone they could ask, get ideas quickly, who knew answers. Not that we’re not capable of finding articles or getting answers.*

Another participant described a similar belief in the value of consultant support in the school:

*The impact of having Curriculum Consultants in the school on a regular basis is tremendous because they are so knowledgeable. Even if they don’t have knowledge themselves, they have the connections to pull that stuff in. Once they build relationships within the building some teachers feel a lot more comfortable talking to someone who is not an administrator, someone who is not their boss.*

Curriculum consultants are a resource provided by the Board to support the professional learning in schools. Their own professional learning adds to the knowledge base of the individuals at the school-level. As facilitators they have access to a wide range of current research and they have the skills to facilitate the sharing of this knowledge. Not only do they act
as facilitators in schools, they also facilitate professional learning at the networks and other system-wide professional learning events.

(2) Use of Technology:

Another theme that emerged from the data was the use of technology as a point of access to research as well as a tool to share research to a broader audience. This is an area that appears to be underdeveloped by many of the schools in this study. The district can have a key role in providing the technology needed to support professional learning. As reported earlier, one participant discussed how her staff use the Internet to access research that is of personal interest to individuals. Another participant described how a group of teachers decided to use technology to share research findings:

*Our literacy folks for example, created a video on effective classroom teaching practices from a student perspective and brought it to a staff meeting and said “this is what the students are saying”.*

Although technology can be a powerful tool for accessing and sharing information, it was only discussed by two of the study participants during our conversations and was not referred to as a access tool beyond the school. In other words, the school administrators in the study did not mention using technology as a tool with their administrator colleagues or refer to its use at the system level for sharing research. The only reference to the use of technology came when discussing the use of data in decision-making. Technology is used to access school and system data in determining an area of focus for student achievement when developing school improvement plans.
Moreover, results from the online survey indicate that over one third (38%) of all respondents are unaware of research findings being posted on the website. The internal portal has numerous references to research findings and posts research on a sharepoint; however, these online references and resource tools were not mentioned by any of the interview participants as a source of research or as an enabling tool to encourage research with their staff. In this era of information technology, it appears that technology is an underused resource as a support for research engagement by schools and the district.

(3) Providing Opportunities to Engage with Research:

The participants, both in the Phase One online survey and in the Phase Two interviews commented on the opportunities offered by the board for staff to engage with research. Learning networks were mentioned by both administrators and subject heads in the online survey as a venue for discussing research beyond the school. The principals in the study spoke positively about the structure and usefulness of the networks as a source of information regarding research findings to bring back to the school. Most of the respondents spoke about the value of attending the networks and other board sponsored events because they appreciated receiving key messages and new and relevant research to support the professional learning in their buildings. Some respondents; however, expressed concern about the amount of time they were taken out of their schools to participate in these board-sponsored events.

Other opportunities to engage with research come from partnerships the board has with external researchers. One participant discussed an external research project her school is involved in with a focus on Applied Math. The research project is a joint venture with the Learning Partnership and focuses on specific interventions and strategies for students in Grade 9
Applied Math. The principal indicated that there have been positive outcomes in terms of credit accumulation and results on the standardized math assessment because of their involvement in this project.

Aligning the board research practices with the goals outlined in the Board Improvement Plan and with School Improvement Plans has allowed schools to find relevance in the board sponsored research activities.

**Concluding Comments:**

Taking both the quantitative and qualitative data into consideration there is a growing recognition of the importance of using research to impact practice. The quantitative data demonstrate a high regard for research in the district. The responses from the interview participants also indicate their own personal value placed on using research in their practice and introducing research to their staff through professional learning opportunities. Each of the interview participants could easily discuss how they have integrated research into their daily practice.

The online survey suggests that there is an array of opportunities for teachers and school administrators to engage with research. And, according to the respondents, the greatest challenge is finding the time to access the research. The findings also reveal that the although there is a high regard for research, research is generally not a priority in secondary schools and practice is based more on knowledge gained from colleagues or personal experience than from evidence-based research.

The data also reveal many factors that both enable and hinder engagement with research and research use. Findings include the importance of culture and context of the school, the
relationship between leaders’ actions and expectations and practice, relevancy of research to practice, the role of facilitation, the use of technology, and starting small in engaging staff. The importance of individual choice was overwhelmingly highlighted by each of the interview participants which leads me to believe that one can assume that building structures to facilitate knowledge mobilization does not necessarily equal knowledge mobilization. Even though each school represented in the both the quantitative and qualitative data collection provides multiple opportunities for staff to access and engage with research, the respondents acknowledge the challenge of engaging the entire staff. This finding speaks to the notion of that understanding the culture and context is an important factor that supports research use.

Overall themes, areas for further research, and implications for practice will be discussed in Chapter Six.
CHAPTER SIX: DISCUSSION AND CONCLUSIONS

In the preceding chapter, the data from the online survey of research use by secondary school administrators and subject heads provide description of the ways secondary school leaders access and engage with research. It also provides insights into sources of knowledge about key issues relating to secondary school student achievement and engagement. In addition, the results of qualitative interviews provide rich narrative detail that reveal further insights into the nature of the conditions and activities that are in place in secondary schools and across the district to facilitate engagement with research. The overall goal of this study was to examine how secondary school leaders access and use relevant research findings and what are the perceived barriers to the use of research. The study also set out to learn about practical strategies that districts can use to improve the take up capacity for research. Using the research questions to frame the data from school and system level educators, an overall picture of research uptake in one school district is presented in Chapter Six.

This chapter begins with a brief reflection of the significance of the study and a discussion of the themes that emerged in light of the research questions and conceptual framework. The chapter continues with a discussion of proposed areas that may be considered for future research and concludes with implications for practice in school districts.

Significance of the Study

This study set out to learn about ways in which research is accessed and used by secondary school leaders, and to examine the organizational levers at the district level to increase the use of research in secondary schools through the following research questions:

1. How do secondary school leaders access and use relevant research findings?
2. What are the main perceived barriers to the use of research by secondary school leaders?

3. In what ways does the school district support or hinder the use of research?

There have been very few empirical studies done that went beyond the individual level in an investigation of the factors that contributed to the uptake of research across a school district. The original CEA/OISE study, which this study partly replicates, presents clear evidence of factors that influence knowledge mobilization in school districts. It was anticipated that the qualitative and quantitative findings from this study would present some insights into the factors that influence the research culture within secondary schools and across an entire school district. The evidence from this study adds to the growing field of research and uses the experiences in one school district to verify and extend the findings of the original CEA/OISE study. Findings from the study also reveal practical implications for district and school leaders on how the processes for engagement can occur and can be supported to create the culture and the structures needed to facilitate research use in secondary schools.

