

A photograph of two young girls with dark hair sitting at a desk in a classroom or computer lab. They are looking intently at a computer monitor. The girl in the foreground is wearing a dark-colored shirt, while the girl behind her is wearing a colorful striped shirt. The background is a plain, light-colored wall. An orange horizontal bar is positioned at the top left of the image, above the text.

Reaching the Student with Differentiated Instruction

Summary

Differentiated instruction is a powerful tool for educators and technology leaders, helping them better serve the unique, diverse needs of their students and maximize the impact of their teachers. It represents an entirely new approach to the classroom and the student and, when well-integrated into the curriculum, can help teachers reach students who might otherwise fall behind.

Differentiated instruction represents a challenging path for most districts, forcing them to make fundamental changes to how they reach, teach, and enable students. Despite the demands that it makes on teachers and technology leaders, however, differentiated instruction is worth pursuing due its enormous potential impact on student achievement. Teachers can identify different learning styles, language capabilities, and other factors that impact individual performance. They can break students into different groups and create highly relevant assignments and instruction for them. They can spot kids in trouble and intervene before they fall behind. Ultimately, schools can create far more relevant and customized learning experiences for their students.

Focus on the student

William Fritz, Director of Technology at Sycamore Community Schools outside of Cincinnati, has long focused on trying to spark student interest in the classroom. In addition to his job at Sycamore, he is also Executive Director for Learn21, a flexible learning collaborative. In both roles, he is constantly trying to develop new ways to support, share, and enable the education process.

He puts particular emphasis on overcoming what he sees as the biggest obstacle to engagement—the gap between student and teacher. “I think back to when I had the richest experience in school,” he says. “It was always when I had that connection with the material and the teacher.”

The challenge, he says, is that every student is different, and that teachers in today’s busy, crowded classrooms must deal with them as a group. They don’t have the time or tools to reach each student in the way that serves them best.

“Teachers don’t have the luxury of changing their approach with each student,” he points out. “You can’t distinguish between students and address their distinct needs and interests when you only have 50 minutes to reach them.”

Fritz, like other education technology leaders, seeks to unlock student potential by providing teachers with new tools that let them customize their approach to each individual. Giving teachers a better ability to distinguish between students, he believes, could help them change the very structure of the education experience for the better. It could open up new possibilities for “blended learning,” in which teachers could shift traditional lecture-type learning online while using their classroom time for more focused, high-value interactions with students.

“Most K-12 institutions really don’t look much different than they did 70 years ago. And now we’re trying to make some big changes to how we reach and teach students. It’s exciting but challenging.”

William Fritz,
Director of Technology
Sycamore Community
Schools, OH

Think big—but start small

This new vision is ambitious and risky—but also necessary, says Rob Mancabelli, a consultant who advises schools, universities, and corporations in developing new forms of learning. The need for change, he argues, starts with recognizing that today’s model of teach-student interaction is not as effective as we might think.

“We’re so afraid of letting go of a system that’s not really teaching students anything anyway,” he says. “If you take students who score top marks on the AP exam and then benchmark them one year later, you find they’ve retained only about 12% of the information. So what we really have is a temporarily-learned curriculum.”

For Fritz, the time is right to pursue this level of customized instruction. Today’s technology, he argues, has evolved to the point where enabling truly differentiated, blended learning is possible for the first time. While he recognizes the technical challenges, the biggest barriers he encounters remains in changing attitudes.

“We’re so engrained in the traditional seven-bells-a-day model—we really need to take some risks,” he says. “It can be a hard sell, but people are starting to realize that differentiation is truly accomplishable. They are starting to realize that with the right technology, we can do this.”

Leaders like Fritz stress that while the payoff for differentiated instruction can be huge, it also requires large changes in teacher practice, student expectations, and even policy. For that reason, most education technology specialists approach differentiated learning modestly, usually through a pilot program.

For Sycamore Community Schools, the first step came recently in the form of a new physical education class in which students timed their runs and other tasks, then submitted that data online to their teachers. The teachers designed individually customized workout routines for the students based on their need. Since so much interaction was taking place online, the class stopped meeting regularly, switching to what Fritz calls a “zero bells” schedule, meeting only when needed.

Reach the teacher

Fritz points out that the physical education program was first suggested by a teacher, a fact that he said was critical to making it successful. To be effective, he says, differentiated instruction needs strong teacher support and understanding. James Panopoulos, Technology Director at the Carroll School, an independent school in Massachusetts for children with learning disabilities, agrees.

“Only teachers are in the position to know their students,” he says. “So if one kid is less visual, or benefits more from certain types of interaction, they can provide what that student needs. Our role is to enable the teacher through technology, not tell them how to do it.”

Education technology leaders like Fritz and Panopoulos recommend spending time with teachers to help them understand the different forms of differentiated learning, and how it can shift their role. As teachers use automated, often online, assessment tools to understand the strengths and weaknesses of their students, they can take different approaches to students based on their needs.

“We are trying differentiated instruction in two middle schools right now. The teacher moves from lecturing to being an assistant and enabler, seeing what works with each kid. They all get to the same answer or understanding, but they get it in different ways.”

Gary Brantley,
Chief Technology Officer
DeKalb County Public
Schools, GA

“A big part of effective instruction is early assessment of differences. Early in the school year, teachers need a baseline of where their kids are at.”

Tim Goree, Director of
Technology Support Services
Fairfield-Suisun Unified School
District, CA



Case Study

Profile

The Sycamore Community Schools district serves the communities of Blue Ash, Montgomery, Sycamore Township and Symmes Township in the Cincinnati, Ohio, area. The district serves over 5,400 students in K-12, enrolled in seven schools. The mission of the district is to provide challenging and engaging educational experiences to equip students with critical skills that promote intellectual, social, emotional, and physical growth.

