

A Profile of Student Learning and Performance in Manitoba

2003–2004

***A PROFILE OF STUDENT
LEARNING AND PERFORMANCE
IN MANITOBA***

2003–2004

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INTRODUCTION

A Profile of Student Learning and Performance in Manitoba, 2003-2004 is the third in an annual series of public reports on provincial student performance and attainment. It is intended to invite Manitobans to discuss those factors that contribute to successful results for all students and consider possible areas for improvement in educational policy, programming and professional learning. This report complements annual public reports on student success that schools and school divisions prepare for their local communities. Conversations with classroom teachers and report cards continue to be the best sources of information on individual student development and performance.

Questions for Consideration

- What are the characteristics of effective assessment practices?
 - What types of assessment activities and information are necessary to capture the complexity of teaching and learning?
 - How can assessment systems best serve the information needs of all assessment users—teachers, students, parents, researchers, school communities, and government?
-

Assessment is an integral part of the daily experiences of teachers and students. In Manitoba, students and teachers participate in various forms of assessment at the classroom, school division, provincial, national, and international levels. Through observations, interviews, tests, portfolios, and demonstrations, teachers collect valuable information on the knowledge, skills, attitudes, and behaviours of students. This information helps to check for and, more importantly, adapt classroom instruction to improve student learning. It can also be used with other sources of information to determine school and education system effectiveness and guide educational planning for improvement. A review of annual school plans conducted by Manitoba Education, Citizenship and Youth indicates that school communities in the province are increasingly using assessment information for planning purposes.

This report builds on student performance information, particularly in the core subject areas of language arts and mathematics presented in previous reports. It adds demographic and educational attainment information on Aboriginal learners and provides an overview of student performance by community socio-economic circumstances.

While promoting student success in literacy and mathematics is an important goal across the province, Manitobans also value equality and want school communities to develop good, socially responsible citizens. Student engagement, self-confidence, perseverance, social responsibility, and the ability to work with others to resolve differences are important aspects of learning that can help students to achieve their goals, continue to learn and actively participate in their communities. Future reports will be expanded to try to capture these important factors.

The information presented in *A Profile of Student Learning and Performance in Manitoba, 2003-2004* provides opportunities to reflect and initiate conversations on what is and is not being achieved and by which groups of students in the province. It also helps to identify areas where families, schools, communities, educational organizations, and government can work together to provide all students with the best education possible.

MANITOBA K-S4 EDUCATION AGENDA FOR STUDENT SUCCESS

Over the years, educational and other research has identified a highly interactive chain of influences that contribute to student learning, achievement, and attainment. The home has often been identified as the most significant factor. Some other important factors include: a rich and challenging curriculum, experienced, well-trained teachers using effective instructional practices, a positive disciplinary environment with caring relationships between teachers and students, and a collaborative, formal planning process that accurately reflects the needs and successes of school communities.

The *Manitoba K-S4 Education Agenda for Student Success, 2002-2006* is an evolving shared plan of action involving Manitoba Education, Citizenship and Youth working collaboratively with educational communities across the province. It is intended to improve public education in Manitoba, particularly in student learning and performance.

The K-S4 Agenda was developed through public consultation during 2001 and 2002, and while it does not encompass all the work within the educational system, the Agenda expresses six priorities for public education in the province that complement the work already taking place in many schools. These six priorities are:

1. improving outcomes especially for less successful learners
2. strengthening links among schools, families, and communities
3. strengthening school planning and reporting
4. improving professional learning opportunities for educators
5. strengthening pathways among secondary schools, post-secondary education, and work
6. linking policy and practice to research and evidence

The *Manitoba K-S4 Education Agenda for Student Success, 2002-2006* identifies specific actions that are intended to advance each of the priorities. Since the inception of the Agenda, a number of actions have been undertaken and completed. A number of new actions will be pursued. For example, a model for the implementation of Technology as a Foundation Skill (TFS) will be developed to strengthen the Information and Communication Technology (ICT) literacy of students, and provide a variety of professional learning opportunities for teachers. Manitoba Education, Citizenship and Youth has started to implement the recommendations from the English as a Second Language (ESL) Program Review, including commencing work on a Manitoba K-S4 ESL curriculum document. As part of the three-year technical-vocational educational initiative, an advisory committee consisting of labour, business, apprenticeship, school, college, and parent representatives is developing recommendations that would support the implementation of six key pillars of action. This initiative

builds on successful existing programs in its goal to provide Manitobans with a comprehensive continuum of technical-vocational education that is relevant, current, universally accessible, seamless across education levels, and synchronized with labour market needs.

A key consideration across the six priority areas is an emphasis on equity and a respect for diversity in its many forms. Manitoba's classrooms include a rich and diverse blend of students with a range of abilities, interests, backgrounds, languages, and cultures. Ensuring that all students are able to achieve their best and complete school is an important goal for Manitoba Education, Citizenship and Youth in its work with educational communities.

In fall 2004, the Minister of Education, Citizenship and Youth held regional consultation sessions across the province to review the progress of the K-S4 Agenda. Information shared with the Minister by school communities was used to contribute to current Agenda activities. For example, a forum on rural education is being planned. Information from the consultations and other sources will help to guide the Agenda renewal process beyond 2006.

PROVINCIAL CLASSROOM-BASED RESULTS

Manitoba's Grade 3 Assessment is a classroom-based approach to assessing critical competencies of students in the province's English, French Immersion, and Français Programs in reading/lecture, and numeracy. Performance information is gathered from numerous sources, including students' previous teachers, routine classroom observations and assessments, and, as required, further classroom-based assessments that directly address specific critical competencies.

Grade 3 Assessment in Reading/Lecture

The primary purpose of this assessment is to provide parents with information regarding their children's critical competencies in reading and numeracy at the beginning of Grade 3 and in lecture for students in the French Immersion Program at the beginning of Grade 4. Teachers and parents then use the results together in planning for success and improvement in the child's learning.

Grade 3 Assessment Policy

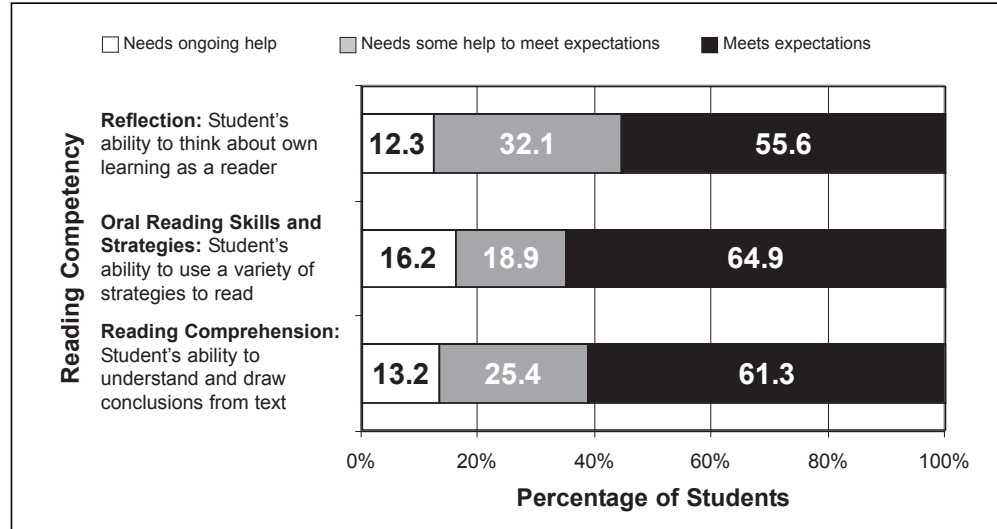
Manitoba's Grade 3 assessment policy and program are described in *Grade 3 Assessment in Reading, "Lecture" and Numeracy and Grade 4 Assessment in French Immersion "Lecture"*. This document is available online at www.edu.gov.mb.ca/ks4/assess/publications.html.

