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STUDENTS AT MOORESVILLE Graded School District don't have to wait for their grades to know how they are doing. In fact, report cards have become obsolete in the 5,500-student district just north of Charlotte, North Carolina.

There is not a whole lot of group instruction at the school. All students from third through 12th grade have a laptop and move through personalized online lessons at their own pace. The setup provides students with instant feedback and allows teachers and parents to easily monitor their performance.

"Students are using digital resources to track their own learning. They are very aware of how they're doing. Rather than, 'Am I going to get an A in this course?' they're following objectives by content area," says district superintendent Mark Edwards. "It's really personal."

At regular meetings, teachers review data and collaborate to gain insight into how individual students are doing. "We are providing intervention with great precision rather than a shotgun approach," Edwards says. Inquiry-based projects form another important element in Mooresville's individualized approach

Schools are boosting results by treating every student as an individual—with unique needs unlike anyone else's in their class, grade, or building. **BY CARALEE ADAMS**

and the move away from whole-group instruction, he explains. With the research tools of the Internet at the kids' fingertips, these projects tap right into their natural curiosity.

Since the district's digital conversion and emphasis on individual learning began four years ago, its state test scores and graduation rates are up. Attendance and behavior have also improved dramatically. And Mooresville did it all while being one of the lowest-funded districts in the state, the superintendent adds. Taking advantage of online resources, the district was able to offset the cost of the computers with savings on paper, textbooks, and maps.

Individualized learning is gaining

adherents among administrators around the country. And who wouldn't want to help every student excel? For their part, kids are responding well to lessons that allow them to follow their interests and are customized to their level. It gives them ownership, say proponents, and triggers authentic learning.

Personalizing education is not without its challenges, though. It can require more work up front for teachers. It also requires good data collection and analysis. There needs to be a supportive social environment, where students can be trusted to work independently. All told, it takes an investment in professional development, equipment, and software. But with advances in technology, and as

ENGAGED LEARNING

more schools see results, individualized learning seems certain to gain an even stronger hold in the nation's schools.

Clear Expectations

WHAT IS IT WE WANT STUDENTS TO know? That's the question that frames teaching practices at Meadowlark Elementary School in Sheridan, Wyoming, says principal Jason Hillman. About five years ago, the school divided its faculty into grade-level teams that work together to create instruction based on students' individual needs. Because many of Meadowlark's students were struggling with writing, that became the first focus.

After roughly two weeks of instruction on an essential skill, kids are given an assessment. Then they are regrouped. The teacher who was most successful in teaching the skill takes the kids who

need the most intervention for the next two-week cycle. Those who were proficient go to enrichment with another teacher every day.

Today, 100 percent of the school's third graders are proficient in writing, compared with 41 percent four years ago. Proficiency increased from 59 percent to 95 percent among fourth graders, and from 51 percent to 98 percent among fifth graders. Math scores also improved over the same period.

"Now we don't have any 'independent contractors.' Teachers know all the kids," says Hillman. "They don't view it as my kid and your kid—it's our kids. They work together as a team."

Smart Customization

EDUCATORS HAVE LONG BEEN INTRIGUED by the prospect of individual learning, and the emergence of a new class of technology has expanded the practical possibilities, says Jessie Woolley-Wilson, president and chief executive officer of DreamBox Learning. Software can collect information from every click of the student's mouse. It's like having a patient tutor with a vast memory who can tailor lessons to each student's needs.

DreamBox is a Web-based math curriculum with 500 lessons designed for kindergarten through third grade. The software uses students' responses to customize a path according to their ability. As they do in games like Animal Crossing

or Webkinz, students move through a series of colorful adventures, collecting rewards and moving up through the levels as they correctly complete answers. DreamBox can be used in a math lab, an after-school program, or a classroom center to supplement math lessons. Students can also log on to DreamBox from home, providing them with additional practice time and bringing parents into the loop.

In Maryland, Howard County Public Schools has invested about \$20,000 to buy 1,000 DreamBox accounts for children in 20 schools. It is widely used as an intervention to help students get up to speed, says John SanGiovanni, the

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—Scott Kerman, Northwest Academy, Portland, OR

district's instructional facilitator for elementary math. DreamBox "continuously assesses students as they learn new concepts and provides data to teachers," he says. "It's engaging for students to work outside of the classroom." SanGiovanni says students who have used the program are demonstrating a better understanding of number and math concepts.

Technology also provides the cornerstone for individualized learning at Rocketship Education's five charter elementary schools in San Jose, California, says Melissa McGonegle, regional director of the national nonprofit. Students spend a quarter of their day in the Learning Lab, where they work through online lessons at their own pace and receive individual tutoring. [See "Learning Labs 101," page 39.]

Tracking Needs, Tracking Progress

BY THE TIME KIDS GET TO MIDDLE school, the emphasis shifts to content. But many students still need to work on basic skills, says Tracey Severns, principal at Mount Olive Middle School in Budd Lake, New Jersey.

All students at Severns's school take a

study skills course, where they determine their individual learning style. Then they continue to develop their study skills accordingly. The school has added an independent study session—strategically scheduled for the last period, so kids can get organized before leaving for the day.

Mount Olive raised the benchmark for students to advance, eliminating the letter grade "D," and committed to helping each child succeed. "Whatever it takes, we will not accept failure," says Severns. Counselors meet with kids in each grade and come up with individualized plans for those who are at risk of failing. Sometimes Severns meets with a student to draft a "contract for success."

