

They'll Learn Much More Than We'll Ever Know

County Schools Adapt To Students' Tech-Based Learning Power

By Archana Pyati // Photography By Clarence McIntosh and Sheila Peake

In Abbe Rucker-Parham's summer school math class, students work quietly in pairs. They're learning algebraic functions, and the assignment today is far from the drill and practice worksheets students sitting in these very seats would have used twenty years ago. Rucker-Parham gives her students a real-world scenario that appeals to their fantasies about future independence: Create a monthly budget for a young person moving out on her own for the first time, solving for the variable "x."

Walking around the room, familiar classroom tools are noticeably absent: No pencils or paper. Calculators, gone. Instead, each student swipes, touches, and types their answers on an iPad, Apple's popular digital tablet that retails for upwards of \$400. It's worth noting that these machines didn't get here by way of rich parents. Rucker-Parham's students at William Wirt Middle School in Riverdale Park are not the children of privilege; 93 percent of them receive free or reduced lunch. The school holds a food pantry once a month, drawing 200 needy families and feeding over 900 children.

The vibe this afternoon is relaxed as students confer over their work and a few listen to music through headphones. Rucker-Parham sees herself more as a facilitator than

a "sage on the stage," relishing the sound of students spontaneously helping one another. "It's kind of amazing, the kind of dialogue that goes on around the room," she says.

These sixth- through eighth-graders are participating in a bold new experiment that pairs a child at four of Prince George's County's poorest middle schools with a personal digital apparatus (PDA) device. By infusing struggling schools with technology, administrators and teachers hope to rev up student engagement, boost academic achievement, and close the opportunity gap between these children and those from better-off families and districts. The district has spent about \$3.5 million on the initiative, called Transforming Education through Digital Learning, or TEDL.

"Personally, I love it," says Christina Burton, president of William Wirt's Parent Teacher Association, whose son was an eighth-grader last year. "It puts technology in the hands of kids who don't normally have it, and it allows them to have an appetite to do more."

And for the generation known as "digital natives," reaching them through apps, screens, and games feels like a no-brainer. "They are technology babies," Rucker-Parham says. "This is what they do when they're not in school."

It remains to be seen whether the TEDL initiative, only a year old, will reverse long-stand-

ing trends at schools like William Wirt, which has struggled to reach statewide benchmarks in reading and math. It also places Prince George's County at the heart of a debate about the promise and peril mobile devices hold for African American and Latino children, who consume 4.5 hours more media per day than their white peers, according to a landmark Kaiser Family Foundation study of 8- to 18-year-olds.

What is obvious is the extent to which all the stakeholders are betting on the iPad for its potential to turn a school around, prepare students for the already-wired worlds of college and the workplace, and expose them to all our globalized society has to offer.

"I don't think you can go home," Duane Arbogast, acting deputy superintendent of academics, says. "I think the game has changed for good. The world today is different than it was in 2002 and 1992. ...The technology train has left the station."

The Power of Differentiated Instruction

A phrase you hear a lot in the halls of William Wirt is "differentiated instruction," hardly a new concept in education but one that gains potency when channeled through the iPad and powerful

online platforms such as Achieve 3000, used to teach reading and language arts at William Wirt.

These platforms give teachers the power to tailor lessons to accommodate a child's individual strengths on a more granular level. After participating in a group lesson on a particular topic, students log into their account and find a passage of text that's just right for them — challenging enough but not too difficult. And because these platforms are connected to the Internet, students can download fresh content in real time.

"What the technology has done is it has allowed a streamlined or direct link to programs that within themselves have been created to meet the students at their reading levels [and] language levels," Nichelle Williams, William Wirt's special education department chair, says.

Students also receive instant feedback from teachers or each other through social networking site Edmodo, a Facebook-type application for the classroom. They often take quick online assessments, called entrance and exit tickets, at the beginning or end of class to give teachers a snapshot of their progress.

