Beyond Books – Library Services to Distance Education Students

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Abstract

Librarians are stressing the need for students to develop information literacy competencies. Related to critical thinking skills, information literacy competencies can be defined as the ability to identify an information need and the ability to locate, evaluate, and effectively use the information. Without information literacy skills, students, especially distance education students, may not succeed in their academic career. Librarians are able to partner with faculty to provide distance education (DE) students with the same opportunities as on-campus students to develop these skills. Today's DE students must be able to find information using both print and electronic resources. Technical proficiency is important to information literacy. Libraries offer instruction in a variety of formats suitable for distance learners to assist them including development of web-based tutorials to introduce students to research techniques, use of specific resources, etc. Tutorials alone are not always sufficient to answer students' questions related to the use of library resources for a specific assignment. Librarians are prepared to offer specific research assistance "just in time" to DE students by using e-mail reference, chat services, toll free phone numbers, and the like. The wealth of electronic resources can be overwhelming for faculty and students. Librarians can provide both faculty and students with guidance in the use of these resources so that students are able to develop their information literacy competencies.

Information Literacy/Critical Thinking and the Librarians' Role

Librarians have taken up information literacy as a major component of the educational process. Information literacy can be defined as the ability to identify an information need and the ability to locate, evaluate, and effectively use the information. The Association of College and Research Libraries states, "Information literacy forms the basis for lifelong learning. It is common to all disciplines, to all learning environments, and to all levels of education. It enables learners to master control over their own learning" (ACRL, 2000b). These information literacy skills are necessary for the next generation of researchers and citizens who will be the consumers of research. Lyman and Varian (2003) estimated that new stored information grew about 30 percent between 1999 and 2002. This increase is equivalent to 800 megabytes of recorded information produced per person per year. As the amount of available information rapidly increases these literacy skills become more and more important. More immediately, students can use these skills to be successful in their academic programs.

Information literacy competencies are related to critical thinking skills. Critical thinkers ask questions, evaluate information, define research topics, weigh assumptions and opinions against facts, look for proof of a theory, identify critical thinking as a life-long learning experience, examine problems carefully, and reject information that is irrelevant (Ferrett, 1997). Critical thinking logic is taught in conjunction with information literacy in order for students to be able to define facts, establish information needs, evaluate information, and identify what is true (Duldt, 2003). Information

literacy and critical thinking are important elements of the education of today's generation of learners, more now than ever before (Brown, Murphy & Nanny, 2003).

Finding information has gone beyond using a card catalog to locate books in a library and now uses print indexing services to identify journal articles. The card catalog has been replaced by an OPAC (online public access catalog). Many print resources formerly restricted to onsite use in the Library are now available as remotely accessible web-based products, available to users from a particular institution. Where once students had to come to the library to use print journal indexing services and print journal collections, students now find that their library offers remote access to hundreds of electronic databases and thousands of electronic journals produced by the same publishers who formerly provided in-print scholarly resources. In addition to information literacy skills with print-based materials, today's distance education (DE) students must also relate to computers, software applications, and electronic resources including databases, electronic journals, and the Internet. Students need a high degree of technology skills to be proficient in information literacy skills (ACRL, 2000c) therefore; they need to master the use of these new tools in order to demonstrate their information literacy competence.

Teaching Information Literacy to Distance Education Students

Historically, librarians have taught "how to use the library" by conducting face-to-face lectures. These lectures might be offered in response to faculty requests to assist students with specific research assignments. Some libraries offer stand-alone, semester-long, for-credit courses in the use of the library offered on campus. These instructional strategies worked as long as library services and collections were available only in a tangible mode to the on-campus student. However, these traditional onsite classes do not reach (DE) students who may never come to their home institution's library. Libraries are altering their modes of instruction to provide options for DE students. At the same time, libraries are taking advantage of the World Wide Web to provide a platform for delivering resources and services to distance students. Libraries are working with computer and technology centers to enhance remote access to information.

