By Brenda McCombs

Culture of Collaboration

I n 2003, the graduates of Kannapolis (North Carolina) City Schools received an abrupt introduction to the realities of the 21st century when the textile mills that had been the mainstay of our community for 100 years disappeared, along with the guaranteed jobs for all residents with a will and a strong back. It was one of the largest mass layoffs in North Carolina history.

We were one of the lucky towns, however. Billionaire David Murdock purchased the site of the Cannon Mills plant at auction the following year and began developing the North Carolina Research Campus, a private-public venture created to foster collaboration and advancements in the fields of biotechnology, nutrition, and health. Our economy was restored, but it was entirely different from the one we had known and required a very different skill set.

As a result, we were forced to rethink the future for our children. How could we prepare our students for success in the 21st century?

It All Starts with PD

We knew we would need help to answer that question. So three principals and I (the district technology director) attended a nine-day leadership seminar at the North Carolina Department of Public Instruction with funding from an IMPACT grant (one of the competitive Enhancing Education through Technology grants) we received in 2008. We learned about being change agents, facilitating collaborative planning, implementing flexible scheduling, using alternative assessments to evaluate both teachers and student work, and identifying Web 2.0 tools for administrative and instructional tasks.

The most potent part of the program, however, was the discussion time, when we were able to share our visions, ideas, fears, and plans for the future of our district. From

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these discussions arose a passionate determination to create a technology-infused environment where students actively engage in their learning. And collaboration, we knew, would have to be a big part of the equation.

As a first step, we implemented a strategic plan that began with a dynamic professional development (PD) program for our teachers and administrators that would ultimately lead to unprecedented collaboration among both staff and students.

The PD program itself was a model of collaboration. We created an initial planning team of five to six teachers from each school who were not only technology users, but also teacher leaders. We trained these tech-savvy staff members, whom we dubbed the Vanguard Team, at a faster pace and used them as a test group to determine which topics were valuable for the PD program, which topics didn't need to be included, and which sessions we would need to revise before we presented them to the rest of the staff.

We tapped the Vanguard Team to become trainers for the other teachers during a summer PD program and to assist their colleagues throughout the school year. Team members provided engaging, hands-on sessions in which they modeled the skills they were teaching. Each Monday, the other teachers entered the workshop grumbling under their breath about how it was a waste of time and not very useful in their particular situations. But by the end of the week, the Vanguard Team had invariably won them over, and they were ready to begin teaching in a whole new way.

On the first day of the PD program, each teacher received a laptop, projector, interactive whiteboard, and flash drive to ensure equitable access. They immediately began networking their

laptops with DVD players, interactive whiteboards, projectors, document cameras, and Flip cameras so they would be more comfortable helping each other with basic technical support.

Through discussion and role play, they discovered what collaboration looks like both in their own planning sessions and in student-centered learning. They also learned about their principals' expectations for technology use and built their curriculum framework by composing questions that would encourage their students to use higher-order thinking along with digital resources, such as videos and wikis. They discussed how assessment would change in a technology-infused classroom and explored using student response systems to get immediate feedback.

Later in the week, the teachers selected an educational technology tool or topic from a menu of options, such as teaching with Web 2.0 tools, working with PhotoStory3 and Movie Maker in the classroom, or designing a webpage to organize class resources. The Vanguard Team encouraged them to come up with something that would "wow" their students on the first day of school.

By Friday, they had a vision for engaging their students' attention and a plan for how they could immediately implement strategies in their classrooms. As we moved into the school year, this exciting initial planning model helped maintain the digital age environment that the principals had first envisioned.

Living the Training

The Vanguard Team's next task was to help our teachers understand how to function as a collaborative professional learning community throughout the year. They encouraged each teacher

to prepare at least one lesson collaboratively with another teacher who was not in their subject area and then come up with one curriculum objective to share (e.g., "I create PowerPoint games, you do student response quizzes, and we share both").

The high school teachers designed a joint activity that involved integrating the 2008 presidential election into every subject area using technology-rich activities centered on the needs and abilities of the students. For example, the English as a second language students researched online what they would need to do to become a citizen, then worked together to create visual presentations. Students enrolled in science classes conducted online research to determine the candidates' stands on environmental issues. The career technology education classes used computer-aided design (CAD) software to create voting booths, and the art classes made campaign posters stating their candidates' position on cultural arts. After a mock election, the math classes compiled the votes and analyzed the demographic statistics that the voters provided. Students and staff alike were engaged in this schoolwide activity, and administrators noted that the students were more interested in the real-life elections as a result of this collaborative project.