It is also available at all Early Years schools.

In the 2003-2004 school year, 15,890 students participated in the Grade 3 Assessment. This included 12,368 students in the Grade 3 English Program, 1,617 in the Grade 3 French Immersion Program, 428 in the Français Program, and 1,477 students in the Grade 4 French Immersion Program.

The following tables provide provincial summary results in terms of the percentage of students who need ongoing help to meet expectations, who need some help to meet expectations, and who meet expectations. These results represent a provincial snapshot of teachers' judgments of their own students' levels of achievement in relation to the reported competencies. These judgments are based on teacher-selected assessment strategies that reflect the school- and division-level student evaluation practices which are applied to this policy, and criteria and evaluation guidelines provided as part of the policy. Results are provided according to the Program in which students were enrolled. They are based on data provided to Manitoba Education, Citizenship and Youth by school divisions and independent schools.

Table 1: Grade 3 Reading Competency—English Program

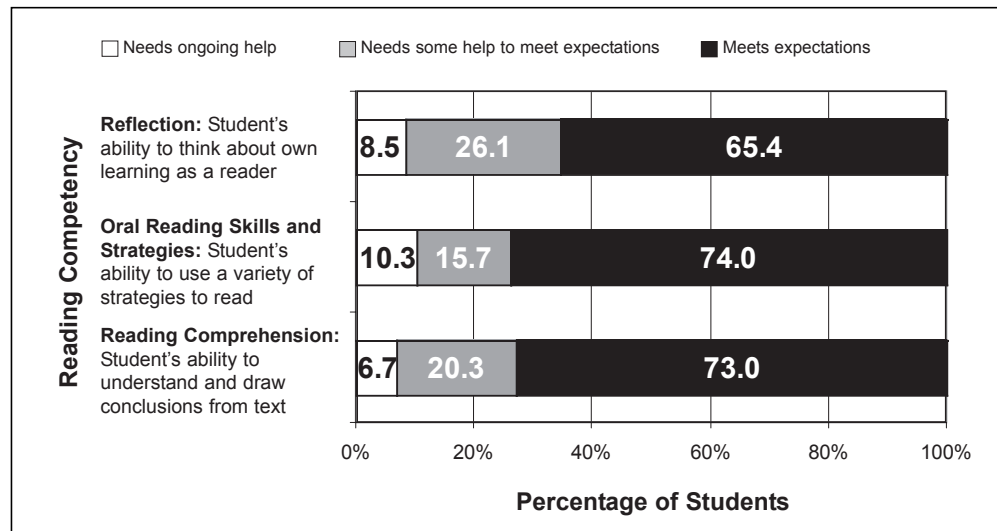


Source: Assessment and Evaluation Branch, Manitoba Education, Citizenship and Youth.

Majority of Students Meet Expectations

The Grade 3 results for reading/lecture indicate that the majority of Manitoba students, as judged by their teachers, met expectations for all three competencies (reflection, oral reading, and comprehension). These results are consistent with the 2002-2003 reading/lecture assessment results.

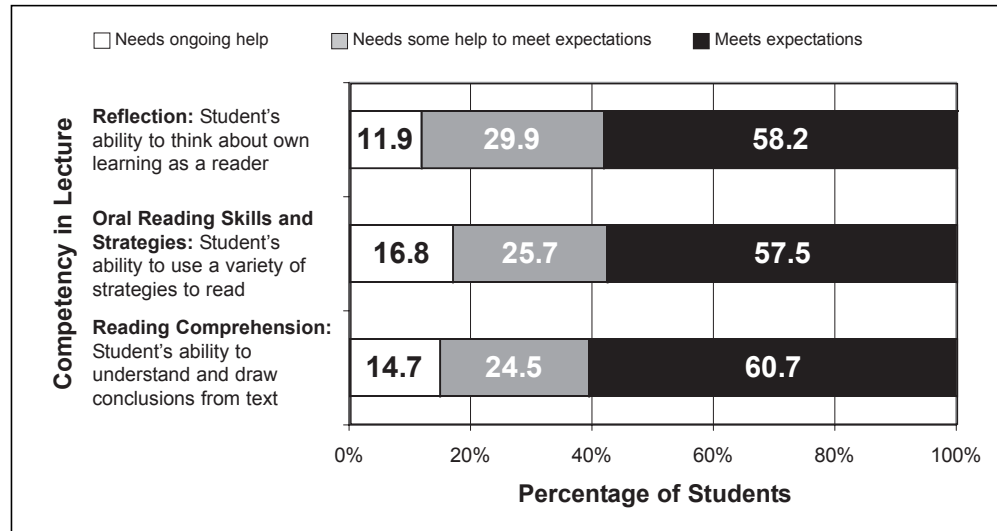
Table 2: Grade 3 Reading Competency—French Immersion Program



Source: Assessment and Evaluation Branch, Manitoba Education, Citizenship and Youth.

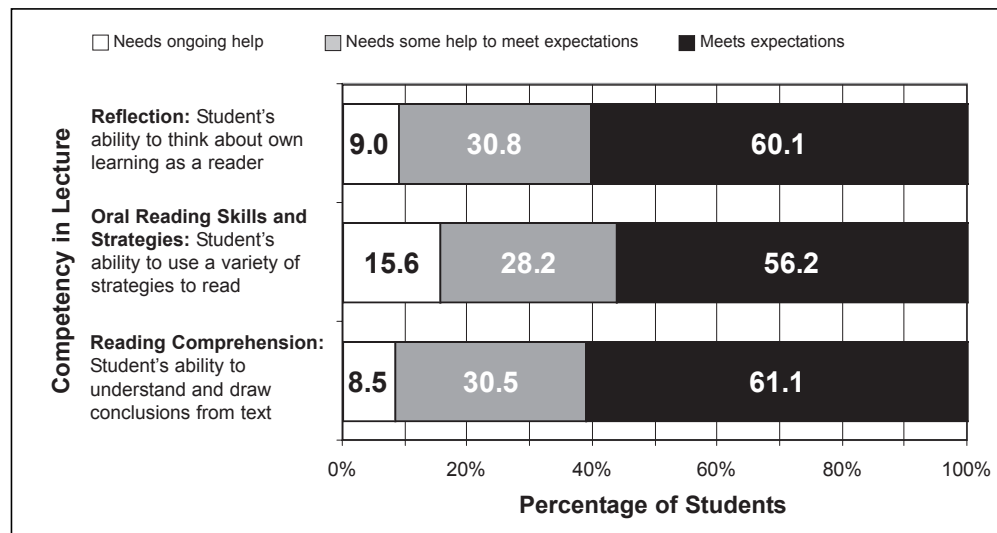
Tables 3 and 4 provide lecture assessment results for the Grade 3 students in the Français Program, and Grade 4 students in the French Immersion Program.

Table 3: Grade 3 Lecture—Français Program



Source: Assessment and Evaluation Branch, Manitoba Education, Citizenship and Youth.

Table 4: Grade 4 Lecture—French Immersion Program



Source: Assessment and Evaluation Branch, Manitoba Education, Citizenship and Youth.

