# Research Use and Its Impact in Secondary Schools:
## Exploring Knowledge Mobilization in Education

**A COLLABORATIVE RESEARCH PROJECT:**
Ontario Institute for Studies in Education (OISE),
the Canadian Education Association (CEA) and
11 school districts across Canada

**PRINCIPAL INVESTIGATOR:** Dr. Ben Levin

**RESEARCH TEAM:**
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Publié en français sous le titre:
*L'utilisation de la recherche et son incidence dans les écoles secondaires :*
*une étude examinant la mobilisation des connaissances en éducation*

## Foreword

Research can and should inform teaching and learning. The importance of solid research evidence can, therefore, not be underestimated. Unfortunately, significant gaps still exist between research evidence, policy, and practice. The literature suggests there are many reasons for this, including a lack of awareness about the benefits of research, a lack of capacity within school districts, or a "lack of alignment" between the available research and the daily work of educators.

Not surprisingly, relatively little is known about how research is encountered and used to shape policy and practice in Canadian schools. The Canadian Education Association (CEA) funded this study by a research team led by Dr. Ben Levin of the Ontario Institute for Studies in Education to address this gap in our knowledge. The report's conclusions, presented below, enhance our knowledge of how to present and mobilize research so that it will be understood and used in schools and districts:

- Research use is likely to be stronger where it is supported simultaneously by organizational structures and processes as well as culture;
- The nature and format of research materials affects its use;
- Facilitation is important for increased research use; and
- Research has more impact when linked to actions seen as priorities in the school or school district.

The research will be of particular interest to school districts, faculties of education and department/ministries of education across Canada. The study found that Canadian school districts are interested in using research to inform their work and have begun to take steps in that direction. We trust that this report will assist them in their efforts. We appreciate the participation of the eleven Canadian school districts that took part in the study, and trust that readers will find this report useful and informative.

Ron Canuel
Chief Executive Officer
Canadian Education Association

## EXECUTIVE SUMMARY

### Purpose, Scope, Overview of Study

- The purpose of this collaborative research is to learn about the ways research is encountered and used to shape policy and practice in Canadian secondary schools.

- Involved superintendents, principals and others with designated leadership roles in eleven school districts across Canada

- Pre and post-intervention survey design: first survey administrated May 2008, second survey administered September 2009.

- Three interventions implemented throughout the 2008/ 2009 school year in 9 districts:
  - System to share research articles
  - Study groups around research issues
  - Districts conducting research

### Key Messages

- Research use remains modest in most school districts.
- While attitudes are positive about research use, district capacity to undertake knowledge mobilization work is variable.
- Even in districts with capacity, actual frequency of research use often remains modest; therefore, research capacity is not necessarily synonymous with use.
- Better ways are needed to increase daily use of research and embed that use in organizational systems and processes.
- Knowledge mobilization activity still appears to depend heavily on volunteerism or on a few interested people rather than being embedded in daily practices.
- Educators' beliefs are shaped more by experience and colleagues than by empirical evidence.
- Interventions to increase research use had modest success. Interventions were most successful where (1) designated intermediaries/ facilitators were involved and (2) research used was connected to existing priority issues.
- There are some simple things districts could do to foster increased knowledge and use of evidence:
  - creating shared space using technology to post, share and find relevant research
  - aligning research use with organizational priorities
  - adding research use to existing departmental and staff meetings
  - integrating research use into existing organizational structures such as established committees and teams
  - building networks to foster mutual learning about research within and across districts.

## District Research Practices

- More similarities than differences across districts; generally responses were positive and ratings did not differ very much across districts.

- Research use remains modest across districts, despite the overall consensus (85%) that the important role of research is evident in the ways districts relate research to practice:

> **Research Related Readings**
> - 63 % of educational leaders spend between 0-5 hours per month on research related reading.
> - 37 % of educational leaders spend 6 or more hours a month on research related reading.
>
> **Research Related Events**
> - 47 % of respondents spend 2 hours or less per month in research related events.
> - 25% are not engaged at all in research related events.
>
> **Research Related Networking**
> - 52% of educational leaders spend between 0-2 hours per month, with 23% doing none.
> - 27% of educational leaders spend more than 6 hours per month.

- Less than half (45%) of educational leaders surveyed reported that formalized roles and research departments existed within their districts, with 16% not knowing.

- In many cases (40%), even those who knew that their district had formalized research capacity weren't sure how many people were involved.  In one school district that has made a consistent effort in knowledge mobilization, 94% of respondents knew that the infrastructure exists, suggesting that efforts to give more profile to research do have an impact.

- 37% of respondents reported having research posted on their districts websites, with a third of educational leaders being unsure of whether or not research is posted

- Most districts (70%) did have joint research projects with universities and community organizations, although almost a quarter of respondents were not sure of this

- Districts report a range of research related activities including professional development (85%), support for action research (83%), funding for research generation and use (61%), incorporating data in district reporting (78%), sponsoring research-focused events (78%), opportunities for informal networking (73%), circulating research articles (74%), providing staff with time to engage with research-related activities (65%).

- Districts regularly report and analyze various data: high school graduation rates (91%), elementary school literacy levels (84%), credit accumulation (73%), suspension/expulsion numbers (68%), special education referral rates (60%) and achievement data by ethnicity and socio-economic status (58%). However, 12% to 26% of educational leaders, depending on the data source, did not know if these data sources were analyzed within their districts

- Most respondents reported using these data or other research for district and school improvement plans and annual reports (around 85% in each case).

## Knowledge Claims Relevant To Practice

- All respondents were asked to evaluate six knowledge claims about student success in secondary schools, each based on strong empirical evidence.

- There was strong agreement among respondents on three knowledge claims and considerable disagreement on the other three knowledge claims.

- For all the knowledge claims, respondents reported that personal experience is the most powerful influence on their views, followed by colleagues or professional networks.

- Direct contact with formal research sources and professional development appeared to play a weaker role in shaping opinions across all the districts.

- Respondents reported more use of research evidence for the claims that had the most agreement, suggesting that more exposure to research is related to greater understanding.

## Interventions

- The post-intervention survey did not show significant changes from the initial survey

- Overall, these interventions had modest success. Although nine districts agreed to take part in the interventions, only three districts were able to move the interventions to any significant level of action.

- The usual barriers to action emerged, including lack of time, lack of capacity, the absence of someone to take initiative, and the relatively low priority these activities received.

- The interventions were most effective where they fit with an existing district priority or infrastructure, otherwise even interventions that were simple to implement were not employed.

- Variation in the interventions and in survey respondents make it difficult to say whether some interventions were more effective in affecting research practices, knowledge and sources of knowledge.  In each intervention there were districts that were more or less successful but this was not systematically related to change in the follow-up survey.

- The three most successful districts all had an intermediary or facilitator who coordinated district efforts.

- The interventions did not necessarily reach large numbers of people in the districts and we do not know if the post-survey respondents were actually participants in any of the interventions.

- The findings from this analysis are consistent with the literature that says that impact of research interventions varies widely.

## Implications for School Districts

- Research use is generally not a high priority in secondary schools, but there is a growing recognition among educational leaders of the importance of research in school districts.

- Some districts lack capacity whereas others, even with capacity, still report modest levels of use; therefore, capacity is not necessarily synonymous with actual use.  In some districts, capacity building is needed; in others (even with capacity) efforts are needed to increase the daily use of research by embedding it in organizational systems and processes.

- Structures and processes are needed to support research use along with a culture that supports and encourages research.  There are some simple things districts could do to foster increased knowledge and use of evidence:
    - creating shared space using technology to post, share and find relevant research
    - aligning research use with organizational priorities
    - adding research use to existing departmental and staff meetings
    - integrating research use into existing organizational structures such as established committees and teams
    - building networks to foster mutual learning about research within and across districts.

- Facilitators and intermediaries can help bring different groups together and cultivate relationships.

- Engagement with research needs to go beyond a conversation and be linked explicitly to action plans.

## Implications for Further Research

- The research design (measuring the change in agreement with particular bodies of research knowledge using interventions and pre-post design) is a complicated yet promising methodology to measure both research use and impact. Its value lies in moving away from assessing opinions to measures of actual knowledge and behavior.

- Future studies would need to:
  - Control the sample more to ensure that involvement in interventions corresponded to pre-post responses
  - Build more commitment from districts by identifying a leader within each district as condition of participation
  - Provide clearer direction on how interventions should be conducted to increase fidelity

## Conclusion

- The picture around research use in education is not as bleak as some critics would suggest.

- Our data show that Canadian school districts are interested in making use of research to shape their work, and they have taken a number of steps in that direction.

- Canadian schools are fortunate to have committed and competent educators working hard to improve the lives of their students, and with considerable openness to the potential contribution of research to that work.

- Our data suggest that school districts could make this work more of a focus and more systematic and, in that way, could increase the impact of their efforts, perhaps with relatively little effort.

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PROJECT OVERVIEW

The purpose of this collaborative research is to learn about the ways research is encountered and used to shape policy and practice in Canadian secondary schools.   The study targets superintendents, principals and others with designated leadership roles in secondary schools or districts across Canada.

