

## Working Paper

### In the way of ourselves? Breaking down barriers to facilitate teachers engaging with research<sup>1</sup>

*Daniel A. Laitsch, Associate Professor, SFU*

I first entered the classroom as a high school teacher of English more than 25 years ago. My teaching assignment was in a U.S. high school for “behavior-problem truant adolescents,” where I taught general English classes. As a school for students with behavior problems, we had a strict code of conduct that meant student language was carefully controlled—no drug talk, no cursing, no threats.

A key cornerstone of my English classes was strengthening the reading and writing skills of my students, and an important strategy in that area was journaling. Research at the time highlighted the interrelated nature of writing and reading and the importance of regular free writing (and reading) for improving fluency and confidence in student writing. To get students writing, I required them to keep a nightly free-writing journal. One page each night, on a topic of their choice.

The use of a journal for my students, however, quickly created a conflict between the school’s code of conduct and my assignment. While my administrators at the time initially balked at my request to relax the code of conduct standards for student journals (focusing on safety, not particular words or language), to their credit when I presented the research on journaling and the importance of free writing they agreed to let me offer my students greater freedom. Happily, the pre- and post- enrolment assessment data around reading and writing

---

<sup>1</sup> D. Laitsch (In Press). In the way of ourselves? Breaking down barriers to facilitate teachers engaging with research. In K. Clausen & G. Black (eds.), *The Future of Action Research in Education: A Canadian Perspective*. Montreal: McGill-Queen's University Press.

that we collected ended up supporting the instructional interventions I was using as well, showing substantial improvement in student reading and writing levels (more about this later).

This initial foray into research use, and the power that using research-based instructional strategies could have on my professional autonomy, has guided my professional life ever since.

### *Research in Teaching*

Research is a cornerstone of what it means to practice teaching in the 21st Century. Initiate teachers are prepared for practice through exposure to research-based practices in formal university-based schools of education. Novice teachers who meet appropriate professional standards as evaluated by their preparation programs and provincial governing bodies are given licenses to teach and embark upon their professional career.

As part of the process, teachers are exposed to interdisciplinary research looking at, among other areas, child growth and development, human learning and understanding, assessment and evaluation, and philosophy, as well as specific subject matter knowledge.

For most teachers, this initial engagement with research expands into ongoing professional development, which includes both informal engagement with current research and formal study (such as through graduate degree programs). Research shows that teachers value research within their practice, even as they see barriers and facilitators to its use (Laitsch & Naylor, 2013; Laitsch & Nilson, 2011).

### *Teachers as Research Users*

Every good research activity starts with a review of the research. Knowing what questions other scholars have asked, as well as what answers they've found (and the strategies they've used) allows us to ask and answer our own questions more efficiently. As practitioners, we engage in the first steps of the research process when we try to educate ourselves about the research and theory based foundations of best practice.

This self-study can take many forms—from Google searches and library visits to talking with our colleagues, spouses and friends. Research looking at information seeking behaviours suggests that we generally start with other people we know and trust: local leaders and colleagues; later extending to written sources we know and trust: journals, professional magazines, and web sites (Laitsch & Younghusband, 2016).

While historically scholars have worried that teachers won't understand or take the time to read research, surveys looking at teacher beliefs in British Columbia have found these assumptions are no longer accurate, if they ever were (Laitsch & Nilson, 2007; Laitsch and Naylor, 2012). The survey, initially given in one school district but later expanded across the province, was focused on institutional barriers and facilitators to research use, but also looked at the personal characteristics and dispositions of respondents toward research use. Across the two iterations of the survey, the vast majority of respondents felt that it was "very important" for them to have easy access to research, and out of 147 respondents, only four identified the clarity or readability of research as one of the top three barriers to its use.

### *Teacher as Researchers*

While reading research provides an important starting place for improving practice, conducting research provides teachers with a systematic method for understanding the world

around them. The anecdote I shared at the beginning of the chapter highlighted the power of research as a tool to guide our instructional practices. Unfortunately, that story ended too quickly. While I was able to show evidence of improved student literacy based on entrance and exit assessments, I missed the opportunity to connect that improvement with specific teaching strategies (or even with my own practice—perhaps the improvement in scores was instead due to literacy assignments in social studies classes). By researching my own practice in more depth, I could have better understood the role, if any, free writing journals played in improving student achievement.

