

Chapter 38

Designing District– Wide Technology–Rich Professional Development

Drew Polly

University of North Carolina at Charlotte, USA

Clif Mims

University of Memphis, USA

Brenda McCombs

Kannapolis City Schools, USA

ABSTRACT

This case will focus on the following situation: As the technology coordinator for a school district you receive a state grant to provide technology resources and professional development for every teacher in the intermediate (Grades 5-6), middle (Grades 7-8) and high school (Grades 9-12) classrooms in your district. Your superintendent and school board have asked you to: (a) Design differentiated professional development to meet all teachers' needs; (b) Include some outside consultants but quickly build teacher capacity so future professional development can be facilitated by district employees; (c) Provide educational materials for teachers and parents about internet safety and legal issues; and (d) Determine that the use of technology has positively impacted student learning outcomes. This case study describes the story of how one school district responded to this challenge.

BACKGROUND INFORMATION

This case takes place in a high-need school district in North Carolina. Approximately 80% of the students qualify for free and reduced lunch. The school district is supportive of technology

integration, and the Superintendent, school board and all administrators believe that more technology needs to be incorporated into instruction. However, there is a lot of uncertainty among everyone about what effective technology integration looks like.

Through part of a large grant from the state's Department of Public Instruction, every teacher in each of the three schools—intermediate (Grades

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5-6), middle (Grades 7-8) and high school (Grades 9-12)—received a teacher laptop, flash drive, projector, and interactive whiteboard in each classroom. There was also money for schools to purchase additional technologies such as document cameras, video cameras, or printers. Each teacher also received at least 5 days of technology integration professional development. However, the design and the content of the professional development was left to the determination of the technology coordinator.

THE CASE

While the general outline of the professional development was written into the grant, once it was funded the technology coordinator needed to determine how to provide effective professional learning experiences for over two hundred teachers in all three schools. Using a framework of learner-centered professional development (National Partnership for Excellence and Accountability in Teaching, 2000; Polly & Hannafin, in press), the professional development was targeted to:

- Address problematic areas regarding student learning outcomes
- Provide explicit connections between technology use and concepts that teachers taught
- Give teachers choices about where teachers would focus their attention
- Facilitate collaboration among grade levels and subject areas
- Include follow-up support during the school year based on teachers' needs and
- Administrators' analysis of technology use

These goals were carried out in a few different ways that will be discussed later in this chapter.

Building Teacher-Leader Capacity

As a result of the need to build teacher-leader capacity and serve a large number of teachers, a team of teacher-leaders—called the Vanguard team—was formed. The Vanguard team consisted of early adopters and technology-using teachers in the district who were already using internet-based activities, interactive whiteboards, or teachers who had expressed a passionate interest for integrating technology into their instruction. These Vanguard team members participated in one week of professional development that was designed to mirror the same type of experience that they would co-facilitate with their colleagues during the remainder of the summer.

The Vanguard week included sessions that were facilitated by district leaders, teacher-leaders and higher education partners. Vanguard members learned about higher-order thinking skills and Revised Bloom's Taxonomy, designing effective technology-rich lessons, Web. 2.0 tools, and educational games. Further, Vanguard team members also spent a day preparing professional development sessions that they facilitated to their colleagues later that summer.

Technology Concerns

The major technology concerns focused on supporting the district-wide infrastructure that was essential in establishing a technology-rich district. The grant provided money to purchase laptops, projectors and interactive whiteboards for every 5th-12th grade teacher. The ample amount of technology could be purchased because the district opted to purchase Mimio technologies rather than other interactive whiteboard options. Mimio was between 1/3 and 1/2 of the cost of other whiteboard technologies. Further, using other funds, the district was able to upgrade the

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