

# The Technology Specialist's Dilemma: Computer Repair Technician or Instructional Leader?

## Ten Steps for Success for Technology and Instructional Leadership in Schools

by Patrick Ledesma

**A**s technology becomes more embedded in the daily operation and instruction in schools and classrooms, the role of the technology resource teacher or specialist has evolved to meet these new demands. Whereas such roles were previously limited to computer maintenance and the occasional skill-building "how to" lesson, today's technology specialist is often faced with balancing a variety of maintenance, instructional, staff development, and leadership challenges.

Many districts created broad "job responsibilities" that describe the dual technology and instructional role in order to define the evolving nature of the position, but often the actual implementation of that role varies from school to school and from individual to individual.

This article examines some of the observations and successful strategies for implementing technology integration and leadership in a school community and is written to help teachers thinking about a technology resource position or the teacher who has just begun their new technology specialist role.

### ***Step 1: Know your strengths and have a variety of teacher leadership experiences before accepting the job to minimize the "initiation period."***

Between the role of classroom teacher and the role of administrator exists the ambiguous role of the instructional specialist that is neither classroom teacher nor administrator. Classroom experience enables the technology specialist to understand instruction, but classroom experience alone does not always prepare one for influencing and guiding adult practices. Teacher leadership experiences at the department, grade, or school level add an essential level of credibility for working with teachers. Additional experiences such as mentoring, curriculum development, and participation in county wide leadership opportunities are also important. An established teacher-leader transitioning into an ambiguous position will easily define that role with administration and teachers as an instructional and staff development role rather than simply a repair function.

### ***Step 2: Collaborate with administration on a consistent basis to set school-wide and grade-level expectations.***

Administrative support is essential for effective instructional leadership.

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To facilitate this process, technology specialists must have the expertise and skills to communicate how technology issues affect the administrative and instructional functions of the school and to make recommendations on how to implement policies and support efforts. The final decision is always up to administrators, but technology specialists must articulate the possible options, benefits, and concerns. The technology specialist must establish a productive relationship with administrators and meet weekly to keep them informed of all ongoing and upcoming issues and projects.

### ***Step 3: Establish procedures to manage the technology (prioritize and define what is important and what can wait).***

Many schools now have a variety of desktop computer labs, mobile laptop carts, Smartboards, Interwrite Pads, digital cameras, digital video cameras, LCD projects; the list goes on and on. Murphy's Law dictates that the technology will inevitably break or not work as planned. Teachers must know the proper procedures to follow to request assistance. The technology specialist must organize what gets addressed first based on specific criteria – most often what impacts immediate student instruction or ongoing school wide priorities, rather than individual teacher demands or personal expectations. Having previous classroom experience, the technology specialist understands the teacher perspective that the most important thing to teachers are their individual classrooms, but successfully maintaining a school environment necessitates a more global understanding of school priorities and needs.

Perhaps one of the more challenging tasks is convincing teachers that their classroom computer is a work computer designed for specific county duties, rather than an extension of their home computer. If limiting administrative privileges to install personal software or other software not on the approved county list is necessary to lessen repair problems and conflicts, the technology specialist must plan with administration to develop and enforce specific policies and expectations.

On the other hand, the technology specialist also learns and collaborates with teachers to maximize the use of the computer. Often teachers have knowledge of instructional software that can be useful to their specific setting. In these instances, the technology specialist works with the teacher and county policies to implement the software in the classroom.

Just as all classroom teachers know that student learning occurs only after successful classroom management, technology specialists must gain control of repair issues to make time for staff development and instructional leadership. Being able to prioritize a schedule based on school wide priorities and instructional goals, rather than responding to every issue when stopped in the hallway, will allow the technology specialist time to address all issues appropriately.

