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A Case Study in Instructional Design for Web-Based Courses

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Instructional Design FOR WEB-BASED COURSES

ANNE M. BARKER

WHEN DESIGNING A COURSE FOR THE WEB, *the natural tendency is to first focus on the content to be offered.* SINCE, for the most part, content is consistent with that taught in a traditional classroom, the task will seem easy and familiar. HOWEVER, designing an excellent course for Web delivery may be more challenging and time consuming than anticipated. To enable students to not only learn the content but think critically about it and grow as a result, a well-organized, easy-to-follow, consistent framework is needed. • *The nursing program at Sacred Heart University began to offer all RN to BSN nursing major courses online in 1998. An instructional design consultant was hired to assist the faculty in designing their courses, and the university selected a commercial software package with many features that facilitate design (Jones e-education, Jones Knowledge, Inc.). These include online asynchronous threaded discussion, chat, online testing, a tutorial for student orientation, and Web links.* THIS ARTICLE PRESENTS A SUCCESSFUL FRAMEWORK FOR ONLINE COURSE DESIGN USING ILLUSTRATIONS FROM AN RN TO BSN FOUNDATIONS COURSE, "FOUNDATIONS OF PROFESSIONAL NURSING."

The Basis for Instructional Design The classic principles of adult learning, mutuality and collaboration, underpin Web-based design. In fact, Web-based courses may be more effective in supporting these principles than traditional classroom courses. SPECIFICALLY, *four basic principles were used for designing the Foundations course (1):*

• Adults do not generally respond to lecturing, the traditional method of teaching.

• Adults bring life experiences to the learning situation that influence what they learn.

• Adults learn best if they actively participate in the learning experience.

• Adults are more motivated to learn when they understand the usefulness of the learning and can apply the content to immediate life situations.

Since adults may be anxious about their ability to succeed (1), faculty must be available for support, coaching, and providing feedback. With a method of course delivery that switches from real time, face-to-face interactions to asynchronous, distant interactions, faculty responsibilities for keeping in touch with individual students and groups — publicly and privately — are complex.

ABSTRACT When offering a Web-based course, the challenge is to deliver content in a format that enables the student to learn, think critically about the content, and grow as a result of the learning. This article presents a framework for designing an online course that achieves these goals. The framework is based on Knowles' (1) principles for adult learning. The process of course design begins with a review of the existing syllabus and organization of the course content into logical modules. A course in the RN to BSN program is used as an illustration. Lessons learned pertaining to the changing role of the faculty, the development of a community online, and the need to keep technology simple conclude the article.

Structuring the Course At Sacred Heart University, the instructor designs the entire course during the semester prior to its being offered for the first time. Faculty members are given release time and the assistance of the instructional design consultant during this phase. The consultant's main objective is to help design a course in which expectations for tasks and timing are clear and understandable.

The first step is to review the syllabus. For quality reasons and accreditation purposes, course descriptions and course objectives will not change. Nevertheless, how students interact with content, fellow students, and faculty will necessarily be altered.

One of the first decisions to be made concerns time. Many models exist, from courses that extend over a six- to eight-week period, where students are required to dedicate 20 hours per week to the program, to courses with no start and stop dates that provide a great deal of flexibility. We decided that the nursing courses would "look like" a traditional classroom course, extending over 15 weeks with deadlines set for assignments and completion.

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Since an online course does not provide the traditional structure in which one credit equals one hour of classroom time, the faculty is challenged to assure that the student workload equals that of the traditional classroom. By maintaining similar required readings and course assignments, this aspect of the course remains equal. The difficulty is designing exercises and activities to mirror the content covered and time spent in the classroom. Our experience has been that students often spend significantly more time in an online course. Through student course evaluations and talking with students, we are learning how to achieve a degree of equality between the two learning environments.

For the Foundations course, the syllabus and content were organized into eight small, manageable modules of one to three weeks' duration. This structure allows students to see their progress on a weekly basis. The modules for this course are:

- 1. Introduction to the Course/History of Nursing (3 weeks)
- 2. Teaching and Learning (2 weeks)
- 3. Critical Thinking (1 week)
- 4. Health Care Delivery System (3 weeks)
- 5. Socialization into the Profession (3 weeks)
- 6. Theories and Conceptual Frameworks (1 week)
- 7. The Ethical and Legal Dimensions of Professional Nursing Practice (1 week)
- 8. Course/Self/Peer Evaluation (1 week)

Designing the Modules The instructor then designs each module. For the Foundations course, each module has eight parts — a Module Overview, Performance Objectives, Major Content Summary, Readings (including Web links), Exercises, Study Journal Exercises, Assignments, and Class Discussion (Forum). Each section is discussed in detail, and examples are provided.