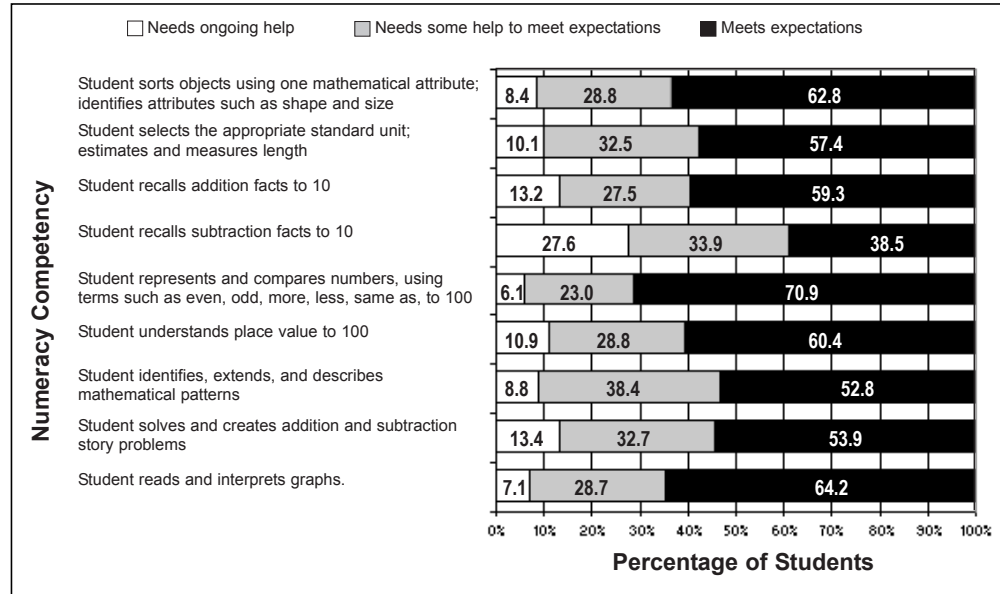
Grade 3 Assessment in Numeracy

Tables 5, 6, and 7 provide provincial summary results for the percentage of students who need ongoing help, need some help to meet expectations, and meet expectations in numeracy/notions de calcul. Once again results are presented according to the Program in which the students were enrolled.

Strengths in Numeracy

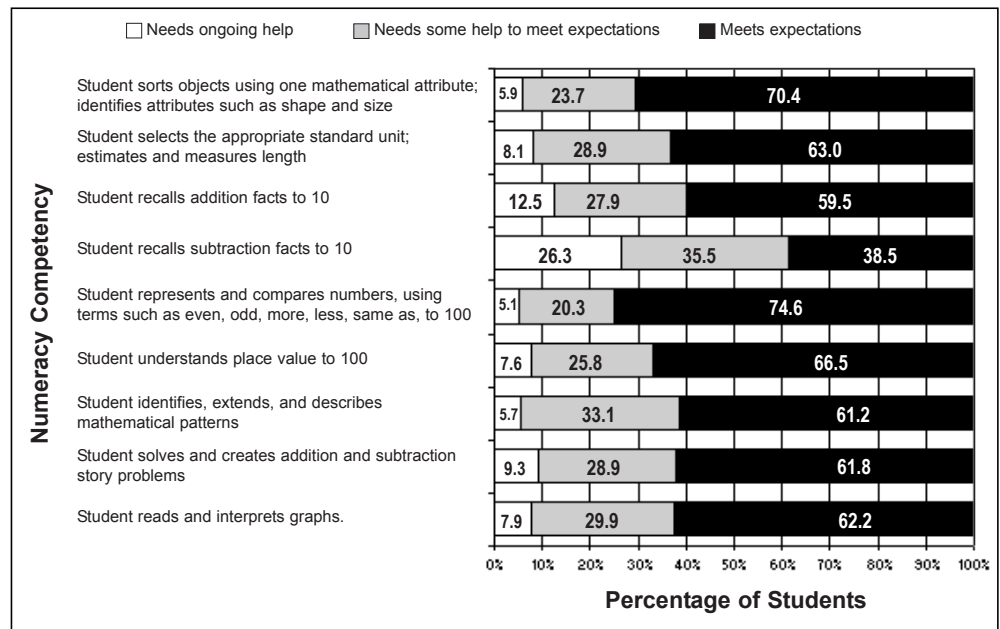
Overall, the strongest areas in numeracy/notions de calcul were representing and comparing numbers, sorting objects, and reading and interpreting graphs. As in the previous year, students experienced the most difficulty recalling subtraction facts to 10.

Table 5: Grade 3 Numeracy—English Program



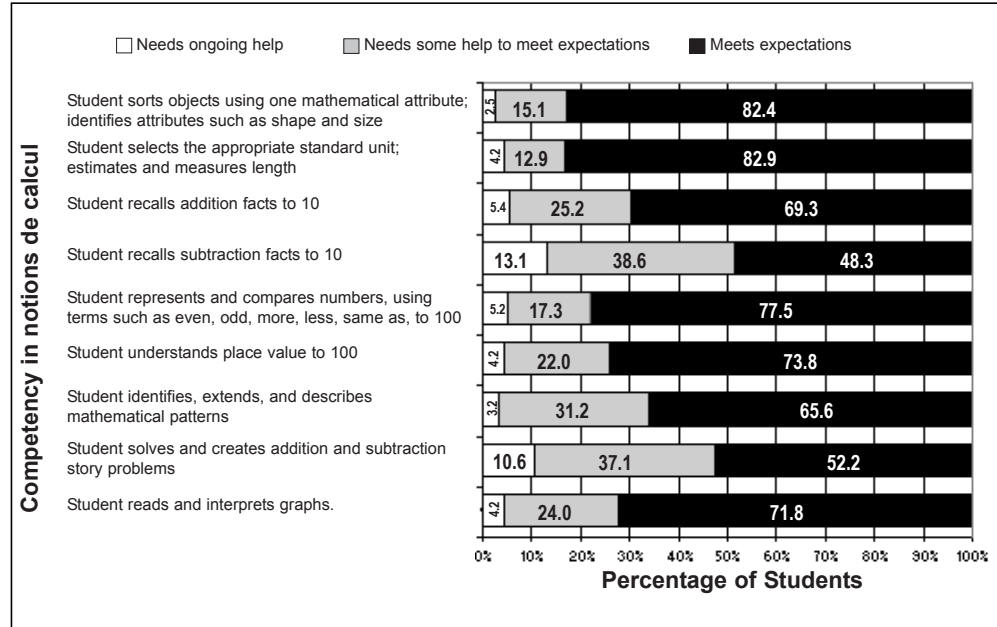
Source: Assessment and Evaluation Branch, Manitoba Education, Citizenship and Youth.

Table 6: Grade 3 Numeracy—French Immersion Program



Source: Assessment and Evaluation Branch, Manitoba Education, Citizenship and Youth.

Table 7: Grade 3 Notions de calcul—Français Program



Source: Assessment and Evaluation Branch, Manitoba Education, Citizenship and Youth.

PROVINCIAL STANDARDS TESTS RESULTS

Grade 6 English and Français Language Arts Provincial Standards Tests Results

In the 2003-2004 school year, Manitoba students participated in provincial standards tests at Grade 6, Senior 1, and Senior 4. Provincial standards tests are one source of information about student achievement related to curriculum learning outcomes that are designed to complement information gathered through classroom assessment. The optional standards tests at Grade 6 and Senior 1 are being phased out. This is the last year for which test results at Grade 6 and Senior 1 will be available. From 2001 to 2003, the student participation rate on these optional tests was approximately 42%. Manitoba Education, Citizenship and Youth is working collaboratively with school communities to develop a classroom-based middle years student assessment policy to replace these optional standards tests.

Test Development

Provincial standards tests are centrally developed by expert teachers in the subject and pilot tested to ensure questions fairly represent intended learning outcomes. The standards tests are administered and scored by teachers at the local level.

Table 8 provides average test scores and pass rates for participating students studying English, Français-langue première, and Français langue seconde-immersion Programs. 7,094 students from the English, French Immersion, and Français Programs wrote the Grade 6 English language arts test, 365 students from the Français Program wrote the Grade 6 Français-langue première test, and 426 students wrote the Français langue seconde-immersion test. Students wrote different language arts assessments based on each Program's curriculum.

**Table 8: Grade 6 English, Français—langue première,
and Français langue seconde—immersion
Provincial Standards Tests Results—
June 2004**

Test	Number Writing	Number Passed	Pass Rate	Average Score
English Language Arts	7,094	6,434	90.7	68.9
Français—langue première	365	360	98.6	76.9
Français langue seconde—immersion	426	407	95.5	73.0

Source: Assessment and Evaluation Branch, Manitoba Education, Citizenship and Youth.

