



Recounting Student Success

Rethinking Educational Accountability for Public Assurance in Alberta Schools

Alberta's K–12 education sector stands at a crossroads. The promise of progressive educational reform is real and is being demonstrated on a number of fronts: high school flexibility initiatives that broaden the purposes of a public school education; curriculum renewal, including rewriting programs of study; new practice standards for teachers, principals and superintendents; enhanced supports for early learning; and a commitment to making schools safe and nurturing environments for all students. These efforts, however, will be hindered by the continued use of outmoded models of accountability that distract the education system from supporting teachers in addressing the growing complexity of Alberta classrooms.

The success of current reform efforts will depend on the government's ability to demonstrate significant improvement in the lives of students, as well as students' capacity to achieve their potential as they progress through the K–12 system. With this in mind, the teaching profession believes that the changes being advanced by the government must be grounded by a fundamentally new approach to measuring and reporting student and system success—one that is committed to excellence through equity built on public confidence, trust in the profession and responsibility.



What follows is an overview of the profession's vision of what such an approach to assessment and public assurance would look like. The nine strategies outlined below are based on the three pillars needed to ensure the integrity of successful educational reform (Shirley 2016b) and draw on current research connected to the Association's international partnerships and Alberta teachers' commitment to create a great school for all students.

I. Purpose

1. Advisory Committee in Public Assurance
2. Local goal setting for assessing student progress

II. Policy

3. Provincial testing through population sampling
4. Action research networks for demonstrating evidence of student success
5. Peer review of schools
6. Next generation of diploma examinations
7. Building school-based assessment capacity of teachers

III. Practice

8. Professional development and teachers' collective capacity
9. Global leadership in assessment

I. Purpose: Shared commitments through public assurance

Public assurance with respect to defining success for Alberta students requires an ongoing conversation about the kind of Alberta and Albertans we aspire to become. Therefore any meaningful effort at educational reform must begin with a consensus on what a society values in terms of the purposes of a public school education (Biesta 2013; Jónasson, forthcoming). This conversation has yet to be fully realized in Alberta. Therefore, it is essential that stakeholders take up the challenge to shift the current outdated approach to school system reporting.

Public assurance with respect to defining success for Alberta students requires an ongoing conversation about the kind of Alberta and Albertans we aspire to become.

Despite these possibilities and limitations we can still rethink some of the key design elements of the current accountability systems in Alberta and consider that “the desired results of public assurance and improved student performance can be achieved in ways other than through a focus on external accountability” (Alberta Assessment Consortium (AAC) 2012, 5). Despite increasing recognition that such accountability measures as standardized testing reveal relatively little about a school and the learning that is occurring there, accountability in Alberta currently relies on external assessment programs such

as provincial census testing programs and a growing reliance on international benchmarking. Increasingly both of these approaches lead to incomplete pictures of student success and school performance, both in the media and in public policy deliberations. Particularly important is the failure of public policy-makers to engage the public and the media concerning the risk of imputing simplistic one-to-one causal relationships in order to make appropriate and responsible educational decisions. Correlation is not causation as Yong Zhao (2016) recently underscored with his somewhat sardonic analysis of the most recent Trends in International Mathematics and Science Study (TIMSS). Through the strict and cold logic to uncover one key variable that might explain the 20 year track record of East Asian students on TIMSS, he concludes the only plausible explanation is the use of chopsticks by students in those jurisdictions.

Most recently, as in many Organisation for Economic Co-operation and Development (OECD) jurisdictions, Alberta has seen its test-based conventional accountability architecture shifted by the ubiquity of digital testing and student reporting platforms, and increasing use of data analytics to monitor and control schools to the extent that “accountability has become the system” (Sellar 2015). As well, there are unanswered questions regarding the variations in performance of students tested in print-based versus digital platforms.

