One school district shares its experiences with computer-based testing and the immediate access to data it can provide.

Is your district using the “year behind” testing method? You know, the one where student data is not available until the fall following spring testing!

Imagine the ability to assess students up to four times per year in four content areas. Individual student data showing progress over time as well as strengths and weaknesses would be available within 24 hours of the tests. Grade-, school-, and district-level comprehensive data would be available within 72 hours. The faster we receive student assessment data, the quicker we can apply strategies that will boost student achievement.

So, why are we still pushing pencil-and-paper testing? My school district, the Barren County School District in Glasgow, Kentucky, found an alternative when we partnered with the Northwest Evaluation Association (NWEA) to use their Measure of Academic Progress (MAP). We chose to get assessment results twice a year (fall and spring) for all students, with a mid-year assessment for targeted students to ensure they are meeting their mid-year goals. We also test incoming students.

Acknowledgements
Valerie Stokes would like to thank her fellow directors of instructional technology Melissa Moss, Jeanelle McGuire, and Melinda Owens for their contributions to the writing of this article.

By Valerie Stokes
Why MAP?
Computer-based testing is rapidly becoming one of the technology trends facing the U.S. K–12 education system. Several states have already started the revolution to online assessment, and Kentucky may not be far behind. Barren County School District is a small rural district in South Central Kentucky with a total of eight schools, 4,100 students, and approximately 650 staff members. The district has a large percentage of free/reduced lunch students.

Barren County administrators see the immersion of online state assessment as a real possibility in the future, so they began looking at assessment tools that would provide the administration and faculty the information needed to target individual student strengths and weaknesses. As the district leadership team evaluated different programs, MAP grabbed their attention. The MAP testing platform is unique—it is differentiated to each test taker, creating what is known as a “leveled test.” The test items are selected from a large battery of questions aligned to Kentucky Core Content and national standards.

NWEA uses a RIT scale (short for Rasch unit) to provide a consistent scoring level for all subject areas. Students start at an average grade level, and as questions are answered, the test continually adjusts the difficulty level up or down until it finds the student's true ability level. Questions are weighted by type and group. Immediate short summary results are available within 24 hours of testing, and a complete detailed summary is available within a week of the final district testing date.

What Issues Did We Confront?
With any large-scale technology implementation, one of the biggest concerns is the district's ability to handle the technical issues of a program of this nature (e.g., server size, operating systems, technical support, and individual machine specifications) as well as the instructional issues (e.g., training test proctors, administrators, and teachers; scheduling testing sessions; preparing the testing window; and providing assistance).

The MAP preparation procedures consist of declaring a testing window and submitting a roster to NWEA of students and their demographic data. This is to be submitted two weeks before testing begins. This data is queried from the district student information data system. Data for individual students can be modified and added at any time after the testing window has opened. NWEA provides the district with a downloadable test battery housed on a district server (individual schools' test stations point to this server location). Test results are uploaded each day and made available online to teachers and administrators within 24 hours. Upon the completion of all testing in the district, NWEA compiles all of the test data and makes available a very comprehensive collection of data to schools and staff members.

What Reports Are Generated?
Reports show RIT ranges in several different strands, providing data that can be used for grouping and extending school services and that shows student progress over time. Teachers can determine if students are progressing along the learning continuum as related to their individual RIT range.

Teachers can use individual student data during student led conferences to show student growth in individual subject areas. Administrators have access to district data showing how a school is scoring in a subject area compared to other schools in the district that may be using different instructional programs as well as individual student reports.

Grade-level teams at individual schools in Barren County create “data walls” comparing different assessment results within the district. Teachers then meet to evaluate the data and adjust curriculum maps to address critical areas of content. The administrators compare this data between schools in the district to generate a curriculum plan that addresses weaknesses and improves student achievement.

NWEA has created DesCartes, a supplementary document that aligns test results to individual state core content standards. Instructional leaders meet with teachers to disaggregate test data of individual students. Teachers are able to assess which skills students have mastered, in which they show progress, and in which they are weak or still need work, as determined through the data. The student data is passed on to their teachers at the next grade level so they know which skills need to be reviewed in the next school year.

What Are the Benefits?
First, instruction is greatly improved by the immediate access to data teachers and technology curriculum specialists have. These two groups work together to break down student results and evaluate each student's individual strengths and weaknesses. Students are then asked to evaluate their performance in the testing environment.
and to set learning goals for their weak areas. Students determine some of the areas that they need to focus on to improve scores. According to Kathy Burris, a fifth-grade teacher, some classroom teachers work with their students to graph that student’s progress. Students then share this graph with parents during student-led conferences. They “explain to parents their scores, areas of strength and weakness, and how they are progressing,” Burris continues.

Schools can also use the data to assign students to instructional groups. Says gifted specialist Dinah Wallace, “MAP results offer us valuable data in determining the gifted population in the district and to break down each student’s scores by subject into specific areas of strength and weaknesses. For example, Johnny may score extremely high in mathematics, however when you break down the specific categories you see that his strength is in algebraic thinking and he is actually a little low in probability and statistics. We can then alter his lessons to support assistance in probability and statistics.”

Principals have the ability to evaluate subject-area and sub-level results across grade level and/or schoolwide. For example, district curriculum specialist Shari Alexander suggests that individual schools use the data “to evaluate specific curriculum programs that have been implemented as for their success and weaknesses in relation to content.” This analysis could help school leaders decide how to supplement a new math or reading program being used in the school to ensure that students learn all of the necessary content.

A district administrator could use the data to assess student achievement across the district, compare program success between schools, determine learning gaps and achievements, then adjust district curriculum accordingly. Alexander says she is “particularly interested in the school and district data from MAP. We can use this information to determine instructional programs, make modifications to the district curriculum, or share successful programs that are working in specific schools.”

Finally, communication with parents is enhanced immensely, as principals and teachers are able to share data with parents and provide guidance on how they may wish to target assistance for their children at home.

**How Do We Make the Change?**

Moving to computer-based testing is a big step with many objectives to address. We have heard, even though we don’t like to admit it, that the teaching methods we employ are antiquated. The common thinking is these are methods that we know to be tried and true, so why change what works?

Stop, take a moment, and think back 10 years to 1995. Did you have a global positioning system (GPS), cell phones, digital cameras, Onstar, DVDs, CDs, MP3 players, handhelds, laptops, wireless access, e-mail, or eBay? Now think, how many of these you have now? The inventors of these programs took the initiative to change what was already working and make it better. So why not take a look at our current assessment practices and use technology to provide immediate assessment results, individualized progress over time, and up-to-the-minute data to support student achievement? Let’s avoid being stuck in that year behind testing method. Change is necessary for growth to occur.

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