Case study

Baltimore County Public Schools

Blended, learner-centered classrooms integrate digital content with HP Tablet PCs

Industry
K-12 education

Objective
Equip every student with critical 21st century skills to be globally competitive

Approach
Baltimore County Public Schools is transforming itself by creating learner-centered environments featuring digital resources including the HP EliteBook Revolve 810 Tablet PC

Educational benefits
• Improved student engagement

• Greater parental involvement

• Fewer disciplinary actions

• More creative student projects

HP recommends Windows.

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– Ryan Imbriale, Executive Director, Department of Innovative Learning

The Baltimore County Public Schools serve 110,000 students. The district has launched a new strategic plan with the goal of equipping every student with the critical 21st century skills to be globally competitive, and is transforming its schools to deliver on that promise. At the core of that transformation is a learner-centered classroom environment featuring digital resources accessed using HP EliteBook Revolve Tablet PCs.

Starting with a Learner-centered Environment

Baltimore County Public Schools (BCPS) are transforming teaching and learning through creation of blended, learner-centered classrooms. Through its Students & Teachers Accessing Tomorrow (S.T.A.T.) program, students are pursuing knowledge using digital resources—including the HP EliteBook Revolve Tablet PC with Intel Core i7 ULT processor, along with digital resources from Discovery Learning, McGraw-Hill, and a long list of online resources and educational software.

"Students work very independently," says Patricia Smith, who teaches first grade under the S.T.A.T. program. "If you walk into my classroom in the middle of the day, you're rarely going to find 24 kids sitting at their desks."

Some are sitting on the floor with their tablets. Some are gathered in small groups to work collaboratively on a project, some are scanning a QR code on the bulletin board to trigger a video presentation.

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– Andrea Bishop, second grade teacher

"It may be loud and noisy, but if you listen to the students, you'll find that they are on task," claims Smith.

One year into the S.T.A.T. program, the early results are encouraging. Discipline in S.T.A.T. classrooms—in the form of office referrals, student suspensions and the like—is dramatically lower, in some cases down 85%.

"To me, that means those students are highly engaged," says Ryan Imbriale, executive director for BCPS' Department of Innovative Learning.

Teachers echo his assessment. "The level of engagement has increased tremendously. We can give them so many more options and really differentiate learning for them," says Andrea Bishop, a second grade teacher. "I feel like this approach is challenging my kids so much more, and they're responding to that challenge."

New blueprint for education

The genesis of S.T.A.T. came when Superintendent S. Dallas Dance launched an initiative to develop Blueprint 2.0, a five-year strategic plan for the school district. Among the goals articulated in that blueprint: to equip every student with critical 21st century skills needed to be globally competitive. To achieve that goal, BCPS set out to ensure that every school has an equitable, effective digital learning environment.

S.T.A.T. is a multi-year transformation of BCPS to meet those goals. BCPS went back to the drawing board in eight critical areas: curriculum, instructional model, assessment, professional development, digital infrastructure, policy, budget, and communications.

"Each one of those areas is critical," says Imbriale. "Curriculum can't move forward without infrastructure. Infrastructure can't move forward without policy and budget. And nothing happens without effective communication throughout the district."

In many ways, BCPS was starting from scratch. In time, S.T.A.T. will affect every aspect of the BCPS educational mission. But not immediately. "We're a large school system with 110,000 students. Early on, we recognized we have to go slow in order to eventually go fast," says Imbriale.

The district decided to pilot the S.T.A.T. program in 10 elementary schools, termed Lighthouse schools, during the first year. They are the first to implement interactive, blended instruction as a model for other schools to follow.

Focus on teaching, not technology

Professional development is essential to the transformation required by Blueprint 2.0 and the S.T.A.T. program. For teachers, the focus is on teaching in a way that creates a learner-centered environment, not simply on learning how to use computers in the classroom.

As part of that effort, the district deploys digital instructional specialists—S.T.A.T. teachers—in every Lighthouse school. "The S.T.A.T. teachers are really instructional coaches," Imbriale explains. "They aren't focused on the technology, but on teaching and learning. They are in the schools to move instruction forward."