**Main Findings**

The findings present an interesting narrative of the context and experiences in this school district. They provide compelling evidence that schools in this district, one which officially valued research, differ substantially in their engagement with and attitudes towards using research. While survey results indicate a positive attitude about the value of the use of research in practice, interviews suggest that the use of research is not widespread beyond a handful of staff members, and is influenced by a wide range of cultural and contextual factors. The findings from the study capture the complex challenges facing school districts when secondary school and
district leaders, as well as secondary teachers, have different ideas about research and how it is taken up. In this school district, there are several interrelated factors such as leadership, organizational structures and culture, and social interactions and facilitation that influence the uptake of research. One of the key facilitators of research discussed by the participants in the study was the role individual choice plays. Interestingly, the participants also highlighted the importance of starting small and building a critical mass of teachers before taking it to scale.

**Leadership:**

Leadership emerged as a significant influence on knowledge mobilization at the school and district level. Rorrer et al (2008) consider the function of leaders at the district level to be that of generating will and building capacity (p. 315). The findings from this study concur that leaders, both at the school and district level, have a significant role to play in generating the will and building the capacity in others to ensure the uptake of research. The findings suggest that the attitudes and actions of individual leaders varied across context. The school leaders interviewed had very different views about research use for themselves and for their teachers. The experiences of those who have embraced research activities were able to discuss the positive benefits for students and staff. The more effective leaders seemed to able to instil in others, at some level, a commitment, to engage with research. Supportive leadership is an essential element in encouraging engagement with and use of research by teachers and administrators. Supportive leadership includes having high expectations of those you supervise, but also providing the necessary resources and skills. The alignment of resources by system and school leaders emerged as an important function of leadership. In some cases, the participants were able to discuss how they coordinated the use of research and data with their school and district
goals. Three of the five secondary school administrators were able to align resources to address the barriers of time and support. When the discussion turns to not enough time, or too many initiatives, as a barrier to the use of research, this study illustrates the important role leaders play in overcoming these perceived barriers. Expectations and beliefs of leaders are contributing factors to research engagement and have a role to play in creation and support of a research culture and supportive structures. Setting research use as a priority at both the system and school level is a function of leadership and is a contributing factor to enable research use.

**Organizational Structures and Culture:**

Undeniably, structures and processes need to be in place so administrators and teachers can engage with research. The findings reveal that venues such as staff meetings and district-sponsored professional development events are examples of structures that are in place for sharing research findings with colleagues. The school leaders discussed various mechanisms that have been developed to facilitate the use of research by staff in their schools, including professional lending library, research-based video clips, focus groups, learning networks, and scheduled teacher visits. The participants talked about these structures not as stand-alone events, but rather, as interconnected opportunities to link practice with research that is aligned with the school and district goals. These formal structures require considerable resources such as time and personnel to plan, albeit, as the knowledge claim results indicate, these structures are not always the most impactful in encouraging the use of research.

Providing a process or structure does not necessarily guarantee that administrators and teachers will engage with and use research. What became apparent in the analysis of the data, is the critical role culture plays in research uptake. Fusarelli (2008) argues that “the professional
culture of many schools in which the 'good' and the 'popular' [are] valued more than the effective further mitigates the use of research in decision making (p. 366).” A culture that encourages individuals to seek out new knowledge actively and to interact with colleagues is an important component of research use. The literature supports this finding of the need to create an organizational culture that values and uses research (Funk et al, 1991; and Hemsley-Brown, 2004). Overwhelmingly, participants agreed that research use was attributed to both intentional, strategic structures and a culture that encourages de-privatization of practice and collaboration with colleagues. It is difficult, if not impossible, to isolate these factors from one another. Fullan (2002) argues that “focusing on information rather than use is why sending individuals and even teams to external training by itself does not work. Leading in a culture of change does not mean placing changed individuals into unchanged environments. Rather, change leaders work on changing context, helping create new settings conducive to learning and sharing that learning (p. 3).”

**Social Interaction and Facilitation:**

Related to this theme of structure and culture is the role social interaction and facilitation plays in knowledge mobilization. If culture came across as a barrier to research use in this district, then facilitation was used as a lever to overcome a culture of isolation and to create the conditions that encourages collegial inquiry into research. Much of the literature on knowledge mobilization (Levin, 2008; Cooper et al, 2009; and Cordingley, 2009) discusses the importance of peer support and facilitation by a third party as strategies for engagement. Facilitators can act as a scaffold for teachers to move from what they currently know and do to what is known in the research. Interestingly, all of the interview participants spoke about both internal and external
staff acting as facilitators. In the schools that had the opportunity to engage with curriculum consultants, coordinators, or leadership development staff, the administrators saw this as beneficial and encouraged wider spread use of curriculum consultants to act as facilitators. All of the school administrators also noted the importance of teachers facilitating and sharing their own research or research findings of others with colleagues through both structured mechanisms such as staff meetings, but also informal settings such as department work rooms. The importance of teacher to teacher interaction within and across schools is an essential element to understand if we are to be able to generalize research uptake across a district. Since the findings indicate that teachers value learning from their colleagues, school leaders and the district play a key role in supporting research engagement by building in time during the instructional day for teachers to work together accessing and making sense of research and data in order to relate them to their practice; and having curriculum leaders model how to facilitate research use. The development of skills within individuals to facilitate the sharing of research is critical to this process. These skills need to be taught by modelling, sharing, and guiding to create interdependent practice (Sharratt & Fullan, 2009). Facilitation skills include a repertoire of process tools that can be used to engage a group. Facilitators need to understand how to go beyond the presentation of information, to truly engage a group in the processing of the information to encourage understanding and use. Facilitators need to own the process not the content. As seen from the data, trust has a role to play in this process; therefore, careful consideration needs to be used when selecting the key individuals that will take on the facilitation role.

The participants also discussed multiple roles for the facilitator such as acting as a boundary spanner, providing research material, presenting/synthesizing research findings that are
relevant to practice, coaching and modeling, and creating norms and protocols that encourage engagement and use. As one participant commented, of particular value is the role that facilitators play in “helping teachers unpack and make connections” between research and their current practice. It is essential therefore that the knowledge and skills of the facilitator are strategically developed. Facilitators as boundary spanners seemed to have the least impact on research engagement at the school. Five of the six interview participants talked about the need to bring in new ideas through sending staff members out to professional development events, but as one participant commented that “the transfer back at the school is very low”. Another participant said that sending staff members out to professional development events with the expectations of presenting back to staff at staff meetings “was just a beginning”. Coaching and modelling seemed to have the highest yield for research engagement. Open Doors and demonstration classrooms support the notion of facilitated inquiry into the practices that are currently happening within the school. Facilitators are able to link current research with current practice and then share with colleagues.

_Individual Choice:_

It appears that differences in research engagement and use have less to do with district policies and practices than they do with individual actions and beliefs as well as situational context. This study found that research uptake in the York Region District School is dependent on the actions of individuals which indicates that the district practices and levers are weak and are not integrated into the daily operations of the schools. As Bredeson and Scribner (2000) contend, school level capacity is important, but individual will and commitment are essential.
Centrally, there is a strong focus on evidence-based practice and the delivery of system-wide, research-informed key messages; however, the uptake of research is not consistent across the district and is dependent on the capacity and context at the individual school level. Considering that “lack of time” was cited by 89% of all respondents in the online survey as the number one barrier to engaging with and using research, and “lack of support at the school or district level” was cited by one third of the respondents as the second most cited barrier, schools need to be explicit and intentional with the distribution of resources to support research use. Since research uptake is seen to be a matter of individual choice, then secondary schools and the school district need to create the conditions where there is easy access and incentive to engage with research. Just as Figgis et al (2000) found in the Impact of Educational Research project in Australia,

Something has to motivate educators to venture into the connecting web – some driver is required to energize them to seek new knowledge, to exert themselves beyond the demands of their daily work (p. 342)

It is therefore important for leaders to learn more about the capacities, motivation, and limitations of individuals in order to improve research use. An important consideration by school leaders and the district is to integrate research practice into the way things are done in order to counter the influence of individual choice.

