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Faculty Development for Teaching Online: Educational and Technological Issues

Anne Barker, EdD, RN

ABSTRACT
The purpose of this article is to describe the process of creating a faculty development program for online instruction. Both educational and technological issues are discussed. Factors that will facilitate and barriers that will impede the implementation of online courses are included. Many faculty concerns regarding online courses relate to the issues of quality and student learning. Faculty development activities are directed to ensure that courses are developed using sound educational theory and principles. Online courses are first about student learning; using the technology is second. Thus, faculty development programs must be two-pronged, involving instructional design and technology. It is an ongoing process that must be focused on continual training and development.

During the past decade, the rapid growth of enrollments and course offerings available as distance education has resulted in the need for nursing faculty to develop new skills, both educational and technological. The most recent survey of distance education at degree-granting postsecondary institutions found that 56% of 2-year and 4-year colleges and universities offered distance courses, with an additional 12% planning to offer these courses in the next 3 years (U.S. Department of Education, 2003). Although distance education included courses delivered to remote locations via audio, video, or computer technologies, computer and video technologies were most commonly used.

Most importantly, the trend in distance education is the use of asynchronous computer-based instruction (online courses), with 90% of the institutions surveyed now offering courses online over the Internet. Moreover, 88% of these institutions plan to use or increase the use of this technology as the primary mode for the delivery of distance education courses (U.S. Department of Education, 2003). At the same time, computer-based instruction is being used as an adjunct to the traditional classroom. In these “blended” classes, students attend on-campus courses and use the technology between class meetings or in lieu of additional class meetings for communicating, completing assignments, and retrieving course documents.

The purpose of this article is to describe the process of creating a faculty development program for asynchronous computer-based instruction offered at a distance (online courses). Both educational and technological issues are discussed. Much of the information in the article can also apply to “blended courses,” but these are not the focus of the article.

BACKGROUND
In 1998, the Nursing Department at Sacred Heart University in Fairfield, Connecticut, began a degree-granting program for RN to BSN students, putting all of the courses for the major online. The nursing faculty involved in this innovation had no experience in online teaching and did not even know what an online course “looked like.” Five years later, we have a cadre of experienced online faculty members, with new faculty...
members teaching online each semester. At first, only full-time, seasoned faculty members taught online. Now we use a mix of full-time faculty and adjunct faculty. We are currently in the process of putting the courses leading to a master of science in nursing degree in patient care services administration online.

A variety of proprietary software platforms are available for online course delivery. For example, Sacred Heart University uses Blackboard (Blackboard, Inc., Washington, DC) as the course delivery platform. Because most of the software on the market generally provides the same functions, faculty development needs are similar and the concepts outlined in this article can be adapted to individual settings.

As we developed our program, we identified four distinct areas of faculty development that needed to be addressed: faculty “buy in,” course quality and student learning, administrative and technical support, and faculty–student interactions.

**FACULTY “BUY IN”: USING CHANGE THEORY**

Before embarking on the implementation of online courses and a faculty development initiative, gaining the support and enthusiasm of the faculty is crucial. Using Lewin’s (1974) change theory and his force field analysis, the individuals leading the initiative need to assess the factors that will facilitate the change and those that will be barriers to change.

In her review of the literature, Clay (1999) found that several factors facilitated the willingness of faculty to embrace distance education. These included:

- The opportunity to reach remote students
- Intellectual challenge and the opportunity to develop new ideas
- The opportunity to work with more motivated students
- Release time and other financial reward
- Opportunities for research
- Motivation to use technology
- The opportunity for recognition
- The opportunity to utilize support services
- Reduced travel
- Increased course quality
- Time flexibility

Each of these factors seemed to facilitate our adoption of online courses, and we have used several other facilitators to implement our new programs. These include (1) the ability to place responsibility for learning squarely on the shoulders of the students, (2) the richness of asynchronous discussion on the Discussion Board, and (3) the opportunity for developing new ways to promote faculty–student interactions.

Conversely, Clay (1999) found that there are five primary factors that inhibit traditional faculty from embracing online teaching. Table 1 describes these faculty concerns and identifies strategies we have used successfully to overcome the barriers to change. Each of these strategies is discussed in the subsequent sections of this article and can be used as an organizing approach for creating a faculty development program.