**Senior 4
Language Arts
Provincial
Standards Test
Results**

At Senior 4, provincial standards tests in English language arts, Français-langue première, and Français langue seconde-immersion are mandatory.

During the 2003-2004 school year, these Senior 4 Language Arts Provincial Standards Tests were administered in January and June. Tables 9 and 10 provide provincial test results by subject in terms of pass rates and average test scores for each test sitting.

**Table 9: Senior 4 Language Arts
Provincial Standards Test Results
January 2004**

Test	Number Writing	Number Passed	Pass Rate	Average Score
English Language Arts	7,921	6,827	86.2	66.7
Français—langue première	182	153	84.1	64.0
Français langue seconde—immersion	362	334	92.3	67.8

Senior 4 Language Arts Provincial Standards Tests are not directly comparable as tests are different to match the curriculum that is specific to the English, French Immersion, and Français Programs.

Source: Assessment and Evaluation Branch, Manitoba Education, Citizenship and Youth.

**Table 10: Senior 4 Language Arts
Provincial Standards Test Results
June 2004**

Test	Number Writing	Number Passed	Pass Rate	Average Score
English Language Arts	4,930	4,092	83.0	64.2
Français—langue première	145	108	74.5	61.1
Français langue seconde—immersion	359	323	90.0	67.1

Source: Assessment and Evaluation Branch, Manitoba Education, Citizenship and Youth.

**Senior 1
Mathematics/
Mathématiques
Provincial
Standards Test
Results**

The Senior 1 Mathematics/Mathématiques Provincial Standards Test is optional for schools to implement. In the 2003-2004 school year 7,917 students participated in the January and June administrations of the Senior 1 Mathematics/Mathématiques Provincial Standards Test. Table 11 provides the average test scores and the pass rates for each of the two sittings for all three Programs combined.

**Table 11: Senior 1 Mathematics/Mathématiques
Provincial Standards Test Results
January and June 2004**

Test	Number Writing	Number Passed	Pass Rate	Average Score
January	1,025	804	78.4	66.5
June	6,892	5,184	75.2	62.3

For Mathematics/
Mathématiques students in the English, Français, and French Immersion Programs write identical versions of the test in English or French.

Source: Assessment and Evaluation Branch, Manitoba Education, Citizenship and Youth.

**Senior 4
Mathematics/
Mathématiques
Provincial
Standards Test
Results**

At Senior 4, provincial standards test are mandatory for all students in the English, Français, and French Immersion Programs who are enrolled in Applied Mathematics, Consumer Mathematics, and Pre-calculus Mathematics. Tests were administered in January and June 2004. Tables 12 and 13 provide the average test scores and pass rates for each Senior 4 Mathematics/Mathématiques course by sitting for all Programs combined.

**Table 12: Senior 4 Mathematics/Mathématiques
Provincial Standards Test Results
January 2004**

Test	Number Writing	Number Passed	Pass Rate	Average Score
Applied Mathematics	1,135	752	66.3	57.3
Consumer Mathematics	1,976	1,743	88.2	65.6
Pre-Calculus Mathematics	2,058	1,363	66.2	59.1

Source: Assessment and Evaluation Branch, Manitoba Education, Citizenship and Youth.

**Table 13: Senior 4 Mathematics/Mathématiques
Provincial Standards Test Results
June 2004**

Test	Number Writing	Number Passed	Pass Rate	Average Score
Applied Mathematics	1,804	1,261	69.9	57.5
Consumer Mathematics	2,866	2,539	88.6	66.1
Pre-Calculus Mathematics	2,750	1,865	67.8	60.5

Source: Assessment and Evaluation Branch, Manitoba Education, Citizenship and Youth.

Manitoba Education, Citizenship and Youth returns printed summaries of standards test results to schools where they are used to assess instructional strategies and support school and school division planning and program evaluation. Reports to schools may also include summaries of common student errors. These summaries are used by teachers to identify and address knowledge and skill areas that are relatively weak. Provincial standards tests and related scoring guides are also used by teachers as models for good classroom instruction and assessment.

SENIOR 4 STUDENT COURSE MARKS

Course Descriptions

Literary Focus—student learning emphasis is on the knowledge, skills, and strategies and attitudes that students require to focus primarily on the literary or aesthetic purposes and forms of oral, print and visual communication.

Comprehensive Focus—student learning emphasis is on the knowledge, skills, strategies, and attitudes that students require to focus on a combination of the practical and literary purposes and forms of print, oral and visual communication.

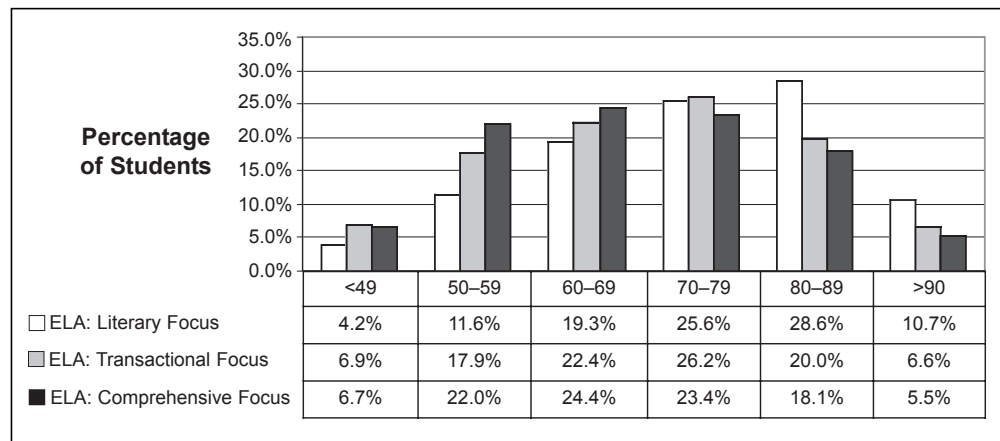
Transactional Focus—student learning emphasis is on the knowledge, skills, strategies, and attitudes that students require to focus primarily on the practical purposes and forms of oral, print, and visual communication.

Language and Transactional Forms—student learning emphasis is on the use of the six language arts: listening, speaking, viewing, representing, reading, and writing to explore and produce practical purposes and forms.

Language and Technical Communication—student learning emphasis is on the use of the six language arts: listening, speaking, viewing, representing, reading, and writing to explore and produce for technical communication purposes and forms.

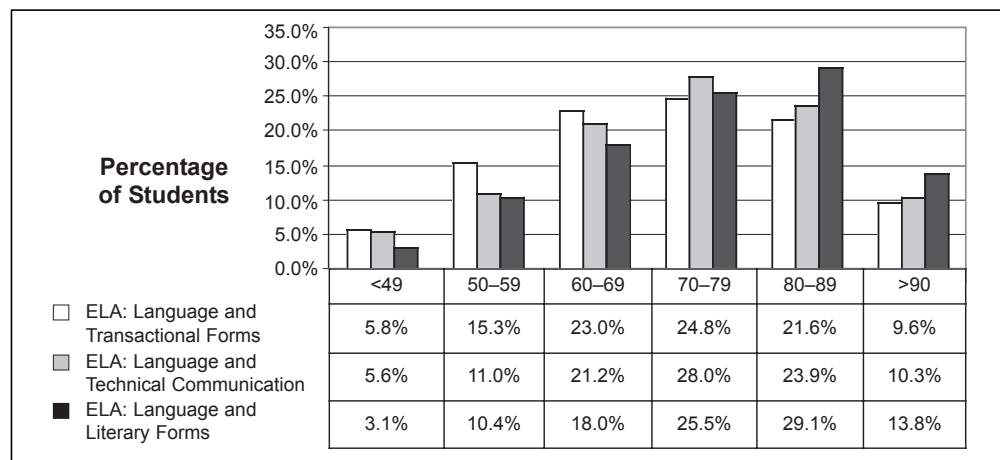
Tables 14, 15, 16, and 17 provide provincial summary results of student marks for selected Senior 4 Language Arts and Mathematics/Mathématiques courses. These results represent a provincial overview of teachers’ judgments of their own students’ levels of achievement relative to curriculum learning outcomes for the course. They are based on teacher-selected assessment strategies that reflect school, school division, and provincial evaluation policies and practices.

