

# Transforming teaching and learning in rural Georgia: Piloting a one-to-one program for K–2 students

Connections for Classrooms Case Studies: Ben Hill County Schools



## Background

Ben Hill County Schools (BHCS) is a small, rural school district in South Georgia with an enrollment of 3,200 students. Nearly 83 percent of students in BHCS qualify for free or reduced-price lunch. Despite limited resources, BHCS has set ambitious goals to use technology as a lever to transform the teaching and learning process in its schools to maximize student academic growth and prepare all learners for the 21st century. The district invested significant resources to bring technology into classrooms over the last several years. Investments to promote technology integration included enhanced network capacity, software, hardware, and professional learning for staff. The district set near-term goals to scale up its technology district-wide with plans to become an exemplary digital learning district.

In early 2015, with funds provided to BHCS by the Connections for Classroom (CFC) grant program, the district replaced outdated network equipment and upgraded wireless capacity at all four schools. Until that point, the network was unable to support high levels of utilization and students' technology use was largely confined to computer labs.

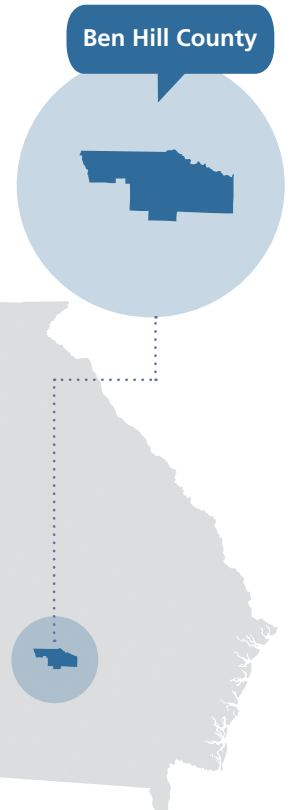
**That year, with the network upgrades in place, the district began a one-to-one pilot program in seven classrooms in Ben Hill County Primary School (grades K–2, 162 students).**

## One-to-One Pilot Implementation

Ben Hill County Schools took an incremental approach to one-to-one implementation. At the primary school, the principal solicited volunteers from the teaching staff to participate in the pilot. The principal and district staff then selected teachers from each grade level and subject area. Students in each pilot classroom were assigned a tablet to use during the school day.

To support the transition, the district selected an online program that supports individualized learning in English language arts (ELA) and mathematics. The program uses diagnostic and benchmark data provided by the district to determine customized learning activities for each student. The program also contains internal assessments tied to the lessons provided to students. These frequent assessments provide regular feedback to students on their performance and data to teachers as another way to monitor students' progress. Teachers use a range of applications in their instruction, but this program provides an anchor for their work across all pilot classrooms.

BHCS provided both formal and ad hoc professional development to staff in the one-to-one pilot program. Formal professional development days included summer technology "boot camps" conducted by district staff and external vendors. Ad hoc support came from other pilot teachers and from independent exploration. Julia Manley, a second grade teacher explained that "some of it is trial and error, spending time after school, setting up mock student accounts to see what a particular app or program looks like from the student perspective." The district's educational technology staff provided another source of support to teachers, working with them in their classrooms and in the pilot group. As a result, teachers reported feeling well-supported, with a shared desire to take their instruction "to the next level" with additional training focused on project-based learning.



CFC Award Amount:

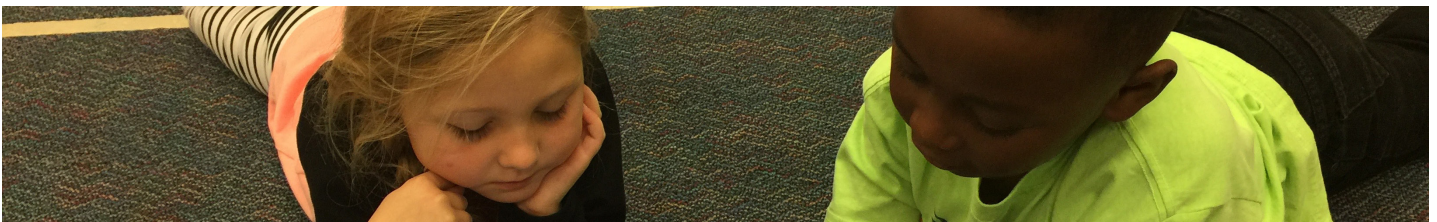
**\$134,555.06**

Federal E-rate Amount:

**\$393,638.97**

Total

**\$528,194.03**



## Impact on Instruction

Teachers and district staff described two essential ways in which the one-to-one program has transformed their instruction and benefitted students.