Most recently, the challenges to responsive and responsible policy making have been amplified by international organizations that continue the drive to generate indicators of performance through data analytics and data infrastructures. Key players in this work include the Organisation for Economic Co-operation and Development (OECD), the United Nations, the

The limitations of datafication and the “big data” movement are evident as policy-makers confuse correlation with causation.

World Bank, the European Commission and private consulting entities. In particular, the OECD’s Programme for International Student Assessment (PISA)—which measures reading, mathematical and scientific literacy of 15-year-olds around the world—has become the equivalent of an educational “global positioning system (GPS), that aims to tell policymakers where their education systems place in a global grid and how to move to desired destinations” (Sahlberg and Hasak 2016). The December 6, 2016 decision by Alberta’s education minister, David Eggen, to launch a major mathematics initiative based on a dubious analysis of the latest 2015 PISA results, represents one example of how this “GPS” can distract governments from addressing systemic obstacles to learning (Alberta Teachers’ Association (ATA) 2016).

As Sahlberg and others have illustrated, the limitations of datafication and the “big data” movement are evident as policy-makers confuse correlation with causation. Too often the rush to find quick-win strategies through “policy borrowing” (Shirley 2016a) leads to decontextualized and inappropriate reforms. Further, emphasis on big data infrastructures and international benchmarking results in unintended consequences and behaviours:

- Test-oriented school cultures diminish teaching and learning. It is estimated that 10–20 per cent of class time is now devoted to test preparation in classrooms across Canada. As well, Alberta teachers report that the time spent gathering and reporting student data is a common source of work intensification, second only to supporting students with special needs. The consequences for teaching practice are clear: pressures to narrow the definition of exemplary professional practice; diminishing possibilities for inclusive curriculum development and differentiated instruction; fewer locally developed resources and less project-based learning driven by critical inquiry and exploration.
- While Alberta’s student population is becoming more complex and diverse, accountability policies are increasingly narrow and unresponsive. The focus on standardization has failed to close the gaps for the most vulnerable Alberta students (Gariepy, Spencer and Couture 2009).
- The push for the production of standardized testing data and benchmarking too often represents a misguided response to a phantom menace—a distraction from the systemic obstacles to learning, such as readiness to learn and poverty.

Compared to current external accountability measures, a shift to rich or multilateral accountability requirements (ATA 2015b) is much broader in scope. Encompassing authentic community engagement informed by research, this model would focus less on government expectations and more on Alberta's communities and their aspirations.

The government must bring stakeholders together and engage Albertans in exploring options for a new approach to public assurance—one that reflects emerging, promising research regarding structures that will support the aspirations of Alberta's public education system.

At a 2016 international gathering of experts on educational accountability, Twin Peaks—A Global Summit on the Datafication and the Commercialization of Public Schooling, participants remarked that public assurance is not a thing—it is an ongoing process of Albertans developing a consensus on the fundamental question: What is the purpose of a public school education and how would we know if all Alberta students achieved this goal? Especially compelling for the summit participants was an invocation from the writing of former minister of education David King (2015) to consider the foundational principle that public assurance is not about what governments want or need, but what the citizenry aspires to accomplish through democratic deliberation and dialogue in their communities.

The government must bring stakeholders together and engage Albertans in exploring options for a new approach to public assurance—one that reflects emerging, promising research regarding structures that will support the aspirations of Alberta's public education system.

Ideally, a renewed approach to public assurance would have as its cornerstone an ongoing, open and transparent exchange of information between the school and the larger community. In this approach, the school would receive information about what the community deems important. In turn, the community would value what is happening in the school. The positive potential of this type of model has precedents in pilot projects sponsored by the Association, as well as in projects in such jurisdictions as the Netherlands and Scotland.

Two policy initiatives could lay the foundation for the work ahead.

1. Advisory Committee on Public Assurance

Convene an advisory committee of education partners to identify the high-level principles and processes needed to renew Alberta's approach to school and system reporting.

Committee members could be drawn from faculties of education, the education ministry, the Association, school boards, superintendents and community or parent groups.