Starting Small/Building a Critical Mass:

An additional related theme embedded within the facilitation of research use is the importance of building a critical mass of people on staff who are interested in the engagement with research as a necessary component of research use. Participants discussed the need to begin
with a small group of interested staff members before expecting full scale involvement of all staff members. Participants indicated that this was a strategy employed that had some merit over the long term, and in fact, was a catalyst for broader involvement with research and ultimately more effective use of research findings in practice. As a result of this approach school leaders and teachers, were able to build the research capacity of a small group of interested and motivated staff members. Where the administrators began on a small scale, the research-based activity grew over time and most importantly, became embedded in the day to day interactions of these staff members. The early adopters acted in a sense as role models and facilitators to the larger group, and were able to assist in the building of the positive research culture. This was seen at both the school and district level and should be considered a key driver in facilitating engagement with research. As Wilson et al (2003) concur:

A critical mass of teachers – who are actively involved in and committed to using research – can make a significant contribution to the development of an evidence-informed culture within their school and beyond (p. 20).

**Comparison with CEA/OISE Original Study**

The original intent of this study was to replicate and extend the CEA/OISE study, “Research Use and Its Impact in Secondary Education”. Where the original study surveyed school and system leaders in eleven school districts across the country, this study sought to go deeper in the examination of the research practices of one school district. Both the original study and this one used a mixed methodology approach. The original study had 188 respondents to the online survey from 11 school districts. This study had 71 online respondents. The original study included follow up interventions with nine school districts. The extension of the original study included in-depth follow up interviews with school and system leaders to gain a better
understanding of the barriers and facilitators to research use in secondary schools. Thus, the outcome of this study is largely descriptive in nature and provides a broad and deep understanding of research engagement and use in one school district.

The original study’s interim conclusions indicate that districts report a wide range of research activities. Survey respondents seemed to overestimate the extent to which they use research in their practice. It seems educators rely more on personal experiences and colleagues to shape their beliefs than they rely on research evidence. The results of this study align with the CEA/OISE results. In both studies there is a high regard for research by secondary educators. There was a misalignment, however between the reporting in the online survey of the level of research engagement and the data gathered from the follow up interviews. The online survey suggests that individuals access and engage with research on regular basis, however, in the interviews the participants described a much less robust interest in the use of research findings by secondary teachers.

There were a number of important themes that emerged from the CEA/OISE study including:

1. Research use is likely to be stronger where it is supported simultaneously by organizational structures and processes as well as culture

2. The importance of facilitation

3. The importance of linking research use to action

4. The nature and format of research material affects use

As the original study concluded, this study also found the link between research use and organizational structures and culture. However, the original study found that most school
districts lacked formal structures and processes for research use. In the York Region District School Board, there are a variety of formal structures in place both in schools and at the district level. The number of secondary educators who participate in these activities is limited though which corresponds with the original study’s findings of underuse of research activities across the districts.

Facilitation as a key driver of research engagement appears in both studies. Both studies found that for the most part, teachers do not seek out research on their own. Facilitators are needed to introduce teachers to research that will have relevance for their practice. Key individuals are also necessary to facilitate networking of colleagues which was found to be an important source of new knowledge from both studies.

The third finding of the CEA/OISE study is the linking of research use to action. Both studies concluded that if research is to be used it has be aligned with a plan of action and the school and district goals and priorities. The CEA/OISE participants and the York Region participants spoke about the importance of interconnectedness of research and school and board goals. School-based data drives what the focus will be in the school, and then research to address this area of greatest need is sought. In this case, research use is contextual and is dependent on the needs of individual schools. Limiting the number of initiatives at the school and district level becomes essential if the improvement effort is to be focused. Also, three of the participants in the York Region study described the practice of assigning “homework” when presenting research findings to a group in a hope that the expectation of immediately applying the learning to practice, and then reporting on the impact at a follow up session, would increase the likelihood of research getting used. One participant saw this practice as a way to build in accountability and commented on its effectiveness as a tool for linking research to practice.
Another participant was involved in being assigned ‘homework’ from the board level network session and being expected to act on it at the school level. This participant did not see it as an effective strategy as it is not integrated in regular practice:

> They get homework from the network and then they panic a week before the network session to do the homework. It’s not organic.

In this case, linking research to practice assumes the individual commitment to trying new ideas as well as the role leadership plays in holding individuals accountable for action and making connections to daily practice.

Finally, the fourth overall finding from the CEA/OISE study identified that research products are more likely to be used if they have been adapted to the needs of the user. In the intervention in the original study, executive summaries and reflective questions were provided to secondary educators in an attempt to increase engagement with research. The CEA/OISE researchers found that these interventions were successful and provided the lens in which to examine the research through their own context. This is an interesting conclusion, and one not directly investigated in this study. However, it is evident from the participants that when research findings are presented at area administrator meetings, learning networks, district-wide professional development events, or within their own schools, they are tailored to meet the local needs of the school or district. And for the most part, research is presented through articles from popular trade magazines, research syntheses, and presentations created by individuals. In each case the research product was chosen to appeal to the end user.
Implications for Future Research

Although a long list of future research projects emerge from this study, an attempt is made to narrow down the areas for future research. When the study was designed, the intent was to include all roles in leadership positions in secondary schools in both phases of the study. As it turned out, only principals and vice-principals, along with one superintendent, participated in the qualitative portion of the study. It would be interesting to pursue the experiences of subject heads, curriculum consultants, and other specialty teachers that support secondary schools. Would the insights of these various groups of secondary educators be similar to those from the administrative group? An extension of this would be an examination of the role of specialty teachers. All the participants in this study spoke about the essential role that Literacy Teachers and Student Success Teachers play within secondary schools. The district has created these roles and provided funding so each secondary school can have at least one full-time member of their staff with this responsibility. It was interesting to note how the principals and vice-principals spoke differently about the role of Subject Head compared with the roles of Literacy Teacher and Student Success Teacher. In some schools, subject heads have become marginalized and the emphasis on capacity building has been directed toward Literacy Teachers and Student Success teachers. An interesting area of research would be to do a comparative analysis of the knowledge mobilization experiences of these groups of teachers.