The study was funded by the Canadian Education Association (CEA) and was carried out by a team of researchers at OISE in collaboration with eleven school districts across Canada:  Saanich, Vancouver, and Delta School Districts from British Columbia; Pembina Trails, Sunrise, Evergreen and Winnipeg School Divisions from Manitoba; Saskatoon Public and Greater Saskatoon Catholic School Divisions from Saskatchewan; Avon Maitland and Hamilton Wentworth District School Boards from Ontario.  With one exception (Hamilton-Wentworth), these districts were participants in a national CEA project to improve practices and outcomes in secondary schools.  The schools and districts were partners in developing the project and interpreting its results.

## Acknowledgments

## Disclaimer

This study has been approved by the Research Ethics Board at the University of Toronto.  The research was carried out in accordance with the University of Toronto ethical standards for research.  Participants volunteered and were free to decline to answer any question or withdraw from the study at any time.  All participants remained anonymous on the electronic surveys, so the researchers were unable to identify any individual responses.

## *Organization of the Report*

In order to keep the length and scope of this report manageable, we have posted most of the additional materials online including:

- A copy of the survey
- Interim report and executive summary of phase one
- Pre and post-intervention survey data
  - Overall Research Practice Data
  - Research Practice Data Disaggregated by District
  - Overall Knowledge Claims Data
  - Knowledge Claims Data Disaggregated by District
  - Overall pre-post analysis graphs
  - Data Analysis by Intervention
  - Pre-post Data Table Summaries and Comparisons (Overall and by district)
- Additional Resources for each intervention (so districts can get the materials in order to implement these interventions on their own)
- Literature Reviews utilized for the study:
  - Knowledge Claims
  - Interventions
- Conference papers and presentations from the project

While some documents are hyperlinked above and throughout this report, please visit our website (www.oise.utoronto.ca/rspe) for free access to these supporting files.

## *Context*

There is a lack of empirical work investigating research use in school districts and schools.  We use the Social Sciences and Humanities Research Council of Canada's term knowledge mobilization (KM) [1] to describe efforts to reduce the oft cited gaps between research evidence, policy and practice in education.   Many other analogous terms exist in education such as knowledge integration or knowledge animation, as well as in other sectors such as knowledge transfer and exchange or knowledge translation in health, knowledge management in business and so on.  Good reviews of the many issues surrounding KM are included at the end of this report in a suggested readings section.

Where studies do exist they report modest levels of research use in education although educators do report a high level of interest.  There are many different reasons suggested in the literature for limited research use in education:  a lack of awareness and belief that research can and should inform teaching and learning; a lack of organizational capacity to do the work in schools and

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[1] We do not include many in-text citations for this report in order to make it more readable and accessible for multiple audiences.  For a fuller understanding of the many aspects of knowledge mobilization, as well as the related literature on which we base this report, please see our website and related conference papers and publications (www.oise.utoronto.ca/rspe).

districts; and, sometimes despite available capacity, a lack of alignment between the available evidence and the daily work of educators.

Relationships among research, policy and practice are not simple or unidirectional. It is also clear that research impact is a characteristic of organizations and professions more than of individuals; after all, individuals do not work in isolation so their work is often influenced by colleagues and organizational culture and practices.

For the purposes of this study, '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.

*Research Questions*

| Research Practices |
| --- |
| • **What is the extent and nature of research use by educational leaders in Canada?**<br>  • What is the perception of research use in the district?<br>  • In what ways do districts support the use of research (research focused events; district practices; discussion in meetings; formalized research capacity; data use in school planning)?<br>  • What is the extent of individuals' research-related activities (time spent on research-related reading, events and networks)? |

## Knowledge of Research

- **What knowledge do educational leaders have about some important research findings related to improving secondary schools?**
  - What were the sources of evidence they referred to in relation to these findings?
  - How do they rate the importance of each source to their acceptance of the findings?

## Interventions & Impact

- **What interventions might improve the availability and use of research in schools?**
  - Can we shift educational leaders' knowledge to be more aligned with the available evidence using some modest interventions?
  - Do more intensive intervention strategies have more impact than passive ones?

### *Conceptual Framework*

This study starts from a framework suggesting that knowledge and use of research in schools depends on:

| Characteristics of the **research** | • Accessibility<br>• Perceived quality |
|---|---|
| Characteristics of the **educators and schools** | • Research background<br>• Interest level<br>• Supporting processes and structures |
| Role of **third parties** as distributors of knowledge | • General and professional media experts<br>• Professional development providers |
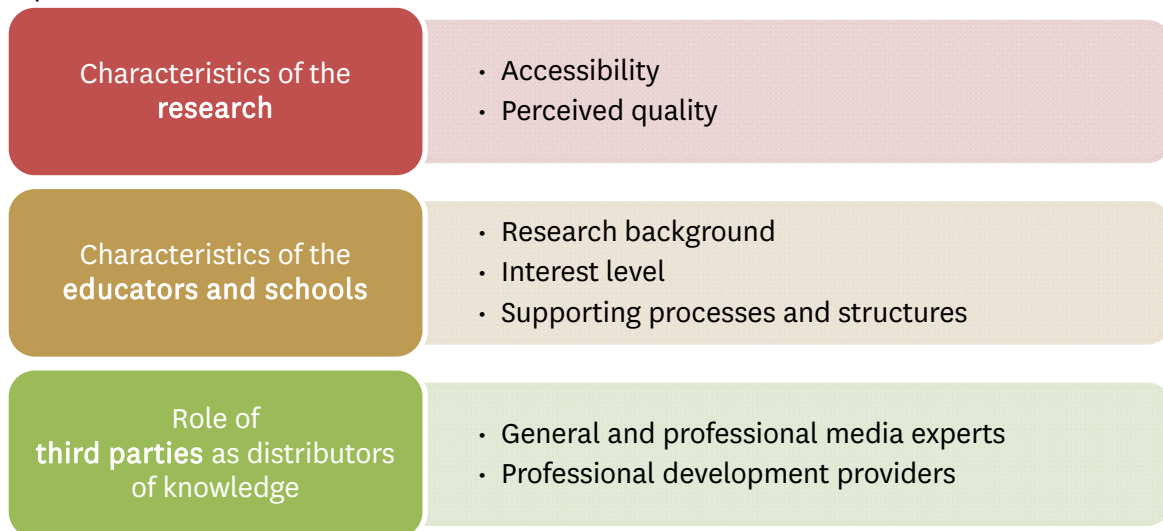
The first dimension of our conceptual framework addresses the research itself: its format, its content and its relevance to practitioners. Practitioners often suggest that the format of research (for instance a plain language summary rather than a full report) is important to whether or not they use research; they also suggest that explicitly stating practical applications of research findings increases the chances of it actually being used in schools.

The second dimension considers two areas: practitioners and schools. The literature suggests that teachers and principals who have more exposure to research and experience conducting

research (for example through pursuing graduate degrees) are more likely to use research in their work.  In terms of organizations themselves, research use increases when it is embedded in processes and structures.  For instance, are there systems in districts to find, share and use research?  Is time allotted to discuss research in relation to priority issues in meetings and pr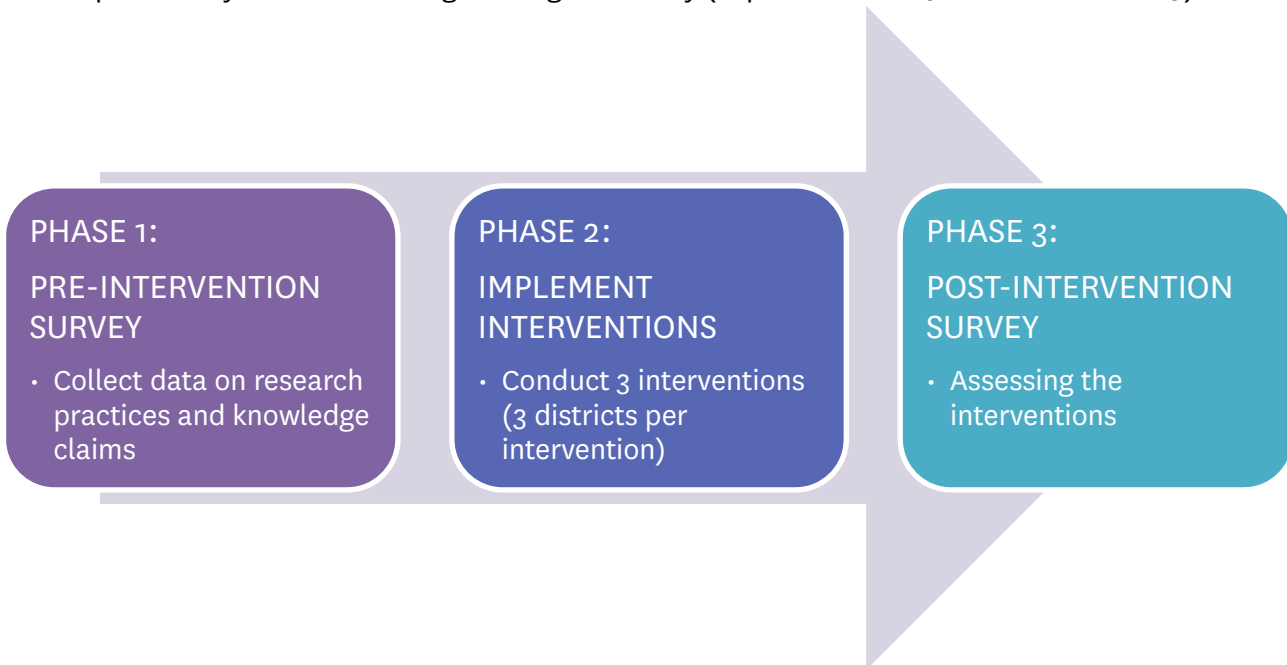ofessional development events?  These are some of the issues we explore by asking what supports are available in districts to support practitioners use of research.

