

Capacity Building Series

K 1 2 3 4 5 6 7 8 9 10 11 12

SECRETARIAT SPECIAL EDITION # 33

An Invitation ...

We invite you to use the ideas explored in this monograph to inspire/engage/provoke school conversations and professional inquiries.

Dynamic Learning

Connecting Student Learning and Educator Learning

In a recent address to Ontario educators, Allan Luke said that educators need to develop “a broad repertoire of instructional strategies and a kind of assessment literacy so that [they] can actually see the kids, see the target competency, knowledge and skills and then put the repertoire in place.” Dr. Luke struck a chord with the audience when he said that good teaching is like dancing – “You have got to have the dance steps!” (*Leaders in Educational Thought*, 2012).

Many researchers emphasize that student action and learning are the predominant rationale and motivation for educator action and learning (e.g., Little, Gearhart, Curry, & Kafka, 2003; Perry & Lewis, 2010). In recent years, making connections between student learning and educator learning has also become the focus for collaborative inquiries in Ontario schools. Supported by school teams, learning communities and ministry programs, educators are looking at “student strengths and needs” in order to develop deeper understanding of students as learners in classrooms and to refine pedagogy.

DRAWING ON ACADEMIC AND CLASSROOM RESEARCH

Drawing on academic research and Ontario classroom inquiries, this monograph sums up what we have learned to date about the deep interconnections between student learning and educator learning. It explores key aspects of knowing our students as learners and knowing ourselves as learners and suggests ways to guide assessment and instructional decision-making into what matters in classrooms – namely, the instructional actions and strategies that will most positively impact the learner and the learning experience.

August 2013

ISSN: 1913 8482 (Print)
ISSN: 1913 8490 (Online)

Student Achievement Division

The *Capacity Building Series* is produced by the Student Achievement Division to support leadership and instructional effectiveness in Ontario schools. The series is posted at: www.edu.gov.on.ca/eng/literacynumeracy/inspire/. For information: Ins@ontario.ca

support every child
reach every student



Knowing Our Students as Learners

ASSESSMENT ROOTED IN CLASSROOM EXPERIENCE

As stated in the Ministry of Education’s assessment and reporting policy guide, *Growing Success*, what matters in assessments “is how the information is used” (2010, p. 29). Assessments are both “a barometer to measure the strength of learning and a compass to show direction of future action” (Hearne, 2001). Many researchers call for a mindset which embraces the use of evidence as an improvement tool to “guide and direct teaching practice,” rather than to simply “label and categorize students” (Timperley, 2010).

Student learning can be viewed from different vantage points and assessments can serve different purposes. However, “there is no value in assessing students if [the assessment] does not impact learning and instruction” (Fullan, 2011). When it is understood that the quality of the classroom experience is a key driver of improved learning, the importance of collecting and reflecting on classroom data rises logically and prominently to the fore. For it is classroom data, grounded in evidence of strengths and gaps in student learning, that enables educators to adapt the classroom encounter “where instruction, curriculum and student actions intersect” (Moore, 2004).

KEY COMPONENTS FOR QUALITY CLASSROOM ASSESSMENT

1. Curriculum is greater than the sum of its parts.

A deep knowledge of curriculum requires not just familiarity with individual expectations, but a grasp of its big ideas or broad understandings and intent. And, in turn, this deep knowledge helps determine what is “worthy” of spending learning time on. As assessment information is gathered, a deep knowledge of curriculum is crucial as well for responding flexibly “to individual differences” and to “unique ways of thinking and learning” (*The Full-Day Early Learning – Kindergarten Program [draft version]*, 2010–2011, p. 3).

A Professional Inquiry into Big Curriculum Ideas

Unpacking the curriculum and connecting student and educator learning

The goal of social studies learning is developing a sense of *Who I am* and *Who we are* by asking, *Where have I come from? Where are we now? What makes me belong? How can I contribute to society?* (adapted from *Social Studies, Grades 1 to 6* and *History and Geography, Grades 7 and 8*, 2013, p. 7).

