The Center for Innovation in Instruction at Valley City State University: Improving Teaching with Technology

by Ray Brown

Valley City State University’s Center for Innovation in Instruction is a resource center serving the entire state of North Dakota as an educational, informational, and support center for the use of emerging technologies in education. For this innovative project, VCSU received the 1996 CAUSE Award for Best Practices in Professional Development.

In the last few years a number of new activities were initiated at Valley City State University (VCSU) tied together by a common theme, “Leadership for Change.” The Center for Innovation in Instruction (CII) represents a powerful symbol of the institution’s desire to seek strategic partnerships that meet the common needs of the groups represented in the project. With the founding of the CII in 1993, VCSU emerged as a state and regional leader for instructional innovation and implementation of technology initiatives designed to prepare students for professional roles that will extend into the next century. A year later, faculty, staff, and students developed a vision of VCSU as a nationally recognized, learner-centered caring community committed to continuous improvement. With the approval in the fall of 1994 for VCSU to become a notebook-computer campus, the institution took another big step into the future.

Project background

VCSU faculty members started a planning process during the 1992-93 academic year that culminated in the creation of the Center for Innovation in Instruction. At first, a faculty committee met regularly to struggle with the many issues surrounding the high cost of technology in an environment of limited resources. People recognized early in the process that creative ideas would be needed to adequately prepare and support faculty. The CII concept grew rapidly from a hope for providing a room on campus with a trainer into something much larger and more powerful. The faculty involved in the early planning observed that all kinds of educators and institutions were facing the same set of problems dealing with the rapid pace of technological change. As they studied efforts by others, their initial feelings of inadequacy were replaced by a sense that significant opportunities existed for those who were willing to step forward to gather resources and offer badly needed services.

Ultimately, the planning group came to the realization that a resource center was needed to serve the entire state as a focal point for emerging technology education and support. Located on the campus of VCSU, the CII is now widely known as a central point of contact in the state for technology planning and training. Rather than go it alone, VCSU (with the help of public school administrators representing the Southeast North Dakota Technology Consortium) created an image for a CII that would operate through a unique partnership among the North Dakota Department of Public Instruction and the public school community, the State Board of Vocational Education, the business community, and higher education.

From the beginning, the CII concept has rested on a belief, drawn from the VCSU mission, that the rapid emergence of technology as an intellectual, cultural, and economic force requires new relationships for higher education, vocational education, the public schools, and other interested groups. The CII provides a comprehensive approach to meeting the parallel needs of the representative groups. The single statewide resource operates more efficiently, avoiding duplication of services, and maintains a higher quality of service than any of the respective groups could hope to achieve working alone.
The CII mission includes the following components:

- support instructional innovation and the application of technology, including encouragement of networking among education professionals with similar interests;
- provide professional development opportunities for North Dakota teachers and administrators, and support the preparation of pre-service teachers to facilitate effective adoption of technology in the schools;
- promote mutually beneficial partnerships between the business community and educational institutions to enhance the quality of schooling;
- develop products and disseminate technology information to meet specific needs of schools; and
- assist school districts in their planning for use of instructional technologies.

Professional development opportunities available through the CII

The CII operates to meet the immediate needs of professional educators at all levels. It also provides enhanced opportunities for undergraduates preparing to enter public school teaching. The Center forms active partnerships that focus the resources of participants on common professional development needs.

The CII offers support for instructional innovation and the application of technology in educational environments. In-service opportunities are developed to facilitate effective adoption of technology. Mutually beneficial activities are identified and promoted, including a special emphasis on preparation of materials and training to help educators plan for the use of future technologies. The CII has achieved particular success in the last area, making presentations on technology planning, developing planning materials, and offering training workshops that have had a direct impact on over half the public schools in the state.

A listing of services provided by the CII includes:

- workshops for educators
- technology planning assistance
- technology leadership institutes
- dissemination of current research
- hardware preview center
- software/courseware preview center
- product development
- newsletters and publications
- networking of service providers

Technology Planning Workshops and the related development of materials serve as key CII initiatives. In a telephone survey of participating North Dakota school districts, 53 percent completed the entire planning process and presented reports to their respective boards. In 87 percent of these cases, the recommendations presented were approved, and 71 percent said that they were implementing their plans.

The CII in partnership with SENDIT\(^1\) and North Dakota State University created SchoolNet to provide networking services to the state. SchoolNet provides seminars, consulting to help create local area and wide area networks, and assistance for educators interested in connecting to the Internet. The latter initiative is known as the SchoolNet Connection Cooperative, in which member schools share costs and work together to administer their use of Internet.