A study by Brown, Murphy, and Nanny (2003) has determined that students who think they are "techno-savvy" also think they are information literate (p. 387). These students feel that they are finding good information sources because they can find something about their topic on the Internet. They are unaware of library-related resources that might be more relevant, more authoritative, or better represent various points of view on a topic. Technical proficiency is important to information literacy. Typical instruction includes researching skills in online catalogues and databases and other electronic resources as well as making better use of the Internet search, and allows students to accurately identify relevant information from all sources (Brown et al., 2003)

Librarians have been developing the means to guide students in information literacy concepts at a distance. To reach this goal, libraries offer instruction in a variety of formats suitable to reach distance learners. Librarians have developed web-based tutorials such as TILT (the Texas Information Literacy Tutorial). TILT introduces first-year students to research sources and skills (TILT, n. d.) covering the basics of "selecting appropriate sources, searching library databases and the Internet, and evaluating and citing information". TILT provides coverage of Internet censorship, security, and privacy issues. Each module ends with a short quiz. The set of modules can be integrated into

online course management software such as Blackboard and WebCT. TILT is available through an open publication license so that other libraries can use it as is or customize the tutorials for their particular institution. Web-based tutorials can introduce students to the institution's online resources for finding books and articles including subject guides, as well as helping with issues such as proper citation and how to avoid plagiarism, and so forth. Indiana State University Cunningham Memorial Library's web page for Distance Education (Indiana State University Cunningham Memorial Library, 2003) provides TILT as a self-paced learning tool along with information about remote access to library databases, how to request document delivery and other services for distance education students.

UMUC's library provides an excellent example of an extensive array of instructional resources aimed at distance education students and faculty. The "Information and Library Services" web page provides the following online information literacy materials (UMUC, 2003a):

- **Web-based instructions** in finding library materials, how to search UMUC electronic databases and on-line journals, and instruction in the use of the Internet available from the UMUC Library's website.

- **Online subject guides** listing the most useful resources for topics ranging from Art to Women's Studies.

- **Web-based tutorials** offered through Virtual Library Classroom (VLIB 101) covering the use of the UMUC Library's databases and other resources. Students can access this set of tutorials at their discretion through the University's courseware.

- **An online short course,** UCSP 610 "Library Skills for the Information Age," consisting of seven modules with exercises and quizzes required for new graduate students.

- **APA Citation Explained Tutorial** (http://www.umuc.edu/library/tutorials/citation/html/) contains four modules consisting of an introduction to citation, identifying parts of a citation using articles, books and Web pages, correct APA style, interactive exercises.

- **The Legal Research Tutorial** (http://www.umuc.edu/library/tutorials/legal/) is designed for non-legal studies students. It contains three modules - finding secondary legal information, finding case law, finding international law and legal material from foreign countries, and becoming familiar with basic legal research for a broad audience.

- **Research Skills Tutorial** (http://www.umuc.edu/library/tutor/intro.html) reviews research skills and introduces specific UMUC resources. There are seven modules – research process, copyright and plagiarism, libraries, resources and services, call numbers, how to find books, articles and web pages.

- **Using the Web for Research Tutorial** (http://www.umuc.edu/library/guides/web/usingtheweb.html). This tutorial details the type of information available on the Web. It contains descriptions of company, government, organization and statistical web sites and what information is available on each site.

- **The Guide to Searching UMUC Library Databases and E-Journals** explains the use of library databases and e-journals, the log-in function, selecting a database, searching a database, obtaining articles, techniques for searching multiple databases, refining search parameters, evaluating findings and resources for help. (http://www.umuc.edu/library/database/myguide.html)

- **Guide to Evaluating Internet Resources** presents the criteria by which Web sites are categorized. It details five categories - authority (who sponsors the page), accuracy (are sources factual and can they be verified), objectivity (is the page provided as a public service), currency (is the page dated), coverage (is the page completed or still under construction) (http://www.umuc.edu/library/guides/ evaluate.html)

- **The Guide to Writing a Research Report** (http://www.umuc.edu/ewp/research.html) includes faculty resources and student resources. Faculty resources are designed to assist faculty in teaching students how to write, including designing writing assignments, helping students with copyright/plagiarism issues and citation styles. Student resources include:
  - Guide to writing a research report
  - Guide to managing research materials
  - Documentation guides
  - Guide to citing web materials

- **Guide to Citing Electronic Resources: APA Style** UMUC requires writing in the American Psychological Association style. This guide contains information on the ethical use of web-based material, recommended APA style for referencing Internet resources, using journals or newspaper articles from proprietary web databases, articles from public-access web journals and APA style to citing direct quotations.

- **The Effective Writing Center** is a comprehensive resource consisting of self-study tutorials and guides, including:
  - How to avoid plagiarism
  - Definition of plagiarism
  - Why an understanding of plagiarism is important
  - How to protect yourself from plagiarism and
  - Guides to academic writing styles, including introducing/citing/referencing source material

- **Online Guide to Writing and Research** details the types of writing and the writing process, thinking strategies, research process, academic integrity, library resources, writing plan & project schedule, including self-help materials to guide the student to a better understanding of academic writing.

