

10

Student Performance Data and Research Tools to Ensure Aboriginal Student Success

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Introduction

The Province of British Columbia collects, analyzes and reports Aboriginal student performance data. British Columbia targets educational funding for Aboriginal students in order to enhance access and participation in educational programs. Aboriginal is defined in the following ways: on-reserve, off-reserve, status, non-status, treaty, non-treaty, Métis and Inuit. In British Columbia's kindergarten to grade twelve (K–12) education system, a Personal Education Number (PEN) is assigned to students and is used as an accountability and tracking measure for student access and performance. The PEN supports the collection of data and the development of research enabling the system to monitor student progress and plan for programs and services focussing on student achievement. It is through these accountability measures that Aboriginal student success has slowly increased. This chapter critically examines the kinds of data reported in such publications as *How Are We Doing?* and addresses the Ministry's initiatives to enhance the performance of Aboriginal students. The chapter also examines what research projects the Aboriginal Education Enhancements Branch has initiated with the collected data and what issues have been highlighted by this research.

What Kind of Data Does the Ministry of Education Collect?

The Ministry of Education collects data and compiles it into K–12 standard reports that are made available to the public. These data include demographic information, Foundation Skills Assessment results, Grade 12 graduation rates and satisfaction results. The Ministry uses student-level data to produce a report entitled *How Are We Doing?* which focuses specifically on Aboriginal student performance for those students enrolled in public schools

(information is unavailable for those Aboriginal students enrolled in band schools on-reserve). Demographic information is collected at the school level on a student data collection form. On this form Aboriginal ancestry is determined on a voluntary basis through self-identification and includes on- and off-reserve, Métis and Inuit students. Aboriginal student data fluctuate because data are collected for the current year and, at times, Aboriginal students will self-identify in one year but not the next. Therefore, this method of identification can be inconsistent when trying to report on the year-to-year performance of Aboriginal students.

Assessment information on student performance is collected through the Transcripts and Examination System. Assessments administered by the Ministry include Foundation Skills Assessment (FSA) and Grade 12 provincial examinations. Aboriginal student performance on such assessments will be examined in the following section entitled “How Are Aboriginal Students Doing Provincially?”

The *How Are We Doing?* report was first produced by the Ministry in 1998 and provides student performance data based on district- and provincial-level information. This report helps to improve the understanding of public school system performance in relation to Aboriginal students, and it also provides a context for examining Aboriginal student performance and improvement. This report successfully highlights the need to focus attention on the system as it relates to the performance of Aboriginal students.

How Are Aboriginal Students Doing Provincially?

Since the Ministry of Education introduced data collection during the mid-1990s to track B.C.’s Aboriginal K–12 student population, the number of Aboriginal students enrolled in the education system has continued to increase. Enrollment statistics for the 2001–02 public school year includes 11,498 Aboriginal on-reserve students and 36,569 Aboriginal off-reserve students. There was a continuous annual gain of approximately 2,000 off-reserve students over five years, and despite fluctuations for on-reserve students, the number remained stable at approximately 11,000 students over the same time period (Ministry of Education 2002). This data may not reflect an increase in off-reserve population but instead reflect an increase in self-identification. As students feel increasingly valued as Aboriginals and see themselves reflected in what they are learning, they will feel more comfortable self-identifying.

Foundation Skills Assessment (FSA)

First administered in 2000, FSA is a standardized test that is administered in the first week of May of each year. It tests students in Grades 4, 7 and 10 on reading, first-draft writing and numeracy. It must be noted that this assessment is only a snapshot of how Aboriginal students are doing. Other data such as Dogwood completion rates and performance on provincial exams will give a fuller picture of how Aboriginal students are progressing through their school years. This section will describe how Aboriginal students have done thus far on FSA.

