

FROM SORTING TO LEARNING: DEVELOPING DEEP LEARNING IN CANADIAN SCHOOLS

OBSERVATIONS IN MANY intermediate and secondary classrooms and interviews with learners indicate that many young people are under-engaged or disengaged with the learning opportunities in their schools. These observations are reinforced by evidence from attitudinal surveys from the Program for International Student Assessment (PISA) that paint a disappointing picture of students' current levels of satisfaction with their learning experiences. The most recent PISA report suggests that close to half of all secondary learners across the countries studied are disengaged in school and are going through the motions of learning with an externally motivated, 'performativity' habit of mind.

This disengagement of adolescent learners underlines the need for a shift from systems focused on sorting to systems passionate about deep learning. In our research, we have seen learner engagement increase as schools become more innovative and responsive – and as new forms and uses of technology, greater personalization, imaginative forms of learning engagement, the use of 'learning how to learn' strategies, deep and supportive relationships, and new forms of learning-oriented structures are being developed. These deeper forms of learning, which are required to actively participate in the knowledge society, have significant implications for educators.

We believe unequivocally that quality learning for every learner in a more personalized and responsive system must be at the core of today's school mission. Simply providing the opportunity for learning is not enough. The days when marginal skills and minimal knowledge were all that young people needed to participate fully in society are behind us. They now need to reach high levels of learning, not only during their school years but also throughout their lifetimes. In the knowledge society, learning – not sorting – is the key mandate of schools. This powerful new expectation requires new conceptions of learning, teaching, and formal and informal leadership at all levels.

In the table below, we identify four of the major shifts needed to move from a sorting system to a learning system. The implications of these shifts are critically important, as we have described in greater detail elsewhere.¹

The Shift from Sorting to Learning: Implications for Schools	
From Sorting	To Learning
A focus on instruction and teaching	A focus on deeper forms of learning
Summative assessment for grading and reporting	Formative assessment to provide descriptive coaching feedback and learner self regulation
Teaching in isolation	Teaching teams working as learning communities using the knowledge base regarding professional learning
Managing the School	Formal and informal leaders leading the learning program through distributed leadership and reflective inquiry

Making the move from a sorting to a learning system requires educators and policy makers to shift from a fixed to a growth-oriented mindset. They need to learn new behaviours that demonstrate their conviction that virtually all young people can learn and achieve at high levels. This new work requires different ways of thinking, new forms of teamwork, focused effort, continuous learning, and passionate commitment. Shifting mindsets is neither easy nor trivial work. It involves a profound and significant set of changes. Carol Dweck, a leading researcher in the area of developmental psychology, describes mindset change in this way:

Mindset change is not about picking up a few pointers here and there. It's about seeing things in a new way. When people – couples, coaches and athletes, managers and workers, parents and children, teachers and students – change to a growth mindset, they change from a judge-and-be-judged framework to a learn-and-help-learn framework. Their commitment is to growth, and growth takes plenty of time, effort, and mutual support.²

The sorting system inherent in the industrial paradigm of schooling reflects the fixed mindset with its emphasis on grading and judging. Learning systems, however, require teachers and leaders with a mindset in which learning and helping others learn is a lifelong pursuit.

NEW LEADERSHIP NEEDED

In our studies, both of schools themselves and of the formal and informal leadership research literature, we have found that the leaders whose orientation is on learning reflect a growth mindset and their behaviour leads to deeper learning cultures in their schools. These leaders are actively inquiry-oriented. They are remarkably and passionately interested in pursuing equity and quality outcomes simultaneously. They know how to use evidence about learner engagement to shift practices in their schools. They also know how to assess summaries of research findings in order to inform their decisions about what professional learning practices to pursue. They have a sustained interest in the deeper forms of learning that they use to build the unique learning identities of their schools. In their work, they are constantly aware of the critical importance of building trusting relationships with their adult colleagues – teachers, support staff, parents and community members. As well, they know about the emerging literature on professional learning and are adept at engaging with their colleagues in thoughtfully designed and contextually appropriate programs for adult learning in the work place.



