REIMAGINING ASSESSMENT

IN BRITISH COLUMBIA



Reimagining Assessment in British Columbia

The purpose of this article is to describe British Columbia's (B.C.'s) recent reform of its provincial student assessment program, including the transition to e-assessments, within the context of the Canadian large-scale assessment landscape and the evolution of provincial student assessments in B.C. over many decades.

Responsibility for Education in Canada

Canada is a confederation of ten provinces and three territories. Areas of responsibility are divided between the federal and provincial/territorial governments. The federal level is responsible for portfolios such as national defence, foreign affairs, fisheries, immigration and citizenship, while the provinces and territories are responsible for areas such as social services, health, forestry, highways and education. Since there is no national department of education, each province and territory establishes its own policies related to aspects such as curriculum, teacher certification, and assessing and reporting on student learning progress.

Provincial Assessments Across Canada

Provincial student assessments have been conducted in most Canadian provinces for many years. For the most part, the assessments are summative in nature, providing information to all stakeholders (for example, ministries, school boards, schools, parents/guardians, and the general public) about how students are performing against provincial standards, and by extension, how well the education system is performing. Nonetheless, the stated, general purposes of the provincial assessment programs are to provide information for accountability and for improvement of student learning. Most assessment programs test students in literacy (reading and/or writing) and mathematics, although other subjects are also assessed in some provinces.

Brief History of Provincial Assessment in British Columbia¹

B.C. has a long history of provincial student assessments², having administered standardized provincial examinations since the late 1800s. The scope/focus of the assessment program, however, has evolved markedly over the years. Reading, writing and mathematics graduation exams were administered until 1973 when they were cancelled over concerns about, what was perceived to be, the inappropriate use of the test results. A new student assessment program was introduced in 1975 to fill the information gap resulting from the cancellation of the Grade 12 exams. The new program, called the Provincial Learning Assessment Program (PLAP), assessed students in Grades 4, 8 and 12 for several years. (When the Grade 12 exams were reintroduced in 1984. the grades assessed became 4, 7 and 10.) The purpose of the PLAP was to monitor the progress of student learning in the province, and the results were to be used to modify the curriculum, select learning resources, and inform teacher training and in-service. In addition to English language arts and mathematics, the PLAP measured student progress in subjects such as physical and health education, science and social studies. Typically, the PLAP was administered on one subject annually. For subjects such as writing and physical education that required extensive hand scoring, provincial samples of students were used. Otherwise, a matrix sampling process was employed in which all students in a given grade responded to one of three or four booklets that, combined, covered the curriculum. Initially, results were provided only by school districts - no school or individual student results were reported. However, in response to requests from school principals, results (particularly in reading and mathematics) were eventually made available at the school district and school levels. Since the PLAP was administered on one subject annually, information related to any given subject was available infrequently. Consequently, the provincial government took the decision to introduce annual Foundation Skills Assessments (FSAs) in reading, writing and math in Grades 4, 7, and 10, which were introduced in 1999.

¹ Short History of Standardized Testing in B.C., Vancouver Sun, retrieved on August 18, 2023: https://vancouversun.com/news/staff-blogs/short-history-of-standardized-testing-in-b-c

² British Columbia Department of Education (1990), Year 2000: A Framework for Learning, retrieved on August 18, 2023: https://files.eric.ed.gov/fulltext/ED357999.pdf

As was previously mentioned, in 1984, Grade 12 graduation exams were re-introduced, and eventually, well over 20 curriculum/course-based exit exams were administered. All students were required to sit for the provincial examinations in order to receive credit for the completion of courses of study in the graduation program. These provincial exams were worth up to 50% of a student's final mark, combining the exam result with the classroom result to produce a final score. In addition to reports to individual students, summary information was also provided at the provincial, school district and school levels. Graduation students also had the option of writing separate scholarship exams in given subjects to qualify for scholarship awards. In 2016, the B.C. government announced that the secondary school provincial exams would be discontinued; the graduation assessments were phased out between 2016 and 2019.

