



MISA EAST
PROFESSIONAL NETWORK CENTRE
REGIONAL COLLABORATIVE INQUIRY

PRELIMINARY LITERATURE REVIEW

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This literature review responds to the MISA EAST PNC regional collaborative inquiry question for the 2017-2018 academic year:

What factors contribute to shifts in thinking and practice that address persistent problems related to attaining equitable achievement and well-being outcomes for students?

Our literature search was guided by the following:

Keywords

teacher professional learning, teacher professional development, student achievement, student outcomes, professional learning community, action research, collaborative inquiry, instructional rounds

Key authors

Borko, Campbell, Darling-Hammond, Desimone, Earl, Elmore, Fullan, Guskey, Hargreaves, Hattie, Katz, Nelson, Slavit, Stiggins, Timperley

Key sources

Education Canada

Educational Leadership

Handbook of professional development in education

Journal of Educational Change

Journal of Teacher Education

Phi Delta Kappan

Professional Development in Education

School Effectiveness and School Improvement

Teachers College Record

Teaching and Teacher Education

Visible Learning

Given the extensive literature on educator professional learning and the relatively short timeline, we focused on systematic reviews and meta-analyses of the literature as well as review papers. These formats of research collect and summarize the key ideas of the field, delivering a summary of the field and where our understanding is currently situated, based on the bringing together of the most current and rigorous research in the area. In total, we reviewed 50 publications, with a majority based in the USA, Canada, the UK, Australia, and New Zealand. Whenever possible, we aimed to include publications from the last five years and reviews from the last ten years, in order to most accurately reflect the state of our understanding of professional learning within the context of public school education.

This report summarizes our literature review findings in three sections: (a) factors that contribute to shifts in educators' thinking and practices, (b) ongoing challenges in educator professional learning, and (c) an opportunity to think about professional learning in a different way. We also offer two points of clarification in advance. First, we have prioritized the term 'educator,' referring to all persons working in support of students' learning but recognize teachers as the primary agents in classroom implementation. Second, we have prioritized the term 'professional learning' over 'professional development' because it reflects a more contemporary conception educator learning.

Factors that Contribute to Shifts in Educator Thinking and Practice

Our review of the professional learning literature identified eleven categories associated with factors that contribute to shifts in educator thinking and practice, with the underlying assumption that these shifts ultimately support valued student outcomes. These categories are organized into three broad themes and elaborated in the following table.

Factors that Contribute to Shifts in Educator Thinking and Practice		Key Findings from Literature Review
Focus	Relevant content	Professional learning content is evidence-informed, focused on content and pedagogical knowledge, and connected to classroom implementation.
	Student outcomes	Professional learning prioritizes links between educator practices and student outcomes and is considerate of how students interact with content and pedagogy.
	Coherence and alignment	Professional learning content and activities are consistent with curriculum goals, students' and educators' needs, as well as system policies and priorities.
Enactment	Job-embedded collaboration	Educators learn collaboratively with colleagues in their context of practice to build an engaged professional learning community that collectively supports valued student outcomes.
	Sustained momentum	Professional learning provides ongoing, supported opportunities for educators to learn new content, explore new ways of thinking, and refine implementation of new practices.
	Active learning	Educators engage in cycles of inquiry-based learning with opportunities to explore problems of practice, challenge beliefs, receive feedback from colleagues, and analyze student learning.
	Differentiated opportunities	Professional learning provides collective experiences that are responsive to educators' beliefs, needs, interests, learning preferences, and contexts of practice.
Supports	Networked leadership	Formal and informal leaders across educational contexts promote a supportive culture that fosters positive shifts in educator practice and student outcomes.
	Knowledgeable others	Knowledgeable others provide capacity building that shifts educators' knowledge, beliefs, and/or practices in ways that support of student outcomes.
	Trust and respect	Trusting relationships among educators promote professional risk-taking, common knowledge building, shared learning experiences, and collective responsibility for student outcomes.
	Resources and tools	Educators leverage current resources and tools to help them learn about content, implement new practices, and assess impacts on students.

