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A District Plan for Training the New Instructional Technologists

by Ginny Carrigan and Lynda Claspy

In May of 2004, Virginia approved legislation that would fund an Instructional Technology (IT) resource position for every 1000 students in a school system. Although these positions were not mandated until the 2005 – 2006 school year, Prince William County Schools (PWCPS) initiated the program in the 2004 – 2005 school year with an IT resource person in every building. After hiring over 60 new employees, the need for staff development to ensure that all ITs had the same background knowledge became evident. Research shows that technology could improve student learning when ongoing teacher training was provided (Kulik, 1994; Schaidle, 1999). The PWCPS Office of Instructional Technology (OIT) therefore began to organize a scaffolded course of study for these positions.

This course of study would be provided in a variety of ways to meet scheduling needs. The school year began with an intensive face to face orientation session in which vital information was shared. A year long course of study and support was outlined from feedback collected during the orientation session and from needs outlined in the job requirements. To deliver all of this information, both face to face and online courses were developed. A Blackboard site was established to deliver online course material and provide communication between the OIT and ITs.

These new ITs had a wide variety of backgrounds. Many had come from private industry, some were new college graduates, and others were transitioning from non-teaching positions within the school system. Since many of the ITs were new to the classroom and a major component of the state's requirement for these new positions was to collaborate with classroom teachers, it was decided to begin staff development with a module on instructional strategies and collaboration.

As this first instructional module was developed, several key points were considered essential.

1) Knowledge of the curriculum

Instructional technologists were familiarized with the location of curriculum documents for both Virginia Standards of Learning and PWCS objectives. The OIT provided an overview of the four core areas of instruction that are included in SOL testing for all students. Resources for lesson development, pacing guides, test review, and assessment were shared.

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2) Test analysis

The importance of working to improve student achievement at each location has been emphasized. Each IT has been shown how to access current test data for their school and how to locate specific information not only on curriculum areas but by population and ethnic groups. By knowing specific test data, instruction can be targeted to meet the needs of each student or group.

3) Instructional strategies based on research

An instructional focus in PWCS for the past four years has been developing teaching strategies for improving achievement based on research. The work of Silver, Strong, and Perini (2000) and Marzano, Pickering, and Pollcok (2001) has been shared with all instructional staff throughout the county. These authors have done decades of research and have crystallized the results into useable strategies that have positive effects on student learning. Building on this research, ITs were introduced to the county's instructional process and how these strategies would be incorporated into classroom activities. Sample activities with different teaching strategies were modeled and discussed. And, as part of a yearlong activity, ITs were required to submit a monthly lesson integrating technology with an SOL that demonstrates teaching strategies based upon the accepted research.

4) Instructional activities developed for varied learning styles

As ITs developed lessons, they were encouraged to consider student learning styles. The work of Gardner (1985) in the area of multiple intelligences was used to highlight the need to vary the types of activities they will provide for the students. ITs and teachers were encouraged to do a self-inventory and become aware of their own learning and teaching styles. Reviewing their inventory results assists teachers and ITs in becoming more aware of the need for presenting instructional materials in varied formats. Technology offers many ways to meet the varied learning styles. Weekly discussions in Blackboard have provided the opportunity for ITs to read articles and share ideas on how to meet the needs of individual students through technology.

5) Collaborative techniques with classroom teachers

ITs are located at each building to serve as resources to classroom teachers. They are available to assist in developing lessons and to model and co-teach as necessary. Since collaboration is a major part of their job, a tool for collaborative planning was developed by the OIT and shared during the orientation session. ITs were encouraged to use the collaborative planning document as they worked with classroom teachers so that each person's responsibilities were clearly defined.

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6) Familiarity with county-provided software

All schools in the county have been provided with basic productivity software to include Excel, Access, Word, and PowerPoint. In addition, schools have been provided with a graphic organizing program, Inspiration, and for the elementary level, Kidspiration. Elementary and middle schools have also been given a basic graphics program, ImageBlender. The county has purchased a site license for Lectora, a web publishing program. This application is available through the county wide application launcher. Knowing that all ITs would be using these basic programs, introductory courses were developed and offered both face to face and online.

7) Differentiation with technology lessons

Using the research-based instructional strategies, information about learning styles, and SOL objectives, ITs, in collaboration with classroom teachers, are working to develop lessons that met the needs of a wide variety of students. The OIT provides assistance through an online course, Differentiating with Technology, and additional face to face in-service sessions are offered to provide model lessons during the year.

Training

Other staff development modules were then developed to address needs of these first year positions. After completing the instructional module, ITs were provided training in two additional online modules in the Blackboard environment.

- The first of these modules dealt with preparing and presenting staff development materials to colleagues. ITs were guided through a four week session which culminated in the production of staff development materials on a topic of their choice.

- The second module began with a face to face session to introduce the topic of technology planning and the state and county technology plans. This introduction was followed by four online sessions which guided the ITs through the process of developing a technology planning committee, a mission, a vision, and one strategy for a technology plan that they would then write for their schools.

In conjunction with George Mason University, a graduate level course was developed focusing on infusing technology in to the K-12 curriculum. This course was offered both during the fall and spring semesters and was made available to ITs as well as classroom teachers in Prince William County. The course dealt with the topics of the first instructional module in greater detail and provided opportunities for ITs to interact with classroom teachers.

In addition to the graduate course, several online courses were developed by the

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OIT to be delivered through Blackboard. The topics of these courses included: Inspiration online, Webquests, Lectora (web development), and Marco Polo Internet resources. Face to face courses developed included: United Streaming, NetOp School, GroupWise, Image Blender, digital cameras, and Kidspiration.

After developing this course of study, the OIT realized that training for these positions was a monumental undertaking. When reflecting on the amount of time and effort that planning for these first year positions entailed, alternative models of sharing the essential process with others were considered. The annual Virginia Department of Education's Technology Leadership Conference provided an excellent opportunity to share with others in the Commonwealth. We gave a presentation on our experiences in December 2005, which is supported by a web site (URL below). We hope that other school districts will benefit from these resources.

The Office of Instructional Technology personnel at PWCS believe strongly that technology use is not about hardware. As stated by Harvey Barnett (2001),

> what is important is how the technology is integrated with the instructional program. The guiding question technology leaders must keep in mind as they develop their plan are students using technology in ways that deepen their understanding of academic content and advance their knowledge of the world around them. (p. 1-2)

The office presented materials to new staff members so that they would be able to provide this level of support for the students.

Article Resource Links

Presentation of experiences at Virginia Department of Education Technology Leadership Conference:
http://www.pwcs.edu/itech/teaching_strategies/doe/index.html

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