Curriculum and Assessment Reform³

Over the past decade, British Columbia has undergone substantial reform regarding curriculum and assessment framework. This reform was intended to make education more relevant and engaging, and appropriate for a modern, changing world. Although reducing attainment gaps between Indigenous and non-Indigenous students was an explicit goal of the new curriculum, there was a desire to bring Indigenous ways of thinking into the curriculum and culture of schooling in ways that would benefit all students. Instead of being built around a large number of content-focused Prescribed Learning Outcomes, the revised curriculum uses a concept-based and competency-driven approach that balances content learning standards (things students should know) with curricular competency learning standards (things students should be able to do). Provincial graduation exams, taken in Grades 10 to 12, were discontinued and replaced by a new Graduation Program that focuses on the application of knowledge. The use of grades in elementary school and percentage scores in secondary school have been de-emphasized in favour of formative assessment of core competencies.

Today, all students in Grades 4, 7, 10 and 12 (English and French) are required to complete assessments in numeracy annual literacy (reading and writing) as follows: Grade 4 and 7 literacy and numeracy (FSA Program), Grade 10 literacy and numeracy and Grade 12 literacy assessments (Graduation Program). The assessments do not contribute to students' final grades or reports cards; results are publicly reported provincially, as well as by school and district. Although the assessment results do not count toward students' final grades, participation of Grade 10 and 12 students is required for graduation.

Foundation Skills Assessment (FSAs)4

The FSAs, which are administered annually in the fall (early October to early November), are not categorized as either formative or summative. "The FSA results can be used formatively or summatively to:

- Support individual students by providing descriptive information for goal setting (i.e., using the information in the proficiency scale to set new learning goals).
- Provide additional information for educators, allowing them to identify areas of strength and weakness.
- Provide schools, districts, and the Ministry of Education and Child Care with system-level information regarding the extent to which students are proficient in literacy and numeracy.
- Describe the proficiency levels of subgroups of a population (e.g., Aboriginal students) for use by schools, districts, Ministry of Education and Child Care and key stakeholder groups.
- Help inform decision making at all levels of the educational system regarding performance in literacy and numeracy.
- Provide information for schools, districts and the Ministry of Education and Child Care regarding trends in performance over time" (p.2).

³ Peterson, A. (February 2023). Education Transformation in British Columbia. Center for Universal Education, The Brookings Institution, retrieved on August 18, 2023: https://www.brookings.edu/articles/education-transformation-in-british-columbia/#:~: https://www.brookings.edu/articles/education-transformation-in-british-columbia/#:~: https://www.brookings.edu/articles/education-transformation-in-british-columbia/#:~: https://www.brookings.edu/articles/education-transformation-in-british-columbia/#:~">https://www.brookings.edu/articles/education-transformation-in-british-columbia/#:~">https://www.brookings.edu/articles/education-transformation-in-british-columbia/#:~">https://www.brookings.edu/articles/education-transformation-in-british-columbia/#:~">https://www.brookings.edu/articles/education-transformation-in-british-columbia/#:~">https://www.brookings.edu/articles/education-transformation-in-british-columbia/#:~">https://www.brookings.edu/articles/education-transformation-in-british-columbia/#:~">https://www.brookings.edu/articles/education-transformation-in-british-columbia/#:~">https://www.brookings.edu/articles/education-transformation-in-british-columbia/#:~">https://www.brookings.edu/articles/education-transformation-in-british-columbia/#:~">https://www.brookings.edu/articles/education-transformation-in-british-columbia/#:~">https://www.brookings.edu/articles/education-transformation-in-british-columbia/#:~">https://www.brookings.edu/articles/education-transformation-in-british-columbia/#:~">https://www.brookings.edu/articles/education-transformation-in-british-columbia/#:~">https://www.brookings.edu/articles/education

⁴ Foundation Skills Assessment specifications, retrieved on August 29, 2023: https://www2.gov.bc.ca/assets/gov/education/administration/kindergarten-to-grade-12/assessment/fsa_description_and_specs.pdf

FSA Components

The assessments for literacy and numeracy involve both selected- and constructed-response questions. The written-response components consist of writing tasks and numeracy problem-solving tasks. The assessments take about four hours of classroom time. There are three main components: collaboration activity, student booklet and online Assessment.

Collaboration Activity

Prior to the student assessment, an educator-led, 15-minute group collaboration activity takes place. This gives students an opportunity to choose one of two themes they would like to focus on during the literacy portion of the student booklet. Students prepare by working together in teams or pairs to think about and discuss the two literacy themes that are offered as choices⁵.