Grade 4 Aboriginal students' provincial reading scores have not increased in three years, ranging from 56% of students meeting and exceeding expectations¹ in 2000, 55% in 2001 and 56% in 2002. Grade 4 first-draft writing scores have increased over two years from 77% in 2001 to 84% in 2002 (data is only available for two years as 2001 is the baseline year, due to adjustments in the marking criteria). Grade 4 numeracy scores have increased over three years from 57% in 2000, 65% in 2001 and 66% in 2002 (Ministry of Education 2002) (Table 1).

Table 1: Grade 4 students meeting or exceeding expectations for 2000 to 2002

	2000			2001			2002		
	Read %	Write %	Num %	Read %	Write %	Num %	Read %	Write %	Num %
Non-Aboriginal	81	81	81	80	92	85	82	95	87
Aboriginal	56	57	57	55	77	65	56	84	66

The decrease in reading scores raises concerns about how B.C. Aboriginal students will do in future schooling. When Aboriginal students do not have the proper reading skills, the chances of success become slimmer as they transition through grades.

Grade 7 Aboriginal students' reading scores reflect similar fluctuations. In 2000, 56% of Aboriginal students met or exceeded reading expectations, 52% in 2001, and 52% in 2002. Grade 7 first-draft writing scores have increased over two years from 61% meeting or exceeding expectations in 2001 to 66% in 2002. In numeracy, scores have continually increased over a three-year period from 54% in 2000, 58% in 2001 and 60% in 2002 (Ministry of Education 2002) (Table 2).

Table 2: Grade 7 students meeting or exceeding expectations for 2000 to 2002

	2000			2001			2002		
	Read %	Write %	Num %	Read %	Write %	Num %	Read %	Write %	Num %
Non-Aboriginal	82	—	82	78	82	83	78	86	84
Aboriginal	56	—	54	52	61	58	52	66	60

Again, Aboriginal students who do not have the skills they need to be successful in school—such as reading—will experience impeded progress through the grades, and will have difficulty with grade-to-grade transitions.

Grade 10 Aboriginal students' reading scores decreased over a three-year period from 58% in 2000, 53% in 2001 and 49% in 2002. Grade 10 writing has remained constant at 73% for 2001 and 2002. Grade 10 numeracy has fluctuated over the three-year period. In 2000, the percentage of Aboriginal students meeting or exceeding expectations in numeracy was 46%. In 2001 it rose to 53%, and in 2002, it was 52% (Ministry of Education 2002) (Table 3).

Table 3: Grade 10 students meeting or exceeding expectations for 2000 to 2002

	2000			2001			2002		
	Read %	Write %	Num %	Read %	Write %	Num %	Read %	Write %	Num %
Non-Aboriginal	81	—	76	76	87	78	72	87	77
Aboriginal	58	—	46	53	73	53	49	73	52

The decrease in reading scores raises concerns for educators about Aboriginal student success in the areas of grade-to-grade transition, academic achievement on provincial exams, and access to—and participation in—future educational and career opportunities.

Dogwood Completion Rates

The Ministry of Education defines a student cohort by those that enrol in Grade 8 for the first time and, in six years, complete school to receive a Dogwood Certificate. The Ministry uses this cohort as an indicator of success against which student performance is measured. Research suggests that Aboriginal students generally take longer than six years to complete high school; therefore, the cohort used by the Ministry may not accurately reflect the Aboriginal student experience. For example, many Aboriginal students only receive school-leaving certificates, particularly if they have been placed

in a special education category. A school-leaving certificate is awarded to students who do not receive a Dogwood when they have completed school, but instead receive a certificate without the requirements that enable them to continue on to further educational opportunities (Table 4).

Aboriginal students, families and communities face significant challenges related to the public education system. As a result, while overall Aboriginal student achievement continues to improve, in 2001–02 only 42% of Aboriginal students completed high school and received a Dogwood Certificate (Ministry of Education 2002).

Table 4: Dogwood completion rates for students in Grade 8 for the first time in 1991, 1992, 1993, 1994 and 1995 and completing school within 6 years

Completion Year	Non-Aboriginal %	Aboriginal %
1997	73	34
1998	73	35
1999	76	37
2000	77	39
2001	78	42

On average, students who are entering Grade 8 for the first time complete school in six years, although as indicated previously, Aboriginal students may take longer to complete school. Major factors contributing to this trend include:

- competing parental and/or community responsibilities;
- school barriers that prevent Aboriginal students from developing a sense of belonging in the school setting;
- the need to leave school and return at a later stage; and
- increased time required to develop skills.