- *What does our data about student learning and experience tell us about the relationship between student learning and educator actions?*
- *What are the vital – the most relevant – ideas in the social studies curriculum that can be used to guide students in exploring where they come from, what makes them belong, where they are now and how they can contribute to society. What are the big ideas that connect with their experiences and are worthy of their learning time?*
- *What instructional practices do we have in our repertoire to create the conditions in our classrooms for instruction, curriculum and students’ actions to intersect? What adaptations might we make to deepen these practices?*
- *What is the working theory of action that will guide our inquiry? IF we ... THEN our students will ...*

Rich methods of classroom assessment ...

“Observation of student learning was accomplished through anecdotal records during daily encounters with students. Another method was digital recordings of conversations and actions during the day. Student representations were also used for group reflection and conversation. During the co-teaching cycle, observers attempted to document the actual utterances by educators and children. Observers approached all encounters through a ‘pedagogy of listening’, objectively and sensitively listening to and observing ‘student thinking.’”

Educator, Provincial Collaborative Inquiry

2. You get what you ask for.

Quality assessment and quality learning are interdependent. Effective assessment opportunities lead “to the type of learning we would hope all students would experience” (Katz & Earl, 2007, p. 58). When it comes to quality assessment and quality learning, “the real accountability system is in the tasks that students are asked to do,” or, what Elmore suggests, students will know as a result of “the doing” (2010, p.4).

3. Describe. Describe. Describe.

When we are able to name and describe what students think and are able to do, we provide a catalyst not only for their further learning and practice, but for ours as well. The deeper the descriptions – the more they move beyond the superficial to highlight the finer attributes of student learning – the more useful they are.

How much refinement is enough? It is valuable to keep in mind that we can really only refer to criteria as “success criteria” when students understand them and are able to use them to self-assess their learning and define next steps. It is important, therefore, to provide experiences that give students opportunities to co-construct criteria and to express them in student-friendly language.

A Professional Inquiry into the Four R’s of Student Learning

Relevance, richness, relatedness, rigour

- *Is learning/assessment cognitively challenging? Are there opportunities for rich thinking – problem solving, reasoning, justifying, making conjectures? Are students being given opportunities for communication and application relative to learning outcomes? What does engagement look like?*
- *In what ways might student choice about how learning is shared be intentionally invited and fostered? Be ready for a variety of text forms – media, oral, visual, print, the Arts!*
- *Do students view learning and assessment as purposeful? How do students make and communicate authentic connections? How might an audience influence communication?*

4. Quality classroom assessment is not a solo performance.

Meaningful involvement of learners in assessing their own work (and the work of peers) extends beyond the classroom into life. Being able to adapt and adjust the quality of their work, taking increased responsibility for learning and refining their capacity for reflection and critical thinking are all benefits of student self-assessment (Cooper, 2006; Cyboran, 2006). When students develop self-assessment skills, they become directly involved in the learning process, acting as the “critical connector” between the assessment and their own improvement (*Capacity Building Series – Student Self-Assessment*).

Providing timely and effective feedback to parents may also enrich student learning. Sharing student learning in its many forms may be as simple as having a young child bring home a piece of work with the attached note, “Ask me what I learned when I did this.” or posting an opportunity online for peer and parent feedback. Further, linking a parent’s observations with patterns of learning observed in the classroom can lead to more effective classroom strategies (*Capacity Building Series – Parent Engagement*).

A collective focus on student thinking and learning can bring about more informed decisions within individual classrooms and set in motion more coherent approaches across classrooms and schools. When educators work together to use assessments to learn more about student thinking and to plan instruction, educators and students reap the benefits of “the collective wisdom of all of the people in the group” (Katz & Earl, 2007, p. 76).

Different kinds of tools to capture learning

“We learned that the type of documentation matters. We had more effect when we used images and video with text rather than anecdotal notes or checklists alone. The video captures all the math-talk which might otherwise be overlooked in the decision-making moments of student-teacher interactions.”