May Chapel Elementary School did away with traditional Monday faculty meetings and instead, focuses on professional development for teachers.

"We personalize it for teachers, just as we personalize instruction for students," explains Steve Coco principal at May Chapel Elementary School. "It's about building a culture of support and respect and openness. So teachers can say, 'I tried this today and it worked,' or 'I tried this and it didn't work, so help me out!'"

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The school's professional development opportunities for teachers are based on teacher needs. It offers evening webinars that teachers can attend live or see later. The resident S.T.A.T. teacher is available for consultation either one-on-one or in small groups. She hosts "Tips for Tech" Tuesday where she offers techniques, and sometimes the school's teachers offer their own success stories.

Second grade teacher Andrea Bishop says she initially felt she had to find ways to integrate the tablet PC into every lesson and activity. But in time, she decided to leave the choice more to her students.

"Some students might prefer writing with paper and pencil, some prefer typing on the tablet, so I give them the option. If they're doing a writing or reading rotation, I offer some activities using paper and pencil, and some using the EliteBook Tablet, and students can choose."

Individualizing instruction

Smith says the learner-centered, digital learning model has changed the way she teaches. "I don't insist on everyone doing the same thing or learning the same way, and the level of student engagement is off the charts."

Instead of leading an hour-long lesson, she might present a 20-minute lesson and then free the students to spend the rest of the time working on their own. "This is my 16th year of teaching, and I've never had a class that's so involved. When it comes time to wrap up a lesson, I have students begging to work for five more minutes."

Smith gives her students more options on how to go about learning, and in making their own choices, students choose activities that fit them. Students don't spend time on fill-in-the-blank worksheets, but instead, on creating brochures, presentations, slide shows and movies.

She says the flexibility of the HP EliteBook Revolve Tablet PC is a huge benefit. It can be used either as a Tablet PC or a traditional notebook PC. Some first graders can't easily control a mouse. For them, the touch-screen interface makes it easier to manipulate educational resources and avoid frustration.

Customer at a glance

Application
K-12 education

Hardware
• HP EliteBook Revolve 810 Tablet PC

Software
• Discovery Education
• McGraw-Hill Connect
• Engrade
• Infinite Campus
• DreamBox Learning
• NWEA
• Homeroom

HP recommends Windows.

Other students actually like to type, and they can flip the screen around to use a traditional keyboard.

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– Patricia Smith, first grade teacher

In addition to its innovative design, the EliteBook Tablet PC was selected for durability. It features scratch resistant glass, a magnesium chassis, and spill resistant backlit keyboard. Even in the hands of first graders, the EliteBook Revolve Tablet PCs survive.

Parents, partners participate

One of the core components of S.T.A.T. is participation by educators, parents and students through the single BCPS One platform.

Bishop, the second grade teacher, uses an app called Homeroom to invite parental participation. "I post pictures, videos and reminders for parents so they can be more involved and see what students are doing every day," she explains. "It's been very helpful; parents are very receptive. They tell me they haven't been as involved with school before this."

BCPS has also worked to keep its corporate partners involved, from HP, Intel and Microsoft to Discovery, McGraw-Hill, Engrade, Infinite Campus, NWEA, Johns Hopkins Center for Research and Reform in Education, and more.

"HP has been fabulous. HP has approached the work here not as a vendor, but as a partner in the work we're doing," Imbriale says. That includes providing responsive support for the EliteBook Revolve Tablet PCs, as well as engaging in dialog about potential design improvements in future generations of the device. "That kind of interaction demonstrates the commitment HP has to us and our success."

Going slow in order to go fast

Despite widespread agreement that S.T.A.T. is a success, BCPS will continue to tackle transformation slowly. Next year, it will add grade 6 to the list of S.T.A.T. classrooms. "We recognize the challenges that middle school brings, and that we need to take baby steps into the middle school environment," he says.

For teachers in the Lighthouse schools with a year of S.T.A.T. under their belts, the value of the program is clear.

"I see my students questioning each other, doing more analysis and synthesis, and putting all the pieces together," says Smith. "There's less direction from me, but what they come up with in their self-directed projects is more creative and insightful in the end. I think they're learning more than ever before."

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