Chapter 5
Planning and Implementation of a 21st Century Classroom Project

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EXECUTIVE SUMMARY

A southeastern school district technology committee was tasked with designing and implementing a project to develop 21st century classrooms throughout the school district. After research, it was determined classrooms would include interactive whiteboards, slates that interact with whiteboards from anywhere in the room, mounted projectors, teacher laptops, document cameras, classroom sets of student response systems (clickers), podiums for the laptops and storage, and sound systems with voice enhancers. Project challenges included updating the school district's infrastructure, training teachers, designing and remodeling classrooms in terms of electrical outlets and data drops, and ensuring equity for all the district's schools. The district used a project-planning model that included research, collaboration, prioritizing, implementation (divided into four phases – infrastructure, teacher laptops, interactive classroom, equipment replacement), and evaluation. All phases were completed in two years and one cycle of Phase 4 (equipment replacement) was completed prior to a severe budget crisis in the state.

DOI: 10.4018/978-1-4666-4237-9.ch005

ORGANIZATION BACKGROUND

The project was conducted in a southeastern public school district that has eight schools serving approximately 6,597 students in grades pre-kindergarten through 12. The school district spends approximately $10,508 per pupil in current expenditures, 66% on instruction, 30% on support services, and 4% on other elementary and secondary expenditures (http://nces.ed.gov, 2010). The school district views technology as an important part of education and has been actively integrating technology for approximately 20 years, beginning with one computer in each classroom. Funds for technology come from local funding, a school district foundation, Parent Teacher Organization grants and legislative grants. The school district foundation is a non-profit entity that provides funding for academic extras such as professional development, technology, and classroom enhancements. Currently, the school district foundation has provided $184,080.00 for technology, which is not included in the annual technology budget. The annual technology budget is $2,546,827, which includes equipment purchases, software, personnel, and professional development. The technology budget has remained approximately the same for the last five years since the development of the 21st century classrooms. Additional funds outside the normal technology budget have to be requested from and approved by the Board of Education for major equipment replacement, such as replacing teacher laptops.

SETTING THE STAGE

The school district technology personnel include a technology director; technology staff consisting of two technology system administrators, one information technology project manager, one technology support specialist, and four system technicians; and a secretary. There are also eight instructional technology specialists, one at each school. See the school district's organizational chart in Figure 1.

Figure 1. School district organizational chart