Educator, Provincial Collaborative Inquiry

Knowing Ourselves as Learners

CONNECTING TO STUDENT NEEDS

Stephen Katz emphasizes that the adult learning that takes place in a school should be directly connected to student need – “Given that we have evidence to suggest X is the most urgent student learning need, what does that suggest is the most urgent teacher learning need? And from there, what is the most urgent leader learning need?” (*Leaders in Educational Thought*, 2013). Student learning is the catalyst for educator learning and “forms the essential material” of professional inquiry (*Capacity Building Series – Collaborative Teacher Inquiry*).

Through persistent collective attention to the demonstration of student thinking and understanding, we ask: “*What are students doing well? What learning challenges are emerging? Which instructional practices are benefiting learning? Which are not? Why?*” A focus on student learning helps to make teachers’ own professional learning relevant and powerful. When professional inquiry is grounded in the classroom experience, student thinking and learning inform and shape professional explorations, which, in turn, shape learning.

Knowing ourselves as learners involves examining the effectiveness of our collaborative processes. *How does the manner in which we engage with each other help us or get in the way of our learning? What do we wish to keep or change?* When the collaborative culture of a team is open and built on mutual respect, conversations become opportunities to tap into the richness of the collective knowledge “in the room” and to draw on and be supported by the experiences of colleagues.

As educators persist in questioning what works and what does not work, as they investigate the “why” behind results and reflect on potential changes to practice, they engage in the “creative interaction between the professional educator and the students’ needs” (Hannay, Wideman, & Sellar, 2010). They come to understand that education is in and of itself inquiry, and that their explorations and experimentations are a form of research, rooted in the learning experience.

An Example of Connecting Student Learning and Educator Learning

A focus on mathematics in the early years

Educators in our early years team have focused on teaching patterning and collaboratively identifying some common experiences. We noticed that our early learners tend to think of patterns as only repeating and when asked to extend or correct patterns they have difficulty articulating what is happening beyond stating what the pattern looks like.

From this learning came additional questions, such as:

- *What is possible when working with young students and patterns?*
- *Can we support students’ intuitions about patterns?*
- *Can young students meaningfully work with other types of patterns, such as growing patterns?*

Through exploring these initial questions (including one-on-one interviews with students and a study of exploratory lessons), and delving into current research about patterning (such as the Ministry of Education’s *Paying Attention to Algebraic Reasoning K–12*), we refined our collective understanding of patterning. Our inquiry question became: *How can we support young students in making connections between the “term number” (or “position number”) of the pattern and “the number of things in a term” when working with linear growing patterns?* Making this connection, we thought, would support growth from additive thinking to multiplicative thinking – or from just stating what comes next in a pattern to accurately predicting values for any term in a pattern.

Learning about teaching through learning about student learning ...

“Although I had read in many professional resources about the value of working with peers, the opportunity to look closely at how this affects student learning has had a permanent effect on how I will teach for the remainder of my career.”

Educator, Provincial Collaborative Inquiry

Knowing What Matters in the Classroom

FRAMING A CHALLENGE OF PRACTICE

What is the *it* – if improved – that is going to make a difference for learning? This is what defines powerful professional inquiry, “a challenge of practice” or “a persistent and familiar instructional improvement dilemma” for which both educators and learners “at this point in their learning, have no easy solution” (City, Elmore, Flarman, & Teitel, 2009). Addressing challenges of practice is complex work as educators examine, analyze and make sense of the connections between student learning needs and their instructional practices.

There are many ways to approach a challenge of practice; however, they all have a common root, which is the study and observation of student learning experiences. In teams, educators study the relationships between their actions and student learning by observing and documenting actual student outcomes and experiences. For example, they ask, “What impact does [educator action] have on [student learning outcome]?” Or, “What is the relationship between [educator action] and [student learning outcome]?”