In general educators, like other professionals, have relatively limited direct knowledge of current research and rely heavily on versions of research findings that they encounter in their work from other colleagues, the media or through professional development events.  The third dimension in our conceptual framework considers how many different sources (experience, colleagues, third party agencies) influence educators' knowledge of research and which of these sources educators find most persuasive.

It may be possible to shift patterns of research use by creating organizational supports and incentives for consideration of research.  This study explores whether modest interventions can increase research use in school districts

*Study Design*

To assess research use and the effect of interventions in school districts we used a simple pre-post design.  We first surveyed  leaders in participating school districts to measure organizational practices and knowledge around research (February, 2008 – October, 2008), followed by interventions intended to change those practices and knowledge (September, 2008- July, 2009), followed by a measure of whether those interventions resulted in changes in knowledge or practice by re-administering the original survey (September, 2009 – December, 2009).

**PHASE 1:**

**PRE-INTERVENTION SURVEY**

- Collect data on research practices and knowledge claims

**PHASE 2:**

**IMPLEMENT INTERVENTIONS**

- Conduct 3 interventions (3 districts per intervention)

**PHASE 3:**

**POST-INTERVENTION SURVEY**

- Assessing the interventions

The survey had 23 questions: five demographic questions, eleven questions about research use practices and six questions on knowledge claims. In total, these questions included 85 items and factors related to district research use.

## Research Practices

The first part of the survey explored district research practices by asking educational leaders about research-related activities that the literature suggests are connected to greater knowledge mobilization.



In particular, we focused on activities that create connections among people, since the available evidence indicates that these connections are more powerful in changing what people do than are activities such as simply communicating research findings.

Many surveys ask participants about their opinions and beliefs, although we know from the literature that these responses are often inconsistent with actual behavior. An important aspect of this survey is that it asks respondents about the existence and *frequency* of specific practices or behaviors rather than about their attitudes or beliefs. While one still cannot be fully confident in the accuracy of self-reporting, these kinds of responses are less likely to be affected by social desirability, are easier to check, and are easier to compare among respondents in the same organization.

## Research Knowledge Claims Relevant to Practice

The second part of the survey focuses on six knowledge claims (KC) related to success factors for students and student pathways and trajectories:

<table>
<tr>
<th>Success factors for students</th>
<th>Student pathways and trajectories</th>
</tr>
<tr>
<td>• Knowledge claims were based on research on the current success and failure rates of students, and the factors (both in and out of school) that may influence these outcomes including the impact of student background, course choices, engagement levels, school supports, parent engagement, etc. with a focus on the most powerful influences and how they operate.</td>
<td>• Knowledge claims were based on research on the short and long-term destinations of students and the pathways to reach those destinations including the proportions of students with different post-school destinations, factors influencing those choices, ability of schools to predict and hence plan effectively for student choices.</td>
</tr>
</table>

Knowledge claims are ideas that have strong empirical support from research.  We were interested in whether leaders in the districts agreed with these claims.  We were also interested in what they would say were the sources of their knowledge of the claim and the importance of each source.  The sources in the survey are drawn from the research, which emphasizes the importance of experience or professional relationships in shaping behaviour in comparison with knowledge of empirical evidence.  The following diagram outlines the structure of the second part of the survey in relation to the six knowledge claims. For more information on the literature underpinning these claims, please see Appendix D:  Knowledge Claims Literature Review online.

## Knowledge Claim (structure of survey)

### Level of agreement with the claim

### Source of information that supports your knowledge of this statement

- Research Report
- PD Events
- Professional Network/Colleagues
- Personal Experience
- Data collected in your school/district

### Importance of the source of information in your acceptance of this particular claim

## KNOWLEDGE CLAIMS (KC)

- KC 1- Failing: Students who fail a single course in the first year of secondary school are at a much greater risk of dropping out of school.

- KC2- Disengagement: Disconnection and disengagement with the school culture and school community are major contributors to students leaving school.

- KC3- Success Despite Demographics: Schools with similar student demographics can and do have very different student achievement outcomes; suggesting that some schools are more successful than others at supporting student success (e.g. timely graduation).

- KC4- Quality of Teaching: The quality of teaching and learning in the secondary school is one key factor that influences student pursuit of post-secondary education.

- KC 5- Predictions: Secondary school performance and grades predict post-secondary school success with a high degree of accuracy. [Note: this is a reverse phrased claim; the evidence actually indicates that high school grades are only a moderate predictor of post-secondary success.]

- KC 6- Preparation for Life: The majority of students believe that secondary school prepares them well for post-secondary school life. [Also a reverse indicator; the evidence indicates that most students do not feel they have been well prepared.]

**PHASE 1:  PRE-INTERVENTION SURVEY RESULTS**

There was more similarity than difference across districts in their responses around research practices– generally the responses were highly positive and mean scores on items did not differ very much across districts.

*Research Practices*

We estimated potential respondents across districts (superintendents, principals, vice-principals and others in leadership roles) to be approximately 350 people.  In May 2008, 188 educational leaders in eleven school districts completed our survey.  We worked with a lead contact in each district who forwarded the survey to relevant participants in their district.

## Characteristics of respondents

The 188 respondents were divided roughly evenly among principals, vice principals and 'others', including curriculum consultants and department heads.  Respondents reported a wide range of years of experience in the leadership role. Most respondents have a masters degree or above.



Level of Education

- Other 5%
- Doctorate (completed) 4%
- Doctorate (in progress) 4%
- Master's Degree (completed) 61%
- Bachelor's Degree 2%
- Bachelor of Education Degree 15%
- Master's Degree (in progress) 9%

## Current Role



- Missing 4%
- Superintendent 8%
- Principal 29%
- Vice-Principal 29%
- Other 30%

## Years in Role



- Less than 1 year 9%
- 1 to 2 years 20%
- 3 to 5 years 31%
- 6 to 10 years 24%
- More than 10 16%
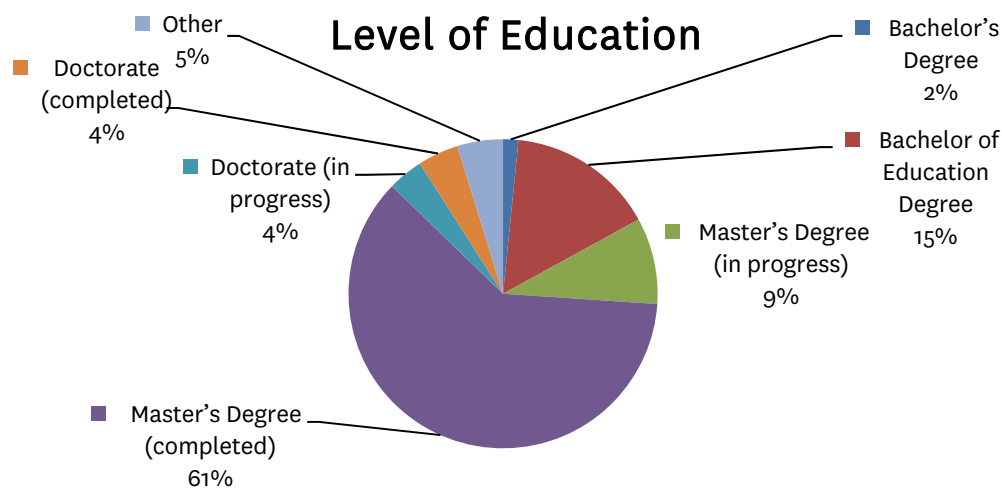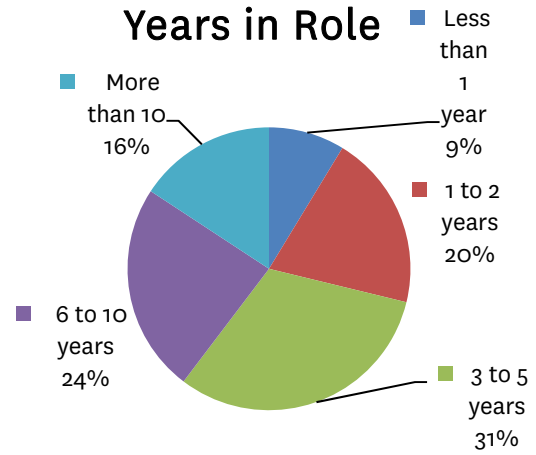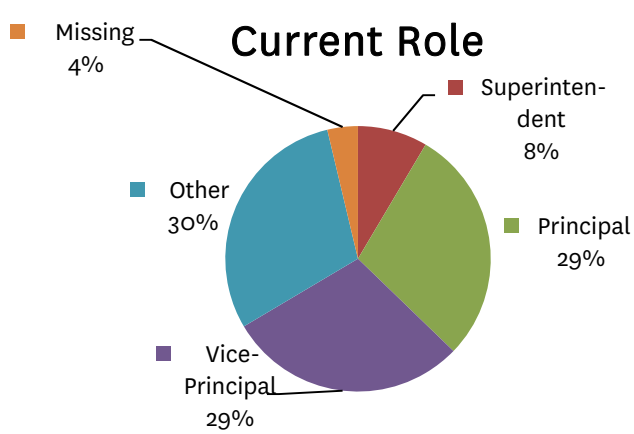
### Attitudes

Overall, the respondents were positive about the extent of research use in their districts: 85% of educational leaders agree or strongly agree that "the important role of research is evident in the ways we relate research to practice within this district."

