Educational Technology Hearing for Senator Kay Hagan by Scott Smith, Chief Technology Officer, Mooresville Graded School District.

Overview of MGSD's Digital Conversion

MGSD's Digital Conversion program is a one-to-one (1:1) laptop program. The goal of this initiative is to integrate mobile technology with research, multimedia projects and three-dimensional learning. In 2007, Dr. Mark Edwards, Superintendent shared there was a significant digital and economic divide. There were students who had access at home to technology and resources, and some who had none. That was a real driving component for the Digital Conversion to create equity of opportunity for all.

5,000 MacBook® laptop computers have been deployed to every student in third – 12th grade as well as nearly 500 licensed educational staff across the district. The driving concept has been to have students "own" these district-provided devices during the full school year, taking the devices home after class and bringing them back in the morning for classroom use. Educators and learners alike have access to these instructional tools 24/7 for all 180 school days. This program is innovative on many levels; for many Mooresville students, the school-issued laptops are the first that their families have "owned". Integrating laptop computers has significantly enhanced the level of student interest, motivation and engagement in learning. The laptops provide students and staff with constant access to classroom materials and multimedia tools, supplementing classroom learning.

Student Focused

Throughout the Digital Conversion program, MGSD is living its motto: every child, every day. By providing equitable access to technology to every child, MGSD has all but erased the "digital divide" faced prior to the initiative. In a district where the free and reduced rate rose to 40 percent in 2011, providing technology for every child has been a win-win for the students, school system and community at large. Additionally, enabling each child with the transformative power of technology makes learning relevant and hugely centered on each student's individual needs.

MGSD has made a concerted effort to become as student focused as possible, promoting classrooms that inspire and engage students of all ages. Through challenge and project-based learning, students demonstrate transformative learning on a daily basis—moving beyond mere proficiency in both scope and depth. Through the Digital Conversion program, teachers have consciously evolved into instructional facilitators, allowing students to become the focus of learning and teaching. This individualized instruction has been met by parents and constituents with great enthusiasm. All parties want what is best for their child and this environment makes it possible. The communication to parents is enhanced through out the year and especially during deployment of the laptops where administrators share with parents what this means for their child.

Perhaps the most profound impact of MGSD's Digital Conversion on student success cannot be measured quantitatively. It is only by stepping into a Mooresville classroom and observing the learning in progress that the true value of technology integration and student engagement on MGSD students is apparent.

Professional Development

MGSD has made professional development for our teachers and staff a focal point of the Digital Conversion. We organize, plan and implement an annual summer institute for teachers and engages in ten early release individual professional development days throughout the school year to empower teachers to master technology in a way that benefits both them and their students. We are very involved in ongoing, sustained and targeted professional training that occurs throughout the district. These sessions are led by technology facilitators, media specialists, teacher leaders, and outside vendor partners. MGSD's administrators and teachers are making the leap as digital immigrants to connect with the digital natives—our students.

MGSD teachers have worked to create a curriculum framework that fully uses and embraces the use of technology and Digital Content. This "shift" to digital resources has been a long yet rewarding process as students are now more engaged in the classroom experience and have the most up to date and relevant resources and information at their fingertips.

Teachers and administrators have formally integrated digital software into classroom instruction. Specifically, teachers use an online learning management system that includes Web 2.0 tools. Web 2.0 instructional resources are used every day in classroom instruction. These tools include, but are not limited to, blogs, discussion forums, wikis, chats, and e-mail. The use of digital tools at MGSD has carved the path for an open, shared learning environment across its eight campuses, fostering collaborative two-way learning. Creative materials are converted to a digital platform and then shared with other students, teachers and parents across the district, involving the whole community in students' creative expressions.

Because MGSD has made technology a key tool for education, teachers are now viewed as collaborators by their students. Instead of educators dictating what they want their students to know, teachers have become facilitators, allowing students more freedom to discover and explore. It is a simple and poignant change, shifting the focus away from the teacher and toward the student.

Replicable Blueprint for Success

Since 2009 MGSD has hosted over 3000 visitors from approximately 40 states. They come to inquire about how MGSD has had such great success and how they can replicate what has occurred. Many Districts have duplicated MGSD's model and are starting to see similar results. Avery County, NC; Rutherford County, NC; Piedmont City, AL, and Baldwin County, AL are just a handful of MGSD success stories.

