



*East Carteret's dynamic team:
(Front) Connie Dickinson, Jane Burbella, Judy Carawan
(Rear) Ralph Holloway, and Jeff Colvin*

East Carteret High School, Beaufort, North Carolina: A Case Study

Preface

Although the controversy over No Child Left Behind rages on—as does the debate over whether technology makes a difference in student learning and achievement—one goal unites us all: Every child should have access to the best possible learning experiences every day.

Used effectively, technology can help teachers provide stimulating, engaging, and challenging learning experiences for their students. And today's students are hungry for these kinds of experiences.

BellSouth Foundation's *The Big Difference: The Growing Technology Gap Between Schools* (2003) and NetDay's *Voices and Views from Today's Tech-Savvy Students* (2004) are in the vanguard of a national movement to include students' voices in efforts to raise expectations and results in secondary schools. Today's secondary students are technology savvy, feel strongly about the positive value of technology, and rely on technology as an integral part of their social and learning lives *outside* school. What they seek and value are challenging and meaningful uses of technology for their daily lives *inside* school.

Students' comments form a crucial part of the following case study.

Introduction

How did a small, rural school in North Carolina get plugged-in to digital resources? The first step was access. A statewide project resulted in a groundbreaking example of how innovative public-private partnerships can enhance education statewide.

A grant from the Bank of America Foundation enabled every public school in North Carolina to take advantage of the digital curriculum resources offered by SAS inSchool®. These resources were included in the North Carolina Department of Public Instruction's curriculum portal, NC WiseOwl www.ncwiseowl.org, a statewide project funded by the North Carolina legislature. Having relevant curriculum resources accessible in one place on the web streamlines the learning process and saves precious time for teachers and students. This three-way partnership is the first of its kind nationally in which a corporation and a benefactor have made a technology gift that aids public education for an entire state school system.

State Superintendent Mike Ward said the grant provides resources many North Carolina schools have never had: "This support by Bank of America and SAS will provide valuable resources to students and schools across our state. As we raise expectations for schools, we're also raising expectations that the community will support our efforts. This partnership is a great example of that support."

(See <http://www.ncpublicschools.org/news/03-04/081803.html>)

In August 2003, all secondary public schools in North Carolina were invited to enroll online for access to Curriculum Pathways[®], a web-based collection of digital resources for teachers and students in mathematics, science, social studies, English, and Spanish, grades 8-12. To date, 98% of the state's high schools have enrolled.

However, as every educational technology leader knows, *access* does not guarantee *use*. No matter how promising an idea, practice, or program may be, it cannot enhance student learning if it is not implemented wisely and widely.

Recognizing that districts and schools need practical guidance on how to derive maximum value from resources like Curriculum Pathways, Frances Bradburn—Director of Instructional Technologies for the North Carolina Department of Public Instruction—and her team have been closely monitoring implementation and collecting examples of what works. Their goal is to spotlight, celebrate, and share successful efforts in implementing Curriculum Pathways.

One school Bradburn and her team have been tracking is East Carteret High School (ECHS) in the Carteret County Public School System.

ECHS is located in the real “Down East” of eastern North Carolina. Built in the early 1960s, the school building is showing its age. The roof leaks on occasion (especially when hurricanes come to call). The air conditioning system died this spring and had to be replaced. Wiring a building like this for electrical power, networking, and Internet access has been difficult.

Despite these challenges, over the past year, ECHS has emerged as one of the top users of Curriculum Pathways.

As this case study will show, ECHS has both the will and capacity to initiate, implement, and sustain important changes and is well on the way toward harnessing the power of technology to provide quality learning experiences to every student, every day.

ECHS lives up to its motto—*Unita Fortior* (Stronger Because United).

Description

Located on the southern Outer Banks of North Carolina, East Carteret High School (ECHS) serves seven rural communities and the small town of Beaufort.

ECHS has 55 teachers and enrolls 632 students. Eleven of the teachers have earned National Board Certification. Eighty-one percent of the students are white and 18% are African American. Almost one-third of the students come from families with annual incomes below the threshold for economic disadvantage. Most students' families have lived and worked in the area for several generations. Many students have parents or grandparents who attended ECHS.

Parents are often fishermen, watermen, or farmers. Others work in service industries related to tourism or at Cherry Point, the nearby Marine Corps Air Station. In the summer, many students clam or fish to earn spending money.