EN BREF Le désengagement des apprenants adolescents souligne la nécessité de sortir des systèmes axés sur le triage pour adopter des systèmes passionnés par l'apprentissage en profondeur. Dans la société du savoir, le principal mandat des écoles est l'apprentissage – et non le triage. La mission centrale de l'école d'aujourd'hui doit être d'assurer un apprentissage de qualité à chaque apprenant dans un système personnalisé dynamique. Les leaders qui réussissent cette transition sont ceux qui croient en la croissance. Leur comportement favorise des cultures d'apprentissage plus riches dans leurs écoles. Ils axent la formation professionnelle en fonction d'un intérêt passionné qui les amène à aider les apprenants à devenir plus autonomes, plus motivés, à mieux réussir. Ils s'initient aussi à l'évaluation formative et aux stratégies d'autonomie et les appliquent pour que l'école mette l'accent sur l'appropriation par l'élève, plutôt que la détermination par les adultes.

They have intuitively understood what Viviane Robinson's recent meta-analysis of the international school leadership literature has revealed: "Promoting and participating in teacher learning and development" is the most important behaviour formal leaders who care deeply about improved learning for their students can engage in.³ Learning-oriented leaders place a high priority on designing and demonstrating enthusiasm for professional learning as a way of life in their schools and participate in professional learning with the staff as co-learners, as leaders, or as both.

STAFF LEARNING FOR LEARNING SCHOOLS

In our case studies of K-12 schools, we have been impressed by the good judgment and wise actions of many informal and formal school leaders with inquiry and evidence-informed mindsets who have successfully shifted their schools to a focus on deeper forms of engagement and learning. They have done so by using professional learning strategies that fit the culture of their schools and the developmental levels of their staffs. They have incorporated knowledge about teacher learning, distributed leadership, and learning communities into their leadership work and have made adaptations to suit the challenges of their unique contexts. The successful leaders we have observed think carefully about capacity building and sustainability.

Recent research on teacher professional learning, particularly as documented in the New Zealand best evidence synthesis work, provides a useful foundation for these leaders. We have consistently found that, when school leaders are equipped with a knowledge base – from both research and practice – of what is working in schools similar to their own, they gain confidence in their ability to diagnose their context and to initiate wise action. Sometimes they 'compose' their own innovations, and sometimes they use the 'soundtrack' of an evidence-informed approach; they always bring their own unique imagination and instrumentation to the work.

These formal and informal leaders have a strong sense of learning-oriented design, which is informed by a thorough understanding of the ten critical principles for teacher learning and development identified by Helen Timperley and her colleagues in New Zealand. Several important understandings underlie these principles:

- Regardless of the home background of the learners, learning is strongly influenced by what and how teachers teach.
- Teaching is complex work.
- It is critically important to set up the conditions that are helpfully responsive to the ways in which teachers actually learn – consideration must be given to their prior conceptions, to developing deep factual and conceptual knowledge that can be readily accessed, and to promot-



ing metacognitive and self-regulating processes for goal-setting and progress attainment.

- Professional learning is strongly shaped by the context in which teachers practice. This is usually the classroom, the wider school culture, and the community and society in which the school is situated. Teachers' daily experiences in their practice context shape their understanding, and their understandings shape their experiences.⁴

These assumptions underscore the important role of formal and informal school leaders in creating the conditions and the contexts to maximize teacher learning. Timperley notes that three leadership roles appear crucial to gaining and maintaining the interest of teachers in participating in ongoing learning. These include (1) creating a vision of new possibilities – not through extensive vision-building exercises but rather through everyday modeling and actions; (2) providing leadership to the school's adult learning program through participating and adding expertise; and (3) making sure that all adult learning opportunities are well organized and supported.⁵

In our province, we have unfortunately seen poorly designed professional learning experiences that have wasted the time and insulted the intelligence of the participants. More recently, we have seen some well-designed, thoughtful, and inquiry-minded programs that are helping to deepen learning outcomes and to foster more positive attitudes of young people. We believe our collective educational challenge is to ensure that every opportunity for educators to learn is well designed, of the highest quality, and responsive to the needs of the participants. This is important work that must be shared among teachers, union leaders, principals, district staff, professional development educators, and university faculties.