### ***Step 4: Understand your school community and realize your role in fulfilling its mission:***

It is critical for the technology specialist to understand the needs of the students, teachers, and administrators. What affects student achievement at the school? What are the technology proficiencies of various teachers and how does each team view technol-

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ogy's role in their instruction? Which administrators are more technology savvy? The technology specialist must understand these issues in order to design appropriate and effective planning and collaboration efforts. Personally designed surveys based on specific school needs given to staff at the beginning of the year can help the specialist categorize the training needs of staff. Ultimately, consistent face to face contact with teachers and students add tremendously to the specialist's understanding of the school culture.

At Holmes MS, we understand the challenges our diverse socio-economic community faces with technology. Over 40% of the students receive free and reduced lunch and over 90 different countries are represented in our student population. Basic access at home for many of our students is always an issue, but understanding the role of technology in society we also know that the "haves" will never wait for the "have nots". So, we strive to expose our students to technology as often as possible during the school day and through after-school programs. Although students can learn technology skills through electives and after-school programs such as Technology Club, technology is integrated into other clubs. For example, students film and edit video on the computer for the news show that is broadcasted through the school. The Student Council also films and edits videos to show new and upcoming students a tour of the school. Highlights of intramural games are part of the school website. This approach of integrating technology wherever it fits helps maximize exposure.

Teachers display a wide variety of skills and preferences with technology. When providing staff development, it is important to consider how different teams utilize technology and who among the teachers are at the invention stage of technology integration, who are at the appropriation, adaptation, adoption stages, and which need help moving past the entry stage. Some teachers are very independent and prefer be given the technology and no further assistance. Others may require simple "how to" instructions and can immediately make curriculum connections.

Many teachers benefit from sessions that introduce the technology, give sample applications, then allow for guided planning time to integrate the technology into their classroom. These teachers may require follow-up support. Then there are always a few teachers who may require significant assistance learning and integrating the technology. They benefit from smaller group or one-on-one sessions with consistent follow up. For the fewer teachers who need encouragement to adapt the technology to comply with school expectations, the technology specialist must collaborate with administration so that both support and direction can be provided.

It is also important to know which teachers are interested in expanding their skills and are willing to participate in special projects. These are the pioneers who will take risks and be supportive when implementing innovative projects through grants and other creative solutions. They will also be the "teacher trainers" who help other teachers on their team or department learn technology skills. Having a "cadre" of teachers who are proficient with technology and willing to share their skills is an important resource for the technology specialist.

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### ***Step 5: Understand the needs of adult learners.***

The technology specialist understands the difference between teaching children and teaching other teachers. The research on adult learners is plentiful. Teachers value practical instruction that is relevant to their students and classroom. They appreciate being able to share their own knowledge and experiences as they learn about the possibilities of what is being taught. Understanding of these principles combined with the personal and professional knowledge of those with whom one works assists the technology specialist in knowing what will motivate each teacher to learn new strategies or comply with school expectations.

### ***Step 6: Understand the instructional technology initiatives and direction of the system and how it affects teachers in the classroom.***

Teachers and students in Fairfax County Public Schools benefit from a wide variety of instructional initiatives and programs; however, since the education profession has witnessed many strategies or programs come, go, and sometimes come back again, it may be difficult to distinguish between “fads” and what will be lasting changes to our profession. *The technology specialist understands how technology applications have the power to change traditional classroom practices.*

When Blackboard was introduced, some teachers weren't comfortable with the concept of online access to classroom information and the emphasis on email communication since they were accustomed to telephone contact and written assignment books. This new technology “disrupted” their traditional practices and perceptions; however, our discussions (at Holmes MS) centered upon the fact that even if Blackboard were to be replaced, the fact remained that email correspondence and on-demand access to classroom information were becoming parents' standard expectation. Any replacement system would have similar features. The teachers had to understand that progress in society's expectations for accessing information were changing classroom practices and the traditional methods of parent communication and collaboration.