Principal Ralph Holloway comments, “This is a family school. I’ve got a counselor whose husband and daughter teach here. I’ve got a husband and wife who teach in the same department. It’s a community school. Everybody knows everybody, and for the most part everybody gets along. We know what we’re here for, and we try to do it the best way we can.”

ECHS's “can do” community gets results. ECHS boasts a national championship speech and debate team, a popular Latin language program, an award-winning marching band, and a strong drama/theater arts program that stages three major productions a year.

ECHS's college-going rate exceeds state and national averages. For the class of 2003, 80% of the 136 graduates went on to four-year or two-year colleges; 102 of the graduates were awarded merit-based scholarships. Five of the graduates were accepted as North Carolina Teaching Fellows, a program to recruit talented high school graduates into the teaching profession.

Small School ... Big Dreams

Effective school leaders know that even good schools can be better. Such improvements were part of Holloway's goal when he came to ECHS as principal two and one-half years ago:

"Just because we are a small, 632-student school tucked away in rural eastern North Carolina doesn't mean we can't give our students the best opportunities. The technology that we've been able to acquire in recent years makes this possible. Being able to get out on the Internet and pull from all that's out there has allowed us to give the kids what they need."

When asked why he made the decision to promote the use of SAS inSchool's web-based curriculum resources, Holloway explains:

"When I came here as principal, I didn't want to limit my staff. Sometimes we get comfortable in a setting, in the jobs that we do. But if we're going to reach these kids in this day and time, we have to do different things. And what better way than to give kids an opportunity to take part in their own learning? That's what SAS inSchool's resources allow students to do. They give students interactive learning experiences. That way, students can take responsibility for their own learning."

Holloway's own "interactive learning experience" with Curriculum Pathways convinced him to take an active role in promoting its use at ECHS. He was enrolled in the Leadership Program for High School Principals sponsored by the Principals' Executive Program, North Carolina's premier provider of professional development for school leaders. Designed specifically to help high school leaders meet the unique demands they face, the Leadership program consists of five, two-day sessions spread over the course of eight months (June through January).

In September 2003, one of the sessions focused on how principals could use resources like Curriculum Pathways to enable and support Mike Schmoker's practical strategies for improving teaching and learning. (See sidebar.)

Principals participated in a simulation of how a team of biology teachers could use Schmoker's strategies to improve student performance on the state's end-of-course test in biology. In previous meetings, the team had used data to identify a weakness—students were struggling with key concepts in ecology as well as the inquiry process. Team members then used Curriculum Pathways to search for more effective ways to teach these concepts. After they identified a promising resource, they then gave it a test-drive.



Science teacher Jonathan Barnes helps his student solve a problem.

The Key to Results: Data-Driven, Goal-Oriented Collaboration

In his books and articles, Mike Schmoker, a school-improvement consultant, describes how schools can use simple methods to achieve substantive and measurable results.

For example, Schmoker recommends focusing data analysis on the need of teachers to answer two basic questions:

- How many students are succeeding in the subjects I teach?
- Within those subjects, what are the areas of strength and weakness?

The answers to these questions enable teachers to identify a limited number of simple, specific improvement goals. Teachers then focus their efforts on what Schmoker refers to as "the real work" of instructional improvement: "the collaborative effort to share, produce, test, and refine lessons and strategies targeted to areas of low performance, where more effective instruction can make the greatest difference for students" (Schmoker, 2003, p. 23).

Schmoker also recommends that schools keep and catalogue the most effective lessons and units for the benefit of current and future teachers. He states, "If we want to multiply rather than squander teacher expertise, we should be maintaining organized, accessible files of our best lessons at every school and in every district." (Schmoker, 2001, p. 16).

Working in small cooperative-learning groups, the principals assumed the role of students. They accessed Stream Ecology, an interactive multimedia learning activity in Curriculum Pathways. They investigated the effects of different pollutants on a stream and its inhabitants. They selected and added different types and amounts of organic and thermal pollutants to a stream and then sampled the dissolved oxygen, the temperature, and the species composition of the stream at different distances from the source to assess the impact of the pollutants. The students-principals recorded observations, analyzed data, and drew specific conclusions about the effects of pollution on a stream ecosystem. Finally, they applied what they had learned to the solution of several real-world problems related to stream ecology.