“If ... then” statements, as suggested in the example below, provide one helpful framework for linking educators’ actions with potential effects.

Example: Working Through a Hypothetical Challenge of Practice

Critical thinking skills

When students were asked to examine points of view in a variety of texts, they showed some ability to identify the important values or issues. However, when asked to express an opinion or question ideas and actions in the text, many students offered “surface” responses that lacked detail and depth of critical insight.

As a division, our practice had been to co-construct answer criteria with students and to feature examples of model responses connected to the criteria on charts for student reference. We explored whether part of the issue may have been one of student engagement. We wondered: *If students have more choices about how to communicate their learning, will they be more engaged? Would authentic opportunities to share with an audience encourage students to think more critically and voice more opinions with supporting ideas?*

Through discussion, we formulated an “If ... then” statement, as follows:

IF we engage students by giving them opportunities for input and/or choices in how they communicate their learning about a topic or concept, and provide time for meaningful sharing with others,

THEN students will use the characteristics of the “text” form(s) they have selected to show their best critical thinking.

Further discussion as well as consultation with resources, including the Ontario Ministry of Education’s *Language Curriculum*, helped us define and add what we meant by “best critical thinking”: i.e., question perspectives of a text and compare and communicate their personal thoughts, feelings and opinions relative to these.

Statements such as these are an educator’s “working theory of action” – they provide opportunity “to test presuppositions about what we think will work against the evidence of what actually works” (City, Elmore, Flarman, & Teitel, 2009, p. 56). They open a window into further exploration.

There is no certainty ...

“After we revised our initial question, we re-thought the evidence that we would gather and analyze because we needed to make the students’ thinking more visible. We also considered how we would know if we had successfully impacted student learning. Similarly, we thought about the kind of evidence we would gather to show the changes to our teaching practice ... ”

Educator, Provincial Collaborative Inquiry

A Tool, Not a Rule

PURPOSE GUIDES THE WAY

Strategies, processes, models and frameworks are simply tools “that can be used at different levels of effectiveness” (Marzano, 2011). Fundamentally, do we understand the intent of a particular strategy or model we are using? What is the underlying purpose that led to its development in the first place? How might revisiting the purpose help us to both use the strategy effectively and make informed adaptations?

By way of example, literacy educators Fountas and Pinnel have revisited their thinking about small-group instruction in reading. They have come to note the important difference between a technical perspective concerned with “implementing the parts” of a lesson and an adaptive perspective focused through the lens of purpose. What they have learned about “guided reading development over the years is that it cannot be described as a series of mechanical steps or ‘parts’ of a lesson. The lesson structure is only the beginning of providing effective small-group instruction for students of all ages.” The more significant purpose is the use of small-group reading processes to bring “readers from where they are” to as far as they can go and “the teaching can take them” (Fountas & Pinnell, 2013).

CONTEXT IS KEY

The journey of moving beyond a technical level of use, when employing strategies, processes or frameworks, requires more than just an awareness of the intent and purposes of the structures. Implementation and adaptive use of a strategy or framework are influenced by a student’s current learning needs and by an educator’s fluency with curriculum and working knowledge of a particular strategy.

Strategies for grouping students, for example, are best used in ways that are flexible and responsive to the shifting learning needs in the classroom. A particular grouping of students that works “today” may not be as effective in a different or evolving learning situation. Adapting practice to context is a key element of supporting students.

ADAPTIVE WORK WITH MODELS AND FRAMEWORKS

Working flexibly with frameworks, processes or models is also a critical element in the inquiry process. How do models such as gradual release of responsibility or frameworks such as a three-part lesson fit into this notion of adaptive and responsive teaching?