The leaders of the development of online courses and degree programs should assess each of these facilitators and barriers in the nursing department. After this assessment, the leaders can use basic, well-known change strategies (e.g., communications, participation of faculty in decision making, education, providing information, and supporting the development of peer relationships that move the change forward) to enhance the facilitators and decrease the barriers.

An important change strategy at Sacred Heart University is that faculty members are not required to teach online. This has proven to be a good decision. Resistance to the development of distance online courses has been minimal throughout the entire University because those who remain skeptical about online courses are not required to teach in this format. Further, a group of “faculty innovators” who serve as role models for other faculty members and advocates of online education has emerged. This group works informally together and meets monthly to showcase their courses and to seek and give advice.

Equally important, the reward structure of the University has accommodated online learning. Each faculty member is provided a stipend or release time when developing a course for the online environment. Online courses are part of the contracted workload and hold equal value to traditional courses for tenure and promotion.

**COURSE QUALITY AND STUDENT LEARNING**

Many faculty concerns regarding online courses relate to the issues of quality and student learning. Ensuring that courses are developed using sound educational theory and principles is vital to overcoming this concern. Establishing a program evaluation plan that measures and compares student outcomes in the traditional classroom and online is also important. Faculty members need to accept the paradigm shift from faculty teaching to student learning.
Similar to other nursing faculties throughout the country, the nursing faculty at Sacred Heart University have focused on student learning in the traditional classroom, resulting in new strategies to ensure that students are architects of their own learning. This is in direct contrast to the traditional role of the “professor professing” and being the “sage on the stage.” Because of this, the implementation of online learning programs met little resistance among the nursing faculty.

In designing online courses, we adhere to the guidelines outlined in Table 2, which have evolved over time. It is important to engage in a conversation about student learning as online courses are developed. It should be an ongoing conversation, and establishing systems for faculty to share successes and failures is important.

**TABLE 1**

<table>
<thead>
<tr>
<th>Faculty Concerns/Barriers</th>
<th>Strategies to Overcome Resistance</th>
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<tbody>
<tr>
<td>Increased workload</td>
<td>Set reasonable limit for class size</td>
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<td></td>
<td>Reimburse or provide release time for course development</td>
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<td></td>
<td>Provide support of instructional design consultant</td>
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<td></td>
<td>Provide individualized technical support</td>
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<tr>
<td>Altered role of the instructor</td>
<td>Assist with paradigm shift from teaching to learning</td>
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<tr>
<td></td>
<td>Recognize that this shift is happening in the traditional classroom as well</td>
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<tr>
<td></td>
<td>Base course design on sound principles of learning</td>
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<tr>
<td>Lack of technical and administrative support</td>
<td>Hire adequate support in the Information Technology department for software training and individual support</td>
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<td></td>
<td>Set up a Help Desk for students and faculty</td>
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<td></td>
<td>Assign an Online Coordinator within the department/college</td>
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<tr>
<td>Reduced course quality</td>
<td>Integrate the online learning into the program evaluation plan and the outcome assessment plan</td>
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<tr>
<td></td>
<td>Compare traditional and online courses</td>
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<tr>
<td></td>
<td>Determine sound educational theory and principles to underlie course development</td>
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<td></td>
<td>Use instructional design consultant and/or principles</td>
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<tr>
<td>Negative attitudes of other faculty</td>
<td>Develop faculty innovators to serve as alternative positive role models</td>
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<tr>
<td></td>
<td>Assure equal recognition for online courses and traditional courses</td>
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<td></td>
<td>Reward innovation</td>
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<td>Voluntary participation</td>
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**TABLE 2**