The school's evolving demographics offer a good illustration of how tailored instruction can scaffold students as they push themselves through the curriculum. About 53 percent of William



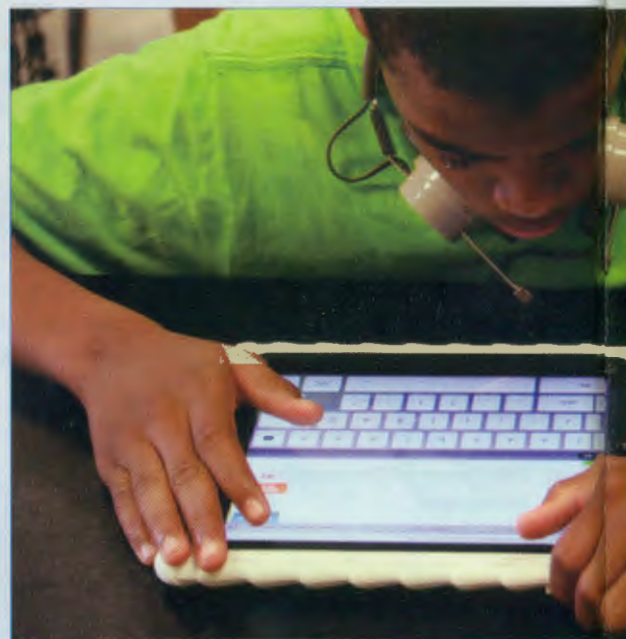
Wirt's student body is Latino, and with Prince George's County being one of the nation's most diverse recent-immigrant jurisdictions (see "Who Are the Prince Georgians?" Special Edition, *Prince George's Suite Magazine*, Fall 2008), there are a fair number of English language learners from Central America, Africa, and South Asia. A

media specialist Stacey Montgomery says. "Students are more engaged, their inhibitions have been reduced, they're publishing their own stories, and they say it makes learning easier."

Gisela Thompson, a cherub-faced sixth grader, agrees. She is spending this period on her iPad reading about the Mighty Macs, a

development specialist hired by the district to help teachers create lesson plans. If one teacher simply uses the iPad for a warm-up exercise rather than integrating it throughout the class as other teachers do, he says, "it creates a discrepancy in the kids' experience."

"Kids have gotten used to instant feedback, more instant gratification," and expect



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teacher approached Williams about what she could do to provide extra support to Spanish speakers in her class. Williams told her by simply changing a setting in Achieve 3000 these kids could read a story in English, but answer questions about the text in Spanish.

Auditory learners can take advantage of the iPad's multimedia capabilities, says Williams. Rather than waiting for a teacher to read aloud to them, students plug in earphones and listen to the text as they would an audiobook.

The iPads have also reduced behavioral problems and distractions that occur when the material is either too difficult or not stimulating enough, some teachers and administrators say. Principal Prentice Christian is the first to admit that "the engagement was not at the level we would have liked" before the iPads arrived.

"Classroom dynamics have changed,"

celebrated Catholic women's basketball team from Immaculata University, which is based just outside of Philadelphia in Malvern, Pennsylvania. Although it can be hard to stay focused with the temptations of games and the Internet one click away, the iPad is "easier to read than a textbook," she says. "It improves our reading skills."

Teachers say students are excited to get their hands on the machines, and are willing to follow the rules to maintain the privilege: No surfing of forbidden sites like Facebook and MySpace, or game-playing only when the teacher allows it. And the iPads are locked away in a cart until the teachers decide they should come out and return each afternoon before students are dismissed.

In fact, taking an iPad away from a student as a punishment or using it minimally during instruction time creates more of a disruption, says Jake Voshell, an Apple professional

it from all their teachers now, he says.

Voshell's comments reflect a shift in attitude about discipline in general: it's less the result of willful misbehavior than of poorly planned and executed teaching. Teachers today are more likely to see the connection between an approach that is "child-centric," mobile tools like the iPad that facilitate that individualization, and feelings of success, confidence, and excitement that both differentiated instruction and interactive media breeds within students.

From one generation to the next, Williams says, kids will always be kids. Yes, these kids are more tech-savvy, but they still want to please their teachers "when you recognize their strengths, when they believe you want to help them," she says.