Table 14: Distribution of Course Marks for English Language Arts Literary Focus (N = 4,008), Comprehensive Focus (N = 8,672), Transactional Focus (N = 2,921)



Source: Research and Planning Branch, Manitoba Education, Citizenship and Youth.

Table 15: Distribution of Course Marks for English Language Arts Language and Transactional Forms (N = 2,626), Language and Technical Communication (N = 1,005), Language and Literary Forms (N = 2,117)



Source: Research and Planning Branch, Manitoba Education, Citizenship and Youth.

Language and Literacy Forms—student learning emphasis is on the use of the six language arts: listening, speaking, viewing, representing, reading, and writing to explore and produce literary or aesthetic purposes and forms.

Langue et communication—Français—by interpreting and producing a large variety of oral, written, visual, and media texts, students use French as a first language as a tool to communicate and to construct knowledge as well as a positive French identity.

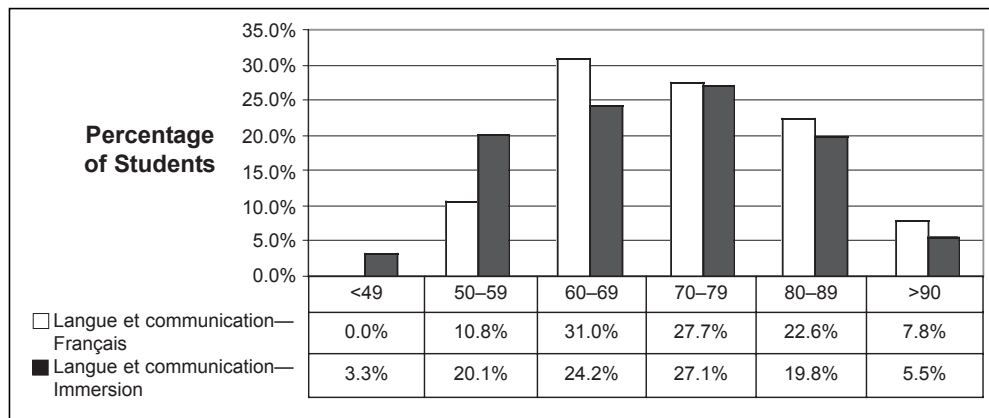
Langue et communication—Immersion—within learning situations, students interpret and produce a large variety of oral, written, visual, and media texts. By doing so, they use French as a second language as a tool to communicate, as a vehicle for learning, thinking, and growing, and as a way of appreciating francophone cultures.

Applied Mathematics—Promotes the learning of numerical and geometrical problem-solving techniques, collecting data in experiments and activities, and developing mathematical concepts by analyzing that data.

Consumer Mathematics—focuses on mathematical concepts and skills encountered and used in a technological society and for consumer problem solving.

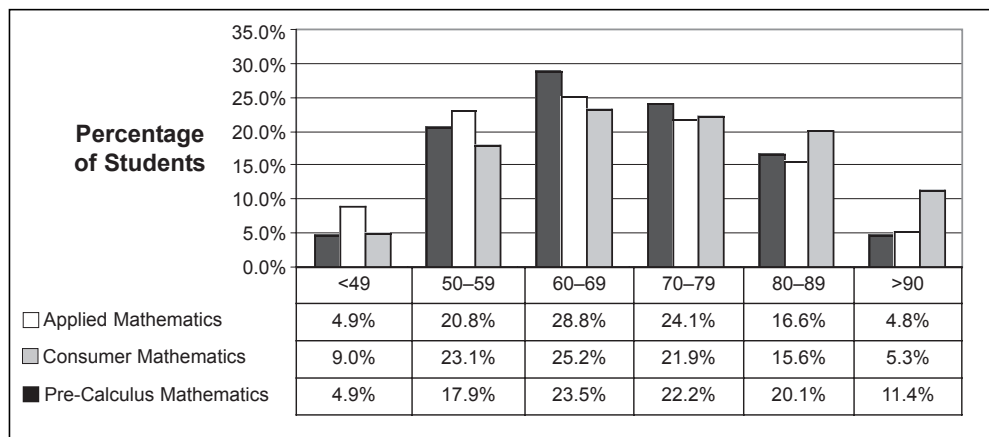
Pre-Calculus Mathematics—a high level study of theoretical mathematics with emphasis on problem solving and mental mathematics, supported by cumulative exercises and testing.

Table 16: Distribution of Course Marks for Langue et communication—Français (N = 332) and Langue et communication—Immersion (N = 727)



Source: Research and Planning Branch, Manitoba Education, Citizenship and Youth.

Table 17: Distribution of Course Marks for Mathematics/ Mathématiques: Applied (N = 3,521), Consumer (N = 6,662), and Pre-Calculus (N = 4,871)



Source: Research and Planning Branch, Manitoba Education, Citizenship and Youth.

THE PROGRAMME FOR INTERNATIONAL STUDENT ASSESSMENT (PISA) 2003: INITIAL RESULTS FOR 15-YEAR-OLD STUDENTS

Mathematics Sub-Domains

- Space and Shape, which relates more closely to geometry, involves mathematical skills required to study shapes and forms and to understand and represent the relative positions of objects.
- Change and Relationship involves the ability to model or measure patterns of change and growth. It relates most closely to algebra.
- Quantity focuses on the ability to understand size, recognize patterns, and generally use numbers to count and measure objects and their characteristics
- Uncertainty involves mathematical skills related to statistics and the understanding of probability and chance.

The Programme for International Student Assessment (PISA) is a collaborative effort between participating governments through the Organization for Economic Cooperation and Development (OECD). It draws on international expertise to develop and conduct a survey of the knowledge and skills of 15-year-old students every three years. The assessment examines the ability of students to use their knowledge and skills to meet real life challenges. These skills are considered to be prerequisites for lifelong learning and for full participation in society. PISA also provides information on factors that influence the development of knowledge and skills at home and at school. This information is intended to support the development of educational policy.

PISA began in 2000 with a focus on reading literacy. In PISA 2003, the major focus was overall mathematical literacy with four content areas or sub-domains: space and shape, change and relationship, quantity, and uncertainty. Mathematics performance, as measured by PISA, involved more than students' ability to perform arithmetic operations. It also assessed how well students recognized, formulated, and solved real-life mathematical problems.

This section looks at the average level of performance on overall mathematics literacy, the distribution of achievement scores, and proficiency levels in mathematics, gender differences, socio-economic differences, and the differences between English-language and French-language school systems. This summary of PISA 2003 is drawn from the national report referenced at the end of this section.

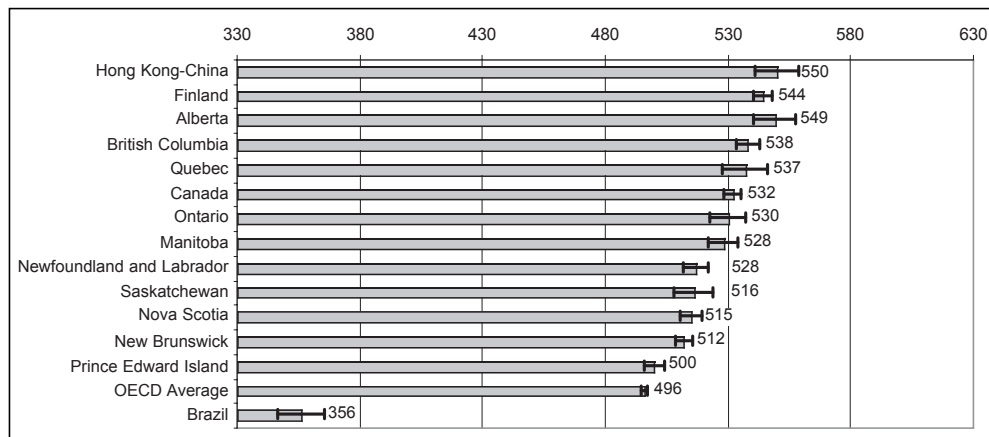
Forty-one countries including all 30 OECD countries participated in PISA 2003. In Canada, approximately 28,000 15-year-olds from about 1,000 schools participated across the ten provinces. No data were collected in the three territories and federally operated First Nation schools. The assessment was administered in French and English. In Manitoba, 2,778 students from 120 public schools participated in PISA. Students in the English and French Immersion Programs were administered the English assessment. Students in the Français Program participated in the French version of the assessment.