This committee would employ the emerging research in jurisdictions that are taking bold steps to renew approaches to public assurance, such as Scotland's "School Improvement Partnership Programme" that reflects a commitment to address equity "as a solution-focused approach to tackle the steadfast link between socio-economic deprivation and low educational attainment" while holding schools accountable for those results they actually can influence (Ehren 2016). In the long-term, this committee's work could help position Alberta as an international hub for research in the area of school and system performance and improvement.

2. Local Measures and Indicators for Determining Student Progress

Within the broad goals identified in a provincial framework, empower students and community members to identify the ways that success in school can be defined and demonstrated.

As an alternative to the focus on gathering "big data," government could fund research initiatives that support local innovation and mobilize student voices with respect to what success looks like in a vibrant public education system. There are precedents for this work (eg, the Alberta Initiative for School Improvement (AIS) and the "response-ability laboratory" in a network of Alberta high schools (Murgatroyd and Stiles 2015)). More importantly, this work would advance the government's broader aspirations for strategic engagement and democratic renewal in the province.

However, a word of caution is warranted. While developing broader measures of what really matters (eg, addressing the growing diversity and complexity of student populations, well-being) is a desirable aspiration, the risk, according to Alberta's Auditor General, "is that we enter into the equivalent of an accountability arms race" (Saher 2013). As not everything that matters can be measured, Alberta must avoid the impulse to attempt to measure everything or the use of inappropriate assessment methods. Ultimately, performance standards and numbers cannot replace trust in public institutions.

The overriding policy objective is for teachers—supported by school and system leaders—to enhance their practice by developing a common understanding of provincial and community standards for broadened definitions of student success, and implementing strategies to help students demonstrate these outcomes. This helps to engender within the community trust and confidence that schools are meeting the learning needs of students.

II. Policy: Evidence-informed decision making

The design challenge in any model of public assurance is to ensure the information gathered and reported incite positive change that is both *responsive* and *responsible* (Lingard and Sellar 2013). As noted above, current accountability mechanisms—particularly those linked to generating big data infrastructures and high stakes—lead to unintended behaviors and consequences that too often see accountability becoming the system.

The Association believes that Albertans' commitment to equity must be reflected in the information that is generated and gathered about schools and educational systems. These commitments were outlined by a panel of international experts

the Association brought together to assist in the development of a blueprint for sustaining innovation in Alberta's K–12 education sector. This blueprint, *A Great School for All: Transforming Education in Alberta* (ATA 2012), outlined a comprehensive model for mobilizing research to build the capacity for informed change that reflects the core values of Alberta communities. *Rich Accountabilities for Public Assurance: Moving Forward Together for a Great School for All* (ATA 2015b) further outlined the linkages between potential curriculum change and the need for a system of multilateral accountability requirements that would reflect a focus on competencies and a more holistic approach to teaching and learning. Specific policy changes that resonate with the principles outlined in these publications follow.

“Accountability is the remainder that is left once responsibility has been subtracted.” (Hargreaves 2012)

3. Provincial testing through population sampling

Supporting anticipated curriculum changes and in collaboration with faculties of education and the AAC, develop a provincial sampling program to address the learning outcomes in programs of study in the eight subject-area clusters currently being developed.

Consideration of the purview and frequency of the sampling could involve the advisory committee discussed above. These programs could include both closed-response items and rich performance-based tasks, which would be used by teachers to complement and support their assessment practices. Moreover, a sampling program's savings—both financial and in instruction time—over provincewide testing would be substantial and could redirect support for enhancing classroom assessment. The introduction of these sampling programs would serve as the rationale for eliminating the current provincial achievement testing program. The development of robust sampling programs modelled after successes in other jurisdictions could also help address the policy-makers who fail to recognize that “accountability is the remainder that is left once responsibility has been subtracted” (Hargreaves 2012).

4. Action research networks for demonstrating evidence of student success

Establish a network that offers both the public and practitioners access to exemplars of student success across all eight subject-area clusters.

