

Education Quality and
Accountability Office



Lessons from EQAO Data on Fundamental Math Skills: How Are Ontario Students Doing?

March 2019

Purpose of This Report

The purpose of this informational report is to provide an overview of provincial achievement of fundamental math skills among primary and junior students. The report draws from EQAO data gathered in 2016, 2017 and 2018.

Context

In summer 2018, the Ontario Ministry of Education released a teacher’s guide called “Focusing on the Fundamentals of Math,” designed to help teachers build students’ knowledge and skills in mathematics (Ontario Ministry of Education, 2018). The guide highlights the importance of fundamental math concepts and skills and provides information on how to support students in improving in these areas. The guide also outlines examples of the fundamental concepts and skills.

In response to the Ministry of Education’s focus, EQAO examined data associated with the fundamentals of math outlined by the government.

Results

Percentage of Students Meeting Expectations on Fundamental Math Skills ¹

Panel	Multiple-Choice	Open-Response	Knowledge and Understanding ²	Application	Critical Thinking
Primary (Grade 3)	71%	54%	81.5%	68%	58%
Junior (Grade 6)	66%	59%	72.5%	65%	58%

Summary

This report offers a preliminary investigation into student achievement on fundamental skills in mathematics. The results show that students are better able to demonstrate their skills in the multiple-choice format than on open-response items. It is also clear that Ontario students in Grades 3 and 6 have stronger knowledge and understanding of fundamental math skills than they have the ability to apply their skills and to think critically about them. The challenge with mathematics in Ontario may be less about students “knowing” math and more about their ability to apply math knowledge and to engage in related critical thinking.

This analysis can serve as a baseline toward continuous improvement as educators focus on the fundamentals of mathematics in Ontario schools.

¹ Results for English- and French-language students are presented as one average percentage, as statistical differences were not observed.

² Multiple-choice questions are divided into three categories: Knowledge and Understanding, Application and Critical Thinking.

References

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