

# Faculty-Librarian Partnerships to Teach Information Skills for the 21st Century.

Hannelore B. Rader

University Librarian/Dean

University of Louisville, Louisville, Kentucky US

**Keywords:** Information literacy; Faculty-librarian collaboration; Resource-based learning; Learning outcomes.

**Abstract:** It is most important that students in higher education receive adequate education for productive work and scholarship in the technological information environment of the 21st century. Changes in the workforce, a knowledge-based economy, virtual environments, life-long learning and related factors are changing the climate within higher education around the world. Students must be prepared throughout their tenure in higher education to become productive employees and life long learners. One very important aspect of students' educational preparation deals with teaching them appropriate skills to handle information effectively and productively. Based on national criteria related to standards and outcome measurements, developed by the Association of College and Research Libraries in the United State, students should graduate from universities understanding how to use, apply and evaluate information effectively.

This paper provides details about the five national information literacy standards and demonstrates a variety of methods in which faculty-librarian partnerships can successfully teach information skills.

## Introduction

At the beginning of the 21st century we are in ensconced in an information and technology explosion. There is more data available than ever before and people throughout the world are being overwhelmed by data and information. People need training to use the available data and information meaningfully and productively. Not only do individuals have to be literate, e.g. know how to read with understanding, but also they have to be information literate, e.g. possess cultural, visual, computer, technology, research and information management literacy.

In 1989 the American Library Association (ALA) Presidential Committee on Information Literacy, defined information literacy as "being able to recognize when information is needed and to have the ability to locate, evaluate and use the information needed".<sup>1</sup>

During the last part of the 20th century information production and availability have exploded due to the Internet and World Wide Web. The way of doing business is continuing to change. Collaboration and cooperation are important factors to help business organizations share and utilize knowledge and experience with partners, suppliers and customers. Values of organizations are changing reflecting the reliance on people, knowledge and information. Organizations and businesses are creating, sharing and utilizing knowledge and information faster and with more technology than ever before. The world economy is gravitating toward e-commerce and the workplace needs employees who are capable of working effectively in an electronic information environment. To accomplish that workers must possess necessary information skills. Such information skills can be defined as having the ability to locate information efficiently, evaluating information for a specific purpose or need, organizing information to address

problems or issues, applying information skillfully to solve problems, using information to communicate skillfully and finally using information responsible to ensure productivity in the workplace.

Information skills must be learned throughout an individual's education from kindergarten through twelfth grade and throughout higher education. In addition, every society must work on building life-long learning opportunities for all their citizens beginning at the time a person leaves the formal educational environment to enter the work force. To be an effective and productive worker in the new global information environment, each nation must review their life-long learning environments and make appropriate changes to ensure that all people have opportunities and prerequisites for life long learning. One of the most important prerequisites for life-long learning is the possession of appropriate information skills.

In the United States and in Australia some professional organizations related to education, law, nursing and medicine are already beginning to address life-long education for their professionals and include information literacy as an important factor.<sup>2</sup> In fact, in Australia Christine Bruce has expertly defined information literacy as seven distinct areas: Information technology, information sources, information process, information control, information construction, information extension and wisdom experience.<sup>3</sup>

In the United States the National Forum for Information Literacy was established in 1990 to promote literacy as a means of individual empowerment within the current information society, to support and encourage grassroots initiatives and to bring together more than seventy national leaders from education and business to address information literacy concerns and effective lifelong learning. The Forum is based in Washington, D.C. <http://www.infolit.org>

## Higher Education Environment

Many changes are occurring in higher education due to the knowledge-based technology and multiple advances in technology. The development of the Internet and the World Wide Web are enabling virtual education, virtual universities and virtual learning. Demands for flexible learning on the part of college-age students and life-long learners are resulting in major demands for change in higher education. Universities have always been very slow to change but a competitive learning and teaching environment and demands from funding agents for higher productivity in education are pressuring universities to evaluate and rethink themselves in terms of structure, teaching methods, curriculum and outcomes.