Aboriginal male students have increased their Dogwood completion rates over the last three years, whereas Aboriginal female students' completion rates have fluctuated in the same time period. Although there has been a general increase in the completion rate of Aboriginal students, these students are not consistently writing provincial exams. Without writing and passing provincial exams, Aboriginal students have difficulties getting into post-secondary education and further training. Many Aboriginal students who do register at colleges and universities may first require academic upgrading programs, which increase the amount of time and money required for them to attain a degree or other credential.

Provincial Exams

In the *How Are We Doing?* report, the Ministry analyzes Aboriginal student performance on provincial examinations. While in previous years only English and Math 12 provincial exam results were considered, the 2002 report includes Communications 12 results. Communications 12 data suggests a significant number of Aboriginal students have been counselled to enrol in Communications 12 in place of English 12. Completing Communications 12 without completing English 12 makes it more difficult for a student to successfully transit to university or college since English 12 is a prerequisite for many programs. Only 33% of Aboriginal students between 1995 and 2001 have taken and passed English 12 (Ministry of Education 2002) (Table 5).

Table 5: Percentage of students who wrote and passed the English 12 provincial exam

Year	Non-Aboriginal %	Aboriginal %
1995-1996	63	34
1996-1997	65	36
1997-1998	65	34
1998-1999	65	33
1999-2000	65	35
2000-2001	65	31

The percentage of Aboriginal students taking and passing Communications 12 has fluctuated between 12% and 16% in that same time period (Ministry of Education 2002) (Table 6).

Table 6: Percentage of students who wrote and passed the Communications 12 provincial exam

Year	Non-Aboriginal %	Aboriginal %
1995-1996	9	15
1996-1997	8	12
1997-1998	8	12
1998-1999	9	15
1999-2000	9	16
2000-2001	10	16

Between 1995 and 2001 the percentage of Aboriginal students taking and passing the Math 12 (Principles of Math) provincial examination was between 5% and 7% (Ministry of Education 2002) (Table 7).

Table 7: Percentage of students who wrote and passed the Mathematics 12 provincial exam

Year	Non-Aboriginal %	Aboriginal %
1995-1996	26	6
1996-1997	26	6
1997-1998	27	5
1998-1999	27	6
1999-2000	26	6
2000-2001	27	5

This low participation rate is a concern, since it has been shown that Aboriginal students who take and pass english and math provincial exams do very well, with grades of 70% and higher. Given this, it is necessary to examine the reasons why Aboriginal students are not taking part in these exams. Initial analysis of the data suggests that it may be because Aboriginal students are enrolled in Communications instead of English 12, and in a basic math course (Essentials of Math) as opposed to the more academic math course (Math 12). In order to increase Aboriginal students' participation in provincial exams, it will be necessary to focus school counsellors and administrators on increasing Aboriginal student participation in more academic courses. In doing this, Aboriginal students will have the opportunity to develop the skills they need to be successful. Greater participation and success will create opportunities and choice for Aboriginal students to succeed and have a future that will be beneficial to both the students and their communities.

Special Education

The unique personal and cultural gifts Aboriginal students bring to school are not always well recognized, particularly because of the way that schools identify gifted students. This may be the reason we have such a high number of Aboriginal students enrolled in the other special education categories and not in the gifted category. Research into special education programs suggests guidelines are required for exit planning and reintegration into regular education programs. The regular education programs are designed to lead to the success of students in transition. Students designated in a special education category have an Individual Education Plan (IEP) developed, which sets out the requirements for school boards to design and implement individual education plans for students with special needs. Students with an IEP often end up leaving school without a Dogwood Certificate. Instead they receive a school-leaving certificate (Table 8).