Ongoing Challenges in Educator Professional Learning

1. Education is a complex system, making it difficult to evaluate the causal impact of professional learning on educators and students.

- Professional learning (PL) entails simultaneous activities of individual teachers, schools, and collectives engaged in learning within and across levels of educational systems (Opfer & Pedder, 2011).
- The “ebb and flow” of educational contexts (e.g., teachers switching schools, grades, or subjects from one year to the next; students changing schools; changes in leadership; changes in school/district/regional priorities) makes it challenging to conduct quasi-experimental or longitudinal studies of PL impacts (Desimone & Garet, 2015).
- Implementation of PL often relies on intermediaries (facilitators or coaches) who demonstrate varied capacity to support educator learning (e.g., Timperley, 2011).

2. It is easier to measure near outcomes (e.g., educator attitudes) but more challenging to measure far outcomes (e.g., student learning).

- The effectiveness of PL depends on both: *Theory of Change* (how well PL elicits desired changes in educators’ knowledge and instruction) and *Theory of Instruction* (the degree to which a change in instruction improves student learning). PL can fail at either of these points: it can fail to change instruction, or it can fail to improve student learning (Wayne, Yoon, Zhu, Cronen, & Garet, 2008).
- “The available evidence... suggests that [PL] may have a stronger effect on near-term events such as [educator] attitudes and instructional practice than student learning” (Scher & O’Reilly, 2009, p. 234).
- Impacts on student outcomes are distal and indirect (Earl & Katz, 2006).
- Impacts on students may be more evident among students in a teacher’s classroom the year following her/his participation in PL (Kennedy, 2016).
- Student learning is impacted by a number of factors both within and external to the classroom. These include family background, personal attributes, peers, etc. It is a challenge to disentangle the multitude of factors (DeLuca, et al., 2015).

3. Educators vary in response to the same professional learning opportunity.

- Individual educators vary in what they *want* and are *able* to learn, as well as *how* they want to learn it. Educator variation adds to the variation in educator and student learning outcomes. (e.g., Desimone & Garet, 2015)
- This variation depends on educators’ prior experience, existing attitudes, prevailing beliefs, current knowledge, and perceived needs (e.g., Vangrieken, et al., 2017).

4. Achieving desired professional learning outcomes for educators and students requires substantial time and educator buy-in.

- Effective PL opportunities should be ongoing throughout the school year and include 20 hours or more of contact time (Desimone & Garet, 2015)
- Educators must be motivated to change. “Any new idea offered by [PL] requires not merely adoption but also *abandonment* of a prior approach” (Kennedy, 2016; p. 948).

An Opportunity to Think about Professional Learning in a Different Way

Kennedy (2016) suggests that we move away from conceptualizing effective professional learning (PL) as a set of design features because these features may be unreliable predictors of success. In the absence of an overarching theory of teacher learning, she asserts that effective PL should be rooted in a “more nuanced understanding of what teachers do, what motivates them, and how they learn and grow” (p. 974). In her review of 28 quasi-experimental PL studies that followed teachers over time and included evidence of student achievement, she identified four broad PL foci and four dominant modes of enacting PL.

Professional learning foci:

- (1) Learning curriculum content
- (2) Managing student behavior
- (3) Increasing student engagement
- (4) Exposing student thinking

Professional learning modes of enactment:

- (1) Prescription—universal guidance, little discretionary judgement by teachers
- (2) Strategies—procedurally detailed, serve specific purposes, encourage professional judgements as to when they should be used
- (3) Insight—encourage even more professional judgement, help teachers to “see” situations differently and make their own decisions
- (4) Knowledge—may not explicitly imply a particular action, inherently passive, maximum discretion as to whether teachers will do anything with that knowledge

Kennedy found that most PL studies showed small effects on student outcomes, regardless of the focus, mode of enactment, or amount of time spent with teachers. However, PL had the greatest impact on teachers and students when it: (a) combined a focus on curriculum content with another focal area (e.g. exposing student thinking); and (b) enacted PL via strategies and/or insights.