Such a network would feature exemplary assessment items and processes, as well as student work that demonstrates success in the fine arts, mathematics and other subject areas. Currently the AAC offers key elements of a potential foundation for a network of collaborative inquiry focused on assessment exemplary practice. Certainly the high school flexibility initiatives under way in individual schools, scaled through provincial funding and support, could act as a catalyst for this work. In terms of enhancing public assurance, Finland's current practice of providing public access to the National Board of Education matriculation examinations offers an intriguing possibility for the public to participate in deliberations over the examination questions.

5. Peer review of schools

Based on proven examples of effective school development strategies, develop a provincial peer review program involving school teams conducting site visits and providing formative feedback to support innovation and informed risk taking.

Lateral networks of schools as sites of sustained innovation can become a powerful way to leverage the responsiveness of schools to meet emerging, identified needs. Importantly, these processes must be sustained through cultures of trust that build collective professional capacity and cannot be allowed to lapse into contrived collaboration and mechanisms of surveillance and control. Providing teachers and school leaders involved in these programs with appropriate supports to avoid workload intensification is key to this work.

Lateral networks of schools as sites of sustained innovation can become a powerful way to leverage the responsiveness of schools to meet emerging, identified needs.

6. Next generation of diploma examinations

Undertake research to explore substantial revisions to the current diploma examination program.

With the shift to a 70/30 weighting, as well as growing acceptance of teacher-awarded marks by post-secondary institutions, there is a strategic opportunity to both enhance the current examination program and support the shift to a competency-focused curriculum. For example, a shift away from selected-response items to rich performance-based tasks could be a significant change that would signal the government's commitment to more meaningful measurements of student success in the new programs of study.

A shift away from selected-response items to rich performance-based tasks could be a significant change that would signal the government's commitment to more meaningful measurements of student success in the new programs of study.

7. Building school-based assessment capacity of teachers

Support teachers through the provision of time and professional development that builds the collective capacity of the profession.

The immediate focus should be on disentangling formative assessment from large-scale provincial assessments and strategically investing resources in rich performance tasks that will enable teachers to effectively support the proposed shift to a competency-focused curriculum. Mandated so-called formative assessments—including the government's Student Learning Assessments or jurisdiction tools like the Mathematics Intervention Programming Instrument—offer little to build assessment capacity or to enhance trust in the professional judgment of teachers. Further, these initiatives reflect the growing influence of the datafication of the teaching and learning experience driven by the impulses of control and surveillance rather than trust and flexibility. What is needed instead is a commitment to support teachers through the provision of time and professional development that builds the collective capacity of the profession.

III. Practice: Exemplary teaching and trust in professional responsibility

Most fields informed by the social sciences have imperfect evidence [and therefore] judgments are rightly based on the best available evidence, along with the practical wisdom of those actually working in the field.

Leithwood et al 2004

External accountability mechanisms obscure the boundaries between teachers' professional judgment and systemwide indicators of performance. While information can inform teachers' practice, parents' decision making, school leadership, system administration and policy making, ultimately professional judgment enables teachers to meaningfully translate that information into practice that responds to students' individual needs, gifts and talents.

Across the province, we are seeing a trend toward mandated systemwide assessments and commercially produced evaluation and reporting tools. This represents not only a fundamental challenge to the professional judgment of teachers, but also hinders schools' and jurisdictions' capacity for developing local assessments and reporting tools that reflect the best interests of an increasingly complex and diverse student population.

There is an alternative to the growing standardization, datafication and commercialization of Alberta schools. It emphasizes the teacher's role and professional judgment in assessing students' learning needs.

There is an alternative to the growing standardization, datafication and commercialization of Alberta schools. It emphasizes the teacher's role and professional judgment in assessing students' learning needs. Outlining this alternative, the graphic on the following page shows the relationship between teacher-developed classroom-based assessments, collaboratively developed assessments and large-scale provincial assessments.