Table 18 shows the estimated average scores and confidence intervals for provinces and countries on combined mathematics. In PISA 2003, Hong Kong-China and Finland ranked first and second respectively on combined mathematics. Manitoba students performed at the Canadian average (532), which was well above the OECD average (496).

Confidence Intervals

PISA results are based on a sample of students rather than on the entire student population in participating countries. Therefore, reported averages are estimates rather than actual averages had the entire student population been included in the assessment. Since this is an estimate, it is common practice to provide a range within which the actual value or score might fall had the entire student population participated. This range is called the confidence interval and is represented by the low and high ends of the black bar between which the actual score would fall 95 per cent of the time.

Table 18: Estimated Average Scores and Confidence Intervals for Canadian Provinces and Selected Countries: COMBINED MATHEMATICS



Source: *Measuring Up: Canadian Results of the OECD PISA Study*. Copyright Statistics Canada.

In PISA 2003, boys outperformed girls on the combined mathematics scale in 27 participating countries, including Canada. No gender differences were observed in 12 countries, while, in one country, Iceland, girls performed significantly better than boys.

As shown in Table 19, boys performed better than girls on the combined scale in seven of ten provinces including Manitoba, but the differences were relatively small. No significant gender differences were observed in three provinces.

Table 19: Summary of Gender Differences for Canada and the Provinces

	Boys Performed Significantly Better* Than Girls	No Significant Differences Existed Between Boys and Girls
Mathematics—Combined Scale	Newfoundland and Labrador, Nova Scotia, New Brunswick, Ontario, Manitoba, Alberta, British Columbia	Prince Edward Island, Quebec, Saskatchewan
* Difference is significant when the gender difference gap is significantly different from zero. Provinces within each cell are ordered from east to west.		

Source: *Measuring Up: Canadian Results of the OECD PISA Study*. Copyright Statistics Canada.

Table 20 shows the mathematics performance of students in the French-language and English-language school systems for the five provinces in which these populations were separately studied. It presents minority group performance, that is, students in French-language school systems in Manitoba, Ontario, New Brunswick and Nova Scotia and students in the English-language school system in Quebec relative to the majority group. No significant differences in combined mathematics performance were observed between the two school systems in Nova Scotia, New Brunswick, Quebec and Manitoba. Among French-minority populations, Manitoba's Français students' performance was strong.

Table 20: Estimated Average Mathematics Scores by Province and Language of the School System

Mathematics— Combined	English-Language School System		French-Language School System	
	Estimated Average Score	95% Confidence Interval	Estimated Average Score	95% Confidence Interval
Nova Scotia	515	511–519	500	486–514
New Brunswick	514	511–517	505	499–511
Quebec	541	531–551	536	526–546
Ontario	531	524–538	505	496–514
Manitoba	528	522–534	522	511–533
Note: Statistically significant differences are in bold.				

Source: Measuring Up: Canadian Results of the OECD PISA Study. Copyright Statistics Canada.

The PISA 2003 Initial Results also indicated that the level of student engagement in mathematics is important for acquiring skills and knowledge in mathematics. Student engagement in mathematics referred to students' motivation to learn mathematics, their confidence in their ability to succeed in mathematics, and their feelings about mathematics.

Both provincially and Canada-wide, students with high levels of mathematics confidence performed better on the combined mathematics scale than did students with low levels. Motivation to learn mathematics as measured by interest in and enjoyment of mathematics and belief in the usefulness of mathematics was also positively related to achievement. It is not clear, however, whether factors such as high motivation and confidence are causes of strong performance or important outcomes of performing well in mathematics.

Characteristics of Effective Learners

PISA 2003 indicates that students who are well-motivated, confident in their own abilities, and who regularly adopt effective learning strategies tend to do better at school. These characteristics not only help to explain student performance but are themselves important outcomes of education, particularly as students who have learned to guide their own learning, are often considered more likely to continue to learn throughout life. This finding suggests that education systems need to help students develop attitudes and habits that support learning at and beyond school as well as providing sound instruction. (PISA, 11)

On the indices of student engagement in mathematics, which included students' motivation to learn, their confidence in their ability to succeed and their feelings about mathematics, Manitoba performed the same as the Canadian average. PISA 2003 also found that Canadian girls and boys were not equally engaged in Mathematics. Even when controlling for ability, girls consistently showed much lower interest and enjoyment in mathematics, lower self-related beliefs such as confidence and ability to learn, and higher levels of mathematics anxiety than boys. In Manitoba, girls had higher levels of interest and enjoyment in mathematics than boys but scored lower on other indices of student engagement such as perceived ability in mathematics, mathematics confidence, and belief in the usefulness of mathematics. Girls also scored higher in the area of mathematics anxiety. PISA 2003 suggests that these characteristics may contribute to gender differences in later educational and occupational career choices.

PISA 2003 also looked at the relationships between socio-economic status and mathematics performance. Socio-economic status (SES) is a term used by PISA to summarize a variety of factors, including parental education and occupation, parental labour market participation and whether a student's family has specific educational and cultural possessions such as works of literature, books of poetry, and works of art at home.

In every province, students with higher SES tended to perform better in mathematics. In addition, students tended to have better performance when they attended schools with students from higher SES backgrounds, regardless of their own families' SES, but there were also large differences in performance among students with similar SES. In all provinces, students whose parents had a university education, performed significantly higher than those whose parents had high school or less. Nevertheless, many Canadian students whose parents had high school or less performed better in mathematics than students with university-educated parents. While SES and factors such as parental education are generally associated with performance, they do not determine individual student performance.

In addition to mathematics, PISA 2003 also included the minor domains of reading, science, and problem solving. Problem solving in this context is defined as resolving real life, cross-disciplinary situations where solutions are not limited to any particular literacy domain such as mathematics, reading, or literacy. Manitoba students performed at the Canadian average in science literacy, reading literacy, and problem solving. There was no gender difference in problem solving by Manitoba students. Manitoba boys, however, outperformed Manitoba girls in science while girls slightly outperformed boys in reading. Manitoba students from the French-language school system had lower performance in reading and science.

More detailed performance information on the four sub-domains of mathematical literacy, reading, science, and problem-solving is available from *Measuring Up: Canadian Results of the OECD PISA Study, The Performance of Canada's Youth in Mathematics, Reading, Science and Problem Solving, 2003 First Findings for Canadians Aged 15*. This publication is available electronically at <www.pisa.gc.ca>.

SUCCESSFUL LEARNING AND PERFORMANCE FOR ALL STUDENTS

Student Performance and Socio-economic Status

When reviewing the relationship between student performance and factors such as socio-economic status, it is important to keep in mind that socio-economic status does not determine or predict an individual student's performance or achievement. Students from lower socio-economic status achieve at high levels.

Over the years, a number of studies and international assessments on student performance, such as the Programme for International Student Assessment (PISA), have examined relationships between student outcomes and socio-economic background. These studies and assessments indicate that students from lower socio-economic status families on average score lower on tests of academic achievement and are at higher risk of school failure than students from higher socio-economic status families.