A large portion of the survey respondents have completed a graduate degree and all the administrators that participated in the follow up interviews have completed or are in the process of completing a Masters Degree. It became clear during this study, that the administrators that were currently working on graduate studies or had just completed a graduate degree, talked easily about the use of research in their own leadership practice. An interesting question arises;
therefore, regarding where, if at all, does graduate study comes into play as an explicit way to increase research use. Considering the focus of the research is looking at the organizational levers to facilitate engagement with research, in the future it would be useful to study the role that districts can play in encouraging and supporting the pursuit of graduate study. The York Region District School Board currently has partnerships with several Ontario universities for graduate studies including a Masters level program and a doctoral level program at the University of Toronto. Following the experiences of the people enrolled in these programs would be fascinating. Biddle and Saha (2002) conclude in their two country research that principals with higher levels of education are more likely to have a high regard for research. Since this study supports this claim as well, future research would be beneficial to examine how districts can facilitate the attainment of higher education for its leaders.

This study examines the structures and activities that are put in place within secondary schools and across one school district that supports the use of research in practice. An additional contribution to the broader field of research could be made by examining how these structures and activities are shared across schools and how research-based initiatives are shared across the district. How does a district share locally developed, innovative, research-focused strategies with other schools and how does the collective learn from individual efforts to become systems thinking (Senge, 1990)? It would be interesting to investigate these strategies in more detail.

And finally, the quantitative findings reveal that the number one source of knowledge is educators’ own personal experience or that of their colleagues. The qualitative data suggest a variety of activities in place to maximize the social interaction of colleagues to allow teachers and administrators to access and engage with research. Fullan (2006b) states, “people learn best from their peers (p. 117) and supports schools creating the conditions for lateral capacity within
networks of colleagues. More research is needed to determine the most effective activities and structures across schools to encourage collaboration among colleagues and to share practice to ensure that knowledge mobilization efforts are not dependent on individuals, but rather are embedded in the day to day functions of secondary schools. The notion of volunteerism is an interesting concept to investigate in future research. If teachers are to consider themselves professionals should keeping their professional knowledge up-to-date be a matter of individual choice or rather a condition of employment?

**Implications for Practice in School Districts**

The intent of this study was to learn about the research engagement experiences in one district school board. The following ideas that emerged from this study may be considered in other school districts that want to understand how research is taken up in secondary schools. Leadership emerged as an important theme throughout the study. The school leaders in this study suggest that the coordination of research with the school and district goals is an essential element of alignment of research engagement. They also point out that resources need to be aligned to address the barriers of research use including time and lack of support. School and system leaders need to be upfront with how much resource is available and then be strategic with its distribution. Funding for release time to allow for teachers to engage in research and share research with colleagues is an important resource that needs to be a priority of the district.

The district has a key role to play in the shaping of the environment for research uptake. A supportive climate begins with the priority given to engaging with research. This priority needs to be communicated to schools and to individuals through expectations and actions. Having high expectations around the engagement and use of evidence-proven strategies in
schools and classrooms is essential to changing practice. The district can communicate the high priority it puts on using research findings in decision making and practice by monitoring instructional practice. Having school leaders bring the most impactful evidence-based strategies to their staff through professional learning and networking opportunities is the first step. This however, does not go far enough. Monitoring of the use of the research findings in classrooms is an essential part of the process.

School leaders also need to examine who they have in formal teacher leadership positions in their school and ensure that these individuals have the necessary skills and will to work with colleagues to facilitate the engagement with research and the implementation of research-proven strategies. School leaders need to follow the description of the role of subject head outlined in the collective agreement and ensure that these criteria are adhered to by holding the individuals in the roles in these roles accountable. Supporting the professional learning of subject heads will be influential in establishing clear guidelines for the instructional leadership role of subject heads. It will also provide consistency across departments within a secondary school. This will assist in breaking down the silos that exist within the department structure of secondary schools.

With the onset of literacy teachers and student success teachers, it appears that some subject heads feel marginalized in their role as instructional leaders. In many secondary schools subject heads are not selected to participate in the professional learning and networking opportunities outside of the school as this is designated to literacy teachers and student success teachers. Examining the composition of the teams that participate in professional learning and networking, to ensure that there is representation from a cross section of disciplines will help to increase the likelihood that the learning will be shared across the school.
The variability between superintendent practice is an important consideration at the district level. Evidence in this study suggests that effective practices are not necessarily being shared in all areas of the district. It would be prudent for districts to discuss with senior team research evidence that improves practice and the expectations the system has for sharing these findings across schools. Sharing best practice at the senior level is essential to build capacity and consistency. Superintendents have a pivotal role in fostering and reinforcing a culture that seeks out new knowledge and engages school leaders in the use of this new knowledge. Creating a research culture at the senior level will help integrate research into policy and practice and bring relevance to the work across the system. Establishing non-negotiables for the actions of superintendents that involve the use of data and evidence-based practice will ensure that there is a culture that places a high priority on evidence and makes explicit the expectations that leaders in schools and at the district level embed research into practice.

This school district has a strong tradition of partnering with outside researchers. Unfortunately, the participants in this study indicate that these researchers are not necessarily being used to share the research findings and engage school leaders in the use of the research. This practice is an impediment to research uptake and should be considered as part of an overall research strategy. Relevance to practice is a reoccurring theme throughout the study. The district, and their research partners, therefore has a role to play in communicating what counts as useful to practice in a deliberate way when presenting research findings across the district. Facilitators of research should be used in the capacity of bridging the gap between research partners and the school district.

Moreover, it is encouraged that districts collaborate with other districts in the sharing of research. Building a collective understanding of research informed practice would be useful
across districts, and should be the responsibility of the Ministry of Education to make this happen.

Leadership has been a focus of the Ministry of Education and within school districts for many years; however building the research engagement skills of leaders has not necessarily been part of leadership development activities. School districts should consider the value of incorporating this skill set into the leadership development offerings if new leaders, including teacher leaders, are to facilitate the engagement with research and use of data in their schools and across the district.

And finally, recognizing the barrier of time constraints, research uptake might be considered something that is not only ‘helpful’, but instead, something that is a part of an organizational culture that is committed to building new knowledge and impacting practice to improve student achievement. Knowledge mobilization has enormous potential to transform secondary schools and classroom practice if it is woven into the fabric of the organization and becomes the operating norm that a school and school district uses to conduct its day-to-day operations.
REFERENCES


development and validation of a behavior and attitude questionnaire to measure utilization of research-based information by school practitioners, Canadian Council on Learning.


October, 2005.


Appendix A: Online Survey Instrument

Research Use in Secondary Schools

1. Research Use and Impact in Secondary Education

This is a research project being conducted by Kathy Witherow in fulfillment of the requirements for a doctoral program at OISE/University Toronto. You are invited to participate in this 15 minute on-line survey. The purpose of the study is to learn more about the ways that research is currently being used to support secondary school improvement, and to investigate ways that research can be made more attainable and relevant to practitioners at the secondary school level.

2. Research Use and Impact in Secondary Schools

Information and Consent to Participate

This study has been approved by the Research Ethics Board at the University of Toronto. The research will be carried out in accordance with the University of Toronto ethical standards for research and the ethical considerations of the York Region District School Board. You are free to decline to answer any question or withdraw from the study at any time without consequence. All participants will be anonymous on the electronic surveys, so the researchers will be unable to identify any individual responses. No identifying information will appear in any written report. All data will be stored electronically and anonymously and the files will be destroyed upon completion of the study. We see no potential risks to your participation in this study.

