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Understanding Testing at Grades 3-8: Background

This publication is an update to the Assessment Briefs Fall 1994 (Vol. 1, No. 1R) and Fall 1997 (Vol. 4, No. 1) "Understanding End-of-Grade Testing: Background".

Pretest—Grade 3

The North Carolina Pretest—Grade 3 is a multiple-choice reading comprehension and mathematics test. It measures the knowledge and skills specified for grade 2 from the reading and mathematics goals and objectives of the North Carolina *Standard Course of Study*. The pretest provides pre-scores for third graders for the ABCs Accountability Program because there are no test scores from grade 2 to provide pre-data for the growth analysis from pre- to posttest. The grade 3 pretest is administered to all grade 3 students during the first three weeks of school. The grade 3 pretest was initially administered at the beginning of the 1996-97 school year.

End-of-Grade Tests

During the 1992-93 school year, North Carolina changed its statewide testing program in elementary and middle school from using a nationally-normed achievement test to using North Carolina-developed tests which are more closely aligned with the state-mandated curriculum described in the North Carolina *Standard Course of Study*. The North Carolina End-of-Grade Tests of reading comprehension and mathematics measure achievement of curricula objectives at grades 3-8. The end-of-grade tests have a strong emphasis on higher-order thinking skills and are closely aligned with national curriculum standards. The 1993 test scores provide an important benchmark to which educational growth at the student, school, school system, and state level can be compared in the future.

The primary purposes of the end-of-grade tests are to provide accurate measurement of:

- individual student skills and knowledge specified in the North Carolina *Standard Course of Study* and
- the knowledge and skills attained by groups of students for school, school system, and state for the ABCs Accountability Program.

Scores on the tests are only one of many indicators of the achievement of students. The value of the tests lies primarily in the fact that the scores provide a common standard that is not influenced by local differences in achievement and expectations. The tests provide yardsticks which can be used to compare the achievement of students, schools, school systems, and the state. The assessment yardstick can be used to measure gains (or losses) in performance across time to see if educational improvement efforts at the state and local level are working.

The end-of-grade multiple-choice tests are administered in reading comprehension and mathematics during the final three weeks of school at grades 3-8 each year. In addition to providing individual scores based on student performance, the results from the end-of-grade tests provide information regarding growth and performance for the ABCs Accountability Program. For the purpose of school accountability, the pretests in reading and mathematics for grades 4-8 are the posttests for the previous grade.

Key Features of Reading: End-of-Grade and Pretest—Grade 3

- The end-of-grade reading test and grade 3 pretest in reading assess the ability of students to use strategies which enhance reading comprehension including reading to acquire, interpret, and apply information, and reading for critical analysis and evaluation.
- Reading is assessed by having students read authentic passages and then answer questions directly related to the passages. A vocabulary test is not included.

Although vocabulary development is important, knowledge of vocabulary is assessed indirectly through the application and understanding of terms within the context of passages and questions.

- The passages on the reading test are chosen to reflect the variety of reading done by students in and out of the classroom. Passages include literature (short stories, poems, essays), informational selections in content areas (social studies, science, art, health, and mathematics), and consumer and practical selections (pamphlets, recipes, projects). This variety allows for the assessment of reading for various purposes: literary experience, gaining information, and performing a task.
- Ten passages are included on each end-of-grade reading test; the number of questions range from 56 in grade 3 to 68 in grade 8. The grade 3 pretest in reading contains five passages with a total of 28 questions.
- The results from the reading tests are reported on a developmental scale which allows the measurement of growth in reading across the grade levels.

Key Features of Mathematics: End-of-Grade and Pretest—Grade 3

- The end-of-grade mathematics test and grade 3 pretest in mathematics assess students' ability in the seven strands of the mathematics curriculum: numeration, geometry, patterns and pre-algebra, measurement, problem-solving, data analysis and statistics, and computation.
- The mathematics test is administered in two parts: mathematics computation and mathematics applications. For the end-of-grade test, the mathematics computation part consists of 12 questions in grades 3-6 and 8 questions in grades 7-8. The mathematics applications part of the end-of-grade test consists of 68 questions in grades 3-6 and 72 questions in grades 7-8. For the grade 3 pretest, mathematics computation consists of seven questions and mathematics applications contains 44 questions.
- Beginning in Spring 2000, field test questions will be embedded in the end-of-grade mathematics test and the mathematics part of the grade 3 pretest. As a result, the number of test questions and test administration time will increase. However, separate mathematics field tests for multiple-choice tests at grades 3-8 will no longer be necessary.
- The mathematics computation part of the test assesses a student's knowledge of specific mathematical procedures appropriate for the grade level. Calculator use is not allowed during this part of the test.

- The mathematics applications part of the test includes word problems and the application of mathematics concepts from the seven strands. Calculator use is allowed during this part of the test.

Writing Assessment

The North Carolina Writing Assessment was administered initially in 1983-84. This test measures written expression (composing) skills, such as main idea, supportive details, organization, coherence, and the application of grammatical conventions. Students in grade 4 write a narrative essay that may be personal or imaginative. Students in grade 7 write a descriptive or expository (clarification or point-of-view) essay. This assessment, which consists of one writing prompt at each grade, is administered statewide on one test date designated by the NCDPI. The results of the writing assessment are part of the ABCs Accountability Program.

Open-Ended Assessment

The North Carolina Open-Ended Assessment was administered initially in 1995-96. This test broadly measures curricular goals and commonly requires integration of knowledge and skills from more than one curricular goal or objective. Students must generate responses by writing out their thoughts. The students are required to analyze, explain, apply, interpret, and evaluate information in response to tasks set forth by the assessment items. Responses are scored using a rubric scale that varies depending upon the complexity of the task. This assessment, which consists of 12 items (six reading and six mathematics) at each grade level, is administered statewide on one date established by the NCDPI. The open-ended assessment is administered at grades 4 and 8.

Teacher Involvement in Test Development

The professional judgment and input of North Carolina teachers are vital components for the development of state tests. They assist in a variety of ways listed below.

- Teachers provide instructional and content validity to the development process.
- Teachers write test questions and participate in item reviews and test reviews.
- Teachers administer all field tests. Teachers also review the test questions prior to and after the administration of field tests.
- Teachers' judgments about the performance of their students are used to set the performance standards (achievement levels) for the tests.