ONE IMPORTANT KEY TO SHIFTING THE CLASSROOM, SCHOOL OR DISTRICT TO A STRONGER LEARNING ORIENTATION IS TO FOCUS PROFESSIONAL LEARNING TOWARDS A PASSIONATE INTEREST IN HELPING LEARNERS BECOME MORE SELF-REGULATED, MORE MOTIVATED AND MORE SUCCESSFUL.

ASSESSMENT FOR AND AS LEARNING IN SCHOOLS

Several of the professional learning principles identified by Timperley point to the importance of designing learning for adults based on a thoughtful assessment of what students need to be able to know and do. One important key to shifting the classroom, school, or district to a stronger learning orientation is to focus professional learning towards a passionate interest in helping learners become more self-regulated, more motivated, and more successful. (See the work of Deborah Butler and her colleagues in this issue.) Many schools across Canada are engaged in the challenging yet productive initiative of developing a school-

wide repertoire of learning strategies that assist learners in their understanding and use of a metacognitive approach to their learning. Their leaders understand that skills in self-assessment are closely connected to self-regulation. These school communities have found the thinking and work of Lorna Earl and Dylan Wiliam especially useful in making the shift towards deeper learning.⁶

Acquiring an assessment repertoire characterized by the nimble and responsive planning and teaching that Dylan Wiliam and his colleagues are calling for is an important and challenging change for educators in all roles.⁷ Applying inquiry-mindedness to the daily life of classrooms by using thoughtful assessment and learning strategies, and then looking carefully for evidence of deeper learning, are important new competencies for learners, teachers, and leaders.

Formative assessment demands much more than incorporating a few new strategies into an existing repertoire. It requires that teachers and formal leaders understand the research base for formative assessment so that the implementation of strategies reflects both the key ideas and the spirit of the work. We have seen improved learning when teachers and principals systematically and consciously incorporate the six strategies of formative assessment across classrooms. These strategies provide a focus for evidence-informed educators as they design for deep learning in their schools:

1. Learners are in charge of and own their own learning.
2. Each learner is clear about and understands the learning intentions of the current area of exploration or study. Students are able to tell someone else in their own words what it is they are expected to learn and how this new learning connects to life beyond school.
3. Each learner has been provided with or has co-developed criteria for success. As a result, learners not only have clear criteria for quality, they also know in which areas they need to improve. They have worked with samples of strong and weak work and are able to use these examples to guide their individual efforts to improve.
4. Individual learners are regularly provided with personalized feedback that moves their learning forward. Over time, learners develop confidence in knowing how to improve and are able to self-regulate their own learning.
5. Learners are used to responding to questions that generate evidence of learning. They understand that individual responsibility for thinking, as evidenced in the 'no hands up' practice, is a regular part of their learning life. In addition to teachers working together ahead of time to develop thoughtful questions to use part way through a learning sequence, learners are also involved in designing questions that provide evidence of their learning.
6. Learners regularly work as learning and teaching resources for each other. They understand and use a range of cognitive strategies and have internalized quality criteria so that they can be productive learning partners with same age, older, or younger learners.

The educators who have worked with their staffs in implementing these six strategies have access to significant and 'close to the learner' evidence for their ongoing school change work. As Thompson and Wiliam note:

In a classroom where assessment is used with the primary function of supporting learning, the divide between instruction and assessment becomes blurred. Everything students do, such as conversing in groups, completing seatwork, answering questions, asking questions, working on projects, handing in homework assignments – even sitting silently and looking confused – is a potential source of information about what they do and do not understand. The teacher who is consciously using assessment to support learning takes in this information, analyzes it, and makes instructional decisions that address the understandings and misunderstandings that are revealed. In this approach, assessment is no longer understood to be a thing or an event (such as a test or a quiz); rather, it becomes an ongoing, cyclical process that is woven into the minute-to-minute and day-by-day life of the classroom.⁸

Shifting the focus from instruction to learning represents a new way of thinking for many educators and requires a change in their mental models.