In this model, enhanced classroom assessment capacity is not separate from the policy goal of system performance reporting and improvement; indeed, they are interconnected. Both quantitative and qualitative measures of student progress are essential elements of any reporting structure that will build and sustain public confidence in the professional judgment of teachers regarding student progress.

Alberta's Design Opportunity: Professional Responsibility Enhancing Public Assurance



Teacher-Developed Classroom Assessments

- Support ongoing classroom assessment to diagnose and respond to the learning needs of students.
- Through peer-review, foster teacher observation and interaction with students and parents (de-privatizing teacher practice).
- Differentiate classroom assessments to address increasingly complex student learning needs.
- Through the provision of time and support, enhance professional capacity to gather and report evidence of student progress.



Teacher-Selected Collaboratively Developed Assessments

- Support identifying jurisdiction priorities such as groups of at-risk students.
- Support teacher assessment capacity in the use of multiple sources of information and evidence, such as observations, conversations, tests, projects and portfolios.
- Develop performance tasks, rubrics and unit tests with the help of teacher teams in communities of practice.
- Focus on responsibility and adaptive capacity.



Province-wide Assessments

- Focus on responsiveness to build capacity in targeted areas as identified by school networks.
- Support action research networks to enhance professional learning in priority areas.
- Report on provincial benchmarks through sampling programs with an emphasis on performance assessments.

DAILY

ONGOING ASSESSMENT OF AND FOR LEARNING

PERIODIC

Building the capacity of teachers to carry out their professional responsibilities related to assessing and reporting student progress will need to be a priority of the education sector, starting with faculties of education, and to be sustained through ongoing professional learning. The proposed practice standards for teachers, leaders and superintendents present a real opportunity to unite teacher and systemwide assessments. As the above model illustrates, a constructive renewed approach to accountability would see individual assessments of student growth supported by programs of sampling of student populations. Such approaches have been proven in a variety of jurisdictions and could be adapted for Alberta's context based on forward-thinking design models proposed by the AAC (2012).

In addition to building on the work of other jurisdictions, Alberta can build on its own past successes, including the AISI. The following are offered as initial proposals for consideration, based on research underway in Alberta or activities currently supported in other jurisdictions:

8. Professional development and teachers' collective capacity

Focusing on strategic areas such as culturally responsive pedagogy, implement a provincewide program that supports networks of schools where job-embedded professional inquiry into differentiating assessments is sustained.

A recent national study (Campbell et al 2016) has concluded that professional learning by teachers pursuing collaborative inquiry to address the growing complexity of student populations will continue to be a priority across Canada. This conclusion affirms the importance of building assessment capacity for Alberta teachers who, the study observes, continue to experience increasing workloads amidst growing (unsupported) student needs. A numeracy development program in New Zealand based on cultural sensitivity for Maori and Pacific communities provides an example of the possibilities for culturally responsive pedagogy in Alberta.

9. Global leadership in assessment

Offer teachers access to rich assessment exemplars and professional development networks that build their assessment capacity.

Over the long term, this involves building both individual teacher efficacy as well as the collective efficacy of the profession as leaders in assessment—a reputation that historically has been supported by such organizations as the AAC and such programs as the AISI.

The establishment of a provincial sampling program could include professional supports and regional marking centres to provide public assurance that standards—defined in part by students and communities—are consistent across the province. Such a network of regional marking centres was envisioned in the early 1980s by then education minister David King who saw such centres as the natural transition away from the centrally managed provincial testing program that, in its infancy, was expected to last only five years. While such a network would diminish the central and external nature of accountability, it would also encourage teachers to assume a leadership role and demonstrate their professional judgment.

More than a Number—A new story of success with integrity for Alberta’s students

To achieve integrity in the new millennium, we will have to evolve beyond a focus on big data to an inclusive culture of big ideas. We must inspire our students with the excitement of intellectual discovery, the pursuit of physical health, the majesty of nature, and the powerful and sustaining bonds of community.