Regarding teaching methods, students need to be involved in more resource-based learning and should assume responsibility for locating and assessing the materials upon which they should base their learning. In the United States the American Association for Higher Education (AAHE) has been working with academic librarians

1 American Library Association Presidential Committee on Information Literacy. (1989) Final Report. ALA, Chicago.

2 1997. Information Literacy: The Professional Issue. Proceeding of the Third National Information Literacy Conference conducted by the University of South Australia Library. University of South Australia Library, Adelaide, Australia.

3 Bruce, Ch. (1997) The Seven Faces of Information Literacy. AUSLIB Press, Adelaide, Australia.

and the Association of College and Research Libraries (ACRL) by establishing the TLT Group, The Teaching, Learning and Technology Affiliate of the American Association of Higher Education, for dialogue and programming related to teaching information skills. <http://www.tltgroup.org>

Similar efforts to address information literacy education in university settings have been addressed in Australia, China, South Africa, England, Sweden, Botswana, Mexico and others. Resource-based learning ultimately enables students to assume responsibility for their own learning and prepares them for the information-based society. Developing students to become independent learners should be a major goal for higher education.<sup>4</sup>

## Information Literacy Instruction

Academic librarians in the United States have been concerned with teaching students appropriate library and information skills throughout the 20th century. However, during the last decade of that century librarians became increasingly concerned with setting appropriate standards for teaching such skills and in 1989 they broadened the concept of library skills education to information literacy education and defined information literacy as "the ability to recognize when information is needed and to be able to locate, evaluate and use the information needed".<sup>5</sup>

<http://www.ala.org/acrl/nili/ilit1st.html>

Throughout the past decade it became more and more apparent that teaching students necessary information skills would only be successful if done as part of the regular higher education curriculum and in cooperation with teaching faculty representing the spectrum of all subject areas. A progress report was issued in 1998 by the Association of College and Research Libraries (ACRL). <http://www.ala.org/acrl/nili/nili.html>

This report documents the progress that has been made both nationally and in specific states since the first report was issued. It also gives five new recommendations

- Work more closely with accrediting agencies
- Include information literacy in teacher education and performance expectations
- Include information literacy in librarian education and performance expectations
- Find ways to illustrate to business leaders the benefits of creating an information literate workforce
- Have more research and demonstration projects related to information literacy.

## Information Literacy Competency Standards for Higher Education

In 2000 the Association of College and Research Libraries (ACRL) issued their document "Information Literacy Competency Standards for Higher Education" <http://www.ala.org/acrl/infolit.html>. This document has also been endorsed by the American Association of Higher Education (AAHE).<sup>6</sup>

The document describes five standards, twenty-two performance indicators and eighty-seven outcome measurements summarized below:

### Standard I

- The information literate student determines the nature and extent of the information needed

4 Farmer, D. W. and Mech, T. F. (1992) "Information Literacy: Developing Students as Independent Learners." *New Directions for Higher Education*, No. 78.

5 American Library Association. Presidential Committee on Information Literacy (1998). *Final Report*. ALA, Chicago.

6 Breivik, P. S. (2000) "Information literacy and the engaged campus. Giving students and community members the skills to take on (and not be taken in by) the Internet," *AAHE (American Association of Higher Education) Bulletin* Vol.53, No.1, pp.3-6.

Performance Indicator Sample:

- The information literate student defines and articulates the need for information

Outcome Sample

- The student explores general information sources to increase familiarity with the topic

### Standard II

- The information literate student assesses needed information effectively and efficiently

Performance Indicator Sample

- The student selects the most appropriate investigative methods or information retrieval system for accessing the needed information

Outcome Sample

- The student investigates benefits and applicability of various investigative methods

### Standard III

- The information literate student evaluates information and its sources critically and incorporates selected information into his or her knowledge base and value system

Performance Indicator Sample

- The student summarizes the main ideas to be extracted from the information gathered

Outcome Sample

- The student reads the text and selects main ideas

### Standard IV

- The information literate student, individually or as a member of a group, uses information effectively to accomplish a specific purpose

Performance Indicator Sample

- The student applies new and prior information to the planning and creation of a particular product or performance

Outcome Sample

- The student organizes the content in a manner that supports the purposes and format of the product or performance

Performance Indicator Sample

- The student summarizes the main ideas to be extracted from the information gathered

Outcome Sample

- The student reads the text and selects main ideas

### Standard V

- The information literate student understands many of the economic, legal and social issues surrounding the use of information and accesses and uses information ethically and legally

