Michigan Educational Assessment Program
Statewide Results
Winter 1999

Grades 4, 5, 7, and 8
Mathematics, Reading, Science, and Writing

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Introduction

The Michigan Educational Assessment Program mathematics, reading, writing, science and social studies tests were administered to students in grades four, five, seven and eight and in January and February of 1999. Students in grades four and seven took mathematics and reading tests. Students in grades five and eight took assessments in science, writing and social studies. The MEAP assessments are intended to answer the question, "How are our students doing compared to what we want them to know and do?" Achievement of basic skills in the classroom provides the foundation necessary for students to succeed on the tests. The tests were designed to assess application and problem solving by using tasks that are similar to what students are likely to encounter outside of the school environment.

The social studies results will go through the standard setting process during the summer of 1999. The standard setting process results in cut scores for the performance categories. Because this process includes teachers and other educators, holding it during the summer months ensures the best possible participation. Once the cut scores are set and approved, the results will be compiled, printed, and released to schools and districts. This should take place early this fall. Therefore, social studies results are not yet included in this report.

All of the tests were developed based upon the State Board of Education approved Essential Goals and Objectives and the Model Core Curriculum Outcomes as required by law.

The Michigan Educational Assessment Program (MEAP) provides information about student achievement in all Michigan public schools. Nonpublic schools that wish to have students tested are provided all testing materials at the state’s expense. Consequently, student achievement information is available from a voluntary sample of nonpublic schools as well.

Public school results in fourth and seventh grade reading, seventh grade mathematics and eighth grade science all show improvements and, in fact, reached the highest levels ever recorded. Fourth grade mathematics results were down only slightly from their highest level, which was recorded last year. Writing results at both grades five and eight, and fifth grade science results were down this year.

About the Essential Skills Mathematics Test

This year is the eighth year of the MEAP Essential Skills Mathematics Test. The Essential Goals and Objectives for Mathematics Education were approved by the State Board of Education in 1988. The test assesses a student’s ability to conceptualize and use higher order thinking skills, which are necessary for employment and real-life problem solving. The test is comprised of seven components: whole numbers; fractions, decimals, ratio and percent; measurement; geometry; statistics and probability; algebraic ideas; and problem solving and logical reasoning.

A student's overall performance in mathematics is described as satisfactory, moderate or low. In order to obtain a satisfactory score on the mathematics test, a student must receive a scaled score of 520 or above. Moderate performance is characterized by a scaled score of 500 to 519; low performance is below 500.
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The seventh grade mathematics test results have improved considerably. The percentage of seventh grade students scoring in the satisfactory performance category is 63.2% compared with 61.4% in 1998 and 51.4% in 1996. On the fourth grade mathematics test, 71.7% of students attained scores in the satisfactory performance category, compared with 74.1% in 1998.

Overall, the results in both grades four and seven continue to be strong. Educators should continue to stress mathematical reasoning, communication, problem solving and connections.

About the Essential Skills Reading Test

This is the tenth year of the MEAP Essential Skills Reading Test. The test results indicate the extent to which students are attaining the knowledge, skills and strategies that the State Board of Education and Michigan educators have defined as essential for all students in the area of reading. The Essential Goals and Objectives for Reading Education were approved by the State Board of Education in 1986.

Reading test scores are reported in three performance categories: satisfactory, moderate and low. In order to achieve a satisfactory score, a student must meet a specified standard on both the story and the informational reading selections. The student who meets the standard on only one of the selections characterizes moderate performance. Low performance describes the student who does not meet the standard on either the story or the informational selection.

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The fourth grade reading results also show an increase, with 59.4% of the students scoring satisfactorily, compared to 58.6% in 1998. The percentage of students scoring in the low performance category decreased to 15.1% from 15.4% in 1998.

On the seventh grade reading test, 53.0% of students scored within the satisfactory range. For the first time, over half of Michigan’s seventh graders showed satisfactory performance in reading, up from 48.8% in 1998. The percentage of students in the low category reached an all time low, at 20.4%.

Student performance on both the story selection and on the informational selection increased in both grades over last year’s results. These results show that educators are continuing to ask students to read selections of differing lengths and from a wide variety of materials.

About the Science Tests

This is the fourth year of the MEAP Science Test. The test results indicate the extent to which students are attaining the skills and strategies that the State Board of Education and Michigan educators have defined as essential for all students in the area of science. Student performance is reported in the areas of life, earth and physical science as well as constructing new scientific knowledge and reflecting on scientific knowledge. The Essential Goals and Objectives for Science Education were approved by the State Board of Education in 1991.

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Student performance on the grades five and eight science tests is described as proficient, novice and not yet novice. Scaled scores below 350 are considered not yet novice, scores from 350 through 399 are in the novice range, and scores of 400 and above are considered proficient. For
the first time in 1999, all testable objectives from the Michigan Essential Goals and Objectives for Science Education were eligible to be tested. The test blueprint approved in 1994 had two phases of objectives, the second phase test items were completed and tested in 1998-99.

The fifth grade science results are down somewhat from 1998, dropping from 40.4% proficient to 37.5% proficient. The results are the second-highest recorded in the four years the test has been administered.

The eighth grade science results showed the second straight increase statewide, from 22.0% proficient to 23.0% proficient. While these results are the highest they have ever been, there is still need for improvement. School districts can use the data to check the alignment between their local curriculum and the Michigan Essential Goals and Objectives for Science Education.

**Writing Results**

This is the fourth year of the MEAP Writing assessment. Student performance on the grade five and grade eight writing tests is described as proficient and not yet proficient. The writing tests consist of a single writing prompt scored holistically on a four-point scale. Each prompt is scored by two readers, and if these readers differ by more than one score point, a third reader decides the score.

The percentage of grade five students earning a proficient score in writing shows a decrease of 9.5% from last year, from 64.3% in 1998 to 54.8% in 1999. In eighth grade writing there was a 5.5% decrease in the percentage of students earning proficient, from 69.0% to 63.5%. Although the percentages have decreased, the overall results of student performance in writing are still strong, with well over half the public school students in the state posting proficient scores.

**Conclusions**

These data may indicate that curriculum and instruction are becoming more closely aligned with state goals and objectives. Local districts and schools should continue to examine their own results to ensure that their instructional programs are aligned with the Essential Goals and Objectives. School personnel can use these results to fine-tune their instructional programs.

The attached tables include breakdowns by gender and ethnicity for each subject and grade. Tables are also included representing the students in nonpublic schools who took the MEAP tests at grades four, five, seven, and eight.