Research is based on questioning our understanding of the context in which we are immersed (in the case of the teacher, our classrooms and schools), building on that understanding, generating questions and testing hypotheses, and formally reflecting, informing, and evolving our practice. As noted earlier, it begins with surveying existing research repositories (journals, web sites, our colleagues) to find out what is known, explore questions and discuss methods of data collection that might allow us to answer those questions. Once we have a sense of “where we are,” we then take on the mantle of researcher and begin to try to answer the questions we created.

While some educators may be concerned about becoming a “researcher” and engaging in research within their classroom, the process is not nearly as alien as it may sound. When we hear “research,” many of us immediately envision complex statistical procedures, experiments, control groups, and testing. While this may be an accurate portrayal of some types of research, it is a very narrow definition and doesn’t do justice the breadth of approaches one can take toward understanding the world around us.

Instead, research should be visualized to fall on a continuum, from the haphazard and informal, to the systematic and formal, as shown in Figure 1. Where one falls on that continuum maps to the type of understanding we are seeking (what is happening in my very local context, or what the truth may be across contexts).

Take for example, the very first things you were likely to do this morning. If you woke before your alarm, you probably checked the clock to see what time it was, or looked out the window to see if it was light yet. You immediately started gathering data. Based on your analysis of that data, you decided to roll over and go back to sleep, or to get up and start your day.

**Figure 1: Understanding the world around us**

Casual/informal		Causal/formal
← I—N—T—E—N—T—I—O—N—A—L—I—T—Y →		
Scientifically haphazard		Scientifically methodical
<b>Scientific Method</b>		
Personal/individual	<i>Observation</i>	Broad/Deep
Internal/judgment based	<i>Questioning/ Hypothesizing</i>	Theory based
Haphazard	<i>Collecting data</i>	Systematic
Informal	<i>Analyzing data</i>	Formal
Responsive	<i>Applying analysis</i>	Intentional
Internal	<i>Refining understanding</i>	External

*Adapted from Laitsch, 2007.*

We are by nature data gathering machines. We take in and analyze vast amounts of data throughout the day and fit that data into theories we have developed over time, helping us make decisions about the world (when it's dark and cloudy outside I should take an

umbrella with me in case it rains). We conduct extensive interviews with our colleagues and friends through the conversations we hold; we survey people on the best routes to drive to work; and quantitatively evaluate those routes based on average travel times across varying treatment conditions (dry, snow, rain, light, dark). The difference between this type of automatic (and informal) research and “scholarly” research is simply the extent to which we add intentionality to our work and formalize our questions, data gathering, and analysis. The level of formality we apply guides the power of the conclusions we can reach and the extent to which we change our lives based on those conclusions.

Viewed in this light, researching our own practice simply means increasing the extent to which we intentionally ask questions and systematically seek to answer those questions. The difference between our individual interactions with the world, our actions as reflective practitioners, and our conclusions as scientific researchers rests on the systematic nature of our inquiry, and the extent to which we are willing to be wrong in our conclusions. As the stakes increase, we become much more careful in our data gathering and analysis, and more conservative in our conclusions (think for example of what we mean when we talk about levels of significance—where we are essentially talking about the level of risk we are willing to accept that our conclusions are wrong). While the stakes related to getting to work are relatively low, how we grade our students is much more important, and so we tend to gather and analyze a much wider body of information in a more careful and systematic manner.

It is this engagement in understanding the world around us and the ongoing work to strengthen our practice that helps teachers evolve from research users, to research practitioners. They strengthen the extent to which they question the world in their

classrooms and systematically reflect upon and analyze the data they gather that describes that world (from attendance, to behaviours, to grades, to personal stories and interactions) and answers those questions.

As we increase the importance of the questions we ask, the quality of data we collect, and our confidence in the answers we find, we return to our colleagues to share the results of our work and grow from feedback we might receive. This leads to collaboration and the creation of research communities, which can then refine and continue to hone the professional knowledge of the community.