Shirley 2016b, 153

The Alberta teaching profession shares the view of Dennis Shirley, a much respected and astute observer of global educational development who has worked extensively in Alberta schools, that it is a moral imperative for vibrant democratic societies to pursue high educational performance through a commitment to integrity. Alberta teachers believe that, given the rich legacy of the province and a promising future ahead, “it is not about Alberta being the best place *in* the world; it is about being the best place *for* the world” (Low 2011, emphasis added).

The work ahead is both complex and hopeful.

The work ahead is both complex and hopeful. Given the aspirations for progressive change in Alberta’s education sector, the government needs to be mindful that politics is inevitably a contest between time and action. There are real opportuni-

ties ahead for the government to learn that meaningful educational reform is not about a narrow focus on “catching up” to “high performers” (eg, Singapore), but about shifting away from standardization, control and “high academic burden” toward supporting local flexibility, de-emphasizing testing and broadening the curriculum (Zhao 2015).

Key to this work is reminding ourselves that Alberta’s greatest gift is a vibrant public education system that has, for the most part, avoided the detrimental effects of excessive test-driven accountability, privatization and commercialization—adhering instead to Westheimer and Kahne’s (2004) contention that the purpose of public education is to create a public. In this respect our greatest challenge is to create school environments that foster and sustain equity.

The “great public school education” invoked by King invites us to a “recounting”—a new narrative that ought to be about creating the public in vibrant communities (King 2015). His provocation at the Alberta Teachers’ Association’s annual Summer Conference encouraged the 400 Alberta teacher-leaders present to work collaboratively—with vision and principled vigour—with the newly elected New Democratic government. Gesturing to the possibilities ahead, he quoted Buckminster Fuller: “You never change things by fighting the existing reality. To change things, build a new model that makes the existing model obsolete.” Further, reflecting on his senses that liberalism, along with many tools and processes of education, is on palliative care, King offered hope and possibility for the future, invoking Vaclav Havel:

Today, many things indicate that we are going through a transitional period, when it seems that something is on the way out and something else is painfully being born. It is as if something is crumbling, decaying, and exhausting itself—while something else, still indistinct, is rising from the rubble.

It is in this spirit that the Association looks forward to the opportunity to immediately begin working with government and education partners to develop a community-focused model of public assurance that reflects the kind of Albertans we aspire to become. Ultimately, the foundation of assurance rests in building public trust and confidence in teachers’ professional judgment in achieving what Albertans aspire to create—a great school for all.

Key Terms

The following are intended not as strictly determined definitions but as useful guides to contextualize key concepts and emerging research drawn upon in this discussion paper. Special thanks to the Alberta Assessment Consortium for permission to adapt and/or include several items from their publications.

Accountability: The concept that individuals (eg, students, teachers or administrators) or organizations including schools, school districts or departments of education, should be held responsible for improving student achievement based on measurable information typically generated by large-scale assessments and other forms of student testing. Test-based accountability systems provide a useful resource for monitoring schools and school systems and developing policies and programs. However, this information is only valuable in relation to a set of purposes for and expectations of schooling and in relation to practices that may be changed by producing this information. The important question to ask (that is too-often ignored) in relation to information for educational accountability is: What information is required to demonstrate that any given practice or policy is producing the desired outcomes?

Assessment: Rather than a conventional focus on testing, generating numbers and grading, assessment is a process that focuses on feedback as determined by the teacher whose ultimate goal is to support the learning process. Ideally, assessment is thought of as a process of teachers collecting information on student performance that includes a variety of assessment tasks designed to provide information to monitor and improve student learning.

Big Data: The generation of large and/or complex data sets that make data processing, including organization, analysis and interpretation of the data very challenging. Often decontextualized and abstract. While any information can act as a catalyst for change, the growing risk for accountability mechanisms, particularly those linked to high stakes, is the encouragement of strategic and unintended behaviours.