Consideration of how different teaching practices intersect and impact one another may help illuminate aspects of particular frameworks or models and lead to approaches that maximize their effect. For example, we are coming to understand the challenge and responsibility of engaging students in their own learning. In an inquiry-based learning approach, students’ questions, ideas and observations are at the centre of the learning experience. How might a desire to build student contributions guide us to adapt or reinterpret a model such as the gradual release of responsibility? Within the context of student inquiry-based learning, an understanding of gradual release of responsibility may guide educators in how and when to frame explicit teaching, as they assume “the role of helping children notice things that would not otherwise be seen” (*Capacity Building Series – Inquiry Based Learning*). In this sense, then, gradually releasing responsibility is really as much about using every opportunity to help students engage with and grow into their own learning.

Giving the learning time ...

“One thing I want to keep in the forefront of my mind as I begin next September is the length of time it takes to build this success. We’ve all heard the phrase ‘kids need time to write’ and while I’ve always thought I was giving them time enough, I think my focus on the process of their writing this year, rather than their final product, has produced improvement in their final products.”

Educator, Provincial
Collaborative Inquiry

The three-part lesson is another well-used framework. While it has emerged in connection with the teaching of mathematics, it offers a construct for including many aspects of what evidence suggests is useful for learning in other content areas as well. When used purposely and flexibly, a three-part format provides a beginning schema for planning rich problem-based experiences for students. More essential than the actual three-part framework or any timelines related to it are the conditions it fosters, that if practised, supported and monitored, will lead to student learning.

CONVERSATION STARTER for The Three-Part Lesson

Thinking through the purposes of each portion of a three-part lesson may not only help to create supportive learning conditions for students, but may also open a door to a more flexible and adaptive use of the framework itself.

“ACTIVATION OR “MINDS ON”

- A brief situation (e.g., activity, conversation, visual provocation, etc.) intended to bring students into the learning.

How can activations be designed with multiple entry points for a range of learners?

What role might connections to prior knowledge, dissonance, intuition and guessing play in cognitively engaging learners relative to the big idea or concept to set the context for learning?

ACTION

- Main portion of the lesson where student thinking is probed, evoked or revealed through questions, tasks or purposeful activities

How are experiences designed to allow students to bring their own thinking and understanding to bear as they work towards solutions?

How might teacher-student and student-student interactions be used to help students develop, clarify, explain and extend their thinking?

CONSOLIDATION

- Time when teachers support students with making connections to the learning goal; also when students articulate and clarify their thinking in an authentic way with peers – whole class or small group.

How might co-constructing criteria that have emerged “en route” foster more personal connections?

What conditions need to be put in place to assist all students to consolidate learning? In what situations might consolidation be better conducted at another time? In different groupings?

When and how are concepts and skills that emerge in the lesson formalized and practised? How is fluency developed?

Much can be learned from frameworks, processes, models and strategies, especially when refinements are made to make these more effective for students (e.g., using more effective questioning during a math lesson, using prompts that encourage student-to-student discourse in a discussion, exploring different ways to activate student thinking, re-shaping the physical environment, etc.).

Grappling with misconceptions ...

“A significant discovery for the educators involved was the realization that they held misconceptions about the true meaning of inquiry. Through our investigation, it became increasingly apparent that inquiry was not just another layer to be added on top of existing practice. Instead, educators recognized that inquiry is the foundation upon which students’ learning must be built.”

Educator, Provincial Collaborative Inquiry

On the art of teaching ...

“You have got to have a lot of dance steps, so depending on who your dance partner is, and what the music is, you can actually shift the repertoire. A lot of us fall into default mode so when the music changes to rumba or cha-cha, we keep doing the samba.... A skilled professional ... will actually shift repertoire, and has a range of pedagogy.”

(Allan Luke, *Leaders in Educational Thought*, 2012)

Three kinds of knowing ...

- Knowing our students as learners by engaging in rich, wide-ranging classroom assessments.
- Knowing ourselves as learners by engaging in classroom-embedded inquiries that connect to student learning needs.
- Knowing what matters in the classroom by identifying the important challenges of practice for students.

Three guiding principles ...

- Purpose guides the way (frameworks and models are just constructs).
- You frame the space based on student need (where students work and learn).
- Context is key (enabling an adaptive response).