What They Did

When two teachers in the Physical Education department approached Fritz with idea of restructuring the Sycamore High's "Fit for Life" course, a mandatory class that can be taken anytime between 9th and 12 grade, he embraced the idea. The Sycamore team redesigned the course using differentiated instruction and blended learning principles. Now, the course meets on a "zero bells" schedule, meaning the class convenes only when necessary, with most student-teacher interaction taking place online. Students time their own performance in certain physical challenges then submit that data into an online tool. Teachers provide customized assignments and suggestions to students based on their individual needs.

Keys to Success

- **Easy-to-use tools.** The team selected an online tool that was very easy for both the teachers and students to use.
- **Teacher buy-ins.** Fritz worked closely with the teachers on designing every aspect of the program. Their enthusiasm and motivation for the program—which was their own idea—was critical to its final success.
- **Flexibility.** To make the course redesign effective, Fritz knew, the team needed to be empowered to make big changes, including the ability to change the class schedule. The "zero bells" schedule became a core part of the reinvented course.
- **Clear expectations.** Even as the team changed important elements of the traditional student experience, it was critical that they maintain strong student involvement and accountability.

Differentiated instruction impacts the way teachers interact with the class in a fundamental way, changing their activities and shifting their role.

For teachers, this can be both a welcome opportunity and a source of anxiety. They may relish the prospect of leaving “one size fits all” teaching behind, for instance by breaking their class into a small number of groups of similar students, and using their classroom time to lead them through a set of customized activities. On the other hand, they may be surprised at how much additional work it is to sift through data and prepare individualized approaches for their students. They may also resist the “always on” mentality demanded by blended learning, where students can post questions or seek help after school hours.

“Teacher expectations are such a huge issue when it comes to doing this,” says Fritz.

Understand the challenges

Another significant challenge area to implementing differentiated instruction is getting the technology right, says Fritz. While many solutions exist today that educators can use to get started—for example, free online assessment tools—it can be difficult to implement a full learning system. While many of the leading heavyweight, high-functionality learning platforms incorporate features that can be used in differentiated instruction, setting up a full system customized to your particular needs is challenging.

“The ideal would be to give teachers a true dashboard that would let them see, at any moment, how their class is doing,” says Fritz. “And to have everything—assessments, assignments, even non-academic notices like discipline reports—linked into that system. And that’s hard to achieve today.”

The key, says Fritz, is to try different solutions in an effort to develop the solution that fits your environment. He also stresses the value of information-sharing, suggesting reaching out to other technology leaders to see what they are using for their students.

Another critical challenge can sometimes slow down progress—district policy. For Tim Goree, Director of Technology Support Services at Fairfield-Suisun Unified School District in California, this proved to be a substantial early obstacle. When he tried to help teachers perform online assessments on their students early in the school year, the effort stalled when he realized kids were not allowed on the web until their parents submitted a form to the district.

“We were going to lose three to four weeks to that, and that was way too long,” he says. “So we decided we needed to shift the policy. Now, everyone gets access by default, and parents can send in a form if they want to opt out.”

Goree says the change has been seamless, with most parents not even noticing the difference, and allowed the district to begin assessing kids right at the start of the school year. In an era where the internet is increasingly ubiquitous, he believes that the new policy makes more sense than the old one.

Keys to Success

- **Start small.** Since differentiated instruction represents such a new way of teaching, and requires new supporting technology, it’s best to address it through a small, focused pilot effort. Technology leaders suggest starting small, then gradually rolling out to more teachers and students.
- **Be patient.** Enabling customized learning is a process, stresses William Fritz, Director of Technology at Sycamore Schools in Ohio. “It takes a while to get this right,” he says. “You really have to work to get your technology and approach right, and that takes time.”
- **Create the infrastructure.** To be effective, teachers will need new solutions and tools, including the capability to assess their students, spot trends in the data, and proposed customized assignments and learning approaches based on need. Ideally, teachers would have access to a true dashboard that shows performance and allows them to take immediate action with each student.
- **Collaborate with other districts.** “Too often, we try to solve these problems on our own,” says Fritz. “You go district to district, you’ll find that everyone is facing similar challenges. You can learn so much asking others what they’ve done.”
- **Work with teachers.** “Teachers are the key,” says Fritz. “They really have to buy into the vision if you are going to be effective.”

Pull it all together

Differentiated instruction represents a challenging path for most districts, forcing them to make fundamental changes to how they reach, teach, and enable students. Leaders like Fritz believe the disruption is worthwhile, however, given the compelling possibilities that it opens up for education.

Teachers who can access up-to-the-moment data on their students can address them as individuals, rather than as a group. They can identify different learning styles, language capabilities, and other factors that impact individual performance. They can break students into different groups and create highly relevant experiences aimed at their needs. They can spot kids in trouble and intervene before they fall behind.

Ultimately, says Fritz, differentiated instruction is well worth the challenges of implementation.

“There is such power in the idea that you can treat each student differently,” he says. “That’s the vision that drives us. That’s when you make a real impact to the student.”

Getting Started

1. Meet with teachers to discuss how differentiated instruction can impact their teaching. Encourage them to experiment and share their results with one another.
2. Select one or two leading teachers. Work closely with them to integrate basic differentiated instruction elements into their courses, such as online assessments, student interventions, and customized assignments.
3. Look into your district policy. Are teachers allowed to send students to outside sites to take assessments and review content? Is the district allowed to collect outside data about students?
4. Meet with administrators and district leaders to help educate them on how differentiated instruction can improve the learning experience.
5. Reach out to other districts in your area to discover how other technology leaders are implementing customized education programs.

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