## Attitudes



- 3%
- 4%
- 8%
- 51%
- 34%

- Strongly Disagree
- Disagree
- Agree
- Strongly Agree
- Don't Know
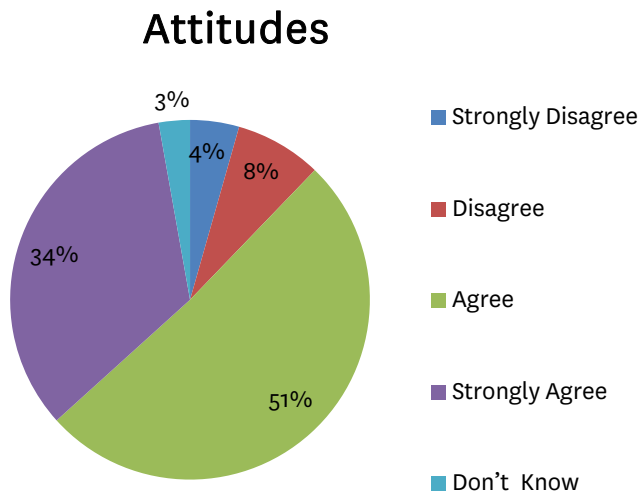
## Capacity

*Institutional research infrastructure*

Research capacity varies across districts.  We asked districts if they had institutional research infrastructure articulated as the physical, informational and human resources essential to conduct appropriate research.  Less than half (45%) of educational leaders surveyed reported that formalized roles and research departments existed within their districts, with (16%) not knowing whether or not research infrastructure existed within their district.  In many cases (40%), even those who knew that their district had formalized research capacity weren't sure how many people were involved.  One exception was a school district that has made a consistent effort in knowledge mobilization: 94% of respondents from this district knew that the infrastructure exists, suggesting that efforts to give more profile to research do have an impact.  Where research capacity does exist, it is small (usually less than five people, with only a very small percentage having more than ten people).

Only 37% of respondents reported having research posted on their districts websites, with a third of educational leaders being unsure of whether or not research is posted on their district website.

Most districts (70%) did have joint research projects occurring with universities and community organizations, although almost a quarter were, once again, unsure of whether research collaborations were taking place within their districts.

*District support available for research related activities*

We asked respondents about the frequency of various research-related practices in their districts.  The districts do have a range of research-related activities.  Among other research activities, 85% reported that districts encouraged research-related professional development, 83% that the district supported action research,  61% said that the district provided funds for research generation and use, 78% that data was incorporated into district and school reporting requirements, 78% that the district sponsored research-focused events, 73% that districts provide opportunities for informal networking related to research, 74% that research articles were circulated within the district, and 65% that districts provide staff with time to engage with research-related activities.  There was little variation in these practices among districts, which is not surprising given high overall positive responses.  In some instances, leaders did not know if resources were available in their districts to support research generation and use (27%), to build ongoing relationships with external researchers (22%), to provide informal networking opportunities (16%) and to incorporate data into reporting (16%).

Overwhelmingly, educational leaders reported district support for a variety of research related practices; however, self-reported amounts of time educational leaders actually spend engaging with research focused events, research related events and research related networking are much lower.

**Actual Use**

*Organizational research use*

Research is discussed to very different extents across different types of meetings and events.

## How often is research discussed in the following?



Legend: ■ Never  ■ Rarely  ■ Sometimes  ■ Often  ■ Always
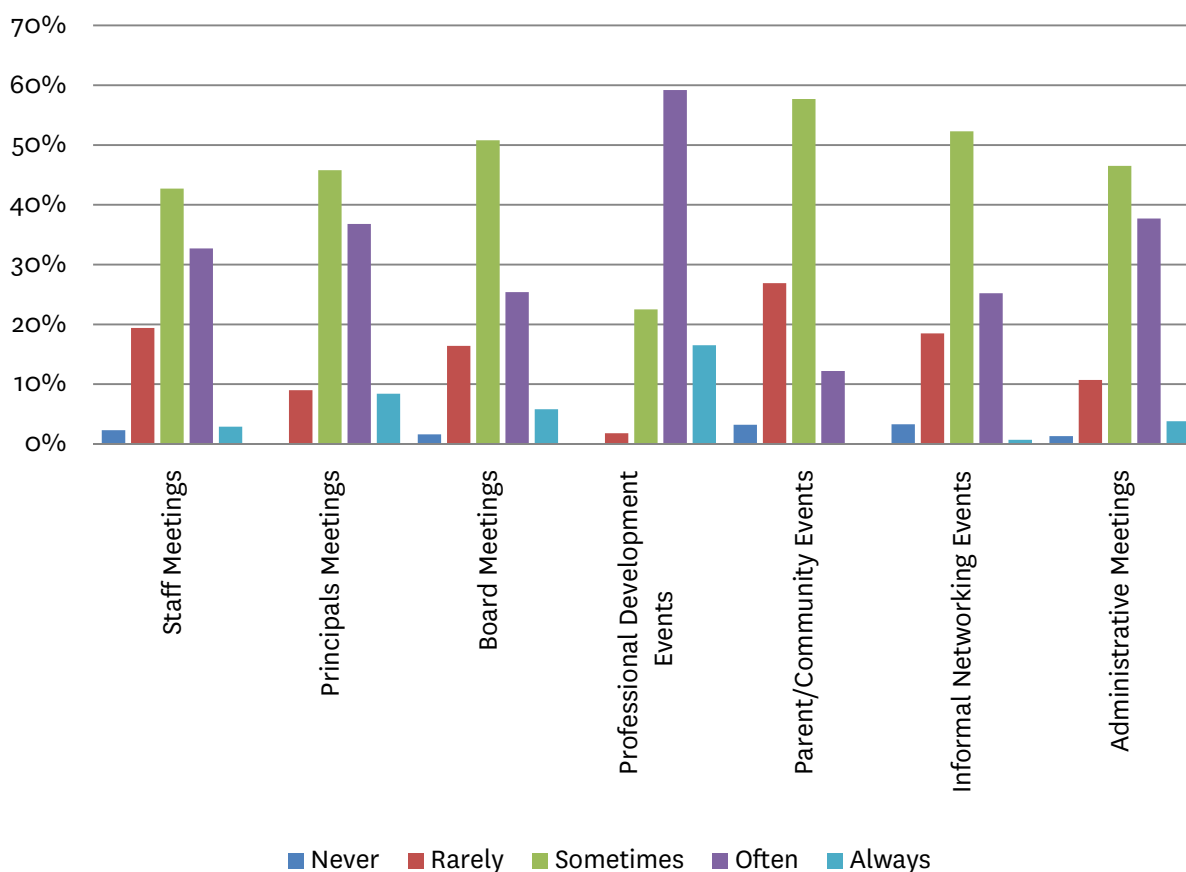
Participants reported that research was discussed the most frequently and consistently in professional development events, although later data in this report show that educators consider PD to be the least important source of information in influencing their views on the knowledge claims.

*District Data Use*

Districts regularly report on and analyze a number of data sources.