**GUIDELINES FOR DESIGNING ONLINE PROGRAMS TO ENHANCE STUDENT LEARNING**

- Our goal is to develop deep, lasting learning.
- We believe a variety of learning strategies must be used for the student to gain knowledge, reflect on the knowledge individually and in a group, and apply the knowledge to practice.
- We believe in the principle of “less is more” and continually assess that the learning activities are relevant and directly related to the program competencies.
- Students must actively engage in the course and interact with the content, each other, and the faculty.
- Students require frequent, constructive feedback, both informally and formally (grading).
- Students bring different learning styles, different needs, and different experiences to the learning situation, which influences how they learn.
- The content must be relevant and students must be able to apply the content to immediate practice.
- We expect the same outcomes from our online students as we do from our students in the traditional classroom.
A faculty mentor is essential for conducting ongoing conversations following initial orientation about what works and does not work online and offering practical tips for managing time and the course.

activities must be offered on an ongoing basis within the organization and supplemented by attendance at external meetings.

Instructional Design

Design of an online course starts in a similar fashion to that of a classroom course, with the course description, course objectives, program competencies, learning progression strategies, course content, and evaluation.

Coordinator of Online Learning. The author serves as the Coordinator of Online Learning for our Nursing Department. The amount of release time or stipend associated with this role is dependent on the number of online courses, the number of degree or certificate programs, and the number of students and faculty members involved in the endeavor. It is beyond the scope of this article to discuss the role in detail, but one of the major responsibilities of the coordinator is to oversee and coordinate faculty development activities for the nursing department.

Once an instructor is identified for developing a course, the first step is to meet with the Coordinator of Online Learning. The instructor is given a packet of information about instructional design, online learning, and organization-specific guidelines including property right issues. Emphasis at this time is on instructional design and course construction. The instructor is already an expert in the content area, so content issues are generally not the focus of this meeting. A brief orientation to the course software is shared so the instructor knows what the end product looks like. Additionally, this session allows the instructor to gain basic skills in navigating the course software. At this point, the emphasis is not on mastering the software. The technological skills the instructor already possesses (most importantly, word processing and PowerPoint [Microsoft Corporation, Redmond, WA]), are used to begin course design.

Course Observation. Following this orientation, the instructor is added to an online course as an observer. In this way, he or she can observe and gain a better understanding of how courses are organized and how course discussion is handled, and perhaps adopt some learning strategies for his or her own use.

Mentoring. At our institution, the Coordinator of Online Learning serves as the mentor to all new online faculty members; however, any experienced and willing online faculty member can serve in this role. A faculty mentor is essential for conducting ongoing conversations following initial orientation about what works and does not work online and offering practical tips for managing time and the course. Learning how to manage time for online course facilitation is a new skill.

We encourage faculty members to identify two blocks of time per week that are devoted to their online course for managing the Discussion Board (see below) and providing feedback to students. Faculty members should then also devise a system for checking the course and their e-mails at other times. We have adopted a philosophy that we are not responsible for being available to the course and the students 24 hours a day, 7 days a week, but that we have to communicate our time schedule, keep to this schedule, and tell students when we will not be available as planned. Student evaluations from our online courses support this approach.

Instructional Design Consultant. In the beginning, we hired an instructional design consultant who worked individually with faculty members the first time they designed an online course. These “pioneers” did not have the opportunity to use the software or observe an online course before designing the course. This was one of the best faculty development strategies we have used. As we gained more experience within our own department, this more costly strategy was no longer needed.

Two major outcomes resulted from our collaboration with an instructional design consultant. The first is that a template was designed for organizing each course. From the faculty development perspective, this has assisted new online faculty members by having an organizational framework for their course. It helps them know where to begin. Each module contains (1) Module Overview; (2) Performance Objectives; (3) Major Content Summary, including PowerPoint presentations; (4) Readings, including web links; (5) Exercises; (6) Study Journal Exercises; (7) Assignments; and (8) Class Discussion. Barker (2002) provides further discussion and examples of this template, which is given to each instructor at his or her first meeting with the Coordinator of Online Learning.

The second most important thing we learned from
the instructional design consultant is the need to design a clear, well-organized, logical course so that students can easily follow and understand the expectations that are set out for them. In a sense, the consultant served as an editor of the courses, reviewing each course for inconsistencies and suggesting where information was missing and clarity was needed. Having a consultant who was not a nurse strengthened this process. This process taught each of us to be precise and clear as we developed new courses. We have now passed this important concept along to other faculty members.