Additional Library Services

Tutorials alone are not always sufficient to answer students' questions related to the use of library resources for a specific assignment. In these instances, librarians are prepared to offer more specific research assistance to students by using real-time chat, email reference, and toll free phone numbers to provide "just in time" support to DE students. Librarians can play a key role in offering assistance to DE students either synchronously

or asynchronously. Synchronous access to a librarian includes chat, telephone, and videoconferencing. Asynchronous access includes e-mail, discussion lists, and bulletin boards. For example, at UMUC students can get help from a librarian from a librarian in various ways. "Help" for UMUC's global student population includes the ability to ask questions via email or via a 24-hour real-time chat service or a message board. Students can make an electronic appointment with a librarian. Telephone contact is available as well. UMUC also provides a list of library staff so a student can determine which librarian/library department can best suit their needs. Student questions can provide the "teachable moment", and librarians can use these opportunities to provide a student with the instructions that can be generalized to other situations as well as provide the student with the specific information.

Marketing Library Services and Resources to the Faculty

Students are apt to utilize all these resources and services only if required to do so by their instructors. If information literacy and the development of critical thinking skills is not important to the faculty, library resources and services will not be used. Faculty manage some courses and in some cases entire programs by providing students with a set of readings with no requirement to locate additional research materials. While this is easier for the student, this approach does not provide students with opportunity to exercise information literacy skills. With a prescribed reading list, students never have to grapple with identifying, locating, and evaluating other information resources in their discipline. Without the practice of finding additional resources, students may find themselves ill equipped to conduct literature reviews later in their academic career.

As noted above, libraries provide a rich array of online resources that can supplement assigned reading lists. Librarians need to market the libraries' resources and services to faculty as well as to students. Once aware of the range of material and the corresponding services available to their DE students, faculty realizes they can develop assignments that allow students to explore resources beyond the textbook and a proscribed reading list.

Librarians have developed resources aimed at faculty to suggest tips and techniques for making successful assignments that relate to information literacy standards. The ACRL Information Literacy site provides a web page called "Using Standards - Develop Assignments" (ACRL, 2003a). The University of California at Berkeley Libraries offer a web page aimed at faculty on "Effective Assignments Using Library Resources" (UCal, 2003). These suggestions can be adapted for the DE environment. UMUC provides a tutorial for faculty called "Information Literacy and Writing Assessment Project: Tutorial for Developing and Evaluating Assignments" (UMUC, 2003b).

Librarians need to market themselves as resource people who are available to the faculty. They are prepared to assist faculty in developing course-specific assignments that incorporate information literacy skills. They can ensure that assignments are successful and that needed materials are available. Librarians can also assist by providing information to students on utilizing proper citation and avoiding plagiarism. Markgraf (2002) described experiences in reaching out to faculty at the University of Wisconsin – Eau Claire. Markgraf notes students are more apt to use resources when the faculty requires their use. As part of a marketing campaign, librarians emailed notices to faculty involved in distance education courses, as well as providing printed brochures to educate faculty on the distance learning services available. In addition, the librarians

made an effort to network with faculty members. While networking with faculty, librarians noticed that faculty needed more time for course preparation and other related work. The librarians expressed a willingness to assist students in research-related assignments in order to provide faculty with extra time. In another example, the addition of a librarian as a participant in the discussion board of an online course proved so successful that librarians are now members of the instructional design team involved in online course development. Buchanan, Luck and Jones (2002) also point to an online graduate level course on multimedia literacy offered at Austin Peay State University. Librarians were co-authors of the content that included material on intellectual property, copyright, and the social, legal, political, and ethical issues surrounding the use of media. Information literacy concepts were closely integrated into the course content with assignments chosen that related directly to the ACRL Information Literacy Competency Standards for Higher Education.

When working together, librarians can make faculty aware of newest resources and tools available to DE students. Librarians can suggest assignments that make effective use of all of the library's resources. Developing library-related assignments that are directly related to course content focuses students' attention on the material while providing them with the experiences to develop and demonstrate information literacy competencies.

Does the Practice of Information Literacy Skills Improve Student Retention and Academic Success?

