

Customized Library Tutorial for Online BSN Students

Library and Nursing Partnership

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Students returning to school to earn advanced degrees frequently experience difficulty accessing and retrieving information necessary to complete assignments. The authors describe the need, the development process, and the outcome of the partnership between nursing faculty and librarians to provide a customized library tutorial for online registered nurse to bachelor of science in nursing students.

Competence in professional communication, oral and written, is an expectation of graduates from baccalaureate nursing programs.¹ Rapid changes in health knowledge require nurses to continually update their information to communicate effectively with patients and other healthcare providers. Registered nurse (RN) students returning to school to earn advanced degrees frequently experience difficulty completing assignments that require skill in searching, accessing, and retrieving subject-related information. This is especially true for those who have not been enrolled in formal education for several years. The educational process provides the resources and instruction needed.

Students on campus have the advantage of face-to-face assistance from librarians and technical support personnel to search, access, and retrieve information. However, the RN to bachelor of science in nursing (BSN) students who complete their coursework online are at

a disadvantage in acquiring the same level of personalized assistance. Therefore, the University of Alabama (UA) libraries' liaison for nursing and the Capstone College of Nursing RN-BSN faculty developed a customized library tutorial for online RN-BSN students.

Online Students' Information Needs

The electronic dissemination of knowledge has outpaced consumers' ability to stay competent in searching, sorting, and evaluating resources to support decision making. The faculty of Capstone College of Nursing is dedicated to providing education to prepare nurses for a rapidly changing future. The vast majority of nurses in Alabama hold associate degrees in nursing and are employed, most of them full time. Because the traditional college environment fails to meet educational needs of those nurses,² Capstone College of Nursing has developed a fully online program of study for RNs to earn advanced degrees in nursing. Many of the students have been away from the educational environment for some time and are totally unfamiliar with identification, retrieval, and evaluation of current nursing information sources. Other nursing programs have documented similar needs

of their RN students pursuing baccalaureate degrees.³

The present emphasis on evidence-based, or evidence-informed, nursing practice has prompted a proliferation of publications, Web sites, databases, and search strategies. The current rate of knowledge development in nursing and healthcare is unprecedented, requiring speedy dissemination and use of new findings for research and practice. The openness of the Internet allows anyone to publish information widely. Learning to locate, retrieve, and evaluate the quality of information has never been more critical for nurses in practice, as well as those in education and research.⁴

The explosion of technology in patient care and patient information parallels that of communication technology. Consumers of healthcare and information demand instant, easy access to information and care.⁵ Paradoxically, the vast proliferation of information available often frustrates the novice searcher to the point of desperation like the lyrics "water, water everywhere, and not a drop to drink!" This proliferation of information changes the role of reference librarians from a hands-on format to an electronic format for searching, retrieving, and disseminating information.⁶ Not only do RN-BSN students need the skills for management of information for academic success, they also need to "master electronic resources and library research methodologies in an independent, self-directed, self-paced manner"³ for their nursing practice after graduation.

Library Tutorial Content

The UA Rodgers library nursing tutorial, adapted from the one used for engineering students,⁷ has 5 modules: (1) Web Searching, (2) Refining Searches, (3) Rodgers Library Resources, (4) Databases, and (5) Practicing Nurses. Each module is a self-contained instructional unit with user-friendly links that allow the student to move from one module to another as needed. These modules help students discover the

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resources that are available to them from the university libraries, as well as quality information freely available on the Internet. In Fall 2006, all Capstone College of Nursing faculty were informed of the completion of the project and were invited to use the resource with their students, both online and on-campus students. In addition, the link for *Library Tutorial for Nursing* (<http://www.lib.ua.edu/tutorials/nursing/GES/>)⁸ was placed on the UA libraries' Web site for use by all library patrons. The home page content for the tutorial is shown in Figure 1, and user module objectives can be seen in Figure 2.