Module overview Here the instructor "talks" to the students as he or she would at the beginning of a traditional class. Students are told what to expect, how long aspects of the course will take, what they need to begin to think about, if the assignments involve group work, and so forth. An excerpt from the overview of Module 3, Critical Thinking, illustrates this section:

During this one-week module you will be using the website of the Foundation for Critical Thinking. You will read some of the documents on this site, reflect on your own critical thinking skills, set goals for self-improvement, and analyze the Nurse Manifesto based on the elements of reasoning. There is not a lot of reading during the week, but the reading there is requires you to think and reflect. You must begin to make it your own. This is intellectually tiring work at times. Therefore, I would advise you not to sit for more than one to two hours at a time and to divide this work into smaller pieces, rather than try to accomplish all the work in one day.

Performance objectives Three to five specific objectives for the module are listed. Although there is a relationship between these modular objectives and the course objectives, the purpose here is to further orient students to expectations for the module and to guide them through the work. For example, the objectives for Module 2, Teaching/Learning, are:

- *Develop educational objectives and identify them as cognitive, psychomotor, or affective.*
- *Describe teaching/learning principles and theory.*
- *Begin to develop a teaching/learning project.*

The objectives are used to develop the exercises, study journal assignments, and assignments for the module, which provide the basis for student feedback and evaluation.

Major content summary This section is, in essence, the "lecture" section of the module. Here the instructor helps the student make meaning of the content. Text, complemented by multimedia, is used as a tool for framing issues, delineating arguments, and placing things in context (2).

Each module of the Foundations course varies with regard to how much text is included. To determine what should be included, the instructor first outlined the required content, then carefully and critically analyzed the textbook to decide what content was covered thoroughly and where supplemental information would be needed.

Because the textbook is the primary source of content in an online course, selecting a textbook is a more critical decision than in a traditional class. Textbooks that offer case studies, workbook assignments, CD-ROMs, their own website, and Web links may be better choices for Web-based courses than textbooks that contain only text.

The next step for the faculty is to find supplemental materials, such as journal articles and appropriate websites. To prepare the module on the Health Care Delivery System, for example, the instructor wanted to include historical perspectives on the health care delivery system with an emphasis on finance, financial aspects of the health care delivery system as it is structured today, and future trends and issues and their impact on nursing practice.

A review of the textbook indicated that the historical perspective was thorough and complete and provided the necessary background for the topic. However, the statistics on financing were outdated — a typical problem given the time frames involved in writing, editing, and publishing a textbook. The website for the Health Care Financing Agency (HCFA) was reviewed and found to have updated, complete, but complex information. Two articles found on the website of the *Online Journal of Nursing* helped in the understanding, analysis, and synthesis of the information on the HCFA website.

Thus, the major concept summary section of this module includes a short "lecture" on the organization of the federal government, the role of HCFA, and how to access, view, and approach the HCFA website. Students are linked directly from the course site to the articles in the *Online Journal of Nursing*. A PowerPoint presentation used in the classroom further supplements this section.

Readings This section is similar to the weekly assignments

given to students in the classroom and includes the textbook chapters, related articles, and websites. The major technological difference is that the website references are linked from the course site directly to the website. Further, students have remote access to the university library, where they can access the assigned readings.

Exercises This optional section contains useful activities that provide a foundation for further work and/or understanding the material. These activities are not graded, but faculty feedback is provided. Separating these activities from required assignments helps clarify what is being graded and what is not. An example of an ungraded exercise in Module 2, Teaching/Learning, is a two-page Teaching/Learning Project Proposal for a project that is due at the end of the semester. Students submit the proposal for faculty direction and feedback.

Study journal exercises A major difference between classroom assignments and assignments for the Web-based course is the requirement that students keep a study journal to chronicle their course activities. This tool is probably one of the most important aspects of online coursework. It provides the opportunity for the student to demonstrate to the faculty that they have done the work. In addition, and more importantly, it encourages the student to engage in critical thinking and self-reflection.

For the Foundations course, an excerpt from the study journal assignment for Module 5, Socialization into the Profession, illustrates how the study journal can be used:

Go to the Website of all five of the professional organizations listed under Web Links. Plan to spend at least one hour at each site. In your study journal complete the following information about each organization…. (These directions are followed by a list of questions about mission, structure, membership, current trends and issues, and so forth.)