SYSTEM SHIFTING IN NETWORKED SCHOOLS

For the last decade we have been studying the work of a set of schools working together as a networked learning community to explore the power of inquiry and the application of formative assessment knowledge to deepen learning for young people. Every educator actively involved in this network is interested in developing learning in more engaging and productive ways. Each school has made a commitment to have a team of educators working in an exploratory way with the six formative assessment strategies described above. (For more about this approach, see www.npbns.ca) Engaging young learners more deeply in the process of learning is at the heart of this work.

Network practices include the development of an inquiry that will serve as the focus for a year-long exploration. School teams attend three or four meetings to exchange ideas and resources, write a case study of their findings, and share what they have learned with their colleagues at the end of the year. At one of these meetings, secondary educators might be discussing how they have changed their department meetings away from allocating resources to exploring new assessment strategies connected with rich content outcomes. Or, they may be talking with and listening to a group of elementary educators describing how they are using cross-grade strategies for helping both primary and intermediate learners make gains in inferencing understanding, self-regulation, and cognitive coaching. Another group of elementary and secondary teachers might be describing how they are applying imaginative learning perspectives to more deeply engage the Aboriginal learners in their schools. The focused conversations are engaging, and the concepts being explored are important. What connects the conversations is a shared interest in using formative assessment strategies to deepen learning.

We have had the opportunity to observe this work in action in a wide range of settings, and our observations about what seems to make this network effective may be useful to other educators:

- Genuine interest and involvement by formal leaders is necessary.

- Teachers and learners benefit when respectful environments of inquiry, evidence, and choice are part of the school culture.
- Developing confidence with the formative assessment repertoire helps teachers address the challenges of their most vulnerable learners.
- System leadership matters in creating coherence between assessment knowledge and policy.
- When parents are involved in understanding the important shifts in assessment practices, they become powerful allies.

CONCLUSION

If we are to serve our Canadian society well, we need to ensure that all the young people in our schools have opportunities to learn in engaging and deeply meaningful ways. We know, through both practice and research, how to do this. What we need is the will and the leadership to make the required changes. If we work in networked and distributed leadership ways to learn about and apply formative assessment and self-regulated strategies productively and imaginatively, we will succeed in shifting the emphasis in our schools from adult-driven to learner-owned. If we use our collective networks to connect the most thoughtful work in schools and in policy environments, we will be able to help most young people to find learning engaging and stimulating. We can use the energy of a saying from the Tsimshian people - Wei wa – let's do it! |

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Notes

- 1 Linda Kaser and Judy Halbert, *Leadership Mindsets: Innovation and Learning in the Transformation of Schools* (London: Routledge Press, 2009).
- 2 Carol Dweck, *Mindset: The New Psychology of Success* (New York: Random House, 2006), 238.
- 3 V.M.J. Robinson, V. M. J. (2007). *School Leadership and Student Outcomes: Identifying What Works and Why* (Sydney: Australian Council of Educational Leadership *Monograph Series*, no. 41, 2007), 14.
- 4 H. Timperley, *Teacher Professional Learning and Development* (International Academy of Education, International Bureau of Education, Educational Practice Series. no. 18, 2006), 6.
- 5 *Ibid.*, 17
- 6 Lorna Earl, *Assessment As Learning: Using Classroom Assessment to Maximize Student Learning*. (Thousand Oaks, CA: Corwin Press, 2003; Dylan Wiliam, "Assessment: Learning Communities Can Use It to Engineer a Bridge Connecting Teaching and Learning, *Journal of Staff Development* 27, no. 1 (2006): 16-20.
- 7 Wiliam.
- 8 M. Thompson and D.Y. Wiliam, "Tight But Loose: A Conceptual Framework for Scaling Up School Reforms" (paper presented at the annual meeting of the American Educational Research Association (AERA), Chicago, Ill., 9-13 April 2007), 5.