Data suggests Aboriginal students continue to be overrepresented in special education behaviour categories. For example, in 2001, 9.4% of

Aboriginal students were represented in this category, as opposed to 2.4% of non-Aboriginal students. When the data is broken into specific grades, it appears that as Aboriginal students progress through the system, they are more likely to be designated in a behaviour category, as illustrated in the following table (Ministry of Education 2002).

Table 8: Percentage of students placed in special education: severe behaviour category, 2001

Grades	Aboriginal %	Non-Aboriginal %
K-3	3.9	1.3
4-7	7.2	2.1
8-10	13.6	3.8
11-12	11.8	3.3
SU	46.8	27.6

Secondary Ungraded (SU)

On analysis of the data, it is evident that there is a significant number of Aboriginal students in SU programs. The ungraded categories include students who are taking courses at a number of levels, and school personnel who do not consider the student to be in a specific grade level. A key finding regarding students in SU programs is that they have a drastically high drop-out rate, with very few reaching graduation. On tracking the students who are in secondary ungraded programs, the information revealed that 95% of these students went “missing” from the system, despite the fact that the system tracks students when they move to another district or when they leave B.C. This is an issue that needs further research to develop effective intervention and tracking methods that include follow-up with Aboriginal students, their families and the school districts they have left.

Effective programs and services do exist in many of B.C.’s school districts in order to meet the needs of Aboriginal students. Information from *How Are We Doing?* reflects that many school districts have Aboriginal Education Councils that collaborate with trustees, administrators, principals and teachers to work in partnership regarding Aboriginal education at the school and district level. Approximately eighteen school districts have increased their Aboriginal student completion rates over a three-year period, and of these, four of them have developed and implemented Aboriginal Education Enhancement Agreements. Making data available to school boards that are responsible for educational programs for students seems to have an effect on student achievement. This data also helps Aboriginal communities, teachers, administrators and parents develop Accountability Contracts and Enhancement Agreements, in addition to participating in District Reviews and School Planning Councils.

What Is the Ministry Doing to Enhance the Performance of Aboriginal Students?

The Ministry of Education has implemented various initiatives that focus on student achievement. These include Accountability Contracts, District Reviews, Enhancement Agreements and School Planning Councils. Together they form a cycle of accountability and student achievement that is student-centred and focussed on success.

Accountability Contracts

Accountability Contracts are school boards' public commitment to improving student achievement. They are written by school boards and are based on thoughtful consideration of student performance information and reflect the unique characteristics, priorities and needs of each district.

Boards set their goals based on

- results from classroom, school, and district assessments;
- Foundation Skills Assessments, provincial exam results, school completion rates, and graduation rates;
- grade-to-grade transition rates;
- the achievement of Aboriginal students;
- the achievement of special education students;
- human and social development issues/safety issues; and
- the results of the parent, staff and student satisfaction surveys.

The first Accountability Contracts were submitted by school districts in 2001. The contracts are part of an annual accountability cycle for schools, school districts and the Ministry of Education.

Enhancement Agreements

One of the Ministry of Education's initiatives for improving the delivery of Aboriginal education was to establish an Improvement Agreement Project. This is a working agreement between a school district, all local Aboriginal communities and the Ministry of Education. The Agreements are designed to enhance the educational achievement of Aboriginal students by establishing a collaborative partnership between Aboriginal communities and school districts that involves shared decision making and specific goal setting to meet the educational needs of Aboriginal students. This includes the integration of Aboriginal perspectives into learning experiences. It also involves becoming familiar with the data of the district that is implementing an Enhancement Agreement to get a firmer understanding of how the district is meeting or not meeting the needs of Aboriginal students.

On June 28, 1999, the first Aboriginal Education Improvement Agreement was signed between the Kamloops/Thompson First Nations Education Council, the Kamloops/Thompson School Board, and the Ministry of Education, demonstrating new relationships and commitments focussed on improving the educational success of Aboriginal students. In 2001, the name was changed from Improvement Agreements to Enhancement Agreements.