## District Data Sources reported and analyzed
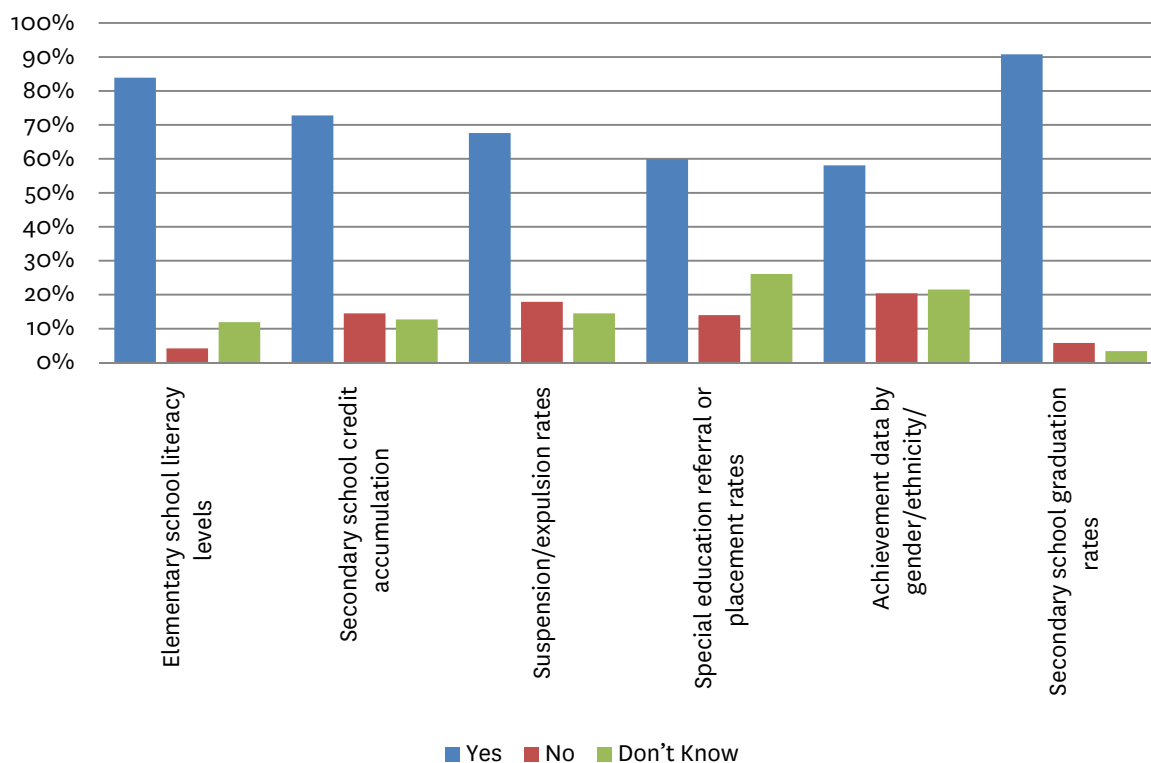


Most of the respondents said that their districts used data and research in school and district plans around improvement, but less for individual teacher evaluation and in reporting to parents.

# Reports citing local data and research



Chart categories: District plans, School plans, Performance evaluations, Parent/community communications, District annual report, School improvement plans

Legend: ■ Yes  ■ No  ■ Don't Know
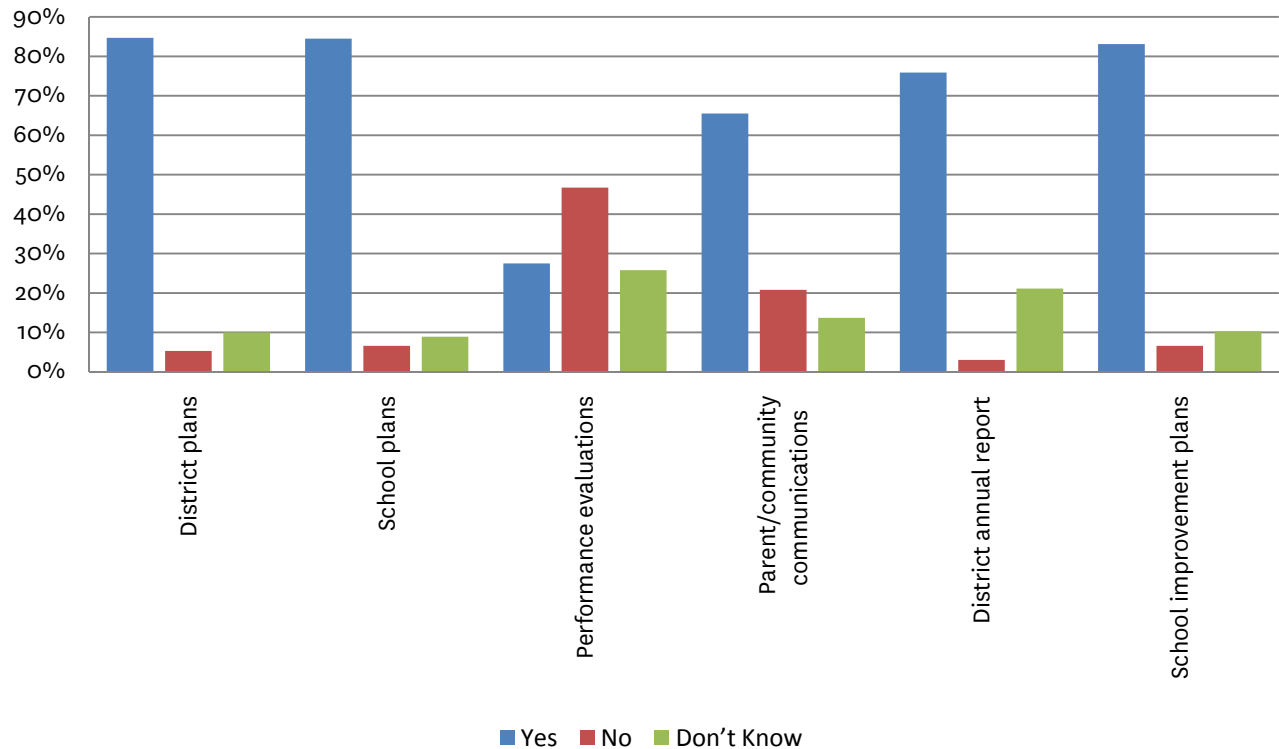
Predominantly, this data use is linked to reports and school plans that go directly to government, suggesting that data use increases when it is required through formal policies.

*Participation in research activities*

Participation in research related events and activities are quite varied among respondents, though relatively similar from one district to another.  Overall, these educational leaders spend more time engaging with research related readings than research related events and networks:

**Research Related Readings**
- 63 % of educational leaders spend between 0-5 hours per month on research related reading.
- 37 % of educational leaders spend 6 or more hours a month on research related reading.

**Research Related Events**
- 47 % of respondents spend 2 hours or less per month in research related events.
- 25% are not engaged at all in research related events.

**Research Related Networking**
- 52% of educational leaders spend between 0-2 hours per month, with 23% doing none.
- 27% of educational leaders spend more than 6 hours per month.

Most educational leaders attend 1-2 research related events a year including government sponsored events, professional conferences, university sponsored events and academic research conferences.

Districts offer research related resources and formal and informal networking opportunities more frequently than research focused events.   Most respondents reported that research focused events were offered yearly.  Nearly half of the respondents reported that all three categories, research focused events (59%), research related resources (48%) and other formal and informal networking opportunities (47%) were offered infrequently in their districts.

## Relationships between attitudes, district capacity and actual research use

One has to interpret the positive results of attitudes regarding the importance of research with caution since other survey results and interactions with participants during the intervention phase of the study showed some discrepancy between the reported importance of research, capacity and actual research use.  Some districts lack capacity whereas others, even with capacity, still report modest levels of use; therefore, capacity is not necessarily synonymous with actual use. So while school districts in recent years may have increased their capacity to support and participate in research-related activities, educators do not necessarily capitalize on available resources.

> *Some districts lack capacity whereas others, even with capacity, still report modest levels of use; therefore, capacity is not necessarily synonymous with actual use.*

Reported research practices do vary according to respondents' different roles.  For example, superintendents reported higher levels of research related activities across all three categories - readings (Mean = 3.47), events (Mean = 3.47) and networking (Mean = 3.07) - than did principals - readings (Mean = 3.11) , events (Mean = 2.58) and networking (Mean = 2.57).  Principals, for the most part, also reported slightly higher levels across all three categories than did vice-principals - readings (Mean = 2.72), events (Mean = 2.41) and networking (Mean = 2.15).

### *Knowledge Claims*

The survey asked respondents their views on six knowledge claims related to success factors for students and student pathways and trajectories (the claims are stated on page 17).  Each statement was based on significant empirical evidence, though some statements were worded consistently with the evidence while others were worded in opposition to the evidence to avoid response bias.

## Level of Agreement with Knowledge Claims

For three of the knowledge claims, most respondents agreed with the weight of empirical evidence.  Knowledge claim two on disengagement had 94% agreement, knowledge claim three on success despite demographics had 79% and knowledge claim four on the quality of teaching had 87% agreeing or strongly agreeing with the claim.

On three other knowledge claims, there was much less agreement among our respondents.  For knowledge claim one on failing 24% disagreed or strongly disagreed.   For knowledge claim five on prediction 39% agreed or strongly agreed, and for knowledge claim six on preparation for life 37% agreed or strongly agreed (these were both reversed statements, so disagreement would have been consistent with the evidence).

Notably, for knowledge claim one on failing, the two Ontario districts, where this issue has been the subject of much attention, reported substantially higher levels of agreement (> 90%).

## Sources of Knowledge

In relation to the factors influencing respondents' views:

- For all the knowledge claims, respondents report multiple sources of influence on their views, suggesting that many different information sources can matter.
- Respondents reported that personal experience is the most powerful influence on their views, followed by colleagues or professional networks.  This finding is consistent with much other research showing that people's ideas are primarily shaped by their experience or colleagues.
- Direct contact with formal research sources and professional development appeared to play a weaker role in shaping opinions across all the districts.