Should you have any questions regarding your rights as a participant please contact: Office of Research Ethics, University of Toronto, McMurrich Building, 12 Queen’s Park Crescent W, 3rd Floor, Fax 416-946-5763. If you have any questions about the research itself, please contact Kathy Witherow at kathy.witherow@yrdsb.edu.on.ca and 905-727-0022, Ext. 3630.

* 1. Please indicate your consent to participate:
   - ☐ Yes, I have read the above and I agree to participate.
   - ☐ No, I do not wish to participate.

3.

1. Gender
   - ☐ Male
   - ☐ Female

2. Current Role
   - ☐ Superintendent
   - ☐ Principal
   - ☐ Vice-Principal
   - ☐ Subject Head
   - ☐ Curriculum Coordinator
   - ☐ Other
Research Use in Secondary Schools

3. Number of years in this current role:
   - Less than one year
   - One to two years
   - Three to five years
   - Six to ten years
   - More than ten years

4. Highest level of education:
   - Bachelor's Degree
   - Bachelor of Education Degree
   - Master's Degree (in progress)
   - Master's Degree (completed)
   - Doctorate (in progress)
   - Doctorate (completed)
   - Other

   If Other, please specify: ________________________________

4. Research Use and Impact in Secondary Education

Part I - School and District Approaches to Research

This survey is designed to help us get a better understanding of the research-informed practices that are happening with the York Region District School Board. Although research can be thought of in a variety of ways, for the purposes of this survey, "research" is defined broadly to mean any systematic gathering and use of data or other forms of evidence to address a theoretical, practical, or policy problem. In this first section of the survey there are ten questions that focus on access to and use of research within your school and/or district.

5. ________________
## Research Use in Secondary Schools

1. The important role of research is evident in the ways we relate research to practice within this district.
   - [ ] Strongly Disagree
   - [ ] Disagree
   - [ ] Agree
   - [ ] Strongly Agree
   - [ ] Don’t Know

2. Does your district have research findings and research resources posted on its website?
   - [ ] Yes
   - [ ] No
   - [ ] Don’t Know

3. Does your district have joint research projects with universities and/or community organizations?
   - [ ] Yes
   - [ ] No
   - [ ] Don’t Know

4. How often would you say research is discussed in your district during the following:

<table>
<thead>
<tr>
<th>Event</th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
<th>Always</th>
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<tbody>
<tr>
<td>In-school Staff Meetings</td>
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<td>In-School Department/Program Team Meetings</td>
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<td>Monthly Area Principal/Admin. Meetings</td>
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<td>Networks</td>
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<td>Board Meetings</td>
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<td>Professional Development Events</td>
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<tr>
<td>Parent/Community Events</td>
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</tr>
</tbody>
</table>
## Research Use in Secondary Schools

5. In the last year how many research-focused events outside of your own district-sponsored events have you attended?

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<tr>
<th>Event Type</th>
<th>One</th>
<th>Two</th>
<th>Three</th>
<th>More Than Three</th>
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<tr>
<td>Provincial/Ministry sponsored events</td>
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<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Professional Conferences (e.g. ASCD, OPC, CAP, GSSTF, etc)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Events sponsored by an educational institute such as a college or university</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Events sponsored by another outside organization (e.g. special interest group, corporation, agency)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Academic research conferences (e.g. CSSE, AERA)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Other</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

Specific example(s) of "Other" research-focused event(s) attended:

6. This school district follows these practices:

<table>
<thead>
<tr>
<th>Practice</th>
<th>Yes</th>
<th>No</th>
<th>Don't Know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provides funds for individuals to participate in research</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Encourages/facilitates action research in schools/classrooms</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Encourages research related professional development (graduate studies, conference attendance)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Sponsors/coordinates research focused events (workshops, conferences)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Provides opportunities for informal networking related to research</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Builds on ongoing relationships with external researchers</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Circulates research articles</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Provides staff with time to engage in research related activities</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Incorporates/links data to reporting (SPCI)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Other</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

Specific example(s) of "Other" district practices followed:


# Research Use in Secondary Schools

7. Does your school district regularly report and analyze the following data sources:

<table>
<thead>
<tr>
<th>Data Source</th>
<th>Yes</th>
<th>No</th>
<th>Don't Know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary school literacy results</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Secondary school credit accumulation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suspension/expulsion rates</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Special education referral or placement rates</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Achievement data by gender/ethnicity/socio-economic status, etc</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Secondary school graduation rates</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Specific examples of "Other" data sources:

---

8. Are local data or other research cited within the following district and/or school documents:

<table>
<thead>
<tr>
<th>Document Type</th>
<th>Yes</th>
<th>No</th>
<th>Don't Know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Board Plan for Continuous Improvement (BPCI)</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>School Plan for Continuous Improvement (SPCI)</td>
<td></td>
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<tr>
<td>Department Plans</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Data used in teacher performance appraisals</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parent/Community Communications, e.g., newsletters</td>
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<tr>
<td>Other</td>
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</tbody>
</table>

Specific example(s) of "Other" data or research cited:

---

9. How often does your school district offer the following research activities/strategies:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Rarely or Never</th>
<th>Yearly</th>
<th>Monthly</th>
<th>Weekly or More</th>
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</thead>
<tbody>
<tr>
<td>Research focused events (conferences, workshops, courses, professional development)</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Research related resources (books, articles, online sources)</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Other formal and/or informal networking opportunities (to connect with others for research related support, education, sharing of research)</td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

Other examples of research related activities and time spent
Research Use in Secondary Schools

10. Please choose the main barriers to your own use of research:

☐ Lack of time to read research
☐ Problems with accessing research
☐ Lack of relevance to practice
☐ Use of academic language and statistical analysis
☐ Uncertainty about the results of research
☐ Source of the research
☐ Lack of skill in finding and interpreting research evidence
☐ Lack of interest
☐ Lack of school or district support to facilitate engagement with research

Other (please specify)
6. Research Use and Impact in Secondary Education

A knowledge claim is a conviction or belief supported by some source of evidence. This final section of the survey focuses on four knowledge claims related to two areas of knowledge relevant to secondary schools. They are issues concerned with student success and student pathways. Student pathways and trajectories refers to short and long-term student destinations and the steps and directions that students may take to reach those destinations.
Research Use in Secondary Schools

7.

Students who fail a single credit/course in the first year of secondary school are at a much greater risk of not graduating.

1. Students who fail a single credit/course in the first year of secondary school are at a much greater risk of not graduating.

To what extent do you agree with the above statement?

2. Please identify the significant source(s) of this information that supports your knowledge of this statement and indicate the degree of importance of this source in your acceptance of this particular claim.

