Assessment Brief



Public Schools of North Carolina • State Board of Education • Howard Lee, Chairman • North Carolina Department of Public Instruction • Michael E. Ward, Superintendent

Understanding North Carolina End-of-Grade Testing

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North Carolina End-of-Grade Tests— Reading Comprehension and Mathematics

In response to legislation passed by the 1989 North Carolina General Assembly, the State Board of Education developed and initially implemented End-of-Grade Tests for grades 3 through 8 in the areas of reading and mathematics effective with the 1992–93 school year. These curriculum-based multiple-choice achievement tests are specifically aligned to the North Carolina Standard Course of Study and include a variety of strategies to measure the academic performance of North Carolina students.

The North Carolina End-of-Grade (EOG) Test-Reading Comprehension assesses reading by having students read both literary and informational selections and then answer questions related to the selections. Knowledge of vocabulary is assessed indirectly through application and understanding of terms within the context of the selections and questions. The selections chosen for the reading tests reflect reading for various purposes such as literary experience, gaining information, and performing a task. Literary texts include fiction, poetry, drama, and literary nonfiction such as journals, biographies, letters, and Informational texts include content areas (art, science, mathematics, social studies, etc.) and consumer or practical selections (pamphlets, reviews, recipes, how-to, etc.).

North Carolina End-of-Grade (EOG) Mathematics Tests measure the goals and objectives in the 1998 North Carolina Mathematics *Standard Course of* *Study*. The competency goals and objectives of the mathematics curriculum adopted in 1998 by the

North Carolina State Board of Education for each grade are organized into four strands: (1) number sense, numeration, and numerical operations; (2) spatial sense, measurement, and geometry; (3) patterns, relationships, and functions; and (4) data, probability, and statistics. The mathematics EOG tests are administered in two parts: Calculator Inactive and Calculator Active. Students are not allowed to use calculators during the Calculator Inactive part of the test. Students are allowed to use calculators during the Calculator Active part of the test. Both parts of the test require students to interpret information from problems in context in order to generate the appropriate responses to the test questions.

Understanding Scores for the EOG Tests

Students take the state-required multiple-choice North Carolina EOG Tests in Reading and Mathematics during the final weeks of the school year. Reports of student scores are printed soon after scoring and sent to schools for distribution to parents. Three types of scores are reported in each subject area for the tests: developmental scale scores, percentiles, and achievement levels.

Developmental Scale Scores

The number of questions a student answers correctly is called a raw score. For the end-of-grade tests, the raw score is converted to a developmental scale score. The developmental scale score allows

for the comparison of the student's end-of-grade scores by subject from one grade to the next. The developmental scale score is like a ruler that measures growth in reading and mathematics from year to year. Just like height in inches, the student's scores in reading and mathematics are expected to increase each year. In 2002–2003, reading scale scores for grades 3 through 8 ranged from 216 to 290, and the scale scores for mathematics grades 3 through 8 ranged from 218 to 310.

Percentiles

The percentile compares the student's performance on the test this year to all North Carolina students who took the test in the "norming year." The norming year for a test is generally the first year the test was administered. The norming year for mathematics was 2001. For reading comprehension, the norming year was 2003. The percentile indicates that the student performed at a level equal to or better than the stated percentage of students who took the test during the norming year. The higher the percentile, the better a student performed compared to other students in his or her grade. Percentiles range from 1 to 99.

Achievement Levels

The North Carolina Standard Course of Study outlines the content standards for the State in that it describes the knowledge, skills, and other understanding that schools should teach in order for students to attain high levels of competency. Performance standards, called achievement levels, have also been developed to identify levels of student performance. Unlike percentiles, which yield only relative comparisons, the achievement levels provide common meaning throughout the State as to what is expected at various levels of performance.

The achievement levels used in the North Carolina Testing Program were initially established based on the contrasting groups method of standard setting. This method involves having students categorized into the various achievement levels by expert judges (teachers) who are knowledgeable about the students' achievement. The judgment of many North Carolina teachers is used to set the achievement levels. Four achievement levels (I, II, III, and IV) are reported in each subject area. The description of each achievement level follows:

Level I: Students performing at this level do not have sufficient mastery of knowledge and skills in the subject area to be successful at the next grade level.

Level II: Students performing at this level demonstrate inconsistent mastery of knowledge and skills in the subject area and are minimally prepared to be successful at the next grade level

Level III: Students performing at this level consistently demonstrate mastery of the grade level subject matter and skills and are well prepared for the next grade level.

Level IV: Students performing at this level consistently perform in a superior manner clearly beyond that required to be proficient at grade level work.

North Carolina Statewide Student Accountability Standards

The Statewide Student Accountability Standards require students in third, fifth, and eighth grades to demonstrate that they are performing at grade level in reading, writing (fifth and eighth grades only), and mathematics in order to be promoted to the next grade. Students scoring below Achievement Level III on the end-of-grade reading and/or mathematics test(s) are to be given a second test within a reasonable time from the receipt of test results. Parents may request that their child be excused from the second administration of the test. In this case, the parents and child accept participation in focused intervention.

Students who are not promoted after the second or third administration of the test shall be given focused intervention for a time period that is instructionally sound. Strategies may include, but are not limited to, alternative learning models, special homework, smaller classes, tutorial sessions, extended school day, Saturday school, modified instructional programs, parental involvement, summer school instruction, or retention.

Teachers or parents may request a promotion for students scoring below Level III on an end-of-grade test after the second or third test administration. Teachers shall provide documentation of the students' performance during a review process.