Can Manitoba Students Add?

A Note on the Manitoba Mathematics Assessment Program

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Yes, say the results of the Manitoba Mathematics Assessment Program 1982 carried out by the Manitoba Department of Education as an ongoing program to provide accurate and current information on the performance of Manitoba students.

Students in Grades 3, 6, 9, and 12 were assessed, using tests that were written by Manitoba faculty of education members Lars Jansson, Betty Johns, William Korytowski, Murray McPherson, and Clare O'Neill.

The objectives of the mathematics curriculum include a wide range of skills and thinking processes on a number of topics: number systems, operations, and properties; measurement; geometry; algebraic concepts; graphing and statistics; and consumer applications.

The following is a summary of the recommendations that were included in the report made under the title *Mathematics Assessment Program 1982* published by the Manitoba Department of Education.

SUMMARY OF RECOMMENDATIONS

On the basis of student test results and interpretations and of the teacher survey summaries, a large number of recommendations were generated. Some of the highlights are:

- That topics in geometry and measurement receive more attention in professional development of educators and also by teachers in their classrooms.
- That educators pay more attention to the learning of operations with decimals, particularly in division.
- That, at each grade level, concepts and skills from earlier grade levels be reviewed, in part by embedding them in a problem-solving context.
- That calculators be encouraged as a supportive tool in areas other than basic arithmetic.

Among the recommendations specific to a particular grade level are:

- That at the Grade 3 level, subtraction and division receive appropriate attention by teachers, and that they be taught as inverse operations of addition and multiplication respectively.
- That at the Grade 6 level, the topic of place value be reviewed with students and that more attention be given to work with fractions.
- That at the Grade 9 level, teachers cover the core topics designated in the curriculum guide before going on to optional topics. In particular, emphasis should be placed on basic geometry and certain aspects of algebra, such as equation-solving.
- That for both Mathematics 300 and Mathematics 301, the objectives of the courses be closely examined in the context of teacher expectations of students, university entrance requirements, availability of calculators and computers, and time allotments and organization (for example, the semester system).