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Date: 03/20/04

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Building and Maintaining an Electronic Campus

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Building and Maintaining an Electronic Campus for PreK-12 Teachers
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Introduction

Pre-K-12 educators are exploring alternative ways to in-service teachers. Finding creative ways to carve out time for staff development is a challenge for most schools. A number of school leaders are considering electronic professional development to support and broaden learning communities and help teachers make better use of their time. Imagine, for example, Carole sipping coffee at 8:30 in the evening while working on her home computer. She is engaged in on-line professional development. Through a range of technologies, such as the World Wide Web, the Internet, video and audio conferencing, teachers can access instructional resources and work with their colleagues at times convenient for them. Electronic mail and bulletin boards enable teachers to share information and solve problems with colleagues at any time. In addition, on-line professional development enables teachers to connect to different sites without spending time and money on travel (Cannings, 2003; Kabilan, 2003 and North Central Regional Educational Laboratory).

This article describes the way in which schools can bring professional development programs to teachers via distance learning, using on-line technology. Pre- K-12 teachers will find this mode of professional development having many benefits for up dating themselves and keeping abreast of school reform programs and best practices. In addition, the technology allows teachers to share their very own best practices with peers within a grade level and/or the entire school faculty. Gina Newell, Marge Wilsman, Mary Langenfeld, and Andrew McIntosh (2002) work as a team facilitating the online programs of the Wisconsin Educational Communications Board, a state agency in Madison, Wisconsin. They are dedicated to connecting teachers of grades K-16 in the Wisconsin mathematics community. Here is a brief description about one colleague's experience.

“I’m located four hours from Madison and five hours from Milwaukee. Most of the conferences and big names in mathematics education are in those two areas of the state. From 1985 to 1995, I had to wait for either the annual statewide math conference in May or the summer academy in July to meet with these people, and that was short-lived--one week at the most. If I wanted to keep in touch with them, expensive long-distance phone calls were my only avenue.

But starting in 1995, the Wisconsin Educational Communications Board [ECB], a state agency, became the norm for ongoing professional development with its online network that includes five mathematics teacher professional development programs for K-16 teachers. No longer did I have to wait. I could talk to educators at all hours of the day or night. The ECB’s network gives me the connection between face-to-face meetings. I learned how to facilitate online groups and take what I learn back to the classroom and faculty meetings and teach others.”

In addition to the above example, schoolteachers around the nation are participating in online professional development offered by educational organizations. For example, the Association of Supervision and Curriculum Development (ASCD http://pdonline.ascd.org/pd_online/new/) offers on-line professional development on topics such as classroom management, conflict management, early childhood mathematics, creating an effective substitute teacher program and designing performance assessments. There is a fee to participate in approximately 20-hours of on-line course work, which can be costly for some schools. While on-line programs are excellent for many working in traditional school settings, there is also a need for customization. The *Electronic Campus* (EC) will allow you to do just that. It is a process that will enable you to build an on-line, customized Web site, tailored to the school community: classroom teachers, board members, school leaders, students and parents. Building your own PD site can be cost effective. It is an efficient process for providing classroom teachers with faculty information, new curriculum ideas, and opportunities to network with one another.

Characteristics of the Electronic Campus

The *Electronic Campus* (EC) offers quality educational opportunities regardless of time and place, constraints often faced by teachers. EC allows teachers to access units of professional development anytime, anywhere. The goal of EC is to provide a learner-centered community that uses the latest technology. Wireless connections, modularized learning, and streaming media are becoming the norm for learning experiences offered at a distance. For example, “virtual field trips” can now take the place of excursions that in the past would need extensive planning and were subject to weather and transportation limitations.

For schools to successfully implement and support EC, three elements are needed for a well functioning program:

1. Technical Support – integration of learner management and course management systems; technical support via online and telephone-based help desk.
2. Instructional Support –support for online course conversion and development; instructor training program for on-line teaching.
3. Learner Support – rapid response to teacher inquiries; busy professionals need a place to call as a first responder to their needs.

Each of these support elements will be discussed in greater detail below.

Technical Support

A seamless link needs to be created between the employee information system and the course management system. Each teacher needs to have access to online content and support materials. In addition, hybrid courses can also be implemented for EC. The hybrid course consists of a combination of face-to-face instruction and online instruction. Hybrid courses provide an “easier” transition for those teachers who have not experienced or are not yet involved with online learning.

Instructional Support

In order to support teachers through a technology instructional delivery system, professional development needs to focus upon on-line course management and information accessing skills. Best practices can be shared through “Web-based courses” with subject specific content. This would provide a teacher with basic course documents such as learning objectives,

assignments, and assessments that they could modify for their own use. This would ensure an element of consistency between courses to maintain quality and allow teacher to share best practices related to state standards.

Learner Support

While technical and instructional supports are important components of EC, learner support is key. End users must be assured that the system has available resources for learners to thrive in a new learning environment. The critical component is to ensure success by creating a single access point that could be accessed via telephone or e-mail. Each teacher might be enrolled in an on-line orientation that provides instruction on the use of the course management system.

