A Knowledge Mobilization Tool to Support Evidence-Based Leadership

Amanda Cooper

Evaluation is fallible
Evaluation is but one source of evidence
Evidence is but one input into policy
Policy is but one influence on practice
Practice is but one influence on outcomes
(Weiss, 2005, pp. 12–13)

The Rise of the Evidence Agenda

Schools are microcosms of society and, as such, they often become battlegrounds for conflicting beliefs and ideology. Amid diverse educational stakeholders with differing opinions, the question remains: how should educational leaders make decisions? In the past 20 years, there has been a significant shift in public expectations. More specifically, teachers and principals are integrating research evidence into three areas: decision-making processes, policy, and practice (Cooper, Levin, & Campbell, 2009). Terminology encapsulating these concepts include evidence-based policy, evidence-based practice, evidence-based decision-making, and data-driven leadership (Cooper et al., 2009). Nutley, Jung, and Walter (2008) outlined five divergent purposes of why different stakeholders (e.g., government agencies, funders, intermediaries, research producers, and user communities) might be interested in increasing evidence use in education: addressing accountability, assuring value for money, setting priorities, assisting learning, and improving outcomes. Educational leaders are now expected to be evidence-informed, and I argue that this evidence agenda requires leaders to facilitate knowledge mobilization (KMb) on the frontlines. KMb is about integrating academic research with locally collected data and tacit and contextual grassroots knowledge to create useful tools and approaches for schools. Rather than seeing KMb as a top-down action, I conceptualize it as a process that is most powerful when initiated from the bottom-up and coupled with support from intermediaries and external research brokering organizations. Consequently, KMb is an approach that educational leaders and teachers can use to solve particular problems of practice in their local communities. This article offers a concrete example of the type of KMb tool that could help leaders become more evidence-based.

Conceptualizing Evidence-Informed Leadership

In the current societal climate, educational leaders need to facilitate KMb in relation to different sources of data at multiple levels of the educational system, that is, in classroom, school, district, and provincial, national, and international realms. In Ontario, educational leaders are now asked to understand and contextualize data from standardized testing conducted by the Education Quality and Accountability Office (EQAO). These tests include reading, writing, and mathematics in elementary and

secondary schools. Principals receive detailed school reports from EQAO and need to interpret and compare these data to other schools in their district as well as with provincial achievement. In order to improve student achievement on literacy and numeracy testing, educational leaders are being asked to mobilize and apply research to improve teaching and learning in priority areas. Math instruction has recently been prioritized for educational leaders due to the past iteration of the Programme for International Student Assessment (PISA) testing that showed a decline for Ontario in Math achievement. PISA results received considerable media attention and put pressure on educational leaders to act in relation to the data. KMb is about ensuring that educational leaders and teachers have the requisite capacity to understand and use data in school improvement planning.

Being Evidence-Informed Still Requires Professional Judgment and Contextual Expertise

Sometimes when I do presentations and training about KMb, there seems to be the assumption that KMb and research will somehow dethrone professional practice or trump what teachers and principals know from years of experience working in schools. Evidence often conflicts with commonly accepted beliefs of educators. A few examples include the fact that reducing class size or hiring educational assistants does not necessarily translate into increased student achievement. The consideration of research evidence by teachers and leaders should be thought of as a tool to augment and think strategically and systematically about solving problems to be used *in conjunction* with their professional judgment and expertise, not to replace it.

Good Practice Should Inform Research and Vice-Versa

Practice informs research and vice-versa. Nutley, Powell, and Davies (2013) outlined a continuum of possibly helpful to proven practices:
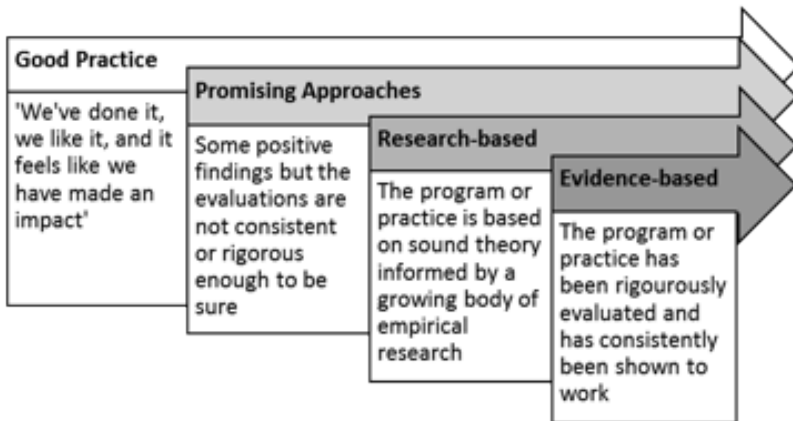

Figure 1. A continuum leading to evidence-based practice (Source: Adapted from Nutley et al., 2013, p. 9).

As illustrated through *Figure 1*, the path to evidence-based practice often begins by sharing innovative or promising approaches happening on the frontlines and, ultimately, then studying that practice and evaluating it to learn more about its effectiveness.