A recent study published by the Manitoba Centre for Health Policy, *How Do Educational Outcomes Vary with Socioeconomic Status? Key Findings from the Manitoba Child Health Atlas 2004* examined educational achievement among students in the city of Winnipeg who live in different socio-economic circumstances. It indicated that Grade 3 standards test results, Senior 4 Language Arts results and high school completion demonstrated a strong socio-economic gradient.

Although the report published by the Manitoba Centre for Health Policy is based on Winnipeg residents only, the Centre found similar patterns for students living outside of Winnipeg.

Erasing socio-economic disparities in student learning and performance is a challenging task for Manitoba's education system. Inequities in student performance and attainment have deep roots and reasons for these inequities are multi-faceted. While better educational policies can help address these challenges, they may not be sufficient. Educational research is identifying a need to reconsider the importance of out-of-school hours in which families and communities have significant influences and roles to play. This involves implementing comprehensive early-childhood, after-school and summer programs.

Working with school communities, Manitoba Education, Citizenship and Youth is involved in a number of initiatives such as Lighthouse Programs, Reading Recovery, and Early Years Literacy which are intended to reduce the impact of the socio-economic gradient on student learning and performance.

Reducing Learning Inequities

What types of educational policies and activities can contribute to fewer inequities in student learning and performance?

Are there any particular educational policies or practices that may worsen or contribute to inequities among subgroups of students?

**Gender Differences—
Senior 4
Provincial
Standards Test
Results**

The claim that girls generally achieve at higher levels than boys in reading and writing has been well established in a number of international and national assessments such as the Progress in International Reading Literacy Study (PIRLS, 2001), the 2002 Student Achievement Indicators Program (SAIP), and the Programme for International Student Assessment (PISA), although the causes are complex and the interconnections among the causes are not well understood.

Tables 21 and 22 show the average test scores and pass rates for male and female students, on the Senior 4 Language Arts Standards Tests in January and June 2004. The test scores support the gender pattern found in national and international assessments, including most recently in PISA 2003. It is notable that the latest PISA results show that the gender difference observed in Manitoba was among the smaller differences in Canada, decreasing from the PISA 2000 observations.

**Table 21: Provincial Standards Tests Results—
Senior 4 Language Arts by Gender and Test
January 2004**

Test	Number Writing	Number Passed	Pass Rate	Average Score
Males: English Language Arts	3,810	3,116	81.8	63.4
Females: English Language Arts	4,089	3,694	90.3	69.9
Males: Français—langue première	98	73	74.5	59.4
Females: Français—langue première	84	80	95.2	69.5
Males: Français—langue seconde—immersion	152	136	89.5	65.9
Females: Français—langue seconde—immersion	210	198	94.3	69.1

Source: Assessment and Evaluation Branch, Manitoba Education, Citizenship and Youth.

**Table 22: Provincial Standards Tests Results—
Senior 4 Language Arts by Gender and Test
June 2004**

Test	Number Writing	Number Passed	Pass Rate	Average Score
Males: English Language Arts	2,405	1,893	78.7	61.5
Females: English Language Arts	2,462	2,154	87.5	66.9
Males: Français—langue première	70	51	72.9	58.4
Females: Français—langue première	75	57	76.0	63.7
Males: Français—langue seconde—immersion	134	117	87.3	65.9
Females: Français—langue seconde—immersion	225	206	91.6	67.8

Source: Assessment and Evaluation Branch, Manitoba Education, Citizenship and Youth.

How can school communities best recognize and address gender-specific needs?

Tables 23 and 24 show the pass rates and average test scores for male and female students in the three Senior 4 Mathematics/Mathématiques courses for the January and June 2004 sittings of the provincial standards tests. Unlike the initial finding from PISA 2003, there is no consistent pattern of gender differences whereby male students outperform female students.

**Table 23: Provincial Standards Tests Results—
Senior 4 Mathematics/Mathématiques by Gender
January 2004**

Test	Number Writing	Number Passed	Pass Rate	Average Score
Males: Applied Mathematics	610	424	69.5	58.2
Females: Applied Mathematics	525	328	62.5	56.3
Males: Consumer Mathematics	990	834	84.2	62.6
Females: Consumer Mathematics	986	909	92.2	68.6
Males: Pre-Calculus Mathematics	1,006	644	64.0	58.2
Females: Pre-Calculus Mathematics	1,051	719	68.4	60.0

Source: Assessment and Evaluation Branch, Manitoba Education, Citizenship and Youth.

**Table 24: Provincial Standards Tests Results—
Senior 4 Mathematics/Mathématiques by Gender
June 2004**

Test	Number Writing	Number Passed	Pass Rate	Average Score
Males: Applied Mathematics	938	678	72.3	58.2
Females: Applied Mathematics	866	583	67.3	56.8
Males: Consumer Mathematics	1,342	1,147	85.5	63.3
Females: Consumer Mathematics	1,524	1,392	91.3	68.5
Males: Pre-Calculus Mathematics	1,335	862	64.6	59.4
Females: Pre-Calculus Mathematics	1,413	1,003	71.0	61.5

Source: Assessment and Evaluation Branch, Manitoba Education, Citizenship and Youth.

Examining gender differences in education involves more than looking at gaps in test scores, pass rates and enrollment in post-secondary education. It also involves examining the social outcomes of education such as motivation and confidence of students in their abilities to learn, and a variety of labour market outcomes. As demonstrated by the PISA 2003 results, boys showed higher mathematics confidence than girls.

ABORIGINAL LEARNERS

Aboriginal Self-Identification

Aboriginal ancestral/cultural identity data is important for Manitoba Education, Citizenship and Youth trying to ensure the success of Aboriginal learners. Identity data helps the department to monitor grade promotion/retention, academic performance, graduation rates, and mobility rates.

In a number of school communities across the province, Aboriginal children and youth form a major component of the student population. One important characteristic of the Aboriginal population is that it is younger than the non-Aboriginal population. Table 25 shows that as a consequence of its relative youth, the Aboriginal population will constitute an increased percentage of Manitoba's school population and its total labour force in the future.

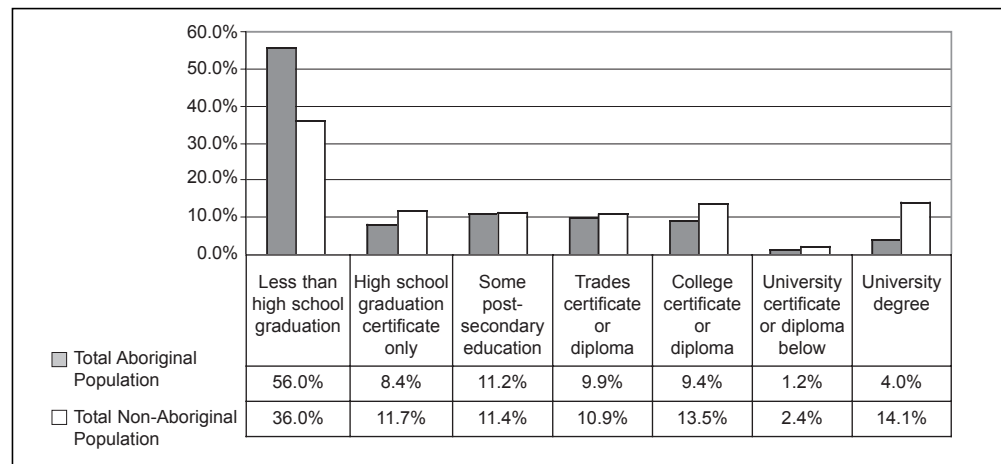
Table 25: Total Aboriginal and Non-Aboriginal Population in Private Households by Age Group—Census 2001

Age Group	Total Aboriginal	% Distribution	Non-Aboriginal Population	% Distribution	Total	% Distribution
0–14	53,920	36.1%	176,865	18.8%	230,785	21.2%
15–24	25,920	17.4%	123,815	13.2%	149,740	13.7%
35–44	43,360	29.1%	270,980	28.8%	314,330	28.8%
45–64	20,500	13.7%	230,605	24.5%	251,100	23.0%
65+	5,500	3.7%	139,160	14.8%	144,660	13.3%
All Ages	149,200	100%	941,425	100%	1,090,615	100%

Source: *Aboriginal Peoples of Canada, 2001 Census*. Copyright Statistics Canada.