Rather than gossip, rumor, and the next best fad, community knowledge becomes based on careful data collection and analysis, allowing for more informed decision-making. It also establishes the foundation for ongoing evaluation and refinement.

#### *School-level Barriers and Facilitators to Research and Research Use*

Shifting our approach to teaching from one based on application of skills to application and refinement of knowledge is a complex task. While the foundation may be in place for teaching as a research-driven profession, there are a number of barriers to fully realizing this goal.

A review of research-use issues across the professional domains of education and medicine suggests that practitioners generally experience similar barriers to the use of research in improving practice, including creating the time to find and read research; applicability of findings to the local context; accessing building level support in the application of research findings; and finding collegial support for research application (Carrion, Woods & Norman, 2004; Clark & Brown, 2006; Cooke et al., 2004; Hemsley-

Brown & Sharp, 2003). Similarly, Keller (1985) and Kezar (2000) found that postsecondary education researchers and practitioners reported “that the higher education literature does not provide memorable, insightful, or important professional information” (p. 443). Weak dissemination networks, scholarly reward systems that fail to emphasize dissemination to practitioners, gaps between researchers and practitioners, top-down decision-making structures, and an inability to evaluate research quality are also identified as barriers to use (Adamsen, Larsen, Bjerregaard, & Madsen, 2003; Clark & Brown, 2006; Cooke et al., 2004; Estabrooks, Chong, Brigidear, & Profetto-McGrath, 2005; Hemsley-Brown & Sharp, 2003; Jacobson, Butterill, & Goering, & 2004; McCaughan, Thompson, Cullum, Sheldon, & Thompson, 2002).

Incentives to using research in practice include peer and administrator support for research use, strong relationships between researchers and practitioners, and prior or current engagement as a researcher (Adamsen, Larsen, Bjerregaard, & Madsen, 2003; Fink, Thompson & Bonnes, 2005). While the use of research and data to evaluate school performance and improvement may create barriers to implementation (e.g. fear that research data may be used against practitioners in evaluation systems), regulatory changes supported by adequate funding can act as an incentive to incorporate research findings in practice. Despite assumptions about the relationship between the two, there is no apparent link between simple dissemination of research and changes in educational policy or practice.

While this initial review merges the research across the professional domains of medicine, nursing, and teaching, significant differences may exist. For example, one of the major barriers to research use in medicine is the large volume of available research, with one

survey finding 90% of the respondents feeling overwhelmed by the quantity of research results (Adamsen, Larsen, Bjerregaard, & Madsen, 2003). Such an abundance of research may not be the case in education, as a common complaint in education research circles is a dearth of available and high quality research (Heyneman, 1993).

To help determine how this literature applies within the BC context, colleagues and I adapted a survey from the field of medicine and applied it in local BC schools (Laitsch & Nilson, 2007) and later across teachers responsible for leading professional development (Laitsch & Naylor, 2013). The first iteration of the survey looked at barriers and facilitators, the second iteration focused on just the barriers.

Local educators responding to this survey were generally supportive of research use. When asked how important it was to them to have access to research findings, the most frequent response was “very important” with an average response value of 3.95 (using a five point scale for this question). When asked about what resources they used to find research, respondents identified peers as their first choice, then highlighted school district resources, publications, and online resources. Think tanks and government sources for research were least valued sources for research.

In general, respondents felt that research use would be (best) facilitated through providing dedicated time to work collaboratively with peers (3.763 on a four point scale) and by providing support for internal research activity, such as action research (3.544). While respondents generally responded positively to all facilitators (an average of 3.2 across all items), facilitators thought to be least effective were having a district-wide emphasis on research use and encouraging staff to provide evidence in decision-making processes.

The greatest barriers to use were time to find and read research (3.542), lack of awareness regarding specific research (3.458), and insufficient time on the job to implement new ideas (3.305). Respondents did not feel that administrators were significant barriers to use (1.694), nor did they feel it took too long for research results to be released (1.768).

Time for collaboration was by far the highest ranked facilitator (84 points) followed by support for internal research (43 points). No respondents identified transparent decision-making as one of their top three facilitators (see Figure 2). The highest ranked barrier to research use was time to read research (53 points) and time to implement new ideas (52 points).