When interviewed eight months later, Holloway still remembers his learning experience, and his reaction to Stream Ecology:

“I thought, ‘It’s unbelievable that kids can access this type of lab activity online. They can conduct experiments, collect data, and get immediate results.’ I got excited, and I started to push Curriculum Pathways at my school.”

Learning Leadership in Action

Holloway and his administrative team clearly understand that innovations live or die by the amount and quality of assistance that teachers receive. They recognize that adopted changes will go nowhere unless the building principal and other school leaders provide specific implementation pressure and support.

Pressure keeps the change process moving. With the proper administrative, organizational, and personal support, teachers learn and assimilate new skills and practices—and deal with the turbulence associated with moving from old, more comfortable practices to new, more challenging ones.

Holloway describes how he balances pressure with support: “I just try to make sure my staff understands that we’ve got to do everything in our power to expose these kids to what’s out there. We know as adults, as teachers, that the world is changing every day. We can’t just sit back and spoon-feed them the same kinds of things we were spoon-feeding them years ago. We’ve got to get outside the box and recognize there are other avenues out there to help these kids achieve.”

“Then I let them know that it’s my responsibility to provide them with the resources for all these creative ideas that they might come up with,” he says, adding with a chuckle, “within reason, of course.”

Holloway also understands the importance of recognition and reward: “I ask my teachers to let me know when they have something exciting going on. I ask them to invite me to visit. That gives me the opportunity to say, ‘Good job. Keep up the good work.’”

Lastly, Holloway practices collaborative leadership. To ensure that teachers had the organizational and personal support they needed, he tapped two talented and tenacious staff members to lead implementation of Curriculum Pathways at ECHS— Judy Carawan, technology facilitator, and Jane Burbella, media coordinator.

But before we examine the specifics of how Carawan and Burbella implemented Curriculum Pathways, two important questions must be answered:

- Is the product making a difference for students?
- Is it making a difference for teachers?

What Students Say

The importance of student engagement for learning, retention, and achievement has received increased attention from researchers and practitioners in recent years. For example, high engagement during tasks in high school has been found to predict students’ continuing motivation and commitment to staying in school as well as their performance in college.



Jeff Colvin's math student analyzes data from a science class in an interdisciplinary project.

Students in Jeff Colvin's pre-calculus class and Barbara Water's biology class have embarked on an exciting interdisciplinary project: Salt Marsh Census! Funded through the Bright Ideas grant program of the Carteret-Craven Electric Cooperative, biology students will use three different methods to collect data on the population of the mud snail. Math students will analyze the data. Students in both classes will then collaborate on a final report.

To prepare for the census, biology students have been using web resources to research mud snails, estuaries, and hurricanes. (In September 2003, Hurricane Isabel blew many mud snails into the dunes where they dried out and died). Math students have been learning about data analysis using resources from Curriculum Pathways. For example, they recently completed a web inquiry on measures of center.

During this web-based learning experience, students read background information, conducted guided research using carefully selected web sites, and used their findings to answer the question, "What are the pros and cons of the three measures of central tendency?"

Research indicates that students are more engaged in student-controlled learning activities such as small-group and individual instruction. Students are also more likely to become engaged with authentic academic work that intellectually involves them in a process of meaningful inquiry to solve real-life problems. Indicators of engagement include high levels of concentration, enjoyment, and interest.

Students have responded positively to their online learning experiences from Curriculum Pathways.

One science student notes, "Learning this way is more interesting. You have all the information you need, but [the product] doesn't just hand you the answers. You have to use your brain." She adds, "[This approach] helps me remember too. When I took the test I could see the web pages in my mind and answer the questions."

A student in an economics class observes, "Learning this way is much better than just searching the Internet. The Web Inquiries make it more fun. We just type in a number and everything is there. In the Web Inquiry we're doing today, we have to pick the car we want to buy. We have to look at the price, the cost of a loan, how long it will take to pay for the car, the interest rate, and all that stuff. I guess it's math, but to me it's fun."

Students especially appreciate the opportunity to take charge of their own learning. "I like this much better than just sitting in class listening to the teacher," says one student. His classmate elaborates, "This is better because we get to DO things. In class, I just zone out after a while, but here I get to look at interesting stuff on the web and learn that way." Another student concurs, "To me it's easier to pay attention when it's on the computer. It's more hands-on. It's hard to pay attention when the teacher is up there talking for a whole hour."