Enhancement Agreements not only stress the importance of academic performance but also make explicit how integral First People's traditional culture and languages are to Aboriginal student development and success. These values are reflected in one of the fundamental elements to Enhancement Agreements, which requires school districts to provide strong programs on the culture of local Aboriginal peoples on whose traditional territories the districts are located.

District Reviews

District Reviews are also part of the Ministry of Education's new accountability cycle. The District Reviews ensure the Ministry's public accountability for student results, which provides districts with recommendations for further improvement. The purpose of the District Review is to provide feedback and recommendations to the district, the Ministry of Education and the public regarding the district's work in improving student achievement. The District Review does this by

- reviewing district and school achievement data;
- reviewing the district accountability contracts and school plans to improve student achievement;
- making recommendations to the board and to the Minister about improving student achievement; and
- identifying promising practices that will assist other districts and schools in their efforts to improve student achievement.

A review team visits a school district and its various schools, examining the data both at the district and school level. The team talks to teachers, administrators, students, superintendents and School Planning Councils. The review team then develops and provides a report to the school board and the Ministry on how the district is meeting the needs of students using the Accountability Contract as a guideline. The report is made available to the public, includes observations and recommendations, and uses data and results as two of its points of inquiry. Up to twenty districts are reviewed annually, with an additional twenty districts visited by the Deputy Minister in conjunction with another twenty districts having financial audits.

School Planning Councils

School Planning Council legislation became law on July 1, 2002. Transition to the School Planning Council model will take place over the 2002-03 school year. A committee of representatives from the British Columbia Confederation of Parent Advisory Councils (BCCPAC), the British Columbia School Superintendents Association (BCSSA), the British Columbia Teachers' Federation, the British Columbia Principals' and Vice-Principals' Association, the British Columbia School Trustees Association, and the Ministry of Education has collaborated in the development of guidelines for School Planning Council implementation.

The major responsibility of School Planning Councils is to consult with the school community in developing, monitoring and reviewing school plans for improving student achievement. They must also learn how to analyze the data that is given to them and report it to the parent community. Furthermore, they need to learn from the data and plan accordingly. The Ministry, BCCPAC and the First Nations Education Steering Committee have been working together to ensure Aboriginal representation on School Planning Councils across the province of B.C.

Implementation and Utilization of Data through Research

It is essential that the data referred to in this document are implemented and utilized in the research undertaken by, and for, the Aboriginal Education Enhancements Branch. For instance, the branch has conducted a number of different research projects that focus on the achievement of Aboriginal students attending public schools. The following projects have either been completed or are underway: Over-Representation of Aboriginal Students Reported with Behaviour Disorders, The Current Position of Aboriginal Support Workers in the B.C. Education System, Parent and Education Engagement Partnership, and Math and Science Research. Data are one form of research—it always asks more questions than it answers. The aforementioned research projects have been initiated to understand why something is the way that it is. For example, the report on Over-Representation of Aboriginal Students in Behaviour Disorder Categories was developed, researched and presented to various education and district personnel to understand why there are so many Aboriginal students enrolled in severe behaviour categories. Provincial data on education leads to meaningful research and informs future Aboriginal education policy and practice.

Research on student achievement consistently focuses on three aspects: comparison between Aboriginal and non-Aboriginal students, parity, and closing the gap between Aboriginal and non-Aboriginal student performance.

When focussing on parity, the goal is to achieve the same kind of education as non-Aboriginals, which means having Aboriginal students give up the linguistic and cultural components that are essential to their self-esteem and self-worth. The need to broaden this focus is recognized as an important step towards a better understanding of many of the successful achievements of Aboriginal students.

Inclusion of the Aboriginal Worldview

The Aboriginal Education Enhancements Branch staff recognizes that the Aboriginal voice must be expressed at every level of research and in every corner of the system. While working on projects, Ministry staff in the Aboriginal Education Enhancements Branch has met and overcome challenges with contracted researchers. Often a challenge arises in the discrepancy between the contractor's research proposal and the research that is ultimately produced. For instance, some contractors write proposals that reflect an understanding of issues and concerns faced by Aboriginal students. Frequently, this understanding of Aboriginal issues does not translate to their day-to-day work and, as a result, the Aboriginal perspective is often lost. To combat this, the Aboriginal Education Enhancements Branch staff continues to educate and prepare contractors to ensure that Aboriginal perspectives are not lost during the course of projects.