Across the province, teachers engaged in leading professional development saw a similar picture. When asked how important it was to them to have access to research findings, the most frequent response was “very important” with an average response value of 4.41 (using a five point scale for this question). When asked about what resources they used to find research, respondents identified peers as their first choice, then highlighted professional learning communities, journals and books, and the BCTF. Think tanks, government sources, and other professional organizations were least valued sources for research. The highest ranked barriers to research use were time to implement new ideas (72 points) and time to read research (54 points). Educators being unaware of the research was ranked third, at 31 points.

### **Teachers as researchers**

So what does this all mean? There are four clear lessons from this research: teachers value community; teachers are interested in using and engaging in research; teachers need time to collaborate, read, and implement research/change; and teachers need support.

*Teachers value community*

The results from this research show that teachers value the chance to work collaboratively with peers, and this fits well with the concept of action research, which has teachers working together to answer important questions and implement change regarding classroom practice. The tendency for practitioners to consult local colleagues first when seeking new information highlights the importance of supporting collaborative work time. Systematically building community allows time for more in depth consultation, problem refinement, research review and design, and application to practice. By intentionally supporting a community focused on research use and engagement, schools can truly build data-driven—rather than fad or anecdote driven—practice.

*Teachers are interested in action research*

The teachers involved in this research clearly identified the link between accessing and reading research, and engaging in research. They demonstrated a strong relationship between using research and engaging in research. In fact, there was a strong correlation between a teacher's belief in the power of research to improve their practice, and their training in research (such as through a graduate degree), or their experience in practicing research (such as through action research).

*Teachers want to implement new ideas*

Similarly, teachers are interested in taking the results of their research and evolving their practice. When we take the time to learn something new, we want the ability to also apply that new knowledge in our practice. There is a strong contradiction in policy if schools encourage teachers to engage in professional development and action research, but then limit their ability to change practice in the classroom. This contradiction is evident in the next finding from the research—the need for support.

*Teachers want support*

While teachers didn't see administrators as a barrier to using research, they do identify a need for intentional support for using research. They want both support for implementing change and support for conducting internal research activities. The support may include allowing greater collaboration, providing release time and research materials, or allowing teachers to drive individual and collective change (such as through distributed leadership practice). It also highlights the final, and most important need...

*Teachers want time*

A teacher's day is already filled by many important activities: teaching, curriculum design and course preparation, grading and evaluation, parent/teacher communication, professional development, student counseling and engagement, before and after school supervision, lunch and recess supervision, and a host of other time consuming but important tasks. It is unlikely that simply asking teachers to add in another activity will result in substantive change without creating space in the schedule to support that activity. Teachers in this research strongly identified the need for time: time for collaboration; time for accessing and reading research; and time to implement change and engage in research.

Asking teachers to engage in research activities individually or off the side of their desks, no matter how important these activities might be to improving practice, is unlikely to result in sustainable change.

### **A Framework for Change**

Substantial work has been done over the past two decades regarding the concepts of action research, as discussed here, and the related concept of professional learning communities (PLC's). In many instances, districts have viewed professional learning communities as a way to gather teachers together in teams to work on implementing targeted change around particular established ideas. Clearly the research highlighted here supports the power and necessity of community for furthering change.

That said, it might be time to revisit Wengers's original notion of community of practice, from which much of the work on PLC's has grown. Wenger theorized that communities of practice form irrespective of specific structure—instead they are a framework around which learning occurs. Learning must come from the collective actions of the community, and cannot be mandated or controlled through creation of teams and assignment of topics (Farnsworth, Kleanthous, & Wenger-Trayner, 2016).

Instead, we can seek to nurture a research-based community of practice by providing space in the school day for community learning, by facilitating access to particular types of knowledge (research-based), and by supporting systematic knowledge practices (action research). We can distribute decision-making authority across members of the community and embrace change, even as we evaluate the outcomes of that change, again using the tools of research.

Through supporting research-based communities of practice, the process can become iterative and institutionalized. By building the communities on a foundation of research knowledge and research practice, rather than anecdote or fad, we can build an ongoing system focused on strengthening the work that we do in schools.

