

Provide a Math Diagnostic Testing System

Client. Virginia Department of Education

The Challenge. Many students lack fundamental mathematics skills and, by middle school, encounter substantial challenges with math. Recognizing this problem, The Virginia Department of Education launched the Algebra Readiness Initiative (ARI) to provide additional mathematics instruction to students in grades 5-8. Virginia needed an accurate way to diagnose student mathematics ability and to identify student strengths and weaknesses to help guide instruction and to monitor student progress towards algebra readiness. SEG, in partnership with Internet Testing Systems (ITS), was selected through a competitive bidding process to develop and implement an Algebra Readiness Diagnostic Test (ARDT) to support the ARI.

The Solution. SEG and ITS responded with a complete online assessment system using both computer adaptive and traditional assessments. The ARDT system measures student math skills at the beginning and end of the instructional program and at several points during the year. The assessment system also provides grade-specific strand tests that provide a more surgical analysis of specific skill deficiencies. Detailed score reports are available to students, parents, teachers and schools immediately after testing. The ARDT provides information about student math skills on a developmental scale ranging from third to eighth grade. Because the assessment is adaptive, the ARDT provides an accurate reading of the student's skill level, regardless of what grade in which the student is enrolled. The reports provide six strand scores and indicate specific standards to be targeted for instruction.