Assignments These graded activities include short papers, case study analyses, presentations, and quizzes and tests. As in the classroom, a mixture of evaluation methods, both individual and group, can be used. For instance, in Foundations, students prepare an individual five-page paper on the implications of health care financing for nursing (Module 4); work with a group to analyze an ethical case study (Module 7); prepare a group presentation on one nurse theorist (Module 6); and take an open book quiz on writing style (Module 1).

> That the FACULTY ROLE CHANGES DRAMATICALLY in an online environment MUST BE UNDERSTOOD AND ACCEPTED before course design begins. No longer will the focus be on how FACULTY WILL TEACH THE CONTENT. Rather, the question will be, HOW WILL THE STUDENTS LEARN?

Class discussion (Forum) Case studies provide "practical wisdom" and are a very effective teaching tool in a Web-based course. By helping students grapple with the complexities of a particular circumstance, they provide a framework for discussion, debate, and critical thinking about the use of theory in a realistic context (3). In a Web-based course, each student or group posts a written case study analysis on the Forum. This enables all the students to see and learn from each other's work. Students can explore other points of view, see how different values and approaches can be used in solving a case, and challenge each other's assumptions. The faculty can use the case study presentations to summarize major points, assist the students in identifying themes, and apply theory to practice. All the students benefit from the feedback of the faculty.

In selecting the commercial software package, the designers were particularly interested the Forum application. The Forum allows for asynchronous threaded discussion, which enables faculty and students to communicate with one another and discuss questions throughout the course. Since the discussion does not take place in real time, it is *asynchronous*. The software organizes the discussion by topics and subtopics (threaded), allowing for a conversation to take place around each topic.

The final aspect of the instructional design of the module is to design online classroom discussion and manage it once the course is "live." The single most important role of the faculty in designing this discussion is to develop questions that promote student-to-student interaction and critical thinking. Preparing these questions in advance, while the module is being developed and/or revised and the instructor is immersed in the material, is one of the best ways to assure good questions. When questions are developed amidst day-to-day distractions, they tend to be more superficial and less well thought out.

An effective technique for using the Forum is to use it as a "Journal Club." Discussion can focus on current, relevant articles from the nursing literature.

The asynchronous threaded discussion is often surprisingly richer than classroom discussion. It builds a sense of community, networking, and collaborative learning. There are several explanations for this finding. First and foremost, the students must respond in writing rather than verbally, which gives them the opportunity to think about the contributions they will be making to the discussion. Second, no one person can monopolize the conversation, and those students who are reluctant to participate in class have the opportunity to have a voice online. Further, in a classroom, class discussion is limited by the time allowed for the class.

The role of the faculty in managing this discussion is to encourage dialogue. It is not necessary, and sometimes impossible (due to volume), to respond to each student's message. As the semester progresses, the Forum becomes progressively more student led, with faculty often participating by helping to summarize the discussion, focusing attention on a particular issue, applying the discussion to theory, and asking the students to analyze and synthesize a certain argument.

Lessons Learned After two years of experience teaching online, we are still learning about this new educational method. However, some of what we have learned and observed about technology, students, and faculty may be useful for others.

First, we made a decision to keep the technology simple. Since students want to learn in a comfortable environment, we have avoided add-ons, plug-ins, and the need to download large files. Not only has this made online education an easy transition for the students, it has been helpful for faculty, who tend to be at an intermediate level of technological sophistication.

One of the major issues in online teaching has been the concern that students will become isolated and that a community of learners will not be established. Our experience has proven to be different. Since we primarily recruit our students from the local area, face-to-face meetings as a group and among individual students are possible. In fact, during the first course offered online, the students requested a face-to-face meeting shortly after the course began. This is now built into the program. Students come to the campus for orientation during the first course, for their final practical exam in health assessment, and for program planning for their clinical courses.

That the faculty role changes dramatically in an online environment must be understood and accepted before course design begins. No longer will the focus be on how faculty will teach the content. Rather, the question will be, how will the students learn? Online, students are truly the architects of their learning. Faculty are coaches, supporters, mentors, guides, and evaluators. 🅽🅻🅽

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References

1. Knowles, M. (1970). *The modern practice of adult education.* New York: Association Press.

2. Hilton, J., & Perdue, C. (2000). Multimedia: Myths continued. *Acumen 1*(3).

3. Cavalier, R. (2000). Cases, narratives, and interactive multimedia. *Syllabus, 13*(9), 20-22.