In contrast to these results, respondents reported more use of evidence-based sources, such as research reports and data collected in the school, in relation to the three claims that had the most agreement, suggesting that evidence can have an impact on beliefs.

## PHASE 2: IMPLEMENTING INTERVENTIONS

After the initial survey, we worked collaboratively with nine districts during the 2008/2009 school year to design and implement three interventions to increase research use. All the materials used for the interventions are available online for others to use (http://www.oise.utoronto.ca/rspe/Empirical_Studies/CEA_Research_Project_.html) .

Three districts were assigned to each intervention after discussing the options with each district. While we provided the materials, each district decided how to manage and implement each intervention in order to contextualize the materials and activities.

| Intervention 1: System to share research articles | · Districts were provided with a website that had some credible research on secondary schools and student success (newsletters, websites, readings) to be distributed and used as each district chose. |
| --- | --- |
| Intervention 2: Study groups around research issues | · Districts created study groups of district leaders (6 to 10 people in a group) to meet a few times during the year to discuss important research on secondary school improvement. Districts were provided with the relevant materials including executive summaries and guided questions for three sessions. |
| Intervention 3: Districts Conducting Research to Collect Local Data | · Districts organized tracking of former students' post-high school destinations and used these data to inform district planning for secondary schools. Districts were provided with a methodology and survey instrument for this activity. We suggested this activity be carried out by secondary students as part of a course. |

These interventions arose from the literature (Appendix D: Interventions Literature Review). Nutley et al. (2003) suggest increased online dissemination of research products as a possible intervention. Other research also suggests that using short research summaries, rather than full reports, has the potential to increase use and impact. The second intervention is based on literature suggesting that creating structured time for practitioners to discuss research increases its use and ultimate impact. The third intervention builds on literature which suggests that research evidence may be more persuasive when stakeholders are involved in a collaborative process to design and conduct research initiatives that reflect the local contexts.

We created a unique website for each of the participating districts in order to be able to track their use of the intervention materials and verify their self-reported use.  As the interventions proceeded, we tracked implementation with the participating districts through e-mails, conference calls, meetings with participants and, in some cases, visits to schools and classrooms participating in the interventions.  All of the conference calls and meetings were recorded and transcribed. Our team also provided support to the districts on each intervention as requested.

### *Intervention 1: System to share research articles*

Five school districts were initially assigned this research activity, of which three participated and carried out the activity to some extent reporting on experiences.  The following table provides an overview of the districts assigned to this intervention.

| | District Identifier | Size (# schools) | Existing organizational structures (date of origin) | Activity surrounding Intervention |
|---|---|---|---|---|
| INTERVENTION 1 | Website District A | Medium (around 10) | Student success team (2007) | - moderate (accessed materials and reported circulating materials) |
| | Website District B | Small (less than 5) | - Committee focusing on factors affection non-completion (2008) <br> - Professional growth teams (2000) | - high (districts created binders for each member of team; compared district data to national trends; created action mandates from discussions) |
| | Website District C | Medium (around 10) | - Learning leaders in each school which meet periodically to discuss priority issues (2005) | - none (did not access materials) |
| | Website District D | Small (less than 5) | - none reported | - none (did not access materials) |
| | Website District E | Small (5-10) | - none reported | - none (did not access materials) |

While all districts accessed their unique project page, only two of five districts actually downloaded resources.  Two school districts that did not attempt to implement the interventions (Website District D and E) also had low response to the initial survey.  This is consistent with the literature that suggests more passive strategies for dissemination have less impact (Nutley, Jung, & Walter, 2008).  The number of downloads does not correspond to levels of use, because after the documents were accessed they could be saved and distributed in other ways within the district.

Website District A selected two reports focusing on student success.  They framed the reports with guiding questions to look at the real application of the research.  They found that there was a more positive response to the research in this format.

Website District B, however, not only made extensive use of the materials but also contacted the research team asking for more!  This district used an existing structure, a committee looking at improving graduation rates, as a conduit to distribute and discuss the research.  Facilitators from this committee created a binder for each member which included all of the materials from the website.  In meetings they began by using the executive summaries.  They then asked members to focus on two articles and to share the interesting facts in depth with the rest of the committee.  A third step in the use of the materials was to compare district data to match trends that were exposed in the national picture presented in the research reports. This district using resources from the website also formed subcommittees with action mandates which came out of their discussions of the materials.  There was also greater alignment of different committees reported around related issues; for example, the literacy team worked more closely with the team dealing with transitions to secondary school allowing both teams to look at the role of literacy in student success in the first year of secondary school.  This district found that the intervention gave a lens through which they can look at their own data more effectively.  In some cases, it reaffirmed what they already believed and, in other cases, it identified gaps in the data that they are collecting which gives them a reason to delve into the district data further.

## Intervention 2: Study groups around research issues

In this intervention, the OISE team provided districts with research related materials for three study group sessions.  Materials included executive summaries, full reports as well as guiding discussion questions.  OISE was not involved in organizing these groups or coordinating the meetings; districts decided the best way to proceed with these tasks.

| | District Identifier | Size (number of schools) | Existing organizational structures (date of origin) | Activity surrounding Intervention |
|---|---|---|---|---|
| **INTERVENTION 2** | Study Group District A | Medium (around 10) | - administrator discussion groups around priority issues including secondary and elementary school leaders (2003) | - moderate (met regularly, but the interaction was around the existing structure, not the intervention or new materials) |
| | Study Group District B | Large (more than 10) | - no facilitator | - low (only met once) |
| | Study Group District C | Large (more than 10) | Coordinator for research and information | - high (materials used in district wide PD event) |

Responses from educational leaders participating in this intervention were positive.  Study Group District A struggled in keeping the discussions related only to secondary school students since their existing groups consisted  of elementary and secondary leaders, and they did not use the study materials provided.  Study Group District B had difficulties in meeting regularly, because

they did not have anyone facilitating the group. Study Group District C was the most successful in implementing this intervention, which can be attributed to focused groups, and having a facilitator who organized the group and ensured engagement with the materials by the principals.

Some impacts did occur from these groups. For example, study group district C presented research related to secondary school student success from the intervention at a PD session for the district Association of Secondary School Administrators. This group also invited a speaker from an organization that evaluates programs that support students to go on to post-secondary education, broadening their network with external organizations. As well, district leaders from the three districts that were introduced to each other through the research team's telephone conferences have been communicating with each other through email sharing models for school improvement.

### Intervention 3: Districts Conducting Research

The research team provided districts with a post-school destination survey for current students to administer as part of a high school course, with previous students from a particular cohort being the research subjects. OISE team members set up the survey online and sent the districts the data files after students in the district had distributed the survey. The research team also provided each district with an instructional package outlining how to conduct data analysis (see RSPE website for materials). The research team was not involved in co-coordinating and planning different avenues to present the findings of the post-school destination surveys to leaders; participants decided the best way to share their findings with district leaders.

|  | District Identifier | Size (number of schools) | Existing organizational structures (date of origin) | Activity surrounding Intervention |
|---|---|---|---|---|
| **INTERVENTION 3** | Data District A | Small (5-10) | -none, project carried out by VP in central office | - moderate (modified survey, deployed, low response rate, no analysis conducted) |
|  | Data District B | Small (less than 5) | -none, project carried out by district SO | - moderate (used student council to administer survey as student voice project) |
|  | Data District C | Large (more than 10) | -formalized research infrastructure facilitating project | - high (Carried out by Grade 12 students in 3 schools as part of a school course; survey adapted and administered; high response rate; multiple products created from data analysis) |

In data districts A and B the project was carried out through central office by the district vice principal or superintendent. Data district C was the only district participating in the study that had a formal research infrastructure in the form of a district research team. This team facilitated

the project. All three districts had experience in conducting similar surveys of graduates in the past through the central offices.

Each district required different resources and support from the research team throughout this intervention. One district used only the initial support, and another modified the survey instrument somewhat. Though the district leaders made efforts to combine the 'Post School Destinations' surveys with other surveys being administered in the district, they lacked the time and the districts lacked the capacity to work with teachers and students to collect and analyze the data. The intervention in these two districts did not move beyond creating and uploading the survey.

Data district C had substantial ongoing support to implement this project and also seemed to have the most success with the intervention. This district was able to carry out the intervention to completion in three secondary schools, and the intervention was carried out as part of a math course. At the end of the term, students presented their findings to their school vice principal, math teacher and representatives from the district research team. There were a number of products created by students from this intervention: a handout for administrators outlining the student experience, YouTube videos, PowerPoint presentations and so on.

## PHASE 3: POST-INTERVENTION SURVEY & EVALUATING IMPACT

Following the interventions, in the fall of 2009, the research team asked participating districts to administer the same survey once again to the same group of district leaders. The goal of the second survey was to see if the study and the interventions affected either research practices or knowledge about empirical findings.

158 educational leaders completed the post-intervention survey. For confidentiality reasons we did not track who completed which survey, so it is likely that many people who completed the first survey did not complete and second and vice versa.