Table 26 shows highest level of education attainment by Aboriginal people in Manitoba compared to the general population. The percentage of Aboriginal people without a high school diploma is considerably greater than that of the general population. However, in terms of relative rates of attainment, the largest gap can be seen at the university level, where Aboriginal learners are less than one-third as likely to obtain a university degree than non-Aboriginal learners.

**Table 26: Manitoba Educational Attainment by Aboriginal and Non-Aboriginal Identity—
Census 2001**



Source: *Aboriginal Peoples of Canada, 2001 Census*. Copyright Statistics Canada.

The *Aboriginal Education Action Plan 2004-2007* has been developed to enhance the educational and labour market success of Manitoba’s Aboriginal population. Its four main objectives are to

- increase high school graduation rates
- increase access to and completion of post-secondary education
- increase successful entry into and participation in the labour market
- improve the research base for Aboriginal education and employment

Some key supporting activities include:

- Developing 38 demonstration projects across the province that engages Aboriginal parents/families in the educational life of their children.
- Initiating programs that bring Elders, Aboriginal community workers, and other resource personnel into the school to support learning outcomes.
- Establishing the University College of the North including community-based training in key campus communities, rotating courses, distance education, and the development of relevant Northern and Aboriginal programming needs.
- Targeting an increase of Aboriginal apprentices in the new Aboriginal Apprentice Program.
- Increasing partnerships with universities and research organizations to conduct and disseminate research on Aboriginal education, especially as it pertains to learner success.

View the entire *Aboriginal Education Action Plan 2004-2007* at www.gov.mb.ca/abedu/action_plan/index.html.

Integrating Aboriginal Perspectives into Curricula, A Resource for Curriculum Developers, Teachers, and Administrators is a support document intended to share information on successful strategies for working with Aboriginal learners at www.edu.gov.mb/ks4/docs/policy/abpersp/index.html

These activities are complemented by work under the *Manitoba K-S4 Education Agenda for School Success, 2002-2006*. This includes developing and maintaining ongoing liaisons with major Aboriginal organizations, as well as providing educators with regional workshops that assist in developing practices that incorporate Aboriginal perspectives.

HIGH SCHOOL COMPLETION

High school completion has a significant impact on labour market participation and moving on to post-secondary education. A common method for estimating high school completion within Manitoba's public school systems is to examine the number of students completing Senior 4 as a percentage of Senior 1 enrollment four years earlier. As Table 27 indicates, over the last five years the completion percentage has been slightly above 75%. A number of national and international studies suggest that many students are also graduating at older ages, taking longer than the traditional four years to complete their high school.

**Table 27: Manitoba Graduates to Senior 1 Enrollments
Four Years Previous (Public Schools Only)**

Graduation Year	Total Graduates	Senior 1 Enrollment Year	Senior 1 Enrollment Four Years Previous	Percentage Graduates to S1 Enrollments
June 1998	10,863	September 1994	14,268	76.1%
June 1999	10,774	September 1995	14,714	73.2%
June 2000	11,174	September 1996	14,837	75.3%
June 2001	11,303	September 1997	15,074	75.0%
June 2002	11,236	September 1998	15,122	74.3%
June 2003	11,995	September 1999	15,182	79.0%
June 2004	12,627	September 2000	15,651	80.7%

Source: Research and Planning Branch, Manitoba Education, Citizenship and Youth.

In Manitoba, the introduction of the Adult Learning Centres Act has enabled the network of adult learning centres (ALCs) across the province to address the educational needs of adults. During the 2003-2004 school year, 49 adult learning centres, operating at over 70 sites, assisted adult learners in completing their high school diploma and in preparing themselves academically to pursue further educational opportunities or to improve their employment options. Approximately 9,700 adults completed over 12,000 courses for credit. In addition, 1,254 high school diplomas were awarded, an increase of over 300 diplomas from the previous year.

Adult Learning Centres' continued involvement in educational initiatives such as Prior Learning Assessment and Recognition (PLAR) and the dual credit option are enabling adult learners to achieve their educational and employment goals more quickly.

Dual Credit Courses

The Dual Credit Initiative policy is available online at www.edu.gov.mb.ca/aet/all/publications.html

The PLAR process has been aided by the implementation of *PLAR Policies and Procedures Guide for Adult Learning Centres (ALC)*, 2004. As well, Advising and Assessment Resource Guides have been developed for a number of high school courses, with more currently under development.

Adult Learning Centre learners also took advantage of the dual credit option in the 2003-2004 school year. The dual credit option allows learners working toward a high school diploma to study post-secondary courses and apply them for credit at both the secondary and post-secondary levels, facilitating the transition from one level of education to another.

MOVING FORWARD

Information from a variety of classroom-based, provincial, and international assessments indicates that many Manitoba students are learning and performing well. Nevertheless, there are performance differences between students of different backgrounds that deserve further consideration and action. In addition, attendance problems, that is, the failure to attend school on a consistent basis has significant implications for learning. This issue will be examined more closely in future reports.

Assessment is an integral aspect of teaching and learning. Assessment information helps teachers adapt classroom instruction to improve student learning. It also helps to inform educational planning. School communities across the province have undertaken a number of activities to ensure that classroom teachers understand how to assess students, how to interpret assessment results in order to program appropriately, and how best to report on student progress.

Over the next two years, Manitoba Education, Citizenship and Youth will undertake a multi-faceted approach to support teachers in developing effective classroom-based formative assessment practices that support student learning. This includes the development of a provincial Assessment Leadership Team. It will consist of departmental consultants and key leaders from school divisions across Manitoba. This team will be responsible for supporting assessment initiatives regionally, divisionally, as well as at the school level. Other assessment initiatives will include

- A three-day Classroom-Based Assessment Summer Institute that builds on the Western and Northern Protocol Assessment Project document, *Re-thinking Classroom Assessment with Purpose in Mind*
- Training support for the implementation of the *New Provincial Classroom-Based Assessment at Middle Years*
- Regional workshops on classroom-based assessment

Manitoba Education, Citizenship and Youth has also initiated a province-wide Community Schools initiative. It is intended to help reduce the impact of the socio-economic gradient on student learning and performance.

All students deserve stimulating and challenging learning opportunities that will help them achieve their goals, continue to learn, and participate in their communities. Information presented in this report can help to stimulate and support discussions, particularly in school and divisional planning, and develop activities that create learning opportunities.

Considering the information and issues presented in this document, how would you respond to the following questions?

- What educational issues do you think deserve further attention?
- What types of policies and professional learning activities could improve learning opportunities and results for students?
- What types of information on student learning and performance should Manitoba Education, Citizenship and Youth measure and report on in future years?

Please let us know what you think by completing the feedback form at the end of this document.

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We Would Like to Hear from You

Manitoba Education, Citizenship and Youth welcomes your response to *A Profile of Student Learning and Performance in Manitoba, 2003–2004* and invites you to complete and return this form.

1. Please indicate your role in the learning community.

- Parent Teacher Resource Teacher School Administrator Counsellor
 School Trustee School Division / Education Authority Administrator
 Other: _____

2. Please indicate which format(s) of the document you used.

- English Copy French Copy
 Print Copy Online Posting Both Formats

3. What educational issues do you think deserve further attention?

4. What types of policies and professional development activities could improve learning opportunities and results for students?

5. What types of information on student learning and performance should Manitoba Education, Citizenship and Youth measure and report on in future years?

6. May we contact you for further information? Yes No

If yes, please provide the following:

Name: _____ School: _____

Phone: _____ Fax: _____

Thank you for taking the time to provide valuable feedback.

Please return to:

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