"We ask teachers to graph two years of students' standardized test scores on a scatter plot," says Severns. Students graph their progress on various skills in their individualized learning plans. "When we see changes that take place from using the data, we are more fired up to use it," she says.

Individualized learning has sparked a similar sense of enthusiasm and camaraderie at East Mooresville Intermediate School, says technology facilitator Tara Gander. When students need short reviews in a particular area, teachers share videotaped lessons. A student can download what he needs—for example, a review on long division—and watch it on his own. Then the teacher doesn't need to review the material with the whole class. Students also put their grades into a spreadsheet and set their own goals and strategies. "Students are taking ownership of the data," says Gander.

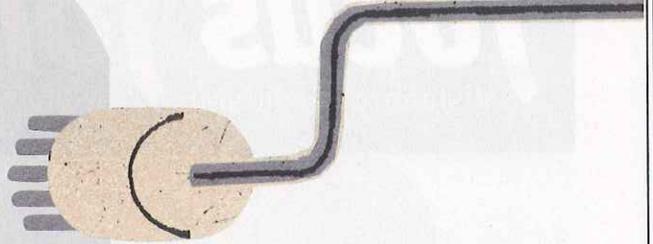
"Once somebody does something and people see it works, it catches on like wildfire," says Gander. It takes a lot of collaboration and preplanning to set the systems up so they run smoothly, but that "frees you up to do some smaller groups," she says. "To see the results, it's definitely worth it."

Old-School Attention

AT NORTHWEST ACADEMY, A 6-12 private school in Portland, Oregon, teachers try to promote a culture of respect for students' varying abilities. "Students here all have a talent for something. They may be very talented in one area, but emerging in another," says Scott Kerman, dean of curriculum. "No one puts them down."

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STEPS TO INDIVIDUALIZED LEARNING



INFORM After getting teachers on board, provide information to parents and students on the benefits of individualized learning.

INSPIRE Generate support by getting all parties to understand how a more personalized approach can trump a singular focus on whole-group instruction.

INVESTIGATE Select a method to identify individual students' strengths and weaknesses, such as diagnostic tests or software that collects information.

INVOLVE Bring together all parties, students as well as parents and teachers, to help plan the process,

roles, and responsibilities of the individualized learning model.

INDIVIDUALIZE Create personalized "smart" goals and learning plans for each of your students.

INITIATE Organize resources (time, personnel, space, materials, computers) and set learning plans in motion.

IMPLEMENT Evaluate progress of each student's plan and measure achievement on a quarterly basis.

INDICATE Compile data on student achievement and share the successes and challenges of the individualized learning model.

SOURCE: TRACEY SEVERNS, PRINCIPAL, MOUNT OLIVE MIDDLE SCHOOL, BUDD LAKE, N.J.

To accommodate those differences, students are given choices for how they demonstrate proficiency. For example, a student might submit an art project for a unit on Roman civilization or do a collaborative project. "We value student direction very highly," says Kerman. If students don't demonstrate proficiency, however, they won't advance to the next class.

"This plays out more in math classes and language, where there is a need for a broad, thorough understanding of material to achieve at the next level," says Kerman. The supportive environment makes it easier for students to seek help. Some kids have even been known to declare they are not ready for Algebra 2 on their own. "They don't see it as a fault," Kerman says. Instead of hiding in the back, they take responsibility for getting the help they need.

Early in the semester, teachers meet weekly to discuss students and identify those in danger of not passing. Then the team can look for ways to adjust to meet the needs of the individual student.

As a private school with a lower student-to-teacher ratio than many public schools, Northwest Academy's teachers have more time to work individually and intentionally with each student. "Teachers feel like they are truly teaching and not just moving students through to the next year," says Kerman.

While individualized education is gaining converts due to improved data and technology, the concept itself is really nothing new. It stretches all the way back to Italian educator Maria Montessori. She developed her individualized approach more than a century ago by watching students work. In Montessori schools today, students

choose their activities, engage in them for uninterrupted blocks of time, and learn largely by doing hands-on work.

At the Armatage Montessori School, a public elementary in Minneapolis, Minnesota, principal Joan Franks explains that teachers do give whole-group lessons, but that much of the learning occurs when children have individual assignments.

Christian Houdek, a teacher at AMS who used to work in a traditional classroom, calls the Montessori model "controlled chaos." To accommodate 35 students, all with their own needs and moving at their own pace, is demanding for teachers. Houdek says he works on building an environment of self-sufficiency. Because the Montessori materials are very concrete, kids can see when they are making a mistake. The kids also develop the social skills necessary to be tolerant and help one another in the classroom. Houdek talks a lot about "grace and courtesy"—how to work on your own without disrupting others—and maintaining your voice. Typically, students who can handle more rigorous instruction receive it. Then they can help their friends, and the teacher can give individualized help, as needed.

It's not always perfect when kids go at their own pace. "They do get jealous or frustrated when they are not in one group or if they can't do as much work," says Houdek. "My philosophy to deal with it is to say, 'It is what it is. I teach you where you're at. You will get there; you just need to work.' There is a little bit of struggling sometimes, but it can be positive to have a lot of kids seeing others doing something fun and want to do that, too."

Finally, maybe the proof is in the numbers. Armatage Montessori is one of the higher-achieving schools in the district.

"A lot has to do with the fact that no child is sitting there waiting for other kids to catch up with him or her," says Franks. ■