Creating a Customized Electronic Campus

In order to establish an EC, a Web-based portal infrastructure has to be established, implemented and supported. Typical portals have the following features to support EC:

- Communications Mechanism – The Electronic Campus would be the primary source of information for teachers.
- Calendars – A master calendar of district events should exist and offer ‘drill down’ capabilities to calendars containing group specific information. Sports team information, plays, faculty meetings, etc.
- FAQ – Frequently Asked Questions would be designed as an on-line help mechanism for teachers.
- EC Search Engine – The search engine would be used to find information in the electronic community. Some site visitors rely solely on search engine capabilities to locate information of interest.
- Access to District Resources – All teachers, staff and students should be able to access the software applications and district wide information. Accessible systems could include library resources as well.
- Access Web Resources – There should be a Web search engine as well and allow users to access information on the Internet. User defined URL links are common to most portals as are links to media resources. This would allow individuals teachers or groups to “bookmark” links for others to access.

- Customization – One common component of most portals is the ability for individuals to customize the look and feel of their own portal while still maintaining a consistent format. Individuals would be able to use templates to define preferred screen layouts and what information is important to them.
- Content Management – The course management systems is a place to house online or hybrid professional development, for teachers to share best practices and for tracking student progression against defined state benchmarks.

Capturing and Maintaining the Interest of Teachers

Essex (2002) provides three ideas to increase the amount of teacher participation in on-line professional development seminars. The first consideration is to keep the number of big, intimidating activities to a minimum and to increase the number of small, but meaningful ones. Second, schedule a number of required synchronous chats during a two to three-week on-line seminar. Chat sessions will increase teachers' motivation level and interest in on-line activities. It will allow the facilitator to answer a lot of questions about activities in an efficient manner, without having to answer numerous e-mail messages or discussion board postings. Third, create at least some brief activity, either a chat or something to respond to on the discussion board, every week, so that teachers get into a regular pattern of going to the discussion board. In order to feel like they are an active part of the professional development community, the chat schedule needs to be structured so that teachers are required to participate from the beginning, and on a regular basis, throughout the professional development program.

Existing EC On-line Programs

In addition to educational organizations, here are more online EC programs that currently assist teachers.

- *Eisenhower National Clearinghouse Online* (ENC) is a K-12 math and science teacher center. The mission of ENC for Mathematics and Science Education is to identify curriculum resources, create high-quality professional development materials, and disseminate useful information and products to improve K-12 mathematics and science teaching and learning.

The ENC Curriculum Resources Page is posted at: <http://www.enc.org/resources/?ls=sn>

Visit the ENC Classroom Calendar at: <http://www.enc.org/features/calendar/?ls=fe>

- *PBS TeacherLine*, is funded by a grant from the U.S. Department of Education. It is committed to helping teachers acquire the skills they need to prepare students for a successful future. *TeacherLine* provides online professional development through courses that meet national and local standards, supportive and collaborative learning communities and Internet-based resources. Visit TeacherLine at:
<http://teacherline.pbs.org/teacherline/about.cfm>
- *iEARN* (International Education and Resource Network) has trained more than 45,000 educators since its inception in 1988. *iEARN* workshops are designed to cover the technical, collaborative and organizational skills to participate in a global, collaborative Internet-based learning environment. Visit *iEARN* at:
<http://www.iearn.org/about/index.html>
- *Teacher Tap* is a free, professional development resource that helps educators address common technology integration questions by providing practical, online resources and activities. Each project page focuses on an interesting topic and provides common questions, background information, useful websites, and practical hands-on activities. Project pages are divided into four areas: teacher resources, learning resources, collaboration, and software utilities. Find Teacher Tap at:
<http://www.eduscapes.com/tap/index.htm>
- *Teacher Education Institute* offers online professional development for college credit on classroom management and technology skills. Their *Human Factor Class* is a 6 weeks course for graduate credit on classroom management. View an example, “Bully Prevention in Schools,” at
http://www.teachereducation.com/course_outlines/prodev_human/bully_pd_human_outline.htm
- *Tapped-In* is a site where K-12 teachers, librarians, administrators, and professional development staff, as well as university faculty, students, and researchers gather to learn, collaborate, share, and support one another. Visit: <http://ti2.sri.com/tappedin/>

Conclusion

Effective professional development makes the connection between subject matter and pedagogy and theory and practice. It expands a teacher’s range of research-based instructional methods for teaching content and helping students master new skills. Such programs should create

regular opportunities for collaborative planning, classroom assessment skills, and connecting teachers to other professionals within and beyond their school (Mahon, 2003). The *Electronic Campus* can provide K-12 teachers with professional development using on-line learning environments. It also can be cost effective. Focusing on the three major areas of support – technical, instructional and the learner – is essential in the transition from a traditional learning environment to one embracing the concept of EC. Internet connectivity is a must, however. School leaders can create a customized EC environment for their schools, as well as guide teachers to existing EC Web sites, such as those mentioned above. More information about establishing your own on-line professional development center can be found at the *Ed Tech Leaders On-Line* site: http://www.edtechleaders.org/programs/opd_overview.htm Dr. Timothy Brannan can be contacted at: brann1ta@cmich.edu.

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