During regular daylong collaborative planning sessions, teacher leaders provide mini-lessons that highlight new technologies they have used in their classrooms since the last planning session. Others share successes and challenges they have experienced while making the transition from mere lecturers to facilitators of classroom instruction. Some teachers have even developed their own online professional learning networks and connect with educational consultants through Skype, Twitter, and Facebook to bring new ideas to the group. Through this process, we have all become less isolated and more comfortable with sharing

teaching strategies and asking each other for suggestions.

All teachers have implemented new technologies, but some have become more proficient than others. For example, some teachers have mastered the use of student response systems, but others still need professional development to see the possibilities for collecting immediate student data and to use "clickers" to collect it. We accomplish this with a new kind of teacher leadership in which the tech-savvy help out the not-so-savvy. The teachers have compiled lists, both formal and informal, of the teacher leaders who can be called on to assist with the use of a new technology in a classroom for the first time, and they plan these co-taught lessons during their planning sessions.

The teachers are on fire about using their newfound skills and have greatly exceeded our request that they use technology for 10 minutes a day. Even the new staff members who missed the initial summer technology training have done amazingly well, because they have learned on the job with assistance from the Vanguard Team and other teacher leaders.

Tools That Make a Difference

It is now an expectation that everyone shares all resources, instructional plans, and insights. During the collaborative planning sessions, teachers use Google Talk and Skype for instant messaging and giving immediate feedback. Between sessions, we keep up the collaboration via Google Talk, Skype, and on Nings, and we document all resources on wikis and blogs. Most staff are now comfortable with all of these tools after using them throughout the year.

We are also using Google Apps, such as Calendar, Docs, Forms, and Sites, to improve communication within the school district as well as with students and their parents. For instance, teachers wanting assistance

from the Vanguard coaches sign up on a Google Form. And several of our schools have schoolwide iGoogle pages where teachers can access all important and relevant information (laptop schedules, announcements, etc.) in one spot.

We have increased our focus on the use of student data in planning-session discussions, and we have expanded the use of student response systems in many classrooms to produce instant, accurate feedback as one source of data for the planning sessions. Teacher leaders provide assistance for those who need further help with this new formative assessment style. We also use SurveyMonkey to gather information from teachers and administrators about PD topics, which we then use for planning and validation.

Keeping It Going

We were off to a good start. But how do you keep the passion for student-centered learning flowing? Because we have administrative support and consistent and adequate funding for PD, we will be able to hire substitutes and continue the daylong collaborative planning sessions even after the grant expires.

After more than two years of this program, collaborative planning has become a cornerstone of our district's approach to instruction. Though we have always valued teamwork, we have now created significant time in our schedule to allow for lengthy, ongoing, frequent, and well-supported planning. We also trained three teachers to be academic coaches—a technology coach, a media coach, and a literacy coach—who serve as models for our staff and encourage, support, and advocate for teachers as they implement technology-rich strategies.

Staff members have fully embraced our new culture of collaboration, and even those who once complained about mandatory PD have come to count on the planning days.

Big Improvements

This table shows the percentage of students performing at grade level before and after we implemented our professional development program.

Grade	Reading		Math	
	Before	*After*	*Before*	*After*
Fifth	40.7%	61.4%	48.3%	67.2%
Sixth	45.9%	62.4%	55.4%	70.0%
Seventh	45.6%	58.0%	65.4%	83.1%
Eighth	45.4%	62.6%	56.3%	73.7%

As the teachers engage in this new 21st century style of collaboration, they have become better educators collectively, and their students have enthusiastically met the new instructional challenges we are giving them. Students are so excited about what they can accomplish now that they want to incorporate technology into everything they do. They insist on sharing it with their peers and anyone else who is willing to observe it. Both staff and students exhibit a marked sense of pride and enthusiasm to try new things.

And the results are evident in more than just their attitudes. By the end of the first year, test scores rose dramatically. In our middle schools, the percentage of students performing at grade level in both reading and math increased an average of 17% (see "Big Improvements"). Our district has also met 80 out of 81 of our adequate yearly progress results for 2009–10.

Although our grant funding will end in December 2011, we are confident that we will be able to maintain this systemic change. Seeing the difference this has made for our students is all the proof our teachers need to maintain the strong professional learning community we have built together.

Resources

Google Apps for K–12 Education: www.google.com/a/help/intl/en/edu/k12.html

IMPACT Grant information: www.ncwiseowl.org/impact/igrant/

Kannapolis City Schools Training Materials: www.kannapolis.k12.nc.us/impact/instructional_design.htm

North Carolina Research Campus: www.ncresearchcampus.net

Brenda McCombs is the director of technology for Kannapolis City Schools. She has taught for the North Carolina Teacher Academy and has presented at state, regional, and international conferences. She is also a certified Mimio Master and Palm Education Training Coordinator as well as a Sallie Mae First Year Teacher award winner.