<table>
<thead>
<tr>
<th>Source of Information</th>
<th>Not at all important</th>
<th>A little important</th>
<th>Important</th>
<th>Very important</th>
<th>Extremely important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research report (professional source in print or online)</td>
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<tr>
<td>Professional development events, seminars or conferences</td>
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<tr>
<td>Colleagues or professional network</td>
<td></td>
<td></td>
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<tr>
<td>Personal Experience</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Data collected in your school/district</td>
<td></td>
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<tr>
<td>Other (please specify)</td>
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</tbody>
</table>
Disconnection and disengagement with the school culture and school community are major contributors to students leaving school.

1. Disconnection and disengagement with the school culture and school community are major contributors to students leaving school.

To what extent do you agree with the above statement?

2. Please identify the significant source(s) of this information that supports your knowledge of this statement and indicate the degree of importance of this source in your acceptance of this particular claim.

<table>
<thead>
<tr>
<th>Source</th>
<th>Not at all important</th>
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<th>Important</th>
<th>Very important</th>
<th>Extremely important</th>
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</thead>
<tbody>
<tr>
<td>Research report (professional source in print or online)</td>
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<td></td>
<td></td>
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<tr>
<td>Professional development events, seminars or conferences</td>
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<tr>
<td>Colleagues or professional network</td>
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<tr>
<td>Personal Experience</td>
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<tr>
<td>Data collected in your school/district</td>
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<td>Other (please specify)</td>
<td></td>
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<td></td>
<td></td>
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</tr>
</tbody>
</table>
The quality of teaching and learning in the secondary school is one key factor that influences student pursuit of post-secondary education.

1. The quality of teaching and learning in the secondary school is one key factor that influences student pursuit of post-secondary education.

To what extent do you agree with the above statement?

2. Please identify the significant source(s) of this information that supports your knowledge of this statement and indicate the degree of importance of this source in your acceptance of this particular claim.

<table>
<thead>
<tr>
<th>Source</th>
<th>Not at all important</th>
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<th>Important</th>
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<th>Extremely important</th>
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</thead>
<tbody>
<tr>
<td>Research report (professional source in print or online)</td>
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</tr>
<tr>
<td>Professional development events, seminars or conferences</td>
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<td></td>
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<td></td>
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<tr>
<td>Colleagues or professional network</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Personal Experience</td>
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<td></td>
</tr>
<tr>
<td>Data collected in your school/district</td>
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<tr>
<td>Other (please specify)</td>
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<td></td>
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</tr>
</tbody>
</table>
The majority of students believe that secondary school prepares them well for post-secondary school life.

1. The majority of students believe that secondary school prepares them well for post-secondary school life.

To what extent do you agree with the above statement?

2. Please identify the significant source(s) of this information that supports your knowledge of this statement and indicate the degree of importance of this source in your acceptance of this particular claim.

<table>
<thead>
<tr>
<th>Source</th>
<th>Not at all important</th>
<th>A little important</th>
<th>Important</th>
<th>Very important</th>
<th>Extremely important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research report (professional source in print or online)</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Professional development events, seminars or conferences</td>
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<tr>
<td>Colleagues or professional network</td>
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<tr>
<td>Personal Experience</td>
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</tr>
<tr>
<td>Data collected in your school/district</td>
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</tr>
<tr>
<td>Other (please specify)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
If you would be willing to participate in a follow up interview, please send an email to kathy.witherow@yrdsd.edu.on.ca.

Thank you for your participation!

1. Please share any comments that you might have or requests for additional information:


Appendix B: Enrolment Data for the York Region District School Board

York Region District School Board - Monthly Enrolment Report
Sac - Central, East, North, West - October - 2009

<table>
<thead>
<tr>
<th>Panel</th>
<th>CEC</th>
<th>School</th>
<th>Self Contained</th>
<th>G09</th>
<th>G10</th>
<th>G11</th>
<th>G12</th>
<th>G13</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Secondary</strong></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>North</td>
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<td></td>
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<td>Dr John H Diefenbaker Secondary School</td>
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<td>371</td>
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<td>St William Muock Secondary School</td>
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<td>271</td>
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<td>Sutton District High School</td>
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<td>Alexandre Mackenzie High School</td>
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Appendix C: Participation Invitation – Consent Letter

Date:
I am writing to invite you to participate in a research project as part of my doctoral studies at the Ontario Institute for Studies in Education/ University of Toronto. The purpose of the research is to learn more about the ways in which research is used to support secondary school improvement, and to investigate ways in which research could be made more useful to you and your colleagues. Invited participants are superintendents, principals, vice-principals, subject heads, and curriculum coordinators and administrators who hold leadership roles in secondary education in the York Region District School Board.

I would like you to participate in the initial phase of the study which is an on-line survey. This survey should take no more than 15 to 20 minutes to complete and will ask you to share your knowledge of important research findings related to secondary education, and about the supports for and barriers to the use of research in your school and the Board.

To ensure anonymity, I will not be contacting respondents directly, but through email via a distribution list. I ask principals forward this letter of invitation to your subject heads as well as they are invited participate. Participation in the study is entirely voluntary. You are able to decline to answer any question or withdraw from the study at any time without consequence. All participants will be anonymous on the electronic survey, so I will be unable to identify any individual responses. All data will be stored electronically and anonymously and the files will be destroyed at the end of one year.

Given that school and system leaders are in an excellent position to make informed comment on research use for secondary school improvement, I would very much appreciate your involvement in this study. From this study some concrete steps will be suggested to the Board to increase the value of research in your work.

At the completion of the online survey, you will also be asked to indicate your willingness to participate in a follow up interview. The purpose of this interview is add clarifying details to the themes that emerge from the data collected from the online survey.

You can access the on-line survey at this link http://www.surveymonkey.com/s.aspx?sm=XAxcZXZ0jnuuFzVkosvqlQ_3d_3d. In the first question of the survey you will be asked to indicate your consent to participate by responding Yes or No, after which you will be asked to proceed through the questions.

I see no potential risk to your participation in the study. This research has been approved by the University of Toronto’s Board of Ethics and the York Region District School Board Research and Assessment Services. Should you have further concerns, please feel free to contact the Office of Research Ethics, University of Toronto, McMurrich Building, 12 Queen’s Park Crescent W, 3rd Floor, Fax - 946-5763. If you have any questions about the research itself, please contact Kathy Witherow at Extension 3630 or kathy.witherow@yrdsb.edu.on.ca.

Sincerely,
Kathy Witherow
Appendix D: Interview Guide

Interview Guide

Research Questions:

1. How do secondary school leaders and teachers access and use relevant research findings?

2. What are the main perceived barriers to the use of research by secondary school leaders and teachers?

3. In what ways does the school district support or hinder the use of research?

1. The online survey indicates that the number one reason that people do not engage in research is “time”. The second reason most often cited is “lack of school or board support”. What do you make of this finding? Gender issue: 60% of males said this and only 23% of females

2. What structures have you created at your school that enables the engagement with research?

3. We know that professional networks are a key source of information. Who at your school attend the Learning Networks? How were they selected? What is the expectation/process/or structures set up to facilitate the sharing the learning back at school?

