

Creating Device Neutral Assignments for BYOD Classes

One expert argues that educators don't have to alter lessons for each device in a BYOD environment.

- By Kim Fortson
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The name of Ron Milliner's [FETC 2013](#) session on device-neutral assignments ("DNA for BYOD") faintly resembles that of a new-age workout plan. Though the director of the [Kentucky Academy of Technology Education](#) (KATE) won't be divulging the secret to attaining perfectly toned biceps, he will be giving teachers insights into how to sculpt successful lesson plans for schools implementing bring your own device programs. And, as with any good exercise regimen, Milliner emphasizes starting with the basics.

"We [at KATE] try to do training [for teachers] to take the lessons they already have prepared and show them how to turn them into lessons we call 'DNA'--device neutral assignments," Milliner says.

The soft-spoken director defines DNA as "lessons that can be completed on any device," whether it's an iPad, Android tablet, or smartphone. As more school districts become BYOD, DNA lessons are an important component in allowing students using different devices to do their homework. But don't be intimidated by all the acronyms. What Milliner and his team show teachers is that moving to a digital structure doesn't necessarily require big changes to existing lesson plans.

"I think it adds a lot of stress to the teachers when they think, 'Here are these students that are going to bring in all kinds of devices, and I don't know what they are and how to use them,'" Milliner says. "What we try to do is show the teachers you can basically take the assignments you already have and convert them."



Ron Milliner is the director of the Kentucky Academy of Technology Education. Prior to joining the agency in 2010, Milliner held several positions in educational technology at the university and K-12 levels, his most recent being the district technology coordinator for Kentucky's Owensboro Public Schools.

At [FETC 2013](#), he will present the session DNA (Device Neutral Assignments) for BYOD (Bring Your Own Device) Classrooms.

Changing Media, Not Content

Sometimes this shift can be as simple as changing the wording in a syllabus. "Instead of saying a 'PowerPoint,' say a presentation; don't say 'Word document,' just say word

processing file. The kids are going to find the application or the device program they need to create the assignment," Milliner says.

His session at FETC covers these kinds of fundamental, but perhaps overlooked, insights that can assuage fears about going digital. He goes into detail about specific tools teachers can use, highlighting similarly functioning programs across different devices--such as word processing programs Microsoft Word or OpenOffice for PCs, Pages for Apple, Google Docs for Android, and Word Mobile for Windows Phone. Milliner will also offer lists and demonstrate examples of websites and applications he has found effective regardless of the technology in the student's hand.

In particular, Milliner cites [VoiceThread](#) and [StudyStack](#) as two of his favorite device-neutral web resources. The former, which he describes as a "good collaboration tool," allows teachers to upload presentations to a website; it then aggregates student comments on the presentations through voice (via a computer mic or voicemail), text, audio, and video files.

Study Stack makes digital flashcards from existing subjects or manually inputted information and automatically creates games like crossword puzzles and Hangman for students to play. Both sites are interactive, accessible on any device, and build upon content teachers already own.

One of the examples Milliner gives is adapting a lesson on Civil War battles in Kentucky. "You might assign each student a different battle, and we show how each student can complete that assignment using a different device," he says. "Again, the teacher could have that assignment long before the technology was there to create it."

Despite having these resources to fall back on, Milliner emphasizes that students will find the programs that work for them. "We show teachers how they really don't need to worry about the devices. The students will find the application they need," by collaborating with each other, he says. "There is a rule a teacher shared with us: 'Ask three before me.' And it works. The teachers doesn't need to provide tech support. The kids will do it themselves."

It's this kind of developmental support and advice that Milliner and his team at KATE provide to teachers across the state of Kentucky. On the agency's website, teachers have access to TICK ([Technology in Classrooms of Kentucky](#)), an online collection of technological resources specific to Kentucky state and Common Core standards. At the grassroots level, Milliner and his team go into schools and offer professional development for the state's K-12 districts, easing the transition to BYOD by supporting instructional technology and demonstrating the tools necessary to make it successful.

"BYOD is something new, and any time you introduce change...it raises the stress level," Milliner says. "We have gone into several districts before they implement BYOD, and it helps them to see it's not that big of a change for them...it helps give them a comfort level to be able [to work] with the new program."

Cost-Conscious

In school districts that have a high percentage of low-income families, introducing DNA is an important consideration, Milliner says, because the approach enables student choice, a big factor for schools that want to gain parental support. "In one of the districts [in Kentucky], a teacher is working on creating digital textbooks, and one of his goals was to be able to create a website that not only the student with the \$500 iPad could access the information...but the student who bought a \$79 Android tablet would be able to access the information as well," Milliner says.

All of KATE's efforts work toward supporting what the agency calls "21st century education," which includes "collaboration, being able to work with others, and being able to find the tools, the knowledge, and the things you need to complete or create projects--the types of skills people wind up doing in 21st century jobs," Milliner says.

Like others at the forefront of education technology, he believes that technology and learning are moving to the point where they will be inextricable from each other. "[Technology] is just part of kids' lifestyles now; it's just a part of their world. If you give them an educational game, they are actually learning while they are playing. They really benefit from that kind of activity," he says.

Milliner has also observed that the "amazing" part of districts going BYOD is that they report decreases in disciplinary issues, rather than the opposite. It's the reason he believes DNA is important for teachers to understand, and the reason he chose to speak on the topic at FETC.

"I can't say we can support the whole country, but we're always willing to try to help out any way we can," Milliner says of his organization. "We believe in sharing...we can share with you, and hopefully you can share some good ideas with us."