Student Booklet

Questions in the student booklet are all written constructed-response questions, which are scored by educators with reference to holistic scoring rubrics. For the literacy portion of the booklet, there are three questions. Students are required to select one of two optional themes, and each theme contains two associated texts (reading passages), with one question on each text. The third question requires students to think deeply about the theme and to communicate their personal connections to it. The numeracy part of the student booklet includes three constructed-response questions associated with real-life contexts. Students are engaged in problem solving (application of mathematical concepts to interpret and solve problems) and communicating their thinking⁶.

Online Assessment

The online component of the FSA uses a variety of engaging and interactive selected-response questions to assess knowledge and understanding in literacy and numeracy (30 questions in each of literacy and numeracy). A variety of item types are

used, including multiple-choice, hot spot, drag-and drop, drop-down menus, numeric response entry, sequencing and interactive graphing questions. Selected-response questions are machine-scored⁷.

Student Reflection

Following completion of the student booklet and online components, students respond to self-reflection question(s) on the assessment process (self-reflection questions are not scored). A sample question is provided at the end of the sample response booklet (link provided in the footnote).

Scoring

All FSA constructed-response questions are scored at the school or district level; funding is provided to support scoring activities. The Ministry provides support for scoring/training that includes:

- A set of provincial exemplars for the student responses to the written questions in literacy and numeracy.
- Information to assist with organizing for scoring.
- · Scoring guides.
- Scoring support via e-mail.

The Ministry monitors school and district-based scoring by re-scoring a sample of student response booklets from each district, as well as a number of independent schools.

Reporting Results

FSA reports are produced at the individual student, school, school district and provincial levels. Based on a combination of all of the students' responses in each subject, overall scores are calculated for literacy and numeracy. The students' results are then placed in one of three levels of the Proficiency Scale: "Emerging," "On Track," or "Extending," each with their respective descriptor. Once score entry has been completed, individual student reports, including their proficiency levels with

⁵ Sample Grade 4 collaboration activity: https://www2.gov.bc.ca/assets/gov/education/administration/kindergarten-to-grade-12/assessment/grade-4-collaboration-activities-sample.pdf

⁶ Sample Grade 4 student response booklet: https://www2.gov.bc.ca/assets/gov/education/administration/kindergarten-to-grade-12/assessment/gr4-fsa-sample-response-booklet.pdf

⁷ Sample Grade 4 online assessment questions: https://bced.vretta.com/#/en/bced-landing/fsa/sample/grade-4

accompanying descriptions, are ready for use by educators and students to share with parents. These interim reports are usually available by the end of November. Final reports, processed and analyzed by the Ministry, are made available to school districts by the end of January. These include student-level reports, as well as school-and district-level reports.

Grade 10 Provincial Graduation Assessments

Instead of assessing specific course curricula, the Grade 10 provincial graduation assessments require students to apply numeracy and literacy skills, attained from their learning across multiple subjects from kindergarten to Grade 10, in authentic, real-life situations. The assessments assess students' ability to apply their knowledge and skills and to analyze, reason, and communicate effectively as they examine, interpret, and solve problems. The assessments are not categorized as formative or summative; resulting information can be used for both purposes. Results of the provincial graduation assessments are reported using a fourlevel proficiency scale: "Emerging," "Developing," "Proficient," or "Extending." In addition to obtaining 80 course credits for graduation, students are required to participate in the Grade 10 numeracy and Grades 10 and 12 literacy assessments; results do not impact upon students' ability to graduate. The Graduation Literacy and Numeracy Assessments typically require two hours to complete, although students can have up to an additional hour if they need extra time.

Numeracy Assessment⁸

The Grade 10 numeracy assessment is administered online in three components⁹:

 A common section in which students answer a total of 24 selected-response online questions centred on four different tasks (situations) which are computer-scored.

- Students choose two of four available paperbased constructed-response questions (based on tasks in the common sections); questions are scored by teachers, with reference to rubrics.
- Self-reflection section, in which students reflect on their experience with the assessment by responding to four selected-response questions (responses are not scored).