Particularly revealing are students' comments about controlling the pace at which they learn. Says one student, "[This approach] helps you learn because you can control how the information is given to you. Some teachers rush to give you all the information. But when you're on the Internet learning it yourself, you can spend as much time as you need to reading through it and figuring it out."

Commenting on a Web Inquiry about a popular South American drink, a student says, "I'll probably never forget *Yerba Mate* because of the way we learned about it. Some of it was Spanish and English but some parts were only in Spanish. So you really had to read and understand to answer the questions. Writing the paragraph at the end about what you learned really helped. You had to sum it all up." Her classmate agrees, "The lessons are challenging. But they're not so hard that you can't figure them out. The answers aren't obvious. I have to read everything to understand."

Spanish students appreciated the ability to toggle between Spanish and English versions of the Web Inquiry: “There are so many different ways that you can put stuff in Spanish. Going from Spanish to English, we could see a different interpretation of each sentence. It helped.” One student concludes, with typical teenage understatement, “Honestly I wouldn’t mind if we used [this product] more. I think it’s better than doing regular activities like learning word after word of vocabulary. It’s interesting to learn about the culture not just the language.”

Students in a biology class shared their perceptions of Cell Division, an interactive multimedia learning activity.

When asked if this was an effective way to learn, one student enthusiastically reports, “Yes! I really didn’t understand it until I actually saw the whole process. And then I understood it all. It made me do a whole lot better with it.”

Her classmate adds, “I’m a visual learner. I didn’t understand mitosis when it was introduced in class. But when we went in the lab and worked with Cell Division I did. I also used it to review for the test. I didn’t have to ask the teacher to go over it again. I could go back on my own.”

What Teachers Have to Say

Teaching has always been demanding but rewarding work. However, it’s gotten more challenging over the last three decades. First came the standards movement in the 1980s, followed by the accountability movement in the 1990s and, on January 8, 2002, President Bush signed into law the No Child Left Behind Act.

Now teachers face a new generation of students who have “grown up digital.” Research indicates that the brains of these digital natives respond differently than older, pre-1980 brains of digital immigrants. Because of these changes and challenges, teachers are constantly on the lookout for “the meat” between standards and assessments. They seek high-quality curriculum resources that map to specific academic standards and that meet the learning preferences of today’s digital students. They want to be able to quickly and easily access, personalize, and customize resources to meet their needs.

Jonathan Barnes, who teaches earth science and physical science, explains the benefits of using web-based, interactive multimedia learning activities such as those found in Curriculum Pathways: “To get this kind of audio-visual representation for my students, I would have to pay \$80 for an entire movie just to get 5 minutes of relevant content. Also, students get bored when they watch a movie. In 10 minutes, they’re asleep.”

Barnes continues, “The interactive learning activities in Curriculum Pathways are much better than movies. Students can go straight to the content they need. And they remember it better, too, because they interact with it. For example, we just did the Web Inquiry on the rock cycle. My students really remembered the content because of the visuals they saw in Curriculum Pathways.”

Barbara Waters, biology teacher and Carteret County Schools Teacher of the Year in 1999, has a similar reaction. “We study mitosis and then meiosis,” she says. “Students get confused by the difference in the two processes. I used the Cell Division InterActivity after we talked about mitosis in class. Students explore the process of mitotic cell division. They use the Tutorial to identify and define each phase of the cell cycle according to changes in the basic cell components and structures. Then they use the Quiz to identify the phases of the cell cycle from actual photomicrographs, and they build and order virtual cells that correspond to each phase.”

“The students really liked the interactivity and audio feedback in the Quiz,” Waters says. “So they went back and did it several times. Then they began competing to see who could do it the fastest. That’s good. It reinforces what they learn. They don’t just go through one time and say, ‘Oh, I’m done.’”

“Even students who have trouble reading could figure it out,” Waters notes. “Such students are often visual learners. They have the minds to figure out what’s going on without the words. They know that this has to separate ... so they try things. Along the way, it all comes together, and they get immediate feedback that they’ve been successful.”

