



# Rural and remote schools are implementing technology in personalized learning to meet student needs

By Kathryn Kennedy

R ural and remote schools and districts often have a hard time incorporating personalized learning, according to "Digital Learning Strategies for Rural America," a report from Evergreen Education Group and the Foundation for Blended and Online Learning. They face challenges that differ from those of their urban and suburban counterparts, including declining enrollments, high populations of disadvantaged students, transportation costs, lack of computer and internet access, low teacher pay, and high teacher turnover.

Many rural schools lack the resources to provide advanced courses in math and science, challenging electives, and world language courses, the report further notes. So, how can rural schools and districts implement personalized learning in meaningful ways despite such obstacles? By completely rethinking education and how it's delivered. As EDUCAUSE's Andy Calkins says, "True personalized learning calls for a 'rethinking and redesign' of schools, which could require [educators] to overhaul classroom structures and schedules, curricula, and the instructional approaches of teachers."

## **Differing Definitions**

According to the U.S. Department of Education's 2016 National Education Technology Plan, personalized learning "refers to instruction in which the pace of learning and the instructional approach are optimized for the needs of each learner. Learning objectives, instructional approaches, and instructional content all may vary based on learner needs."

But personalized learning often has one meaning at the course level and another meaning at the student level. At the course level, teachers must think intentionally about technology solutions that satisfy content-specific needs of students and help them progress. At the student level, teachers must work individually with students to design a personalized learning path and rely on assessment results to communicate where the student is currently, and what they need in order to progress.

Five key components relate to the interaction of student, teacher, time, assessment, and technology:

- 1. The student is responsible for creating a path geared toward their learning goals, personal needs, and interests with a teacher, mentor, or learning guide.
- 2. The teacher co-creates a personalized learning plan for each student.
- 3. Time is flexible to allow students all that they need to master a concept.
- 4. The teacher uses just-in-time data to monitor student progress continuously, modifying the learning plan with the student as required.
- 5. Technology is used in meaningful ways to support student learning.

### **Successes in Rural America**

The Digital Learning Collaborative's (DLC) "Snapshot 2019: A Review of K–12 Online, Blended, and Digital Learning" cites the following examples of rural school districts that have been able to rethink and redesign education in innovative ways:

**Distributing digital devices.** Located in one of the poorest states in the nation, the Piedmont (Alabama) City School District piloted a digital learning program, mPower Piedmont, in an effort to improve student outcomes. The program launched in 2009 at Piedmont High, providing 150 laptops to students. It expanded

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To be effective, says Richard Culatta, CEO of the International Society for Technology in Education (ISTE), educational technology should:

- Enable real-time feedback
- Allow educators to adjust the pace
- Give learners agency
- Create creators
- Enable mass customization

to include grades 4 and up the following year. The district soon installed a laptop checkout program for grades K–3, and there is now a device for each of the approximately 1,240 students in the district. Early elementary students use mobile devices appropriate to their grade level, while students in grades 4–12 have designated laptops.

While initially focused on student access, mPower expanded beyond the school to become a community initiative that addresses disparities in digital connectivity throughout the area. "This initiative—both the connectivity and the devices—is a game-changer, not just for our students but [also] their families," says Rachel Smith, curriculum coordinator and administrator for federal programs. "We hear stories of parents who completed a GED or college classes on the school-issued devices after the kids were in bed."

Virtual advance work. Upperman High School in rural Putnam County, Tennessee, transformed an online credit recovery program into the VITAL (Virtual Instruction to Accentuate Learning) program with the goal of developing "future-ready" students. Teachers known for building strong relationships with students and comfortable with learning technologies helped structure the program.

From a pilot that included just four high school students, the program expanded to offer high school credit courses to middle school students who were ready for next-level math and science courses. Enrollment grew fast thanks to word-of-mouth from successful students and families, and VITAL now offers the opportunity to create an individualized learning path to about 800 K–12 students every year.

**Flexible scheduling.** Taos Academy (TA), a state-chartered hybrid learning school serving 225 students in grades 5–12 in rural New Mexico, combines online and face-to-face instruction to offer a flexible schedule that varies depending on student and family needs. The student population is 68 percent economically disadvantaged and majority historically underserved; nearly 1 in 5 students participate in the school's special education program.

TA requires students to be on campus a minimum of two days a week; middle schoolers attend on Mondays and Wednesdays, high schoolers on Tuesdays and Thursdays. While on campus, students attend Academic Advisory and 21st Century Learning classes, including SmartLab, Global Studies, Leadership, Career Pathways, and Service Learning, all of which are designed to offer opportunities for connection, collaboration, and problem-solving.

Most students choose to attend school on off days as well, taking advantage of a staffed Student Success Lab, the MidSchool Plus Enrichment program, and STEM+Arts Institute classes taught by community experts and teaching assistants. Electives include radio broadcasting, journalism, kinetic sculpture, green architecture, and culinary arts. The school recommends that students spend approximately 20 hours each week in a digital curriculum that can be accessed from home or school.

Core courses contain elements of online learning as well as direct instruction, with adaptive tools that allow students to work on grade-level content while addressing learning gaps and building mastery in challenging areas. An academic adviser oversees digital coursework and assists with goal-setting, progress-tracking, and the development of individualized learning pathways that reflect student interests.

## **Crossing the Digital Divide**

If your school is considering adding digital tools to personalize learning and meet new instructional goals, keep the following strategies in mind:

- Start small. Use pilot-style implementations to test digital tools, then perform microchanges until you have success and can scale.
- Focus on the learning. Rather than starting with technology, think first about what you want students to learn and be able to do, then explore which technologies would facilitate that learning.
- Establish communities of practice. Communities of practice should be subject-specific and allow all participants in the community to be voices of change for the school and/or district.
- Understand the context. Define needs based on culture, space, support structures, etc.
- Continuously reflect and discuss. What's working? What's not working? What needs to be done to improve the curriculum? Involve everyone in those discussions, including students.
- Ditch the idea of average. "There is no such thing as average anything, including an average student," Harvard professor L. Todd Rose says in his book, *The End of Average*.

Students "are multidimensional and can never be drilled down to a single score."

### **Common Pitfalls**

According to Richard Culatta, CEO of the International Society for Technology in Education (ISTE), "There are three common pitfalls in the installment of a personalized learning program: We continue to treat learners the same despite their unique needs and challenges. We hold the schedule constant. And performance data arrives too late to be useful to the learner. The least equitable thing that we can do to learners is treat them all the same, because we know they each need different things."

Other pitfalls Culatta cited include "boiling the ocean" (trying to do everything rather than tackling small things first), focusing too much on technology, not focusing enough on technology, and prioritizing ownership over buy-in. Consider all of these factors when implementing personalized learning in your school and/or district.

In addition to these cautions, be sure to:

- Identify what's needed at the school and district level, as well as the individual needs of the students, to avoid miscommunications that undermine classroom successes.
- Listen to the students. Schools, districts, and educators often think they know what students want—and they are usually wrong.
- Make building relationships with students a priority. Learning pathways are easier to construct when educators have time to check in with students regularly to reflect on their learning journeys together.
- Allow instructional decisions to guide technology use.
- Take small steps toward a larger goal.
- Put power in the hands of educators to guarantee buy-in, ownership, and accountability.

Technology can promote personalized learning programs even in areas previously thought to be too unreachable or disadvantaged to be on the cutting edge of educational culture. Completely rethinking and redesigning your curriculum is a challenge—but it's a challenge that can help tailor learning to individual students' real needs.

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