4. Think of an initiative introduced in your school. Was it based on research? How was it shared with staff? What are the expectations for impact on practice?

5. What practices do you see as having the most value in having research impact practice?

6. Are teachers formally engaged in Action Research in your school? How is it shared with other staff? Tell me about the process you are using to carry out research?

7. Tell me about the practices that illustrate research engagement, either staff accessing research findings (readings, PD) , sharing of research, or conducting research themselves?
8. What factors do you believe prevent secondary teachers/leaders from using research findings at your school?

9. What role does the culture of the school play in research use? What role does organizational structure play? What role does facilitation play?

10. What do you think will help teachers to engage with research and help them use it in their classrooms?

11. What does the make-up of your leadership team look like? What is their role in professional learning? What is the role of the Literacy Teacher and Student Success Teacher?

12. In terms of the district, with things like Networks, large scale professional learning (the LC, Quest, etc) what can the district do to support and encourage school teachers/leaders to use research?

13. What messages would you like to share with the Board?
Appendix E: Literacy Teacher (Secondary) Roles and Responsibilities

Literacy Teacher (Secondary) Roles and Responsibilities

The **Literacy Teacher**, as a member of the School Leadership Team and the Student Success School Team, plays a vital role in supporting the success of all teachers and students in secondary schools.

The primary leadership activities for this position focus on the implementation of a school-wide literacy priority that includes digital literacy. **Literacy Teachers** support staff in the delivery of assessment-based literacy instruction that is intentionally differentiated to meet the strengths, needs and interests of each student across all subject and program areas.

A. **Literacy Teacher Roles and Responsibilities**

<table>
<thead>
<tr>
<th>Literacy Teachers support improved student achievement in literacy when they</th>
<th>Indicators:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• demonstrate the four beliefs in their teaching</td>
<td>• support the use of instructional intelligence and cooperative learning approaches to engage students and keep them accountable for their learning</td>
</tr>
<tr>
<td>1. All students can learn given sufficient time and support.</td>
<td>• support the effective use of assessment for/as/of learning through the use of diagnostic assessment, formative assessment and differentiated instructional approaches to support student learning</td>
</tr>
<tr>
<td>2. All teachers can teach to high standards given the right conditions and assistance.</td>
<td>• gather and analyze student achievement data and provide direct support for teachers working with students who are at-risk in literacy achievement</td>
</tr>
<tr>
<td>3. High expectations and early and on-going intervention are essential.</td>
<td>• work with the Leadership Team/Literacy Team to develop a school-wide approach to OSSLT preparation</td>
</tr>
<tr>
<td>4. Teachers need to be able to articulate what they do and why they teach the way they do.</td>
<td>• understand the importance of collaboration and are able to build effective teams</td>
</tr>
<tr>
<td>• promote and facilitate professional learning in the area of literacy;</td>
<td>• facilitate focused learning conversations and staff sharing of exemplary practices across subject areas, program areas and whole school</td>
</tr>
<tr>
<td>• coach teachers and model</td>
<td>• understand and are able to provide professional learning for staff on board-wide data assessment tools (e.g. DRA, EQAO, OSSLT)</td>
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<td></td>
<td>• work with classroom teachers to build assessment capacity in order to differentiate instruction for each students</td>
</tr>
<tr>
<td></td>
<td>• plan, model, co-teach and debrief literacy lessons with classroom teachers</td>
</tr>
<tr>
<td></td>
<td>• provide opportunities for teachers to learn about literacy (e.g. staff bulletin inserts, lunch and learn sessions, staff meetings, participation in subject team meetings, demonstration classes, etc.)</td>
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<tr>
<td></td>
<td>• work with classroom teachers to plan, model and coach</td>
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instructional strategies across the curriculum; research-based instructional approaches to improve students’ literacy achievement, emotional safety, retention and transitions

• provide in-class literacy support for classroom teachers
• work with members of the School Leadership Team and Student Success Team to create a tracking system for students at-risk in literacy achievement

• work with the staff to identify, select, and organize literacy resources in a common, accessible area; and

• work with staff members to provide a designated area in the school for shared literacy resources
• introduce new and relevant student and teacher resources (human, print and electronic) to the staff

• support the principal and school literacy team in planning professional development activities that promote effective literacy instruction.

• participate in Literacy Collaborative Continuous Improvement, CEC Network and Literacy Teacher Sessions and bring key messages and new learning back to support staff learning
• with the Leadership Team/Student Success Team, use assessment data to develop a responsive year long plan for literacy PD based on the SPCI and the identified literacy focus for the school
• promote parental/community involvement in supporting literacy
• is responsible for, with members of the staff, the completion of the Literacy Fair template and the Literacy Fair presentation

B  Statement about Staffing Allocation

A .67 literacy teacher has been allocated to each school to support teacher literacy mentoring. A single teacher is preferred for this function. Assign the same number of literacy periods each semester. The full time student success teacher cannot be assigned as literacy teacher. Subject heads may be assigned to literacy duties provided the timetable does not exceed .33 FTE. Assignments must be approved by the SO prior to offering the assignment to any teacher; schools wishing to use more than one teacher require the support of the SO prior to offering the assignment

Criteria and Parameters for Selecting Literacy Teacher(s)

A teacher - leader who:
• demonstrates the four beliefs in their teaching
  1. All students can learn given sufficient time and support.
  2. All teachers can teach to high standards given the right conditions and assistance.
  3. High expectations and early and on-going intervention are essential.
  4. Teachers need to be able to articulate what they do and why they teach the way they do.
• demonstrates exemplary instructional practice
• understands and demonstrates “design down” lesson planning
• uses assessment information to differentiate instruction to effectively support the strengths, needs and interests of students
• embeds literacy strategies including digital literacy into their subject area
• is able to support and build teacher capacity for literacy, digital literacy, assessment for learning and differentiated instruction
• uses a coaching model to support others’ learning
• is able to model instructional practices for other staff
• is able to access resources in response to needs of staff
• has participated in board-wide professional learning (e.g. Literacy Collaborative, Literacy Teacher Network)
• integrates pathway opportunities into student learning
• is able to work in a collaborative, collegial and supportive manner with staff
• understands and is able to build effective teams
• has credibility with their colleagues
• has had a variety of teaching and learning experiences
• actively pursues new learning
• communicates effectively and with purpose
Appendix F: Student Success Teacher Roles and Responsibilities

Student Success Teacher
Roles and Responsibilities

The Student Success Teacher, as a member of the School Leadership Team and Student Success School Team plays a vital role in supporting the success of all students in a secondary school.

The primary leadership activities for this position focus on the implementation of the Ministry of Education Student Success Program goals that ensure that each student in grades 7-12 has the learning opportunities and supports he/she needs to be successful in school and beyond.

Student Success Teachers support staff in the delivery of assessment-based literacy instruction that is intentionally differentiated to meet the strengths, needs and interests of all students across all subject and program areas.