Waters also appreciates the way she can decide when, where, and how to use the resources in Curriculum Pathways. She explains: “It all depends where it fits in. Sometimes I’ll use a resource as a pre-activity. Or I’ll do a lab in class and use the resource for follow-up. A lot of the resources are good for review purposes. For example, the end-of-course test is coming up. I’ll use resources from Curriculum Pathways, especially the ones like Cell Division and Photosynthesis, as sort of a recap ... as a way of saying, ‘Remember this!’”

Waters concludes, “When I think back to when I went to school in the Stone Ages, there was nothing. The textbook was it. This is *much* better.”

Jeff Colvin, math teacher and ECHS Teacher of the Year in 2003, agrees with Barnes and Waters, “I find that students are much more interested when they can work on the web. They’re more ‘into it,’ and they like being able to work at their own pace.”

Effective teachers constantly look for more effective ways of teaching content. They also seek to continue their own learning. Barnes says, “I’ve taught physical science for seven years. I know what to teach, but I use Curriculum Pathways to find different ways of teaching the content. I also use it to learn about new things.”

Sue Hannula, Spanish teacher, concurs, “I’m always looking for unique content. You find things in Curriculum Pathways that you wouldn’t find in a textbook. I also like the way the Web Inquiries make learning more interactive plus spark students’ higher-level thinking skills.”

Kathy Day-Ketel, world history teacher, adds, “My students really learned from the Web Inquiry on The Black Death. They were exposed to pictures and background material that would have taken me hours to find! I also like having a place to go where all of the web sites have been checked and evaluated by other teachers. I always check Curriculum Pathways first to see if I can find information there before going out to search on my own.”

ECHS teachers also appreciate how easily they can personalize resources in Curriculum Pathways to meet their needs and those of their students. Sue Hannula modified a lesson named “At the Market.” In this classroom activity students participate in a mock outdoor market. They learn about the cultural practice of *el regateo* (bargaining) while enhancing speaking and listening skills. Sue added a grammar component to the lesson and combined her Spanish II and Spanish IV classes. The Spanish IV students played the vendors. The Spanish II students played the buyers. To purchase an item, the Spanish II students had to use the correct verb forms.

Pam Vaughn, world history teacher, likes the Web Inquiries so much she created her own. She located relevant web sites about Islam in the Web Resources section of Curriculum Pathways and used the same read-research-respond format.

Substitute teachers also appreciate Curriculum Pathways. Says, substitute Margaret Laughinghouse, “There are some teachers I won’t sub for. Their lesson plans aren’t complete so the kids get out of control. I appreciate when teachers leave me detailed lesson plans like the one I’m using today.”

The Saga of ECHS’s Success

Carteret County Public Schools have been a SAS inSchool customer since the first local area network-based products were released several years ago. Joe Poletti, Director of Technology and Media, and his team made sure school computers had the “right stuff” to access Curriculum Pathways. They showed principals and teachers how to access it, and they conducted introductory workshops. But use at the three high schools was limited to a few teachers and students.

”We had limited success with the server-based products. After they became Internet-based and the Web Inquiries were added in June 2002, we began to pick up momentum,” says Poletti.

When the Bank of America Foundation gift was announced, Poletti decided to make implementation of Curriculum Pathways a major focus during the 2003-2004 and 2004-2005 school years. When asked what convinced him to do this, Poletti states: “First, I understand how important computers and the Internet are to students today. Second, I can recognize the high quality and wide applicability of Curriculum Pathways. Third, we knew our infrastructure could support it or could be made to support it. Fourth, it is tied to the North Carolina Standard Course of Study. And fifth, the fact that a benefactor has picked up the tab for two years was compelling.”

One of the first things Poletti did was to recruit teachers to attend the SAS inSchool Summer Institute held July 22-23 at SAS Institute and Cary Academy in Cary, NC. He fielded a team of 10 teachers, two of whom were from ECHS—Carrie Avery, who teaches English and Creative Writing, and Pamela Vaughen, who teaches history.

The teachers appreciated the time to explore Curriculum Pathways in depth. “I attended an overview of Curriculum Pathways at my school the year before,” Vaughen says, “but I was too busy to take time to really learn about it. The Summer Institute really helped because it gave me time to explore in depth.”

Meanwhile, back at ECHS, Carawan and Burbella had made an important decision. They hypothesized that one of the reasons more teachers weren’t using Curriculum Pathways more was that the only place they could access it was from the school’s computer lab. Carawan and Burbella reasoned that if teachers could access it from their classrooms, they’d be more likely to learn about and use it.