There is no final certainty, so ...

- Look for patterns in your own thinking.
- Tune in to the questions that student learning and colleagues' comments have raised.
- Consider what new perspectives have been provided.
- Ask whether instructional practices have been effective. For which students? What new educator knowledge is needed now?

REFERENCES

- City, E. A., Elmore, R. F., Fiarman, S. E., & Teitel, L. (2009). *Instructional rounds in education: A network approach to improving teaching and learning*. Cambridge, MA: Harvard Education Press.
- Cooper, D. (2006). Collaborating with students in the assessment process. *Orbit*, 36(2), 20–23.
- Cyboran, V. (2006). Self-assessment: Grading or knowing? *Academic Exchange Quarterly*, 10(3), 183–186.
- Elmore, R. (2010, Summer). An interview with Richard Elmore. Leading the instructional core. In *Conversation*, 11(3). <http://www.edu.gov.on.ca/eng/policyfunding/leadership/summer2010.pdf>
- Fountas, I., & Pinnell, G. S. (2013). *Guided reading: The romance and the reality*. *The Reading Teacher*, 66(4).
- Hannay, L., Wideman, R., & Seller, W. (2010). *Professional learning to reshape teaching*. Toronto, ON: Elementary Teachers' Federation of Ontario.
- Hearne, J. (2001). *Assessment as a tool for learning*. New Horizons for Learning. <http://www.newhorizons.org/strategies/assess/hearne.htm>.
- Kafka, J. (2003). Looking at student work for teacher learning, teacher community, and school reform. *Phi Delta Kappan*, 85(3), 184–192.
- Katz, S., & Earle, L. (2007). Creating new knowledge: Evaluating networked learning communities. *Education Canada*.
- Little, J. W., Gearhart, M., Curry, M., & Kafka, J. (2003). Looking at student work for teacher learning, teacher community, and school reform. *Phi Delta Kappan*, 85(3), 184–192.
- Luke, A., & Koh, K. (2009, Nov.). Authentic and conventional assessment in Singapore schools: An empirical study of teacher assignments and student work. *Assessment in Education: Principles, Policy & Practice* 16(3), 291–318
- Marzano, R. (2011, Dec.). Art & science of teaching: It's how you use a strategy. *Educational Leadership*.
- Moore, A. (2004). *The good teacher: Dominant discourses in teaching and teacher education*. New York, NY: Routledge Falmer.
- Perry, R. and Lewis, C. (2010). Building demand for research through lesson study. In C. E. Coburn & M.K. Stein (Eds.), *Research and practice in education: Building alliances, bridging the divide*. New York, NY: Rowman & Littlefield
- Timperley, Helen, (2010). Using Evidence in the Classroom for Professional Learning, Paper presented to the Ontario Education Research Symposium, Toronto.
- Ontario Ministry of Education Resources**
- Paying attention to algebraic reasoning K–12* (2013)
- Growing success: Assessment, Evaluation, and reporting in Ontario schools* (1st ed.) (2010)
- The Extended-Day Program Full-Day Early Learning–Kindergarten Program* (Draft Version) (2010–11)
- The Ontario Curriculum: Social Studies, Gr. 1–6; History and Geography, Gr. 7 and 8* (revised) (2013)
- Capacity Building Series**
- Collaborative Teacher Inquiry (2010)
 - Student Self-Assessment (2007)
- Leaders in Educational Thought**
- Steven Katz, Carmel Crevola and Anthony Muhammad (2013)
 - Michael Fullan, Allan Luke, Lucy West (2012)
- Webcasts for Educators**
- Learning Is the Work (Indepth with Michael Fullan) (2011)
- Provincial Collaborative Inquiry**
- “Dynamic Learning” has quoted educators participating in the following:
- Collaborative Inquiry in Learning – Mathematics (CIL-M)
 - Early Primary Collaborative Inquiry (EPCI)
 - Literacy Leaders
 - Student Work Study Teacher (SWST)