Overall, there were not many significant changes in the response patterns between the first and second surveys, suggesting that the interventions had little impact on knowledge or practice.

### *Overall Research Practices*

Of the 39 items related to research practices surveyed there were significant shifts on six items. The seven survey questions from the research practice portion of the survey indicate the few changes observed in selected items. Given changing populations in the two surveys, these data suggest that research practices in the districts did not change over the year.

| Survey Question | Item (where applicable) | Differences in pre-post survey data |
|---|---|---|
| 5. How often would you say research is discussed in your district during the following: | Principals Meetings | Percentage increase in respondents who reported they discussed research often/always from 45% to 54% |
| | Administrative Meetings | Often /Always from 42% to 57% |
| 6. In your last year of fulltime work in a school or district, how many research focused events outside of your own district sponsored events did you attend? | Overall no change from pre to post. Provincial department/ministry sponsored events and professional conferences (70%) are the most attended as compared with events sponsored by external organizations (43%), with academic research conferences being the least attended by practitioners. | |
| | Events sponsored by an educational institute such as college or university | Decline from 53% of respondents saying the attended at least one per year to 46% |
| | Events sponsored by another outside organization | Increase from 51% of respondents saying they attended at least one per year to 57% |
| 7. This school district follows these practices: | Circulates research articles | Increase from 74% to 89% Yes in circulating researching articles |
| | Incorporates/links data to reporting | Increase from 78% to 88% Yes |
| 8. Does your school district regularly report and analyze the following data sources: | Special education referral or placement rates | Increase in Yes from 60% to 67% |
| 9. Are local data or other research cited within the following district and/or school documents: | District annual report | Increased reporting from Yes of 76% to 87% |
| 10. How often does your school district offer the following research activities/strategies: | Research related resources | Increase in monthly use from 43% to 53% with a (4% net increase) |

## *Overall Data for Knowledge Claims*

The follow-up survey did not show significant changes from the initial survey in beliefs on the knowledge claims or in sources influencing those beliefs.  The only significant shift was an increase in agreement for knowledge claim one on failing from 63% to 82%. The only major shift in sources of knowledge was in *Research Reports* for knowledge claim one on failing which moved from 36% to 57% importance (Very Important/Extremely Important).

*Overall agreement with knowledge claims in conjunction with importance of data and research as sources of knowledge* (Percentage of respondents who indicated that Research or Data was VI/EI very important or extremely important as a source of knowledge)

|  | KC1: Failure (A/SA) % | | KC2: Disengagement (A/SA) % | | KC3: Success Despite Demographics (A/SA)% | | KC4: Quality of Teaching (A/SA)% | | KC5: Predictions (D/SD)% | | KC6: Preparation for Life (D/SD) % | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Agreement | 63 | 82 | 93 | 96 | 79 | 82 | 87 | 85 | 39 | 34 | 37 | 33 |
| Source of Knowledge | VI | EI | VI | EI | VI | EI | VI | EI | VI | EI | VI | EI |
| Research | 36 | 57 | 53 | 61 | 46 | 45 | 50 | 44 | 34 | 39 | 28 | 33 |
| Data | 55 | 58 | 57 | 56 | 48 | 48 | 44 | 43 | 36 | 30 | 41 | 40 |

It is interesting to note that where shifts in agreement with knowledge claims occurred, they were accompanied with corresponding shifts in the source of knowledge of the claim; where alignment between beliefs and evidence increased, so too was research and data reported as more important sources of knowledge for that claim; where alignment was less, so was reported use of research.

## *Impact of interventions on knowledge*

Overall, these interventions had modest success.  Although nine districts agreed to take part in the interventions, only three districts were able to move the interventions to any significant level of action.  The usual barriers to action emerged, including lack of time, lack of capacity, the absence of someone to take initiative, and the relatively low priority these activities received.  The interventions were most effective where they fit with an existing district priority or infrastructure, otherwise even interventions that were simple to implement were not employed.

Variation in the interventions and in survey respondents make it difficult to say whether some interventions were more effective in affecting knowledge and sources of knowledge.  In each intervention there were districts that were more or less successful. The districts that reported in discussions and were observed to have higher levels of engagement with the interventions did not have more change in the follow-up survey than did other districts.  However it should be noted that these interventions did not necessarily have a wide spread across districts.  For instance, the study groups in total included on average eight to ten principals per group, per district.  So the

materials were only utilized by a small proportion of respondents and we can't be sure that the administrators that participated in the interventions necessarily participated in the post survey as noted above.

The findings from this analysis are consistent with the literature on interventions that says that impact varies widely across practice contexts.   It is notoriously difficult to trace why some interventions are more successful than others.

## IMPORTANT THEMES ARISING ACROSS INTERVENTIONS AND DISTRICTS

This section of the report identifies important themes arising across interventions and districts based on qualitative data from conference calls regarding each intervention.  Each participant excerpt is identified by position and the intervention in which that district participated.

### *Significant interest in research use in secondary schools.*

There is a high level of recognition among educational leaders of the importance of research use in school districts, but research use is generally not highly prioritized within secondary schools and districts as shown by the generally low levels of research use reported by the survey as well as through our conference calls with district contacts.  The interest surrounding research use in secondary systems is encouraging, although there is still a lot of work to be done before research use is integrated into district cultures and embedded in the daily professional activities of practitioners.

> "The academic research has become more and more important.  Educators are also recognizing the value of incorporating research.  PD sessions have been much more focused on research than they have in the past. Slowly but surely research is being incorporated into what it is we are trying to do in various schools" (Research Coordinator, District Level, Website District C).

This section of the report identifies four conclusions on research use emerging from this project and our reading of the broader literature (with an emphasis on the nine districts involved in the interventions).

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 to increased research use.*

4) *Research has more impact when linked to actions seen as priorities in the organization*

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

Effective research use requires some kind of active process in the school and/or district for educators to engage with research, such as a structure, an agenda, or some venue where research gets talked about.  In most of the districts formal structures and processes for research use were lacking, and passive resources were often underutilized.

Participants spoke of research use being a result of multiple factors.  At the very least, availability of material is the baseline for research use.  Only one district reported having a common area- where educators can go to find and share relevant research, and it is unclear whether or not most educators know about it.

> "We do have a central….portal where we upload relevant research to make it available to people in the division….a library of research on a variety of topics, everything from aboriginal issues to assessment and data driven decision making to graduation rates….all professional personnel (teachers, admin, central office folks) have access…. How well does it work?  It works well for those people that have a real interest" (Superintendent, Website District C)

Educational leaders spoke of the need for structures and formalized processes that increased the likelihood that educators would engage with research.  It should come as no surprise that educators are busy and face complex challenges daily.  Educators often spend their days reacting to unexpected events rather than enacting planned efforts to increase research use.  There need to be opportunities for educators to engage with relevant research.  Currently, most of the research use occurs in the form of "ad-hoc conversations" (Principal). We cannot assume that just building the right structures will lead to more effective use of research; it is also important to foster a culture that supports and encourages research use.

> "We don't have formal time set aside by the district for us to meet to discuss research" (Secondary School Principal, Study Group District B)
>
> "One of the ways to encourage research use is to have an assigned reading done prior to a meeting.  That seems to be the most effective way of getting our administrators to read the articles.  You'll always have the people who are keen, who are going to go to the website and read research regardless of whether they're coming to the meeting but, on the flip side, you'll also have the people who wouldn't read it unless there was a structure put in place that made that happen" (Superintendent, Website District A)
>
> "Another established practice in our school division is to have a book study every year.  I start off by selecting one research related resource and studying it together, our admin and resource teachers come together and meet monthly, because it doesn't cost anything.  We decide on the resources, put it into

components, share facilitation and bring student work to the table" (Elementary Division Leader, Study Group District A)

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

In the resource website and study group interventions (both of which provided educational leaders directly with research) tailoring and adapting the research products to the needs of leaders was mentioned as increasing the tendency to use it.  However since use appeared to be low despite these efforts, we cannot conclude that these self-reports actually indicate an important effect.

"To increase use, you should make research user friendly and consider web-based strategies and tools" (Superintendent, Website District A)

"Research needs to be timely, for use here in our board" (Assistant Superintendent, Website District B)

 "Executive summaries work really well with our group.  It gives us an opportunity to talk about the big picture but then interested people can go deeper with it, so that helped with the reading more than when the report has been long.  It allows people a way in.  When we unroll research more with teachers in classrooms, we'll be looking for relevant snippets, more pieces, then giving people the website where they can continue to read and research" (Instructional Support Teacher, Website District B).

"The executive summaries are great because it can give an overall snapshot of what the research is about.  It provides a simplified way of organizing that information" (Assistant Superintendent, Website District B)

For the second intervention, we created questions for districts to consider and included these at the end of the executive summaries we created for the principal study groups.  Education leaders told us that the executive summaries and the guided questions acted as a reflective lens allowing them to consider their own district in relation to the broader provincial and national picture.