The first module, Web Searching, explores various aspects of searching the Internet for nursing topics. The examples used were relevant to courses in which the RN Mobility students enroll. This module instructs users how to navigate browsers, search engines, and directories on the Web and Internet to obtain nursing and healthcare information. Introduction to the Internet is particularly helpful for adult learners who were exposed to e-technology late in their lives. It also provides instruction on constructing an Excel spreadsheet to evaluate the results of nursing and healthcare searches. Finally, users are given resources to help them evaluate the quality of nursing and healthcare information found on a Web site or Internet source.

The second module, Refining Searches, describes basic ways to refine Internet searches. Queries based on Boolean logic find needed information while excluding unrelated information. General and nursing examples are given in this 4-part module to demonstrate the use of Boolean logic with computer search engines and are demonstrated with Venn diagrams. Users are given further instructions on ways to expand and limit the search using the Boolean logic "AND," "OR," and "NOT." For example, the query "case management" AND "heart failure patients" NOT "surgery" yielded almost 1,000 sources of information.

The third module, Rodgers Library Resources, presents resources available in and through the services of Rodgers Library for Science and Engineering, which houses nursing resources. This 3-part module informs users how to use the catalog, access assistance through direct contacts with librarians, and initiate formal requests for resources, such as checking out materials, interlibrary loan, and services provided by the library. An interactive demonstration, developed using Macromedia Captivate software, guides users through the services and resources of the libraries.

The fourth module, Databases, is a 3-part module that identifies and describes selected databases for nursing and health-related publications. The

interactive demonstration includes some of the most frequently recommended nursing databases. It includes how to access the database, how to search the database for information needed, and how to retrieve information.

The fifth module, Practicing Nurses, conveys the importance of continued use of library resources after graduation and as needed for nursing practice. Instructions in identifying and accessing employer-provided library services are provided. In addition, free Web sites for job searches, professional associations, and other nursing interests are included for easy access to information. A highly selective list of health and nursing-related Web sites and Web links have been provided in this module for nurses to use in their professional practice.

Outcome

Twenty students were enrolled in the first course in which the tutorial was promoted. Although the Web site tracker indicated 749 hits in Fall 2006, the identity of those users is unknown. Students who contacted the library liaison for assistance indicated that they had used the tutorial and had found it helpful. An evaluation survey was developed to request formal feedback from students regarding the effectiveness of the tutorial in meeting their learning needs. Surveys were distributed via e-mail attachments with instructions for downloading, completing, uploading, and submitting responses. Although completion of the survey was voluntary, an incentive of extra points on a weekly assignment was offered to increase the response rate. Of the 20 students surveyed, 14 responded and 1 response was blank. Thirteen usable surveys were available for analysis.

The evaluation survey was developed by the RN-BSN faculty and UA library liaison partners for using it for the first time with the 20 students. The first question asked if students had accessed the online UA Library Tutorial for Nursing from the course menu during Fall 2006. Students who responded "no" were asked to save and submit the survey. Students who responded "yes" were asked to rate the helpfulness of the modules used on a scale of 1 to 5, with 1 being "not at all helpful" and 5 being "extremely

These modules are designed to help you discover the resources that are available to you as you continue upon your college career. They are organized into 5 modules. Each section is designed to be a self-contained lesson. To get started, click on the specific module title below.

Module 1 Web Searching	Module 2 Refining Searches	Module 3 Rodgers Library Resources	Module 4 Databases	Module 5 Practicing Nurses
A 5-part module that takes a look at using search engines to search the Internet for nursing topics and information.	A 4-part module that explores Boolean logic and how it applies to search engines. This module looks at faster ways to get better results.	A 3-part module that introduces the Science & Engineering Library and the resources it provides to students.	A 3-part module that explores the various databases that have been compiled specifically for nursing and medicine.	A short 2-part module that looks at the resources that are generally available to students after they graduate and enter the workforce.

Figure 1. Home page content of nursing library tutorial.

Module 1: Web searching

1. Navigate browsers, search engines, and directories on the Web and Internet in order to obtain nursing and medical information.
2. Construct an Excel spreadsheet to evaluate, interpret, and the results of your nursing and medical searches.
3. Evaluate the quality of nursing and medical information found from a Web site or internet source.