In addition to the 1.0 base, some schools will be allocated additional Student Success staffing:

a) Each school with SHSM program will receive an additional .17 staffing allocation to support an SHSM Coordinator who will coordinate the Specialist High Skills Major Program at the school level and provide support for students who might be considering or who are currently enrolled in SHSM programs.

b) Student Achievement Schools will receive an additional .33 or .67 staffing allocation to provide additional Student Success Teacher support, advocacy and mentoring for students at risk.

A. Student Success Teacher Roles and Responsibilities

The Student Success Teacher (SST) with the SHSM Coordinator as members of the School Student Success Team (including Administrator, Guidance Head, Special Education Head, ESL Head, SST, SHSM Coordinator, CYW, Literacy Teacher, Alternative Education Head, Community-Based Education Head and etc.) provides a critical leadership role in supporting and advocating for the success of all students, particularly those at-risk of not graduating.

<table>
<thead>
<tr>
<th>Responsibilities:</th>
<th>Indicators:</th>
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| The SST provides student advocacy and mentoring to support students at-risk | • works directly with students at-risk identified by the Student Success School Team  
• meets regularly with the student as determined by need for support  
• communicates as needed with the parents/guardians of the student being serviced  
• determines when a student no longer requires individual direct support  
• determines the nature of follow up required if a student is no longer responsive to individual direct support  
• engages professional student support services personnel employed by the Board and/or external agencies as needed  
• interacts with classroom teachers to form meaningful |
The SHSM Coordinator provides support and advocacy for students who might be considering or who are enrolled in SHSM programs.

- tracks student marks, assignments, due dates, attendance, attitudes through regular, standardized written reports and informal conversations with the classroom teacher
- engages in regular dialogue with the Principal and the Student Success School Team about the work being done to support individual students
  - identifies, counsels, and recruits interested students
  - interviews students for program readiness
  - advocates for SHSM programming needs to be met in the school timetabling process
  - ensures that students have the opportunity to participate in post-secondary destination specific "reach ahead" activities and certifications pertaining to the SHSM
  - facilitates the delivery of Contextualized Learning Activities (CLA’s)

### Transition Support

The SST supports the transition process for students moving between panels, schools and classrooms

- supports transition from Grade 8 to Grade 9 by working with elementary staff to identify incoming students at-risk and by ensuring implementation of the Ministry Transition Deliverables
- collaborates with elementary and secondary colleagues in family of schools to build Transition Programs for all students moving from grade 8 to 9
- supports students through key transition points from grade 8-9, grade 10 to destination courses, and from school to post secondary school choices
- evaluates the effectiveness of Transition Programs and individual Transition Plans for students at-risk, using available data (with SS Team/elementary colleagues)

### Monitoring of Students

The SST engages in ongoing monitoring of students including identifying and tracking students at-risk

- identifies with the School Student Success Team potential students at-risk based on a variety of sources including the data provided by Guidance, ESL and Special Education Departments and Elementary Transition Teams
- collaborates with ESL teachers and SERTS to track students at-risk, including those serviced by the ESL and Special Education Departments, for such areas as:
  - progress in courses
  - failures
  - timetabling
  - services provided
  - follow up strategies
- maintains records for Ministry reporting and for purposes of longitudinal data and analysis
- establishes a secure Master File for each student supported through Student Success and follow practices outlined in the
The SHSM Coordinator tracks and manages school level data related to SHSM programming for Board and Ministry reporting.

YRDSB Protocol for Gathering, Sharing and Retaining Student Information for the Provision of Student Success Support

- performs an SHSM program gap analysis and drafts and implements an action plan to improve each SHSM program offered at the school site
- liaises with the DQM secretary to ensure that SHSM student data is accurately entered into the student data management system
- submits regular reports to meet board and Ministry reporting requirements
- prepares a budget and tracks expenditures

Staff and Community Development

The SST provides school-wide staff development in support of Student Success initiatives.

- participate in board-wide professional learning (e.g. Literacy Collaborative Continuous Improvement Sessions, Student Success Teacher Network) and bring key messages and new learning back to school to support staff growth (e.g. intervention strategies and resources for classroom teachers to use prior to a student failing a credit)
- is informed by best practices in other schools, across the board and beyond regarding implementation of Student Success initiatives
  - delivers SHSM information sessions for students, parents, community partners and other stakeholders
  - meets with employers, colleges, universities, training centres and sector partners

The SHSM Coordinator enhances and extends community partners for SHSM programming.

Direct Instruction

The SST provides student instruction and other interventions for students at-risk (e.g. credit recovery, credit rescuing)

- gathers and analyzes student achievement data and provides support for students at-risk
- serves as a member of the Credit Recovery Team
- provides direct support and, where appropriate, instruction to students requiring credit rescuing/recovery in order to improve student achievement, retention, and transitions

B. Criteria and Parameters for Selecting Student Success Teacher(s)

A maximum of one individual may be assigned over two semesters in all schools receiving 1.0 FTE. In schools where the allocation will exceed 1.0 FTE, a second SST will be assigned to support the additional sections over two semesters.

ALL sections are assigned to the Guidance Subject Grouping (Guidance qualifications are NOT required). A Subject Head cannot be assigned, if the assignment is for 1.0, unless the head takes a leave from the POR for the school year (D.2.5.2.1). Assignments must be approved by the SO prior to offering the assignment to any teacher.
There are specific attributes that a Student Success Teacher should possess due to the critical and unique nature of this role. Among these are sufficient years of teaching experience to have:

- demonstrated competence in teaching
- developed professional credibility within the school
- developed professional credibility within the broader school community
- acquired understanding of and commitment to the goals of student success initiatives
- demonstrated ability to form meaningful, productive relationships with students, staff and parents and with different stakeholders (parents, hospitals, specialized programs) to support the learner
- demonstrated experience and success in mentoring students

The Student Success Teacher should also demonstrate:

- initiative where data indicates a need
- the ability to facilitate and manage a team collaboratively for student success
- understanding of what constitutes a student at-risk (background, indicators, contextual factors/individual history)
- organizational and record keeping skills
- the ability to professionally manage their time
- the ability to use technology as a tool to enhance learning, engage students and record keep
- the ability to collect, interpret and analyze student and school data, devise strategies to support, reengage, reinforce, remediate and teach students to earn credits
- an understanding of Special Education processes and the needs of ELL learners

C. Identification of Students At Risk

Students with an IEP are supported primarily through Special Education services and funds.

Student Success Teachers and SS Teams support students who are at-risk of not graduating from secondary school.

Students are deemed to be at-risk when one or more of the following indicators are present:

- elementary and secondary students who are performing significantly below the provincial standard, (earning marks in the 50’s and low 60’s) and who do not have the foundational knowledge and skills to be successful in the next stage of learning;
- students who demonstrate a lack of success in Literacy and Mathematical Literacy as indicated in report card data and on EQAO instruments (with special emphasis on results in the OSSLT in secondary schools);
- students who have failed 1 or more subjects on the Provincial Report Card;
- students with poor attendance (20+ absences on end of year attendance reports) a record of suspensions and/ or have been referred to school teams (e.g. Case Management, Student Success Team, In-School Team) for support; and
- students who display social/emotional behaviour that creates a barrier to their learning.