In 1993, in response to declining resources and demand for dental hygienists at other technical colleges, Wisconsin's Northcentral Technical College (NTC) converted its dental hygienist program from a traditional format to a distance format that uses interactive television and is shared between NTC and three other colleges. The framework used by the college to plan the new program focused first on meeting learner needs and then moved toward getting faculty and institutional support; involving stakeholders in planning, while taking into account accreditation and program management issues; and exploring technology options and costs. The final phase of planning addressed facility needs; assessment methods; and student, faculty, and curriculum development. Literature reviews and interviews conducted with faculty, administrators, and counselors revealed key ingredients for success in the following areas: (1) technical, emphasizing the need to change cameras and angles, plan for equipment failures, and prepare contingency plans; (2) instructional, including required meetings between the instructor and extended classroom students, the use of humor to humanize instruction, and the importance of well-organized teachers; and (3) organizational, focusing on the use of faculty co-facilitators, the establishment of uniform policies and site facilitation procedures, staff development, and classroom management. (TGI)
LESSONS LEARNED IN KINDERGARTEN GO THE DISTANCE:

OCCUPATIONAL PROGRAM SHARING

By

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A C A D E M Y

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Susan C. Budjac Biography

Sue received a bachelor's degree in dental hygiene from Marquette University in 1976 and a master's degree in education from the University of Wisconsin-Stevens Point in 1987. Sue has taught dental hygiene programs in Wisconsin and Illinois since 1977 and has been a faculty member for the last 12 years in the dental hygiene program at Northcentral Technical College (NTC) in Wausau, WI. In 1992 Sue served as one of the two co-facilitators responsible for the development of the country's first shared dental hygiene program model using distance technology. In 1993 she became a member of the dental hygiene self-directed work team responsible for program administration. Sue has presented the topic of shared programming in Washington, Wisconsin, Illinois and Kansas. She continues today with her dental hygiene program responsibilities, teaching, and is also on a special assignment for NTC as the self-study coordinator in preparation for NTC's college wide North Central Association accreditation visit.

Beth A. M. Dailey Biography

Beth Dailey is the Dean of the Lakeland Campus and Outreach Education for Nicolet Area Technical College. For the past two years she has facilitated the development of a regional telecommunications network connecting the college with nine secondary educational organizations. This network will move into the implementation phase in January 1997. In addition, she coordinates distance learning funding efforts, interactive television instruction and associated staff development.

From 1980 - 1993, Beth was a faculty member and administrator in the dental hygiene program at Northcentral Technical College. She worked on the early planning stages of the dental hygiene shared program project. Her experience also includes consulting and facilitation in the areas of team building, facilitation, continuous quality improvement, strategic planning and leadership development.

Beth holds a bachelor's degree in allied health teacher education from Ferris State University, a master's degree in Educational Administration from Northern Michigan University and is currently completing a certificate in Distance Learning from the University of Wisconsin - Madison.
"Study the situation intently. Figure out how the game has changed, how priorities have been reordered. Decide which aspects of your job you should focus on to leverage up your effectiveness the most." (Pritchett, 1995)

Many people make the mistake of trying harder instead of trying differently. In our rapidly changing world we need a higher level of adaptability and some new moves. This is the story of how individuals from four technical colleges in Wisconsin came together and created a model for sharing an occupational program using technology. The lessons learned can serve as a model for others to follow.

Program Sharing and Distance Education Defined

In the Wisconsin Technical College System (WTCS), a technical college district holds State Board approval to offer a program. This district is the principal district. One or more (cooperating) districts can elect to develop agreements with the principal district to share the program. Those cooperating districts do not and will not hold State Board approval for the program during the life of the agreement. Only the principal district shall grant degrees of graduation from the program. The dental hygiene program described in this paper is one of 12 occupational programs being shared using technology in the WTCS. There are an additional 12 shared programs in the planning stages.