We propose that Kennedy’s framework may offer an opportunity to reflect on and refine current PL opportunities in terms of focal areas and modes of enactment, with particular consideration given to factors that motivate teachers to engage in professional learning.

	Enacting PL			
Focus of PL	Prescription	Strategies	Insight	Knowledge
Learning curriculum content				
Managing student behaviour				
Increasing student engagement				
Exposing student thinking				

Annotated Bibliography of Valuable References

Kennedy, M. M. (2016). How does professional development improve teaching? *Review of Educational Research*, 86(4), 945-980. doi: 10.3102/0034654315626800

Mary Kennedy's review sorts professional development programs according to their underlying theories of action, which include the main idea teachers should learn and a strategy to help them enact that idea in their own practice. With clear language, Kennedy identifies four persistent challenges of practice and characterizes how PL addresses them.

Lomos, C., Hofman, R. H., & Bosker, R. J. (2011). Professional communities and student achievement: A meta-analysis. *School Effectiveness and School Improvement*, 22(2), 121-148. doi: 10.1080/09243453.2010.550467

The authors present a comprehensive synthesis of how professional communities are conceptualized and operationalized in education. They go on to analyze the effect of professional community on student achievement, showing a small but significant overall effect size, suggesting that the presence of professional community within a school could in fact enhance student achievement.

Nelson, J. & Campbell, C. (2017). Evidence-informed practice in education: Meanings and applications. *Educational Research*, 59(2), 127-135. DOI: 10.1080/00131881.2017.1314115

This editorial piece details how the term "evidence-informed practice" (EIP) is understood, its connection to positive outcomes, how schools and educators undertake EIP, and what challenges and facilitates its use. It functions as an introduction to a special issue of the journal Educational Research which focuses on EIP.

Timperley, H., Wilson, A., Barrar, H., & Fung, I. (2007). *Teacher Professional Learning and Development: Best Evidence Synthesis Iteration [BES]*. Wellington, New Zealand: Ministry of Education. Available online at <http://www.educationcounts.govt.nz/publications/series/2515/15341>

This booklet focuses on professional development for teachers. Helen Timperley and her colleagues synthesizes the research evidence into ten key principles to help teachers develop the professional skills to teach challenging curricula to diverse students. Each principle includes a research summary and suggestions for further reading.

Vangrieken, K., Dochy, F., Raes, E., & Kyndt, E. (2015). Teacher collaboration: A systematic review. *Educational Research Review*, 15, 17-40. doi: 10.1016/j.edurev.2015.04.002

A systematic review of 82 studies on teacher collaboration. The authors examine type of collaborative group, focus and depth of collaboration, and benefits of collaboration for students, teachers, and the school. Facilitators and barriers across studies are also considered in light of what helps to realize an effective collaboration.

Vangrieken, K., Meredith, C., Packer, T., & Kyndt, E. (2017). Teacher communities as a context for professional development: A systematic review. *Teaching and Teacher Education*, 61, 47-59. doi: 10.1016/j.tate.2016.10.001

A systematic review of teacher communities. Examines 40 studies across three types of communities: formal, member-oriented with a pre-set agenda, and formative. Impact of various stakeholders (governments, principals, teachers), based on differing perspectives and degrees of involvement, had an impact on teacher communities. Conditions for success (supportive leadership, group dynamics and composition, and trust and respect) are highlighted.

Yoon, K. S., Duncan, T., Lee, S. W.-Y., Scarloss, B., & Shapley, K. (2007). *Reviewing the evidence on how teacher professional development affects student achievement* (Issues & Answers Report, REL 2007–No. 033). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Southwest. Retrieved from <http://ies.ed.gov/ncee/edlabs>

Inclusion in the review was based on the rigorous What Works Clearinghouse standards (only nine of 1,300 identified studies on PL were included). Based on their examination of these nine studies, all of which employed workshops or summer institutes, the authors claim that teachers who receive substantial professional development/learning – that is, an average of 49 hours across studies – can boost their students' achievement significantly.