"If you're not looking for different ways of trying to accommodate all the student's multiple intelligences and their learning

styles...then that's another loophole where you may see children who aren't connecting," Williams adds. "Not that they're not focused, or not paying attention, [but] they might not feel like there's anything available to really help them."

access to high-quality content that creates continuity between a child's digital activities at school and those they engage after school.

"The hope is that some things will become more seamless," says Michael Levine, executive director of the New York City-based Joan Ganz Cooney Center at Sesame

have been encouraged to take advantage of a special deal Comcast is offering to Title I families — a \$9.95 monthly broadband Internet connection and discounts on a home computer.

Perhaps these opportunities might force parents to become more digitally connected,



Ahead of the Pack: Prince George's County students use iPads to advance their education.

PHOTO: CLARENCE MCINTOSH

"The GAME has changed for GOOD. The world today is different than it was in 2002 and 1992... The technology train has left the station."

Technology in the Lives of African American and Latino Youth

Historically, the term "digital divide" described the disparities in access to technology among different racial and ethnic groups and social classes. While technology remains out of reach for a few families at William Wirt, more than ever before have access to the Internet through a smartphone (PDA) or a home computer. The concern has shifted from the lack of access to devices to a lack of

Street Workshop, a research organization that studies children's use of electronic media. "The big issue is are we going to use the devices and their affordances to create powerful instructional opportunities...[and] if we're going to use these connections to permeate into a child's life at home."

While students at William Wirt weren't allowed to take iPads home in the last academic year, officials will change that policy in the forthcoming year, Meri Robinson, an instructional specialist at the Title I office, says. The school is planning a more widespread use of the so-called "flipped" classroom model, where students watch instructional videos created by their teachers at home and do their homework in class, where teachers and peers can help them. Parents

an important part of this experiment for Burton, the PTA president. Not only can parents access their child's grades and test scores through SchoolMax, the district's online portal, but also e-mail is the primary method teachers and Burton use to stay in touch. Many parents, including those without cell phones, don't respond to her.

Burton says not all parents have been sold on the educational value of TEDL because it hasn't been adequately explained. To get parents on board, the school needs to train parents to use technology through Saturday workshops or kiosks. "If parents fully understood why we're pro-technology, then the response would be a whole lot better."

Scholars have noted that while media usage among African American and Latino children, particularly those from lower-income families, exceeds that of their white,



Showing the Ropes: Jake Voshell (center) trains teachers to use iPads and make the most of the tablets in their classrooms.

PHOTO: SHEILA PEAKE

middle-class peers, disparities still exist in the quality of content accessed between these groups in their leisure time.

“As electronics drop in price, becoming affordable for more families, another divide persists: Compared with their middle-income peers, low-income children are less likely to use digital media to build the type of knowledge and skills they will need to compete and cooperate in the global economy,” according to “Always Connected: The New Digital Media Habits of Young Children,” a 2010 Cooney Center report. (Forty years ago, a landmark study by Joan Ganz Cooney stimulated the creation of Sesame Street, and the founding of a center devoted to accelerating children’s learning in a rapidly changing world. Today, the Joan Ganz Cooney Center at Sesame Street focuses on the new challenges children face, asking the 21st century equivalent of her original question, “How can emerging media help children learn?”)

The report concludes that lower-income parents don’t always have time to monitor their children’s media consumption so they’re less likely to use it to fortify what they’ve learned in school. According to Principal



Christian, many William Wirt parents hold minimum-wage jobs, deal with language barriers and haven’t pursued post-secondary education. That’s where programs like TEDL can exert a huge influence in shaping how a child interacts with all types of media, from video games to social networking sites to Google searches. Developing strong critical thinking skills to evaluate and produce — and not simply consume — digital con-

tent is one of the ways schools create “social capital,” or all the advantages middle-class children inherit from their parents, Arbogast, the district’s deputy superintendent, says.

“In terms of college and career readiness, particularly in a district without a lot of social capital, we’ve got to do that. When we talk about exposure to the world of work and careers, that’s part of the magic of building that social capital.”