Teachers were scheduled to get new networked Windows computers to replace the old stand-alone Macintosh computers they had in their classrooms. When Carawan learned that the new computers would not arrive until October, she convinced her principal to let her temporarily repurpose a lab of Windows computers that had been donated to the school by Wachovia.

“We needed to give our teachers better access. I put the Wachovia computers in teachers’ classrooms in August then swapped them out with the new Windows computers when they arrived later in the year. Joe [the district director of technology and media] didn’t want us to do this. He said it would be too much work. But we did it. Every teacher had a networked computer in their classrooms from Day 1.”

To make it even easier for teachers and students to access Curriculum Pathways, Carawan created a link to the subscriber login page on the front page of the school’s intranet site. She also created a sign-up spreadsheet and placed it on the school’s intranet so teachers could access it from their classrooms.

Carawan also figured out a clever way to make sure the computers in the lab were being used to maximum value. The spreadsheet includes a box where teachers enter the number of students they will be bringing to the lab. For example, if the Spanish teacher wants to bring nine Spanish IV students to the lab, one or even two other teachers can also bring their classes.

As Waters says, “It gets a bit noisy when there is more than one class in the lab, but we feel the benefits outweigh this.”

The Heart of Change

In their book, *The Heart of Change*, John Kotter and Dan Cohen suggest that the key to changing people’s behavior is not making people *think* differently but rather making them *feel* differently. Emotionally compelling experiences, stories, and images can fuel action.

In September, Holloway had this type of experience at the Principals’ Executive Program. In October, Carawan had a similar experience thanks to Poletti.

Poletti is a firm believer in the power of professional learning communities. Consequently, he convened a meeting of “Pathways Pioneers.” He invited the ten teachers from the district who had attended the Summer Institute, the technology facilitators from the three high schools, other teachers who had been using Curriculum Pathways, and Pennyloyd Baldrige—Carteret County School’s assistant superintendent for curriculum and instruction.

Carawan says that this event was a turning point for her: “Hearing the teachers and technology facilitators talk about their experiences in using Curriculum Pathways and their students’ reactions convinced me that I wanted to take an even more active role in supporting Curriculum Pathways at ECHS.”

The Strategy

In the past teachers had been introduced to Curriculum Pathways in large whole-faculty sessions. Some teachers felt the sessions were too short, others too long. Still others felt the sessions weren’t relevant because they didn’t focus on their particular disciplines.

Carawan decided a different approach was needed. Drawing on past successful experiences, she decided to build a cadre of Pathways Pioneers at ECHS, starting with the two teachers who had attended the Summer Institute. From each department, she picked one teacher she knew would “shout it from the rooftops” if using SAS inSchool benefited the teacher and his or her students.

She then began finding resources in Curriculum Pathways that she knew would fit into these teachers’ curriculum. She printed out the information and took it to the teachers, saying, “You’ll really like this. Will you try it?”

Carawan explains her reasoning: “Build it and they will come isn’t necessarily true in education. If you want teachers to use a resource, you have to show them that it is relevant. If you give them a resource that works for them, they’ll use it.”

Next Carawan convinced Principal Holloway to include Curriculum Pathways in each of the four early release days over the course of the 2003-2004 school year. All schools in Carteret County have four early release days a year. Students leave at noon, and the remainder of the day is devoted to teachers’ professional development. Each school determines how to use the time. ECHS decided to incorporate discussions of Curriculum Pathways in all four early release days.

At the next early release day, Carawan asked the lead teachers she had identified to share what they had found with other teachers in their disciplines during 30-minute sessions. The teachers shared strategies and worked together to find additional resources.

Teachers received continuing education credits (CEUs) for their active participation in these sessions. If teachers agreed to try using one of the resources in their classroom and to share what they learned with others, they received additional CEUs. These teacher-led mini-sessions were held during each of the remaining release days. Carawan says this helped keep Curriculum Pathways on their minds.

The above approach has made a difference.

Holloway observes, “It’s been a process where one or two teachers get fired up. Then one or two more. Then the kids get turned on. It’s been a domino effect.”

Carawan says, “I’m out of it now. Curriculum Pathways has caught fire! The teachers are doing all the professional development for themselves now.”