Commercialization: The process of monetizing educational products and services with a focus on realizing profit, typically for private interests. These processes are increasingly evident in the marketing of learning management systems and student reporting tools.

Datafication: The process of rendering a practice or activity into data that can then be tracked, analyzed and employed for monitoring purposes by third parties (government agencies, technology vendors).

Formative assessment: Experiences that result in an ongoing exchange of information between students and teachers about student progress toward clearly specified learner outcomes; this information is not used for grading purposes (also referred to as assessment for learning)

Performance-based assessment: A meaningful, real-life task that enables students to demonstrate what they know and can do in situations like those they will encounter outside the classroom as well as in situations that simulate how people do their work.

Professional judgment: Too often the primary focus for testing and other accountability mechanisms obscures the boundaries between teachers' professional judgment and the perceived need for systemwide indicators of performance. While this information can be used to inform teachers' practice, parents' decision making, school leadership, system administration and policy making, it is important to ask: How are judgments about the different kinds of information *meaningfully interpreted* and *actually translated* into practice?

Public assurance: In a democratic society, an ongoing process of public deliberation and consensus building regarding the key purposes of a public school

education and the development of indicators that determine the degree of success in helping students achieve these goals. Over time, *public assurance* is focused less on generating decontextualized multiple data sets and more on providing responsiveness to school-communities as complex ecologies where students pursue their gifts and talents.

Rich accountabilities: A rich, multilateral approach to accountability includes a wide variety of stakeholders including local communities in determining what 'counts' to achieve public assurance. While large quantitative "big data" sets can provide an important source of information, the judgments made in relation to these data benefit most when being made as close as possible to the practices that will be changed. This allows other information—contextual information, narratives, professional expertise and so on—to inform the judgment and to provide a richer catalyst for change.

Selected Response: Assessment items that require students to select a single correct response from a limited number of possibilities; includes formats such as multiple choice, matching and true/false.

Standardization: The practice of ensuring that all teachers assess student work to the same standard and against the same criteria. More recently these practices are being monitored and governed at a distance by externally developed digital assessments and through data analytics.

Summative assessment: Assessment experiences designed to collect information about student learning in order to make judgments about student performance and achievement at the end of a period of instruction; this information is shared with students, parents/guardians, and others who have a right to know (also referred to as assessment of learning).

