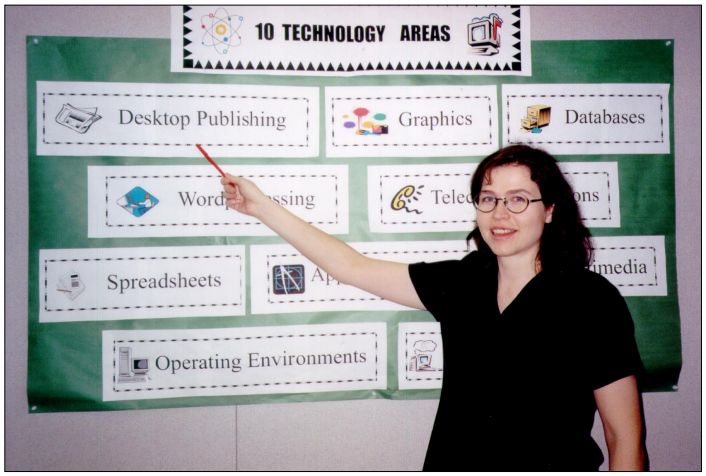
FUTUREKIDS

CASE STUDY

The Model School Technology Plan: One School's Efforts to Integrate Technology



Futurekids computer teacher Seana Meeks instructs Milpitas Christian School students in 10 core technology areas.

Children are naturally attracted to technology.

Have you ever noticed how much time a child can spend playing computer games? Computers tap into higher order thinking skills and motivate children to learn in a way no other tool can.

What do children learn from playing computer games? Because the games are presented in an appealing way, children like to use them. The more they use them, the more they learn about computer mechanics and terminology. While this level of expertise may be construed as "computer fluency," it is not.

Computer fluency is the ability to use the computer as a problem-solving, communications, and productivity tool. It is the ability to sit at any computer, access the programs on it, and make them do what you want them to do.

This may sound simple, but computer fluency is the number one requisite job skill for the 21st century. It is a primary skill, just like reading, writing, and arithmetic. And Christian schools must teach it well if they are to enable children to develop into productive, professionally successful citizens.

PAST TECHNOLOGY EFFORTS

Schools have been integrating technology into the learning environment for over two decades. The first practical usage of computers in schools occurred in the 1970s, when math and science teachers used them as complex calculators.

Beginning in the early 1980s,

Milpitas Christian School

By Ernie Delgado

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Students work on technology lessons in the Milpitas computer lab. An effective curriculum should incorporate key technology objectives with software specially selected for its academic value and its ability to help children gain lifelong high-tech skills.

Apple Computer gave away Macintoshes en masse to elementary school classrooms. This led to the development of hundreds of software programs for the Mac, some of which became classics, like Oregon Trail, Reader Rabbit, and Number Munchers.

In addition to the burgeoning educational software market, integrated learning systems also made their debut in the 1980s. Students would sit at a terminal and respond to drill questions by pressing the "Y" key for "yes" and "N" for "no." The advantages of these systems were that children could progress at their own rates and teachers could track progress easily. However, their major weakness was that children became passive learners who received minimal exposure to the true power of computing. In short, they failed to teach the most critical skill to children: how to use the computer as a tool to reach their goals.

Technology in Schools Today

Today things are different. The approach required for the 1990s and for the next millenium is teaching computer fluency. However, state standards for technology education vary, if they exist at all. This makes developing a technology plan a daunting task even for the most technologically sophisticated schools.

Many Christian schools today are seeking help from outside resources in implementing technology plans that meet their budgetary and educational requirements. One such school is Milpitas Christian School, a K-8 private school in San Jose, Calif. Milpitas Christian began a partnership in 1997 with Futurekids, a leading provider of computer fluency training for public and private schools worldwide. After attempting to implement its own technology programs for a number of years, Milpitas principal Judy Morasci turned to Futurekids for a multi-faceted, turnkey solution.

"We were teaching keyboarding and the Internet ourselves, but had a very hard time finding skilled computer teachers," said Morasci. "The 'techies' we found had no teaching skills, and the real teachers had limited computer knowledge. We didn't have a curriculum to follow, and dealing with the rapid obsolescence of hardware was financially impossible. Futurekids resolved all of these problems."

Key Components of a Technology Plan

Four key elements are required for implementing a successful technology plan:

- Appropriate hardware and software
- Computer-literate staff
- Technology curriculum
- Support and assessment

When purchasing hardware, schools should buy as businesses do: by measuring performance, price, and software stability. Schools should analyze their needs for a minimum of three years, since computers become obsolete so quickly these days.

Whether purchasing Macintosh or Windows-based PC systems, the platform should support software that will allow students to develop the skills needed in the next century. When purchasing software, there are many educational programs that reinforce academic skills such as reading and math. But educational programs alone are not enough. Schools must purchase productivity software—and teach children how to use it. Also, the operating budget should accommodate yearly hardware and software upgrades, not just the initial capital outlay.

As schools embrace state-of-the-art technology plans, the need for teachers to develop technology skills becomes critical. Teaching faculty how

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to use computers—and how to teach with computers—is achieved with a structured, comprehensive professional development program that equips them with fundamental computing skills. It should also show them how to apply their skills in the classroom and help them achieve their own professional goals.

A number of Milpitas teachers attended the Futurekids 45-hour Professional Development course after Morasci made staff development a major priority. "We're investing a lot of energy in making sure our staff become computer literate," she said.

The third component is the student curriculum. A technology curriculum should incorporate key technology objectives with software specially selected for its academic value and ability to help children gain lifelong high-tech skills. Futurekids offers K-12 curricula that are updated every year and that emphasize problem solving through project-based, interdisciplinary activities. Also, the curricula incorporate grade- and age-appropriate learning objectives as defined by a Scope & Sequence document.

The final component of the technology plan is support and assessment. The plan should be evaluated regularly to ensure that it meets its goals. There should be a built-in assessment tool that helps administrators evaluate the developing skills of both students and staff.

"I have seen a lot of positive results since upgrading our school technology plan," said Morasci. "Students are so excited that they stay after school to work on computer projects. And the teachers are excited because they're learning to use the computer as a tool to make their jobs easier."

If any of the four components of a technology plan is missing, then the use of technology is limited and the return on investment is greatly reduced.

Milpitas students display projects created in the Futurekids computer classes.

Ernie Delgado runs Futurekids' operations in Pasadena, Chino Hills, and Fullerton, California, and gives presentations on developing school technology plans at numerous educational conferences around the country. He can be reached at ernie@futurekids.com.

SCHOOL TECHNOLOGY SOLUTIONS