Key Success Factors

In his bestselling book, *Leading Change*, Kotter presents an eight-step model to help companies successfully implement change. (See sidebar.) Evidence abounds that ECHS successfully implemented all eight steps. However, one deserves special attention: Holloway’s decision to tap Judy Carawan, technology facilitator, and Jane Burbella, media coordinator, as the Guiding Team for implementing Curriculum Pathways.

North Carolina IMPACT: Guidelines for Media and Technology Programs is a statewide project calling for close collaboration between technology and media coordinators in implementing curriculum resources. According to the IMPACT guidelines, “A fundamental aspect of collaboration is the involvement of media and technology professionals in all aspects of curriculum implementation.”

Carteret County media and technology personnel were involved in the planning for IMPACT, and perhaps that is why ECHS embodies many of its key principles. The IMPACT model’s philosophy of collaboration is a thread that runs through everything at ECHS, and the strong connection between media and technology personnel may be one of the reasons for the school’s success.

Carawan and Burbella first began working together because their offices were located near each other. Working together just came naturally. But given their collaborative spirits, the two probably would have found each other anyway. “Teachers come to us with a problem and we find a solution together,” Carawan says. This pair of problem-solvers makes every effort to optimize opportunities for teachers and students.

Says Burbella, “The bottom line is getting the things the children need to enhance their education ... to provide them optimum opportunity. The only way we get optimum opportunity is if we work together. There are not enough resources for us to go our separate ways.”

Carawan and Burbella get innovative ideas from conferences, workshops, or district leaders. If they discover an idea that might fit at ECHS, they show it to teachers and get feedback. If the concept appeals to teachers, “We move heaven and earth to get it for them,” explains Carawan.

These two collaborators often find creative ways to expand their buying power by sharing funds. They join forces to seek grant funds or put budget monies together to purchase items that may be used by all students and teachers. Turf wars are not a problem at ECHS. Carawan and Burbella find creative ways to provide the resources. For example, they might combine forces by using media funds for a digital camera and then tap the sagging technology budget for ink to print the photos.

The bookkeeping for this creative-funding model can be a headache, but the group works together to achieve results. Connie Dickinson, ECHS Media Assistant, is flexible, because she knows Carawan and Burbella are trying to meet student needs. She never complains when a purchase order has four or five different budget codes.

Burbella says, “Judy is the speedboat pulling us forward. I am the tugboat that brings in the barges.”

Shaking her head, Carawan disagrees, “I never could have done it without Jane. She’s a speedboat too. We pull together.”



Students benefit from the careful planning and teamwork of Judy Carawan and Jane Burbella.

Kotter’s Eight-Step Change Process

Step 1: Increase Urgency. Raise a feeling of urgency and reduce the complacency that stops change from starting.

Step 2: Build the Guiding Team. Pull together the right group of people, with the right characteristics and sufficient power, to drive the change effort.

Step 3: Get the Vision Right. Create the right compelling vision to direct the effort.

Step 4: Communicate for Buy-in. Send clear and heartfelt messages about the direction of change to establish genuine buy-in.

Step 5: Empower Action. Remove barriers that block those who have genuinely embraced the vision and strategies.

Step 6: Create Short-term Wins. Generate visible, valued, unambiguous wins, fast enough to build momentum.

Step 7: Don’t Let Up. Help people make wave after wave of change until the vision is a reality. Do not allow urgency to sag.

Step 8: Make It Stick. Ensure that people continue to act in new ways, despite the pull of tradition, by rooting behavior in reshaped organizational culture.

A Note in Closing ...

Implementation, by definition, only occurs at the school and classroom level. However, involvement and support from the district are also crucial.

Says Holloway: "I want to continue to thank Joe and his staff for making Curriculum Pathways available to us. Without their support, it would not have been possible for us to do what we've done. Joe shares our use data with us every month. He continues to ask us 'What are you doing?' How can we help?' He's been available to us. It's been a total buy-in from the whole county."

Poletti is already thinking forward to next year.

"Next year, we are substantially upgrading our bandwidth system-wide," he says, "and we have plans in place to upgrade or replace a significant number of computers. This will position us well as more quality content and applications become web-based. I would like to see increased conversation and collaboration among teachers who are using innovative, relevant, and effective strategies that integrate technology and curriculum. High on the list is Curriculum Pathways."

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