A Knowledge Mobilization Tool to Support Evidence-Based Leadership

Even when using KMb approaches, principals still have to decide among a variety of options for the various issues they face. For example, they need to make decisions pertaining to declining enrolment, hiring practices, bullying policies, struggling students, economically challenged communities, supports for struggling teachers, and annual budgetary challenges. I argue that KMb tools and approaches can help leaders decide the best way forward, and I offer an interesting toolkit made by the Education Endowment Fund (EEF) in the United Kingdom (UK) for educational leaders to provide a concrete example (Higgins et al., 2014). The EEF has created a teaching and learning toolkit that outlines different educational interventions, such as hiring educational assistants or assigning homework, in relation to three areas: strength of the evidence, cost of the intervention, and relative impact of each intervention articulated in months of learning that can be gained or lost per year, per student. The categories from the toolkit in relation to their positive effect on student achievement and cost are summarized in Table 1.

In the top left corner of Table 1 are the cheapest, highest impact strategies, which include effective feedback, metacognition, and self-regulation strategies, and peer tutoring. The cost per pupil for these strategies is about $316 (£170) per pupil per year, and the gains for these strategies range from 6–8 months gained, per pupil, per year (the impact of each intervention is calculated based on effect size from meta-analyses). The bottom, far right represent high costs, low impact strategies, such as hiring teaching assistants or reducing class size. Hiring teaching assistants costs about $2, 232 (£1200) per pupil per year, has a very weak evidence base, and has been shown to have zero impact (according to effect sizes from meta-analyses). The most costly and lowest yield strategy is retention in grade costing almost $56,000 per student per year and equating to a four-month loss of learning per student, per year. And yet, the system routinely fails students despite evidence showing that this is a costly and ineffective strategy.

This toolkit is a great example of the type of KMb tool that could support educational leaders in being evidence-informed in Ontario. In fact, a recent survey has shown that 36% of educational leaders in the UK are already using the toolkit. This point is impressive, since it was only created a few years ago. Currently, the toolkit includes over 30 interventions. It also allows leaders to rank these options by cost, evidence, or impact. In turn, a principal might search for the highest impact strategy, or they could look by low-cost strategies if they only had a small amount to spend in the budget. In addition, each approach has accompanying materials (e.g., products, videos, etc.) that outline the evidence on the topic and provide tangible strategies for how to implement the approach.

Table 1

Summary of Impact and Cost of Interventions

Impact	Cost (Converted to Canadian Dollars from British Pounds)				
	Very Low ($149 per pupil per year)	**Low** ($316 per pupil per year)	**Moderate** ($1,302 per pupil per year)	**High** ($2,232 per pupil per year)	**Very High** ($55,800 per pupil per year)
+8 months		• Meta-cognition and self-regulation • Feedback			
+6 months		•Peer Tutoring			• Early years intervention
+5 months	• Reading comprehension strategies • Homework (Secondary) • Collaborative learning	• Oral language interventions • Mastery learning		• One-to-one tutoring	
+4 months	• Social emotional learning • Phonics		• Small group tutoring • Digital technology • Behavior interventions		
+3 months			• Parental involvement		• Reducing class size
+3 months			• Outdoor adventure learning		
+2 months	• Learning styles	• Individualized instruction • Arts participation	• Summer school • Sports participation • Extending school time		
+1 month	• Homework (primary)		• Mentoring	• Teaching assistants	
0 months	• Block scheduling • School uniform	• Performance pay • Physical	• Aspirational interventions		

(Source: Adapted from Higgins et al., 2014)

This type of tool is a concrete example of how instruments can be created for leaders to engage with research and evidence in a practical way. It does not preclude professional judgment and contextual specificity; rather, it allows educational leaders to explore options that might best suit their local contexts and fiscal situations. The evidence agenda is here to stay; so, Ontario and Canada should continue to explore the different KMb tools and approaches that might better support educational leaders in being evidence-informed.

References

Cooper, A., Levin, B., & Campbell, C. (2009). The growing (but still limited) importance of evidence in education policy and practice. *Journal of Educational Change*, 10 (2/3), 159–171.

Higgins, S., Katsipataki, M., Coleman, R., Henderson, P., Major, L. E., & Coe, R. (2014). *The Sutton Trust-Education Endowment Foundation Teaching and Learning Toolkit.* London, England: Education Endowment Foundation.

Nutley, S., Jung, T., & Walter, I. (2008). The many forms of research-informed practice: a framework for mapping diversity. *Cambridge Journal of Education*, 38 (1), 53–71.

Nutley, S., Powell, A., & Davies, H. (2013). *What counts as good evidence? Provocation paper for the alliance for useful evidence.* London, England: The Alliance for Useful Evidence.

Weiss, C. H., Murphy-Graham, E., & Birkeland, S. (2005). An alternate route to policy influence: How evaluations affect D.A.R.E., *American Journal of Evaluation, 26*(1), 12-30.