Anne Forster describes distance education as involving the development of specially designed instructional materials and their structured delivery, with two-way communication, to learners separated from the teacher (providing agency) by space and/or time. A wide range of technologies were explored for use in the delivery of the dental hygiene program. These included print guidelines, audiographics, videotapes, computer, satellite, compressed video and fiber optic television systems. To best meet the needs of learners and teachers, interactive television (ITV) using two-way video and audio over fiber optics was selected.

History of NTC's Dental Hygiene Program

In 1980 NTC established its accredited two year associate degree dental hygiene program. In the early 1990's, NTC found itself faced with declining financial resources resulting in budget cuts across all areas of the college. At this same time, several other technical colleges in Wisconsin had a market demand for dental hygienists and were interested in program sharing. The WTCS was encouraging program sharing between Wisconsin's technical colleges. As a result of these factors, in 1993 the program was converted from a traditional face-to-face learning environment to a program shared between NTC and three other Wisconsin technical colleges using ITV.
<table>
<thead>
<tr>
<th>Time Period</th>
<th>Number of Sites</th>
<th>Number of students accepted per class</th>
<th>Faculty</th>
<th>Curriculum Delivery</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980 - 1993</td>
<td>1 (Wausau)</td>
<td>30</td>
<td>4 - full-time</td>
<td>lecture - face-to-face clinic and lab - on campus</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>7 - part-time</td>
<td></td>
</tr>
<tr>
<td>1993 - present</td>
<td></td>
<td></td>
<td></td>
<td>lecture - ITV clinic and lab delivered on and/or off campus</td>
</tr>
<tr>
<td></td>
<td>4 (Appleton, Eau Claire, LaCrosse, Wausau)</td>
<td>54 (12 - Appleton, 6 - Eau Claire, 6 - LaCrosse, 30 - Wausau)</td>
<td>5 - full-time (1 - LaCrosse, 4 - Wausau)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>14 - part-time (4 - Appleton, 2 - Eau Claire, 1 - LaCrosse, 7-Wausau)</td>
<td></td>
</tr>
</tbody>
</table>

### Framework for Establishing a Shared Program Using Technology

The framework below emphasizes the importance of starting with learner needs and then moving to buy-in at the faculty and institutional levels. Planning needs to involve the stakeholders, and also deal with accreditation and program management issues. Technology options are explored during this phase as well. The final phase addresses facility needs, assessment and the development of students, faculty and curriculum.

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![Framework Diagram]
Lessons Learned

After reviewing survey results and interviews with faculty, administrators and counselors several ingredients for success became clear. These insights are not new, in fact, Robert Fulghum says that these are lessons we've learned in kindergarten. They are "share everything, play fair, don't hit people, clean up your own mess, don't take things that aren't yours, and say you're sorry...." In addition to this advice, specific lessons learned will be described using criteria developed by Mark Hawkes.

Technical
Variables related to technical criteria include: ease of use, speed of access, level of graphical realism, audio/video output and flexibility. The stakeholders had the following to say about technology:

* Initially there were adjustments to make in using the technology which now seems more natural.
* It is important to change cameras and angles to avoid hypnotic trances.
* Be prepared for equipment failures and have a back-up plan.
* Arrive prior to class to set up and test transmission so that class time is not spent in these activities.
* Keep your sense of humor. Flexibility is essential.

Instructional
Criteria used for good instruction is the same no matter what the medium. Some variables that Hawkes suggests are social presence, use of multiple resources, learner control, learner/instructor attitudes and learner achievement.

Social presence is defined as the rate at which learner, instructor and content are able to interact with each other and the level of responsiveness that the instructor shows for learners' individual needs. Students do find it more difficult to form connections with the instructor and are at first reluctant to interrupt the instructor. They say that once the class has ended so has their chance to ask the instructor a question. Instructors work hard to humanize instruction and eliminate the perception of distance because they say it can be easy to lose personal contact. Some strategies that instructors use to deal with this are to meet extended classroom students "face to face" early in the course, use humor, project animation and enthusiasm, and talk to people instead of the camera. It is critical to treat students at all sites fairly.