The involvement of a strong steering committee with Aboriginal representation is important to help guide the research and ensure the success of research projects. The Aboriginal Education Enhancements Branch staff has also found that the analytical process is affected (often to their detriment) by the lack of an Aboriginal worldview. For example, one of our research contractors completely neglected the voices of an entire group of Aboriginal people who lived off-reserve. This happened because the researcher focussed on reporting the information of on-reserve people, not understanding that there were other Aboriginal people in the community.

Researchers conducting studies on Aboriginal populations, including those developing data on education, need to be introduced to—and included in—the daily activities of Aboriginal communities. This is an important step towards ensuring that the Aboriginal worldview is included throughout the research process. For example, engaging researchers in local Aboriginal communities develops a deeper understanding of Aboriginal culture and enhances research methods and projects, resulting in a more accurate account of the issues related to Aboriginal education. Furthermore, research must be conducted in a manner that is culturally compatible with the Aboriginal populations and communities being studied.

Once the results of studies have been obtained, it is critical that researchers share them with the Aboriginal communities involved in the research. This is beneficial to both the community being researched and the researchers, as it ensures they have captured the true essence of the subject they are researching.

Conclusion

The state of Aboriginal education in British Columbia is evident through the data collection of the Ministry of Education. Although the number of Aboriginal students continues to increase in the province, Aboriginal students' education outcomes are not increasing in a significant manner. For instance, the FSA reading scores of Aboriginal students in Grades 4, 7 and 10 have dropped over the past few years, and although FSA results in writing and numeracy have increased, scores are still 20% to 30% lower than their non-Aboriginal counterparts (Ministry of Education 2002). In the provincial exam data, Aboriginal students are also not performing as well as their non-Aboriginal counterparts in courses that are prerequisite to post-secondary programs. For instance, 30% of Aboriginal students and 65% of non-Aboriginals take and pass English 12, and only 5% to 7% of Aboriginal students take and pass Math 12 as compared to 25% to 27% of non-Aboriginal students (Ministry of Education 2002). The number of Aboriginal students enrolled in Special Education programs is also disproportionate to the number of non-Aboriginals in these categories. For example, in 2001, 9.4% of Aboriginal students were placed in the severe behaviour category as opposed to only 2.4% of non-Aboriginals (Ministry of Education 2001). Perhaps the most despairing statistic is in the area of Dogwood completion rates. In 2000, only 42% of Aboriginal students in British Columbia graduated with their Dogwood Certificate as compared to almost 80% of their non-Aboriginal counterparts (Ministry of Education 2002).

There are many reasons why education has improved for Aboriginal students in British Columbia. The inclusion of Aboriginal education committees, the hiring of Aboriginal support workers and the signing of Enhancement Agreements have all contributed to the success of Aboriginal learners enrolled in British Columbia public schools. The initiatives that the Ministry of Education have implemented, including Accountability Contracts, District Reviews, School Planning Councils and the reporting of Aboriginal data, has brought these issues to the forefront. We cannot be satisfied with the results as they are now, as there is still much work to be done. These initiatives and attention to research issues must continue in order for Aboriginal students to have sustained, successful achievement in British Columbia's education system.

Endnotes

1. “Meets expectations” is the level of performance at which a student meets or exceeds the widely held expectations for the grade on this test. “Exceeds expectations” is the level of a student’s performance that is beyond that at which a teacher would say the student has fully met the expectations of the grade on this test. Student performance would be considered excellent for the grade on this test.

References

Ministry of Education. 2002. *How Are We Doing?* Government of British Columbia. Retrieved from <http://www.bced.gov.bc.ca/abed/> on 8 July 2003.

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