Bibliography

- Alberta Assessment Consortium (AAC). 2012. *A New Look at Public Assurance: Imagining the Possibilities for Alberta Students*. Edmonton, Alta: AAC.
- . 2016. “AAC Assessment Glossary.” Edmonton, Alta: AAC. AAC website. <http://www.aac.ab.ca/wp-content/uploads/2016/09/AAC-Glossary-updated-Oct-2016.pdf> (accessed February 2, 2017).
- Alberta Teachers’ Association (ATA). 2012. *A Great School for All: Transforming Education in Alberta Schools*. Edmonton, Alta: ATA.
- . 2015a. *Renewing Alberta’s Promise: A Great School for All*. Edmonton, Alta: ATA.
- . 2015b. *Rich Accountabilities for Public Assurance: Moving Forward Together for a Great School for All*. Edmonton, Alta: ATA.
- . 2016. “Alberta Students are Tops on Tests that Don’t Matter Much.” News release. December 6. <https://www.teachers.ab.ca/News%20Room/News%20Releases/2016/Pages/Alberta-students-are-tops.aspx> (accessed February 2, 2016).
- Berliner, D. 2014. *50 Myths and Lies that Threaten America’s Public Schools: The Real Crisis in Education*. Ed D Berliner and G Glass. New York, NY: Teachers College Press.
- Biesta, J. 2013. *The Beautiful Risk of Education*. New York, NY: Routledge.
- Campbell, C, P Osmond-Johnson, B Faubert, K Zeichner and A Hobbs-Johnson (with S Brown, P DaCosta, A Hales, L Kuehn, J Sohn and K Steffensen). 2016. *The State of Educators’ Professional Learning in Canada*. Oxford, OH: Learning Forward.
- Ehren, E. 2016. “Accountability in decentralized systems: rethinking how we evaluate schools.” *International Education News*, July 27. <https://internationalednews.com/2016/07/27/accountability-in-decentralized-systems-rethinking-how-we-evaluate-schools/> (accessed February 2, 2017).
- Garipey, K D, B L Spencer and J C Couture, eds. 2009. *Educational Accountability—Professional Voices from the Field*. Rotterdam, NL: Sense Publishers.
- Hargreaves, A. 2012. “The Global Search for Education: The Education Debate.” *The Huffington Post*, October 22. http://www.huffingtonpost.com/c-m-rubin/the-global-search-for-edu_52_b_1998775.html (accessed February 3, 2017).
- Jónasson, J T. 2016. forthcoming. *The Future of Education*. Reykjavík, IS: University of Iceland.
- King, D. 2015. Presentation at the ATA Spring Strategic Planning Meeting, Edmonton, Alta, June 13.
- Leithwood, K, K S Louis, S Anderson and K Wahlstorm. 2004. *Review of Research: How Leadership Influences Student Learning*. New York, NY: Wallace Foundation.
- Lingard, B and S Sellar. 2013. “‘Catalyst Data’: Perverse Systemic Effects of Audit and Accountability in Australian Schooling.” *Journal of Education Policy* 28, no 5: 634–56.
- Low, K. 2011. “Changing Landscapes in Co-creating a Learning Alberta—Shaping a Preferred Future 2011–2031.” Edmonton, Alta: ATA.
- Murgatroyd, S and J Stiles. 2015. “Building Adaptive Capacity in Alberta Schools.” Paper presented at the Building International Partnerships through Adaptive Capacity Institute, Banff, Alta, November 20–21.

CONTINUED ON NEXT PAGE

- Ravitch, D. 2007. *EdSpeak: A Glossary of Education Terms, Phrases, Buzzwords, and Jargon*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Saher, M. 2013. Presentation at the Forum for Public Assurance, Calgary, Alta, November 14.
- Sahlberg, P and J Hasak. 2016. "Next Big Thing in Education: Small Data." *Washington Post*, May 9. Available at <http://pasisahlberg.com/next-big-thing-education-small-data/> (accessed February 3, 2017).
- Sellar, S. 2015. "Rethinking accountabilities." Presentation at the Central Alberta Teachers' Convention, Red Deer, Alta, February 19.
- Shirley, D. 2016a. "Learning From and Beyond PISA: Toward Achievement with Integrity." *International Education News*, October 12. <https://internationalednews.com/2016/10/12/learning-from-and-beyond-pisa-toward-achievement-with-integrity/> (accessed February 3, 2017).
- . 2016b. *The New Imperatives of Educational Change: Achievement with Integrity*. New York, NY: Routledge.
- Wallace, S. 2008. *Oxford Dictionary of Education*. New York, NY: Oxford University Press.
- Westheimer, J and J Kahne. 2004. "What kind of citizen? The politics of educating for democracy." *American Educational Research Journal* 41, no 2: 237–269.
- Zhao, Y. 2015. "Lessons that matter: What should we learn from Asia?" Mitchell Institute Discussion and Policy Paper No 04/2015. Mitchell Institute for Health and Education Policy website. <http://www.mitchellinstitute.org.au/reports/lessons-that-matter-what-should-we-learn-from-asias-school-systems/> (accessed February 3, 2017).
- . 2016. "It must be the chopsticks: The Less Reported Findings of 2015 TIMSS and Explaining the East Asian Outstanding Performance." Blog post. <http://zhaolearning.com/2016/11/29/it-must-be-chopsticks-the-less-reported-findings-of-2015-timss-and-explaining-the-east-asian-outstanding-performance/> (accessed February 3, 2017).