In addition, MGSD plans a Summer Connection for other school districts to bring teams of people for an inspiring and enlightening three days of training. During the three days he offer strands for: Superintendents & District Administrators, School based Administrators, Technicians, and Teachers. MGSD organizes content specific training for teachers, strategic and logistical planning assistance for administrators, and all-important training for technology department staff.

Impact on Learning

While there are plenty of schools where technology initiatives have made a difference on a small scale, district-wide successes are harder to identify. MGSD is an example of district wide success that is a direct result of commencing the Digital Conversion program. In 2012 MGSD was tied for second in North Carolina's "Schools of Distinction" ranking. MGSD as a whole continues to improve in this ranking, having started at 38th (out of 115) in the first year of the Digital Conversion. In total, this marks a 16 percent growth in achievement ranking.

What is particularly remarkable about this achievement is that MGSD is one of the two lowest per pupil expenditure districts out of the Top 10 districts, and the lowest per pupil expenditure district in the Top 7 ranked districts. In addition, MGSD enrolls more than double the amount of students than the district tied for second, and double the students of the district in third place. Despite MGSD's economic disadvantages, the district demonstrates real positive results.

Students' test scores across individual schools and subject matter (e.g., mathematics) have continued to increase with every passing year of the Digital Conversion program. Mooresville High School, End-of-Course (EOC) composite exam data reveals an increase of 23 percent since the start of Digital Learning. This trend is replicated across age groups as well. For MGSD third graders, students' reading, math and composite EOC scores have all improved significantly over the past four years. Likewise, for Mooresville Middle School, EOC composite test scores improved to 87 percent in 2012, marking a 15 percent growth since 2007.

Another exciting result of the Digital Conversion program has been the increase in graduation rate and simultaneous decrease in dropout rate and increase in college going rate for graduating students. In 2011, MGSD was second in North Carolina for graduation rate, having improved from a 77 percent graduation rate in 2007 (the first year of Digital Conversion) to a 91 percent graduation rate in 2011.

Simultaneously, the Mooresville High School Dropout rate has decreased by 48 students per year since 2005 (pre-Digital Conversion) and the college going rate of Mooresville graduates has increased by 12 percentage points since 2006.

Public/Private Partnership

MGSD staff, students, and community at large are fully invested and immersed in this project. Likewise, these stakeholders are committed to the program's development, enhancement and evolution. As demonstrated by the funding for the Digital Conversion program, the community has repeatedly supported and responded to calls for monetary contributions towards this initiative. In addition, the community has buy-in in the initiative through continued support. One small example is that all the local businesses, through the work of the Chamber of Commerce and Economic Development, have agreed to have free WiFi in shops and restaurants. Students know they can travel almost anywhere downtown and get online to access resources. In a unique collaboration between MGSD and the Town of Mooresville, they have supported the Digital Conversion. As a result all public/town owned facilities like the Public Library, Fire Departments, Police Stations and Public Parks WiFi is available! Most notably, in August of 2013 the local internet service provider MI-Connection announced free internet access for any 4th-12th grade student in MGSD that qualifies for the national free and reduced lunch program.

The MGSD Board of Education has and continues to provide strategic leadership, policy change and direction for the Digital Conversion initiative. Through the original 2008 Strategic Plan and

subsequent 2011 revision these stakeholders helped guide and provide supporting policy to ensure the sustainability and longevity of the Digital Conversion program. For example, four years ago, MGSD had a standard acceptable use policy (AUP). However, with the onset of this technology initiative and increased digital requirements, MGSD decided that the district AUP was no longer adequate and should include extended legal ramifications. Subsequently, in 2008 the MGSD Board of Education decided to support the change from an AUP to a required use policy (RUP), which includes more stringent policies surrounding technology. This is an example of the Board of Education instilling support and security surrounding the technology in use at MGSD.

In 2011 MGSD was invited to speak at the White House for the "Digital Promise" about the need for digital access and resources for all students. Digital Promise is a new public/private partnership aimed at accelerating the inclusion and access to new education technologies for schools, including the formation of a "League of Innovative Schools" that represents best practices. MGSD was invited to join the League of Innovative Schools, and in fact hosted the League's first meeting.

MGSD has been identified as a "lighthouse district" for technological success at the national and state level. This year, MGSD was accepted into the highly-competitive Consortium for School Networking Leading Edge Cadre. At the 2012 Digital Learning Day events, MGSD hosted one of only four live video feeds shown nation wide. And as a crowning achievement, in June 2013 MGSD was host to President Obama where announced his new platform "ConnectEd" to get high speed internet to every classroom in the country!