A profession is defined as “a calling requiring specialized knowledge and often long and intensive academic preparation.” A key component of conceptualizing teaching as a profession is ensuring that teachers acquire, and grow, that body of “specialized knowledge”. A powerful way to do that is through building a research framework around which professional learning communities can form.

## References

- Adamsen, Lis, Kristian Larsen, Lene Bjerregaard, and Jan K. Madsen. "Danish Research-active Clinical Nurses Overcome Barriers in Research Utilization." *Scandinavian Journal of Caring Sciences Scand J Caring Sci* 17, no. 1 (2003): 57-65. doi:10.1046/j.1471-6712.2003.00124.x.
- Carrion, Maria, Phil Woods, and Ian Norman. "Barriers to Research Utilisation among Forensic Mental Health Nurses." *International Journal of Nursing Studies* 41, no. 6 (2004): 613-19. doi:10.1016/j.ijnurstu.2004.01.006.
- Clark, Jeffrey K., and Kelli McCormack Brown. "Bridging the Gap Between Research and School Health Programs." *J School Health Journal of School Health* 76, no. 1 (2006): 38-39. doi:10.1111/j.1746-1561.2006.00065.x.

Cooke, Liz, Cynthia Smith-Idell, Grace Dean, Robin Gemmill, Sharon Steingass, Virginia Sun, Marcia Grant, and Tami Borneman. "'Research to Practice': A Practical Program to Enhance the Use of Evidence-Based Practice at the Unit Level." *Oncology Nursing Forum* 31, no. 4 (2004): 825-32. doi:10.1188/04.onf.825-832.

Estabrooks, Carole A., Huey Chong, Kristin Brigidear, and Joanne Profetto-McGrath. "Profiling Canadian Nurses' Preferred Knowledge Sources for Clinical Practice." *Canadian Journal of Nursing Research*, June 2005, 118-40. <http://cjunr.archive.mcgill.ca/article/view/1949>.

Farnsworth, Valerie, Irene Kleanthous, and Etienne Wenger-Trayner. "Communities of Practice as a Social Theory of Learning: A Conversation with Etienne Wenger." *British Journal of Educational Studies* 64, no. 2 (2016): 139-60. doi:10.1080/00071005.2015.1133799.

Hemsley-Brown, J., & Sharp, C. (2003). The use of research to improve professional practice: A systematic review of literature. *Oxford Review of Education* 29(4).

Jacobson, Nora, Dale Butterill, and Paula Goering. "Organizational Factors That Influence University-Based Researchers' Engagement in Knowledge Transfer Activities." *Sci Commun Science Communication* 25, no. 3 (2004): 246-59. doi:10.1177/1075547003262038.

Keller, George. 1985. "Trees without fruit: the problem with research about higher education." *Change* 17, 7-10.

Kezar, Adrianna J. "Higher Education Research at the Millennium: Still Trees without Fruit?"

*The Review of Higher Education* 23, no. 4 (2000): 443-68. doi:10.1353/rhe.2000.0018.

Laitsch, Daniel. 2007. Thinking scientifically: An educational approach to systematizing the way we use knowledge." Paper presented to the Second Annual Conference on Building the Scientific Mind, Vancouver, BC, Canada, May 31.

Laitsch Daniel, and Charlie Naylor. 2013. "Research Use in British Columbia: Status, issues, and opportunities." Panel presentation at the annual meeting of the Canadian Society for the Study of Education, Victoria, BC, Canada, June 4.

Laitsch, Daniel and Michelle Nilson. 2011. "Time and Place: Barriers and Facilitators to Teacher Use of Research." Poster Presentation to the annual meeting of the American Association for the Advancement of Science, Washington, DC, USA, February 20.

Laitsch, Daniel and Christine Younghusband. 2016. "British Columbia School Trustees' Use of Research and Information Seeking in Decision Making." Poster presentation to the annual meeting of the American Educational Research Association, Washington, DC, USA April 9.

Mccaughan, Dorothy, Carl Thompson, Nicky Cullum, Trevor A. Sheldon, and David R. Thompson. "Acute Care Nurses' Perceptions of Barriers to Using Research Information in Clinical Decision-making." *J Adv Nurs Journal of Advanced Nursing* 39, no. 1 (2002): 46-60. doi:10.1046/j.1365-2648.2002.02241.