Implementing Digital Curriculum

Strategies from a Successful Program

High School District

214 now uses iPads in the classroom in a one-to-one program that's producing excellent results. Students keep their iPads with them 24-7 and install apps themselves, which contributes to the individualized learning experience and increased engagement with teachers and other students.

One of the biggest advantages is real-time feedback in the classroom. Students pull up an app or website to answer a question. The teacher can tell immediately if the majority of students got the answer wrong, which means they can go right back into the subject matter if more help is needed.

Organic Beginnings

When the school district began their transition to digital curriculum back in the 2009-2010 school year, they started with the teachers. At the time, digital curriculum publishers weren't keeping up with the demand for content, so the teachers in Bockwoldt's district began to create their own. Using resources like YouTube, Khan Academy, and CK-12, the teachers used iPads and iBook Author to craft their own content and curriculum. This content creation strategy quickly spread across the district, with professional learning communities springing up to share what they had created.

Bockwoldt saw push-back from some teachers in the beginning, ones who weren't interested in moving away from the traditional text book based curriculum. But, as they saw the increase in student involvement and achievement, these teachers wanted to see the same gains in their classrooms. The early adopters taught the later ones until everyone was on board. Many who have been teaching for decades are feeling reenergized because of the new way they're teaching.

Although they mostly used their own curriculum in the beginning, today the district has adopted a hybrid strategy. They use some ready-made digital curriculum, but they still rely on teachers to have the on-the-ground knowledge of what kind of content they need and what meets the standards for college and career readiness.

Spotlight: SAMR Model

The SAMR model for technology implementation in education was developed by Dr. Ruben Puentedura in 2010. The model provides a practical, step-by-step approach for those interested in transitioning to a digital curriculum.

The four components of the SAMR model are:

S — Substitution: This is the first step in the process, where technology acts as a direct substitution for earlier tools. There's no functional change.

A — Augmentation: In this step, the technology is still used as a direct tool substitute, but there's functional improvement from older tools.

M — Modification: Moving away from direct substitution, the technology now allows for task redesign.

R — Redefinition: When the last step is achieved, new tasks are now possible because of the technology that weren't conceivable before.

The Substitution and Augmentation steps are considered the Enhancement phase in the SAMR model. Schools sometimes spend quite a lot of time in this phase, but the real benefits are to be gained when you move into the Modification and Redefinition steps, or the Transformation phase. This is where there is significant student participation and collaboration. It's also where real functional change can be seen in the classroom.

"We're continually working with our teachers to help them evolve and transform their instruction in the classroom."

Student Involvement

Students, too, quickly warmed to the new technology. "When I meet with students and ask how they like using the iPad," Bockwoldt says, "they like using it for school a lot. It's a tool they may have had at home, but it's been very different for them to use it in a school environment for learning." In his experience, it takes about thirty days for both students and teachers to get used to using the devices. Once that happens, no one wants to go back to the old way of doing things.

A New Classroom Model

Unlike the old model of a teacher lecturing in front of a class, observers now see webs of students learning from each other and the teachers moving around the room, helping when needed and even learning from the students themselves. Kids are using the technology that they have at home and would be using anyway, so they're engaged and interested.

Developing a Strategy

High School District 214 started out with a pilot program consisting of the teachers who were most excited and interested in digital curriculum. They built upon the success of these early adopters by having them teach others. In addition, a network of professional development personnel, technology facilitators, and others was created to give teachers a place to go when they need assistance.

Bockwoldt and his team use the SAMR model of technology implementation in education. "It has been a key part of our strategy," he says. "We're continually working with our teachers to help them evolve and transform their instruction in the classroom."

Transitioning to Devices: Working out the Budget

Bockwoldt advocates taking a strategic look at long-term budgets with a focus on alternative funding. His district reallocated funds from traditional desktop computer labs and software, as well as traditional textbooks. Because of this strategy, they haven't had to spend any new money or assign a fee to the program. "I think what has to happen in school districts is we need to be creative, to not do the same thing we've always done before," Bockwoldt says. "You can't sustain a desktop platform and laptops and carts as well as mobile devices these days. You have to see what that transition looks like and start planning for it."

One thing Bockwoldt cautions is to avoid focusing too much on budget where the devices are concerned. Input from teachers, students, and division heads should be the driving force behind the decision to purchase certain devices, not price. He suggests getting these people involved first to see what works best in the classroom, then working on the budget and finding the funds.
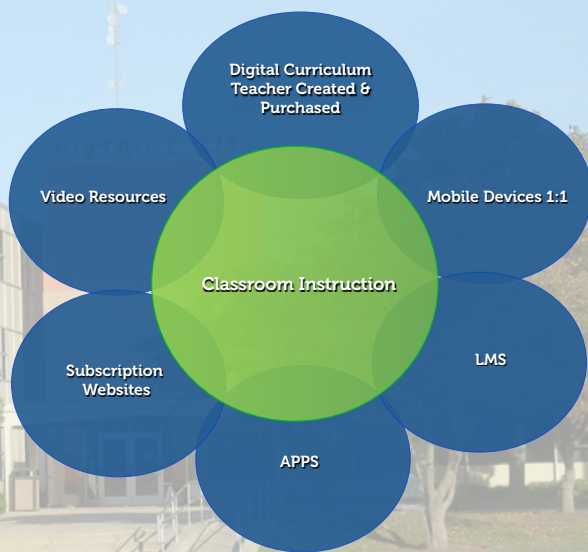
Final Advice

To districts considering the transition to digital curriculum, Bockwoldt advises to start with the teachers. Are they accepting of digital tools and excited about a new type of learning? If not, a plan needs to be created and implemented to get them ready. The transition doesn't happen overnight. It takes time to build capacity and get the teachers and the institution on board, but once it gets there, the program will grow organically, and the results will be well worth the time and effort.

Digital Learning Resources Being Successfully Utilized by Township High School District 214:

KahnAcademy
Wolfram Alpha
Subtext
A Little Calculus
Viernier Graphical Analysis
NearPod
Principles & Problems McGraw Hill
    -eBook (Physics)
Biology (National Edition by
    Kenneith R. Miller)
Pearson eBook
85 Temas Student Edition w/supersite
    - eBook (Ap Spanish)

Digital Curriculum Graphic

- Digital Curriculum Teacher Created & Purchased
- Video Resources
- Mobile Devices 1:1
- Classroom Instruction
- Subscription Websites
- LMS
- APPS

Keith Bockwoldt is the Director of Technology Services at Township High School District 214 in Arlington Heights, Illinois. Bockwol designed the Education Technology Replacement and Initiative Program to define technology standards that align with the district's strategic goals. His efforts are spearheading a change that's having a significant impact on achievement for the 12,100 students in his district.
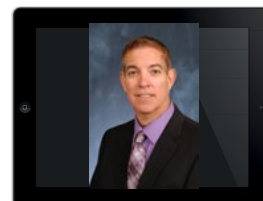
For the complete interview with Keith Bockholdt , visit learningcounsel.com