What is the effect of library-related activities on student performance? We can point to some studies done in this area. Whitmire (1998) looked at the role of the academic library in the development of critical thinking skills in undergraduate students by analyzing data from the National College Student Experiences questionnaire for 1992-1993. The author concluded that while routine library use did not influence a student's development of critical thinking skills, focused library activities did have a significant impact on a student's ability to think analytically and put ideas together. Kuh and Gonyea (2003) revisited the College Student Experiences Questionnaire data covering 1984 to 2002. They found that library skills were related to other educationally valuable activities. They stated "what is most important to college impact is the nature and breadth of a student's experiences over an extended period of time" (p. 12). Instruction in library skills does appear to correlate with student outcomes in particular courses. Kuh and Gonyea (2003) cite a study "Information competency improves grades" done by Glendale Community College that found students who participated in library workshops had a significantly higher pass rate in English and ESL classes (p. 257).

All UMUC degree-seeking students must complete the "Information Literacy and Research Methods" course. Students learn techniques in using electronic sources such as the Internet, e-books, online databases, and journals (Read, 2002). Students access the course via UMUC's Website and are entertained with colors and animation as they work their way through the online course materials. By providing "eye-candy" by means of attractive design, this course holds the attention of the students. The information is presented in a format that keeps the students focused on the subject matter. Discussion boards are also used and conversations about researching and libraries are encouraged. In addition to the course website, faculty members have access

to a separate website that provides information and advice on teaching techniques. The Maryland Distance Learning Association recognized this course as the best distance education course offered in 2001-2002. Many students have appreciated the course even though it was outside of their degree program (Read, 2002).

More on Library Resources and Services

DE programs open the door for libraries to exploit the electronic age through the use of electronic resources that draw students and faculty into the electronic library. DE students require virtual services and remote instruction (Heller-Ross, 1999). DE students need the same services and collection resources as provided to the on-campus student. DE students may use nearby public and academic libraries, but often, these students will be coping with a technology-based medium to access materials and to receive services. Services include reference assistance, information network connections, course materials, and inter-library loans. Students with adequate access to the Internet can use these services remotely. Even better, these services can be provided asynchronously to the DE student. While real-time service is sometimes necessary, email and web-based forms can provide students with the ability to order materials, request help, and expect a reply without remaining online. UMUC's library services and resources are divided into the following areas:

- An extensive array of electronic resources, including databases and electronic journals, electronic books

- Library resources through use of the library catalog and the physical and electronic libraries located throughout the UMUC system, including Asia and Europe

- Interlibrary Loan from University of Maryland libraries and libraries outside UMUC, using U.S. Distance Education Book Delivery, serves to provide access to the UMUC collection as well as supplement the UMUC collection for distance learners.

UMUC meets the standards for library services to distance education students suggested by the Association of College & Research Libraries in their Guidelines for Instruction Programs in Academic Libraries (ACRL, 2003b) and the Guidelines for Distance Learning Library Services (ACRL, 2000a). Canadian Library Association's Guidelines for Library Support of Distance and Distributed Learning in Canada suggest a similar range of library services (Canadian Library Association, 2000).

Conclusion

Today's libraries provide information in many forms from traditional print resources to electronic media. Electronic resources have the advantage of being accessible to any faculty or student with Internet access. However, the wealth of resources can be overwhelming for the novice user who may be grappling with sophisticated scholarly literature for the first time. To add to the confusion, electronic resources lack standard interfaces. In addition, appropriate use of bricks and mortar libraries can be equally daunting for students who rarely come to campus. Along with these rather mechanical concerns, students need to know how to apply the information that they are able to locate. Librarians are emphasizing information literacy competencies as primary skills for students researching in an electronic age. Students need the ability to define an information need, locate, evaluate and analyze information, and use it appropriately.

Without information literacy skills, students, especially distance education students, may not succeed in their academic career. Information literacy competencies cannot be learned in one face-to-face library session or by working through one or two web-based tutorials. These competencies need to be developed over time and practiced throughout a students' program of study.

Distance education students are a challenging audience for the academic librarian. Librarians may not have the opportunity to meet students face-to-face at the reference desk or in a traditional bibliographic instruction lecture. Nevertheless, librarians are engaged in serving distance learners' information needs. Librarians have developed web-based tutorials, guides and web pages focusing on doing research in specific disciplines or even specific class assignments. These guides can be presented on library web sites and may be incorporated into the course shells of course management software such as BlackBoard or WebCT. In order to communicate with distance learners, librarians may provide toll-free reference phone numbers, e-mail reference service, and real-time communication using chat software. Librarians are experimenting with VoIP (voice over IP) and video-conferencing in order to provide better service. With so many resources available, the librarian is now able to provide comprehensive library services in many forms, reaching DE students in the true sense of the word "distance".

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