As teachers adopt the Benchmark Assessment Reporting Tool (BART) initiative to give online assessments to students, the timely feedback and various reports that can be generated by BART are changing assessment practices, and department and team collaboration. Although some teachers may still view this as a simple online assessment given and interpreted in isolation, many realize that this initiative, by providing common assessments online that can be given school and county wide, changes the tradition of the teacher as working “alone” in the classroom. Now test results across classes and schools can be compared and analyzed relatively easily.

These rapid changes in teaching made possible by technology will require the technology specialist to keep current in both technology and instructional issues in order to facilitate and lead discussions about instructional practices.

### ***Step 7: When teaching teachers, skills training is good, but leadership development is best.***

Teaching “how to” skills is a common theme for technology *training*, but only when instructional applications are made to the curriculum does actual *development* begin. The

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role of the technology specialist is part staff development: helping teachers expand their instructional repertoire with technology. With these new skills come the opportunity for encouraging leadership and professionalism. When a teacher learns a new strategy, are there opportunities to teach other teachers, present at a faculty meeting, or share with other county teachers or specialists? A technology specialist with experience in school-wide and county-wide leadership opportunities will be in the advantageous position of helping teachers realize their potential beyond the classroom. Perhaps that teacher is ready to become a new teacher mentor in the county mentoring program or would write curriculum during the summer. Perhaps the teacher is ready to pursue National Board Certification. A technology specialist who views technology skill building as only the beginning of professional development can help teachers grow to be better teachers and leaders.

At Holmes, the seventh grade social studies and English teachers wanted to create review questions and activities for students that could be accessible at home and school. Together with the technology specialist, they created a series of online questions and review games using Quia.com; they created a website to link those activities, then shared this resource with the county specialist and social studies departments at other schools. They then reserved the mobile laptop labs after school to give students without computer access at home the opportunity to benefit from these activities. The teachers kept data to monitor student progress. Another social studies teacher collaborated with the technology specialist and created a Civil War video/PowerPoint presentation with Microsoft Producer. They created a webpage to show the presentation with links to activities and other resources. The social studies teacher then sent these resources to the county specialist and shared them with other teachers.

### ***Step 8: Maximize opportunities to teach students.***

Technology specialists are in a unique and enviable position to share their enthusiasm and expertise in technology with students across grade levels. This opportunity exists only if the maintenance and repair challenges can be contained and the staff development opportunities organized. By co-teaching with teachers, technology specialists improve their own content knowledge while assisting the teacher with introducing or extending their technology skills. By working directly with students, technology specialists gain an understanding of student strengths, interests, and needs. Sharing instructional responsibility and being in front of the classroom reinforces the specialist's teaching and instructional role.

If co-teaching isn't possible, the technology specialist can still impact student learning by organizing after-school programs or assisting with programs that can benefit from technology.

### ***Step 9: Seize the initiative.***

The technology specialist must be a self-starter and be able to operate independently with clear objectives in mind in situations where minimal direction is given. Having a sense of purpose and knowing what must be done in order to benefit students helps guide what must be prioritized and organized. The successful technology specialist ac-

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cepts the condition of the school and collaborates with administration and teachers to improve student learning. If resources are inadequate, the specialists should write grants and obtain funding from other resources. If some innovative technology such as the SmartBoard is not available to all teachers, then the specialist should maximize the learning and potential for the classrooms that do have them while educating others of their potential. The technology specialist can then seek funding through other sources to address equity issues.

### ***Step 10: Most importantly, enjoy the job.***

All technology specialists love technology and enjoy working with students. To be able to share this enthusiasm for technology in a work setting with teachers and students as a profession is truly a wonderful opportunity. That point should never be forgotten during times when one becomes overwhelmed with the mundane repair and inventory demands, the mixture of enthusiasm and frustration from teachers, students who always want more, the inevitable hardware failure, and never ending software patches and upgrades.

After all, aren't you doing exactly what you chose to do? So take the moment to enjoy the details.

### **About the Author**

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