"Research from this intervention has given us the context or lens to look at our own data more effectively, to consider what we can see in the national picture and to create our own district picture.  In some cases it has reaffirmed what we already believed and reaffirmed the direction and, in other cases, it has heightened the awareness of gaps  where we don't have district data, or it has given us reason to delve into it further.  A specific example would be in one of the articles that said 85% of non-completers could be identified by 9th grade.  We started to go...further back beyond secondary school to look at attendance patterns, to look at indicators.  What are the ways we can support increased completion right from elementary school up?  (Instructional Support Teacher, Website District B)

### 3. Facilitation is important

Many leaders spoke to the need for a facilitator to increase research use in schools. They articulated a variety of roles that could help including co-ordinating and setting up meetings, picking research materials and preparing executive summaries and guiding questions as well as facilitating the research discussions to keep it focused and make it more meaningful. The interventions were most actively taken up where someone in the district made it her or his business to support and encourage them.

> "We are looking at ways of supporting teachers to access and utilize research….hence….the need for a facilitator, and I think for many of us, that's still where we are at. Increasing research use still requires that. For the most part, the majority of teachers will not seek research out on their own, unless there is someone there that prompts them to do so or facilitates it" (Coordinator, Website District A)
>
> "I think one of our struggles is that we don't have a formal facilitator" (Secondary School Principal, Study Group District B)
>
> "It is important to have a facilitator who will bring skills to keep people in the discussion" (Elementary Division Leader, Study Group District A)

### 4. Linking research use to action is vital

Some educational leaders spoke explicitly about how they linked the research resources we provided in the interventions to action plans. In both examples below, the educational leaders utilized organizational structures already in place as conduits to distribute research and link research use to action.

> "I'll speak to the early school leavers research. Once we were able to move to a real application of the research, that's when we noticed some positive response to the research and, as a result, we've continued to use the protective factors in our work with transitions to Gr. 9" (Coordinator, Website District A).
>
> "We have a committee in our district looking specifically at non-completion. We have representatives from elementary, middle and secondary and our mid-teams as well. We created a binder for each participant on the team. In most cases, we just used the executive summary to start. Then, we tried to find whether we had district data to match the trends that were exposed in the national picture. Out of this committee, we are now looking at action. We keyed in on the link between attendance and students dropping out of school. Now we have a subcommittee looking attendance and tracking right back into elementary. We've also done work with our reading assessment from K to 9, looking at the links between literacy and

> non-completion and also looking at transitions between middle and high school with actions" (Lead Teacher, Website District B)

## DISCUSSION

These data provide some useful indicators of the status of research use in Canadian school districts. If one considers the elements that might characterize an organization with a strong commitment to the use of research and evidence, the survey provides both positive and negative elements.

On the positive side, these respondents, from districts of various sizes in various parts of the country, report a strong interest in the use of research. The idea that policy and practice should be grounded in the best available empirical evidence appears to have wide support. Though this may seem a trivial finding, it was not so long ago that many education leaders would have dismissed education research as having little or nothing to contribute to practice (e.g. Holdaway, 1986; Gaskell, 1988). The change in attitude towards the importance of research is a vital element in improving knowledge mobilization in education systems.

The districts and their leaders are not just paying lip-service to research use, either. The survey results show that these districts support research-related activities in a variety of ways, including not only professional development opportunities, but also the integration of research materials and findings into various district activities and processes (such as school and district improvement plans and reports). The literature on knowledge mobilization shows that the integration of research into various standard practices and social networks is fundamental to increased and lasting use of research.

> *Activity still appears to depend heavily on volunteerism or on a few interested people rather than being deeply embedded in daily practices*

It seems reasonable to conclude that efforts to increase the role of research in the work of schools and districts have increased significantly over time.

However, one could not reasonably conclude that the existing state of affairs is optimal, either. In general, the behavioural data in the survey showed weaker use of research than did the attitudinal data. The practices around effective finding, sharing and use of research have not yet caught up to the intentions or the widespread awareness that research is important. Levels of knowledge among these leaders about their own districts' research-related activities were sometimes weak. For example, some school leaders were not aware of whether their district had an organized research capacity, or whether or not resources were available for research-related activities. Research discussions are still not a regular feature of events such as staff meetings or

board meetings.  And while districts have support for research-related activities available, a large proportion of respondents appear not to be very involved in such activities.  Activity still appears to depend heavily on volunteerism or on a few interested people rather than being deeply embedded in daily practices.

Additional support for this interpretation comes from the way districts report using evidence on student achievement, in that this use corresponds to reports and school plans that are required by government policy, suggesting that data use increases with formal requirements and policies.

Our experience in trying to generate improvements in the use of research in districts based on some fairly simple interventions is mixed.  Even these modest interventions were not adopted in many districts, suggesting that there is either no appetite or no capacity (or both) to increase research use, despite the initial survey results which were enthusiastic about the potential value of research.  Here our results are consistent with other research, primarily in health, that shows how difficult it is to create lasting changes in organizational behaviour.  At the same time, both in terms of research practices and knowledge of key research claims, there are grounds for optimism, as significant levels of both were reported in our initial survey.

Where the interventions had the most impact, it was largely due to the presence of advocates and intermediaries or facilitators in the districts.  In each of these cases a person or persons (usually one key person) led the way in supporting the intervention and in championing the cause of increased use of research.

Overall, these results suggest that there is much still to learn about the kinds of steps or actions that are most likely to result in stronger knowledge mobilization in schools and school districts.

### *Implications:  Ways to increase research use in school districts*

Our analysis in combination with other studies suggests ways in which the use of research could be further strengthened in schools and districts.  It is particularly important to make such practices more regular and systematic rather than sporadic and based on individual initiative.  A consideration of the ways in which schools and districts operate suggests some possibilities to increase research use.  The kinds of actions that might give greater weight and profile to research could include: the regular circulation of relevant research materials, discussion of research findings at staff meetings, the use of research in setting school and district plans, hiring of staff who have some research skills or background, building on graduate work being done by staff members, and including research materials and findings in professional development activities (though the latter appears from our data to be reasonably common already).  Structures that already exist within schools, such as staff committees working on priority issues, could also serve as vehicles to discuss relevant research.  Many of these changes in processes are small and could be done by most schools or districts without enormous effort.

> *Structures that already exist within schools, such as staff committees working on priority issues, could also serve as vehicles to discuss relevant research*

Such practices are not difficult to put in place.  For example, one can make discussions of research and evidence a standard part of the agenda of all major meetings in a school or district, especially by linking the discussion to ongoing issues of importance in the organization.  So if a meeting of principals were to discuss, say, ways of improving parent engagement, then it would be automatic that some attention would be given to the current research on this issue and to data on current practices.  Putting those systems in place raises the profile of research and creates the expectation among all parties that this kind of work is something to which they need to pay attention instead of being something to do when some time can be found.

> *From a system impact perspective, it seems likely that the same resources and effort could yield more impact if were connected to ongoing investigation of a few key organizational issues.*

Similarly, districts could re-assess the effectiveness of the supports they provide for research.  Districts are using practices such as supporting conference attendance or action research.  However, these activities also rely substantially on interested parties and volunteers.  From a system impact perspective, it seems likely that the same resources and effort could yield more impact if were connected to ongoing investigation of a few key organizational issues.  For example, districts might give more attention to study groups, working with external research experts, on priority items.  These investigations could, over time, build broad understanding across a district of the implications of research for practice in a few key areas, rather than dissipating many small scale efforts across many different issues as appears presently to be the case in most districts.

Another avenue to support increased KM in school districts is to provide support for network development and sustained collaboration across schools within a district or across districts.  Networks are a potentially powerful mechanism for professional growth, behavior change and improved practice if they are carefully structured and focused (Katz, Earl, & Jaafar, 2009).  Building networks within and across educational organizations could provide shared systems for finding, sharing and using research.  Currently, schools and districts often operate in isolation although education professionals are often struggling with similar challenges, leading to inadequate use of evidence.

> *Another avenue to support increased KM in school districts is to provide support for network development and sustained collaboration across schools within a district or across districts.*

The research design adopted here (measuring the change in agreement with particular bodies of research knowledge using interventions and pre-post design) is a complicated yet promising methodology to measure both research use and impact.  Its value lies in moving away from assessing opinions to measures of actual knowledge and behavior.  Future studies would need to:

- Control the sample more to ensure that involvement in interventions corresponded to pre-post responses
- Build more commitment from districts by identifying a leader within each district as condition of participation
- Provide clearer direction on how interventions should be conducted to increase fidelity

## CONCLUSION

The picture around research use in education is not nearly as bleak as some critics would suggest.  Our data show that Canadian school districts are interested in making use of research to shape their work, and they have taken a number of steps in that direction.  At the same time, more could be done in this direction, and much of it might not require a great deal of effort.  If we assume that research can help schools and teachers improve teaching and learning for themselves and their students, more progress is needed.  This report outlines some of the actions already in place and the direction they provide for further steps.  Canadian schools are fortunate to have committed and competent educators working hard to improve the lives of their students, and with considerable openness to the potential contribution of research to that work.  Our data suggest that school districts could make this work more of a focus and more systematic and, in that way, could increase the impact of their efforts.

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