Literacy Assessment¹⁰

The entire assessment revolves around a big/overarching idea, and each of the two parts of the assessment contains its own main idea linked to the overarching concept. The Grade 10 literacy assessment is administered online in three parts¹¹:

- Part A: Students read a variety of texts
 (e.g., newspaper/magazine articles, blogs,
 infographics, social media posts) that are
 related to the main idea of Part A. To show that
 they can analyze and make meaning from the
 texts, students respond to 15 marks worth of
 selected-response questions and write two
 constructed-response questions: a graphic
 organizer question and an extended response
 related to the texts.
- Part B: This part is similar to Part A (but with a new set of texts related to a new main idea), except that once students have completed the 15 marks worth of selected-response questions, they must choose one of two writing "pathways" associated with the main idea and then prepare an extended written response to communicate their personal interpretation and insights with regard to the main idea.
- Self-Reflection: Students respond to a series of four selected- and two constructed-response questions related to their experience with the assessment (responses are not scored).

⁸ Grade 10 Graduation Numeracy Assessment specifications, retrieved on August 29, 2023: https://curriculum.gov.bc.ca/sites/curriculum.gov.bc.ca/files/pdf/assessment/gna-10-specifications.pdf

⁹ Sample numeracy assessment: https://bced.vretta.com/#/en/bced-landing/grad/sample/numeracy10

¹⁰ Grade 10 Literacy Assessment specifications, retrieved on August 29, 2023: https://curriculum.gov.bc.ca/sites/curriculum.gov.bc.ca/files/pdf/assessment/GLA_10_Specifications.pdf

¹¹ Sample literacy assessment: https://bced.vretta.com/#/en/bced-landing/grad/sample/literacy10

Grade 12 Provincial Graduation Literacy Assessment¹²

Like the Grade 10 assessments, the Grade 12 literacy assessment is not based on a particular course, but rather assesses knowledge and skills from students' learning across multiple subjects from kindergarten to Grade 12. The assessment measures students' ability to use critical and reflective thinking and analysis to make meaning from a variety of continuous and noncontinuous text types (e.g., newspaper/magazine articles, blogs, social media posts, instructions, websites, brochures, maps, charts, graphs) and to communicate their ideas or those found in the texts. Like Grade 10, the Grade 12 literacy assessment is administered online in three parts¹³:

- Part A: This part is focused on a critical-thinking scenario. Students respond to 10 marks worth of selected-response questions associated with the texts, then answer two critical-thinking, constructed-response questions: a graphic organizer question and an extended response related to the texts.
- Part B: Students answer 15 marks worth of selected-response questions related to the given texts, and then they generate a constructed response in which they make personal connections (expressing their own knowledge and experiences) associated with the main idea of the section. As with Grade 10, students choose one of two writing "pathways" for the extended written response. A common rubric is used to score the student responses.
- Self-Reflection: Students respond to four selected- and two constructed-response questions related to their experience with the assessment, how they might improve their performance, and feedback for assessment developers to consider as they develop future assessments (responses are not scored).

Conclusion

Since 2021, the B.C. Ministry of Education and Child Care has collaborated with its assessment technology partner, Vretta¹⁴, to modernize the online assessment delivery solution of the FSA and Graduation Program which includes the evolution of the authoring, registering, administering, marking, data analysing, and reporting functions of the assessment life cycle.

The online assessment solution of the FSA provides valuable summative and formative information as part of the provincial assessment program. However, the Ministry has also undertaken innovative plans to expand the use of the online assessment solution for formative classroom purposes. "While the current system was established to deliver provincial assessments, the Ministry's vision is to incorporate functionality to allow educators to access elements of the system to provide classroom assessments linked to the curriculum."15 The planning of this formative assessment tool is currently underway and is greatly anticipated. Once plans are more definitive, a future article will elaborate on this important initiative.

¹² Grade 12 Literacy Assessment specifications retrieved on August 29, 2023: https://curriculum.gov.bc.ca/sites/curriculum.gov.bc.ca/files/pdf/assessment/grade-12-literacy-specifications.pdf

¹³ Sample Grade 12 literacy assessment: https://bced.vretta.com/#/en/bced-landing/grad/sample/literacy12

¹⁴ BC's assessment technology partner Vretta: www.vretta.com

¹⁵ B.C. Ministry of Education Request for Proposals (RFP) Number 10961 (December 10, 2019)

About the Author

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Dr. Jones began his career as an educator at the elementary, secondary and post-secondary levels. Subsequently, he was a researcher and senior manager for a multi-national corporation delivering consulting services in the Middle East.

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