Module 2: Refining Searches

1. Use Boolean logic in searches of various databases, including World Wide Web search engines.
2. Use Boolean logic to widen searches and narrow searches so that the list of "hits" returned by the search is manageably small, yet still includes the desired information.

Module 3: Rodgers Library Resources

1. Identify the collections, services, and Web resources on the Rodgers Library Web site
2. Describe the library catalog and how to interpret elements of a catalog record
3. Apply searching techniques for finding books and other formats in the library catalog

Module 4: Databases

1. Explore the sources of information found in different types of databases
2. Describe general key nursing databases
3. Identify the common elements in a database record
4. Apply searching techniques for finding articles, reports and other formats in subject databases

Module 5: Practicing Nurses

1. Define a process for accessing and obtaining nursing information when you are employed outside of an academic institution.
2. Search for and identify internet/web sites and other resources used by practicing and professional nurses to obtaining nursing and medical information

Figure 2. User objectives for library tutorial modules.

helpful." Students were given the option to respond that they did not use a specific module. Following the ranking, students were asked 2 questions: (1) What assistance for using library resources did you need/want but did not find in the tutorial? and (2) What are your recommendations for improvement of the tutorial?

Four respondents indicated that they had not used the library tutorial at all. Of the 9 who had used the tutorial, not all 9 had accessed all 5 modules. The mean scores for modules 1, 2, and 4 were 3.56, 3.66, and 3.89, respectively. Modules 3 and 5 received 4.00. No module was identified as "not at all helpful" or "little helpful." Only 1 qualitative response was given to question 1: "when looking for an article that was in a database but did not have a copy through PDF or through the university, it was a little difficult to obtain." Suggestions given in response to question 2 included the following: "better instructions on how to find things on my own, my best help was chat with a librarian" "make it more user friendly. Too many steps to obtain what you need," "if you were to

have a visual demonstration of how to use the databases, I think it would be very helpful." and "I liked the tutorial as is but maybe add some audio to the demonstrations." Additional comments included the following: "The tutorials were very helpful in using online library resources," "Last semester when using the library for distance learning, I retrieved all of the information that I needed successfully," "I found everything that I needed with the tutorial. Module 4 and 5 had great web links," and "I found everything I needed in the tutorial." The scores and comments indicate that the modules were helpful to students.

Evaluation data led to 2 changes for Fall 2007. The RN-BSN faculty provide a voice-over PowerPoint orientation to the nursing Informatics course, including an overview of the tutorial. The UA library liaison plans to use the technology of live classroom for real-time "office hours" for library assistance. This interaction strategy is already in use for RN mobility faculty for totally online courses. Students in the course have found that hearing questions and an-

swers of other students, as well as getting their own questions answered, is very helpful.

The RN-BSN faculty use the tutorial resource in various ways within individual courses. For example, in the Role Transition for Registered Nurses course, students are required to search Internet resources for information related to health policy and to use library resources to write 2 formal papers. In the Nursing Informatics course, students complete online searches for information posted by professional organizations and government entities related to clinical practice guidelines. In the Introduction to Nursing Research course, the students must search professional literature to locate and evaluate the level of evidence available for selected clinical problems. In all of these courses, the students are instructed to use the Library Tutorial for Nursing if they are unfamiliar with the search and acquisition processes for online resources.

Conclusion

The benefits of a partnership between librarians and nursing faculty described

by Sherwill-Navarro⁹ and McKibbon and Bayley¹⁰ include increased role development for both; improved ability of nursing faculty in obtaining the latest evidence-based information for teaching, research, and practice; and the joy of collaboration. Our partnership for the development of an online library tutorial for nursing students proved to be very beneficial to our students and us. It has resulted in an effective, efficient mechanism to assist online students to search, access, and retrieve information essential for their academic and professional success. This tutorial can easily be used by on-campus students, particularly nursing students, and can be adapted for other disciplines by substituting discipline-specific examples. The partners enjoyed the collaborative effort to meet students' needs in a way that neither could have done as effectively alone.

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