The instructors find that the resources in the classroom such as the document camera, VCR and computer allow them to easily use multiple resources. To deliver effective instruction using ITV they suggest using different instructional
strategies and mediums every 10 - 15 minutes and to plan for interaction. Issues of learner control were not addressed by the faculty or students. Learner and instructor attitudes toward the technology have improved with use. At first, students were intimidated by the technical hardware and by seeing themselves on camera. It is important to teach students how to operate the controls. Extended classroom students often feel like they are missing out. To deal with this instructors travel to the different sites, and schedule ITV sessions between the instructor and each individual site to address student questions and concerns. Mechanisms have been set up to establish who to go to with problems. All students from extended sites are required to meet at the principal district for one face-to-face session. This allows students to get to know each other, see the origination site, and meet the faculty and staff.

The origination students have different concerns. They tend to feel resentment toward the extended classroom students because the instructor needs to take time to focus the cameras, deal with technology, etc. Group development issues are the same but seem to take place by site rather than as a large group as was anticipated. Dealing with these issues early on and involving students in problem solving are keys to success. The faculty need to be organized for things to run smoothly. Though the extensive preplanning has its positive side, it can hamper spontaneity.

Initially extended classroom students feel they will not be as successful or perform as well as origination students. In the past three years, data has shown that extended classroom students have performed better than the origination students in final course grades, the written National Board examination and cumulative GPA. There was no significant difference in the clinical examination scores.

Organizational
Important to the success of this project has been the use of faculty co-facilitators. This team handled organizational issues such as space and time flexibility, support system flexibility and staff development. Valuable community partnerships developed as a result of stakeholder involvement in planning through a multidistrict steering committee.

Coordinating four different district calendars and the availability of distance learning network time does result in scheduling complications. Creative problem solving is required. Classes are now scheduled in blocks of time over two days. This makes for very long days.

The support systems are critical to the program’s success. Many of the lessons learned center around establishing these systems earlier. Counselors, registrars, and financial aide officers need to be brought early into the planning phase. Some of the issues that need to be addressed include: graduation fees, sharing
credits, differences in grading scales, grading split lecture and lab courses, school calendars, tuition, diploma, transcripts, admissions, student orientation, and school catalog information. Uniform policies are needed in all of these areas and it requires collaboration from the key people from each institution. Site facilitation procedures need to be established early as well; proctoring exams, material distribution, video taping, test score distribution.

Staff development is important in the planning stages and throughout implementation. Faculty need to be involved in researching various technology options, and they need ample time to practice with the equipment before delivering instruction. Mentoring and collaboration among lecture and lab faculty in the different districts takes place through weekly conference calls. This has many benefits. It is important that faculty put aside the notion that there is only one way to accomplish outcomes and be willing to share ideas in a collaborative environment. Classroom management issues were a bigger issues than anticipated. Instructors need define classroom expectations and handle behavioral problems early. Faculty in-service in this area is important.

Summary

This program sharing model using technology offers many planning and implementation insights and lessons learned. Communication and the involvement of all stakeholders is critical in the planning phase and equally important throughout implementation. The success of this program will center around continually interpreting results and answering key questions. How has shared programming using technology improved instruction and learning? What criteria should be used when measuring effectiveness? As you go out into the world of program sharing using technology take Robert Fulghum's advice, "..watch out for traffic, hold hands, and stick together."
Bibliography


Educational Services Manual, Program Procedures 3.20.6.1, Program Sharing.


Interviews with the following people:
- Sue Budjac, Instructor, NTC
- Diane Cralley, Instructor, NTC
- Helen Larson, Counselor, NTC
- Lois Van Meter, Administrator, WWTC
- Becky Rajek, Instructor, NTC
- Joan Rohr, Instructor, FVTC


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