Technology

Although course design comes first, faculty development for the use of the technology is also important. Technology is merely a tool for course delivery, and as with any tool, faculty members must have confidence in their skills for using it and confidence that the tool promotes student learning. We rely heavily on our Information Technology (IT) Department for this training, and, in fact, could not engage in online courses without their presence and support.

Our approach to technology is to keep it simple, both for students and for faculty. For instance, many students—and some faculty members—do not have access to a digital subscriber line (DSL) or cable at home. This lack makes downloading video and audio cumbersome. However, as the sophistication of faculty members for using technology grows and as the technology changes, we anticipate that new technology and media will be used.

**Software Training.** The foundation to faculty development for technology is training in the use of the course software. Although this training is done on an ongoing basis in a group training room at the basic, intermediate, and advanced levels by the our IT Department, training specific to the nursing department also occurs. This provides the opportunity for the nursing faculty as a group to share what has and has not worked for our specific student population.

In addition, there is ongoing training in Microsoft Office, using the Internet, and Microsoft Outlook conducted by the IT Department. Periodic workshops, mostly organized by the faculty innovators, are offered to upgrade faculty skills in more sophisticated software applications such as Flash (Macromedia, Inc., San Francisco, CA) and Front Page (Microsoft Corporation).

**Hardware Training.** Sacred Heart University is a laptop wireless environment and our hardware issues have been minimal. Faculty members receive a new laptop computer every 2 years and initial training on the new laptop occurs at acquisition. Hardware issues are generally handled on a one-to-one basis by the IT Department or through informal relationships with other faculty. In other environments, hardware training may need to be an essential part of faculty development. A needs assessment is a good approach to identify learning content.

**Ongoing Technical Support.** Inevitably, faculty members need support on a one-to-one basis as they put their courses online for the first time. Even seasoned faculty members need support when using new features of the software. Our IT Department provides two resources to support faculty. In the Student Technician Assistance program, student assistants download courses, design a site for student orientation for online learning, and help faculty members update skills they may have forgotten. A Help Desk also provides “just in time” assistance for both faculty and students.

**Faculty Authoring Software.** A relatively new product on the market, called faculty authoring software, is user-friendly and faculty-oriented. It enables faculty members to create interactive courses that can then be deployed to an Internet web site or to a CD-ROM. Investment in this software can provide faculty members another means of developmental support.

**FACULTY–STUDENT INTERACTIONS**

As mentioned previously, online courses change the way faculty and students interact. Educators value intellectual and empathetic connections with students and this does not have to change in an online environment. However, this is another area of faculty development that needs to be addressed.

**Discussion Board**

The Discussion Board is the central place where connections between faculty and students occur. The role of the faculty member in this discussion is to coach, facilitate, and encourage dialogue. The single most important task of the faculty member is to develop questions that promote interactions among and
between the students and faculty and also promote critical thinking. We advise faculty members to prepare questions for the Discussion Board in advance at the time the module is being developed or revised. At that time, the faculty members are immersed in the material and it is fresh. If faculty members try to develop these questions once the course begins and day-to-day distractions occur, questions tend to be more superficial and not as well thought out.

One of the advantages of faculty members observing another online course is that they can learn how to manage the Discussion Board. Further, they often find that this discussion is surprisingly richer than classroom discussion. The new faculty member can see that, done well, online courses can build a learning community and support networking and collaborative learning.

We advise faculty members that it is neither necessary nor desirable—and sometimes impossible (due to volume)—to respond to each student’s message. However, it can be difficult to sit back and observe. Faculty need to learn how to help summarize the discussion, focus it on particularly important issues, apply the discussion to theory, give appropriate feedback, and ask the students to analyze and synthesize a certain argument.

CONCLUSION

It is evident that developing faculty to teach online is a complex challenge. Faculty development activities are not singular or sequential, but involve an ongoing commitment of time and money. The goal is quality education of nursing students, and this does not happen without well-prepared faculty.

The process of creating a faculty development program for online instruction includes both educational and technological issues. To ensure quality and student learning, sound educational theory and principles must be used for course development and delivery.

REFERENCES