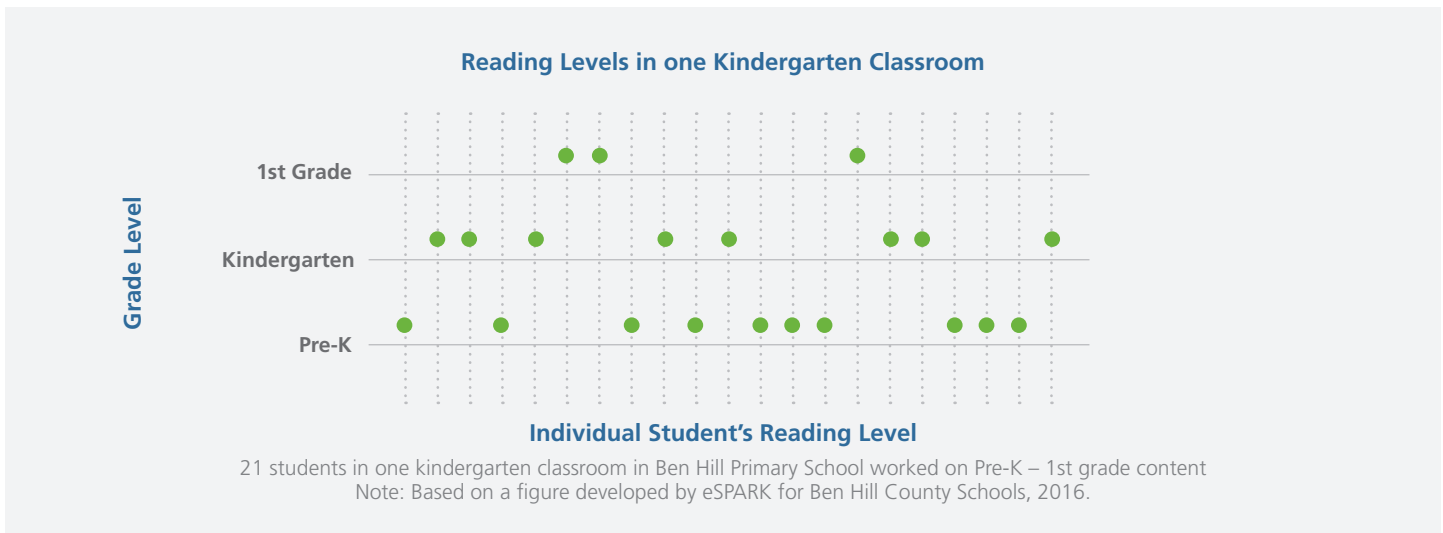
### Differentiation of Instruction

Teachers in the one-to-one pilot program unanimously cited using tablets, in concert with the online math and literacy program, as critical to supporting differentiation of instruction. Students enter their classrooms with a range of academic abilities and needs. Within any given class, a number of students may be on grade level, but a significant number of students may be above or below expectations in particular subjects. The graphic illustrates the range of academic needs of one Ben Hill County Primary School kindergarten class based on district diagnostic assessments in ELA.

Using data from the new assessments, students in each pilot class were assigned work on their tablets in English and math that was targeted toward specific individual needs. Data were also used to support flexible grouping for small group instruction. Prior to the pilot program, teachers tried to provide students with work that would challenge them individually; technology enabled a more fine-tuned and efficient process. Jessica Smith, a second grade teacher explained: “We are able to slow it down for students who need more time, or accelerate students who already meet the standard. [Before] we were pulling our hair out trying to make sure everyone was covered. The additional resources and calibration using the technology helps.” Assessment information provided by the program and other applications, gave teachers an unprecedented amount of real-time data at their fingertips to determine student progress and next steps. As a result, teachers felt more effective with students.

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- Jessica Smith, 2nd Grade Teacher



### Transition to Facilitator

Teachers in the pilot group also noted a significant change in their role from information provider to “learning facilitator.” Teachers offered less whole-group instruction where all students work on the same material at the same time. Instead, teachers spent more time providing support to individual students and small groups, guiding them to resources and activities. Libby Nelms, a second grade teacher, explained: “I am able to walk around and see where the students are and engage myself with those students who need me versus those students who are continuing to move along on their own. It doesn’t take the place of your teaching, but it does take the place of everyone having to practice the same thing at the same time.” Teachers also noted that as students’ independence and engagement increased, they spent less time on classroom management and discipline and more time on learning activities.

## Impact on Student Learning

Teachers in the primary school and administrators in Ben Hill County noted several ways in which the pilot one-to-one program continues to have an impact on student learning. The one-to-one program expanded in 2016-2017 to include additional classrooms at each grade level in the primary school.

**Student engagement and motivation increased:** Students in the one-to-one pilot were more engaged and motivated. The technology, paired with personalized assignments and a variety of activities, kept students focused. Built-in assessments provided students with instant feedback and an incentive to keep working toward specific goals. The additional resources deepened students' knowledge.

**Students have more equitable access to technology:** Although teachers noted that most students had access to personal devices outside of school, it was not true for all students. The one-to-one initiative provided equitable access to all students in the pilot classes, meaning that all students had the opportunity to become tech savvy and proficient in 21st century skills. Wanda Kimbrell, Executive Director of Student Services stated, "We are a small school district with limited funds, but grants like [CFC] help us better serve our kids because they deserve to have that technology in their hands."

**Student responsibility increased:** The one-to-one program encouraged greater student responsibility for learning through the self-paced, individualized lessons. Students received immediate feedback and monitored their personal progress through a set of targeted lessons on their own devices. In addition, because students were assigned their own tablets for the school year, it became their responsibility to make sure the tablets were charged, handled carefully, and carried with them from class to class.

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- Libby Nelms,  
2nd Grade Teacher

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- Wanda Kimbrell, Executive  
Director of Student Services

## One-to-One Classroom Snapshots

A tour of the one-to-one pilot classrooms at Ben Hill County Primary School this fall revealed some of the many ways that technology is integrated with daily lessons in each classroom:

- Students searched their kindergarten classroom for shapes from an assigned list. When they found ones that met the criteria, they photographed the objects with their tablets, and typed labels using a photo collage program.
- A second-grader peeked out from a curtained booth near the door of her classroom and explained that she was in the "recording studio" to make a video documenting a completed assignment and reflect on her responses.
- A group of second grade students completed a math pretest on their tablets. Their results were immediately available to students and their teacher, highlighting existing strengths and areas needing additional support in the lessons ahead.
- At a classroom "listening station," a set of book tags listed book titles and provided Quick Response (QR) codes. Students scanned the codes with their tablets, and the books automatically loaded onto their devices, either to read or have it read to them (see photo).
- A second grade class reviewed math problems on the digital whiteboard with the teacher. Students took a poll regarding the correct responses and registered their votes on their tablets.

**These activities would have been inhibited or impossible prior to the CFC-funded wireless network upgrade.**