VCSU faculty, staff, and students used the CII planning process to prepare for their successful implementation of the technology-intensive campus concept of using notebook computers. In addition to the training and consulting services offered to the university, the CII is now heavily involved in providing training to faculty in a variety of topics that include the Windows95 operating system and a suite of software applications, presentation software and multimedia development, e-mail to enhance communication between faculty and students, and curriculum development on the World Wide Web.

The CII is a leader in Goals 2000 statewide technology planning. The goal of this effort is to define key technology issues facing the state and chart a course of action for the next two years. The CII will play a central role in four technology initiatives that emerged as focal points: technology awareness and leadership, regional technology service centers, professional development, and funding for learning technology resources.

The CII was part of a consortium of higher education institutions, public schools, and telecommunication consortiums that prepared a proposal to the U.S. West Foundation to develop and implement a series of multimedia modules that will be used to assist K-12 and university-teacher educators to integrate multimedia educational tools into their day-to-day teaching.

Now in its implementation phase, five North Dakota K-12 schools and one university have been selected as pilot sites for the project. Each school has a team of teachers that work with CII personnel throughout a semester. An initial brainstorming session is held early on, to establish the team’s goals and objectives. From this an integrated thematic curriculum multimedia project is planned. The focus is on curriculum-driven and learner-centered activities that utilize multimedia technology. All ages, all grade levels, and all disciplines are encouraged to participate.

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\(^{1}\) SENDIT, formed in 1991, is a statewide communications network providing e-mail and Internet access for K-12 students and teachers.

CAUSE/EFFECT
Spring 1997
After goals and objectives have been developed, three days of onsite training are completed with the teams of teachers. A multimedia cart of technology equipment purchased using funds provided by U.S. West remains at the school for the duration of the semester. The students and teachers use this equipment, as well as their school’s, to complete their integrated thematic multimedia project. A key component of this project is the ongoing mentoring from the CII that continues throughout the semester. The CII staff actually participate as an integral part of each school’s team.

A look at the future
The CII in a brief span of time has exceeded original expectations by a wide margin. In addition to playing a central support role in VCSU’s emergence as a leader for the application of technology to instruction, the CII has at the same time had a significant impact on the state by elevating the level of technology awareness. Largely due to efforts of the CII, there is a higher quality dialogue on technology issues both on the campus at VCSU and across the state. CII has successfully served as a catalyst to raise awareness of technology issues within all its constituent groups. As with any organization involved in technology implementation, CII’s mission will focus on building existing partnerships, and grow to include other partners, constantly changing to better meet constituents’ needs.

Acknowledgments
The Center for Innovation in Instruction acknowledges the contributions of those individuals who played major roles in CII’s initial development and implementation: Dan Pullen, CII Director; Tim Kadrmas, CII Assistant Director; Larry Nybladh, Superintendent, Central Cass Public Schools; Jerry Bartholomay, Superintendent, Hillsboro Public Schools; Joe Linnertz, Director, North Dakota Department of Public Instruction; Bill Rosenberg, Supervisor, State Board of Vocational and Technical Education; Ellen Chaffee, President, Valley City State University and Mayville State University; Ray Brown, VP for Academic Affairs, Valley City State University and Mayville State University; Don Mugan, Professor, Technology Department, Valley City State University; and Joe Tykwinski, Chief Information Officer, Valley City State University.

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enrolled in our calling card plan, which allows them to make reduced-rate long distance calls from off campus using the same authorization code.

BC uses MCI as its long distance provider. MCI polls the BC switch daily to collect and cost call-accounting data. It also functions as BC’s phone billing and collection agent. Each student receives a monthly personalized bill of long distance charges. All other Agora services—local phone service, voice mail, data access, e-mail, and cable TV—are provided free of charge from BC.

Voice mail enhancements
During the second year of Agora, BC replaced its voice mail system with IBM DirectTalkMail. This new system has allowed BC to fully automate creation and maintenance of voice mail accounts. More importantly, it is a fully customizable and extensible product. BC has just recently extended the product to recognize externally generated distribution lists. Mainframe procedures refresh common lists such as class rosters and department lists on a regular basis. Authorized individuals can log into voice mail and send a message to one of these lists by number. Gone are the days when faculty had to build and maintain their own class distribution lists. In addition, other mainframe procedures select individuals who meet specific criteria and automatically send a pre-recorded message to the selected group. A simple example is that we now can automatically notify students of overdue books by voice mail. The applications for this utility seem endless.

Conclusion
By viewing individual communication services (voice, data, cable) as strategic tools in a communication infrastructure, BC was able to create an electronic communication environment with superior services at drastically reduced cost levels.

Acknowledgments
Project team members included Charles Diehl, Systems Programmer; Elizabeth Dority, Programmer Analyst; Leo McCarthy, Systems Programmer; and David McCormack, Assistant Director, MIS.