Performance Indicator Sample

- The student acknowledges the use of information sources in communicating the product or performance

Outcome Samples

- The student posts permission granted notices, as needed for copyrighted material
- The information literate student evaluates information and its sources critically and incorporates selected information into his or her knowledge base and value system

## Faculty-Librarian Partnerships in Higher Education

The current environment in higher education is well suited to faculty-

librarian partnerships. Librarians have expertise in information and know how to teach information skills in the electronic information environment. In fact, librarians have been involved in and supported resource-based learning for many years. Faculties are in need of acquiring new skills to work with the electronic information environment and to integrate that into their teaching. Librarians can help them to accomplish that. Resource-based learning is needed so that students assume responsibility for their own learning and become independent and life-long learners in the information environment. Librarians can work with faculty to implement resource-based learning in all disciplines. Academic administrators, presidents, provosts, chancellors, directors, deans, department chairs must work together with their faculties and their librarians to lead them in this important initiative to prepare students for life long learning and information literacy.

To ensure that students acquire critical thinking skills instructors must utilize active teaching and learning, by utilizing equilibration, group activity, reinforcement and feedback. Equilibration is the most important one of these components. It is a mental process, which contributes directly to the cognitive growth of the individual. In other words, new experiences are combined with previous expectations. To bring about equilibration instructors must provoke disequilibrium. Students have to solve problems to which the solution is unfamiliar and thus their equilibrium can be upset. Such situations will result in active thinking on the part of students so they discover new ideas.

Related classroom activities must be managed carefully. A good way of managing this is group work. The instructor must function as facilitator, manager, expert, consultant and interpreter. Students must use this learning experience and apply it to new and different situations. Such activities will help students become critical thinkers who can apply their learning to problem solving.

Several excellent model programs for librarian-faculty collaboration to teach information skills are listed below:

- Arizona: University of Arizona, The Information Literacy Project <http://dizzy.library.arizona.edu/infolit/>
- California: California State University San Marcos <http://library.csusm.edu/departments/ILP/>
- California: University of California – Berkeley <http://www.lib.berkeley.edu/TeachingLib/>
- Florida: Florida International University <http://www.fiu.edu/%7Elibrary/ili/iliprop1.html>
- Indiana: Earlham College <http://www.earlham.edu/~libr/about/about.htm>
- Kentucky: University of Louisville, Lifelong Learning Through the Libraries <http://www.louisville.edu/infoliteracy>
- Washington: University of Washington, UWired Program: <http://www.washington.edu/uwired>
- Wisconsin: University of Wisconsin – Parkside <http://www.uwp.edu/library/>

- Additional information can be found at <http://www.ala.org/acrl/nili/whatis.html>

Librarians and faculty can partner in a variety of ways to bring about the best educational outcomes for students in terms of life long learning and productive information use. Faculty development is an excellent area for cooperation. As faculties rethink teaching to bring technology into the classroom librarians can work with them for facilitate such new endeavors.

Distance education and e-learning are other projects, which lend themselves for cooperative ventures between faculty and librarians. In fact, librarians must work with faculty to ensure appropriate information support for distance learners especially in an environment governed by copyright and licensing issues.

## Conclusion

Higher education and libraries are in a state of transformation in the age of information and technology. Outcome measurements for higher education including libraries are becoming the norm. Students need to acquire information skills and critical thinking skills as part of their university education so they can become productive participants in the workforce and be prepared for life-long learning. Faculties and librarians can achieve better learning outcomes in terms of critical thinking and life long learning skills if they work together on designing curricula to include appropriate courses and modules to teach information skills Collaborations between faculty and librarians can also ensure that faculty are prepared for electronic information use, that they will be able to integrate technology into their teaching processes and that students are taught viable information skills.

## References

- Adler, R. P. (1999) "Information Literacy: Advancing Opportunities for Learning the Digital Age. Aspen Institute, Washington, D.C.
- American Library Association. Presidential Committee on Information Literacy. (1989) *Final Report*. ALA, Chicago.
- Breivik, P. S. (2000) "Information literacy and the engaged campus. Giving students and community members the skills to take on (and not be taken in by) the Internet," *AAHE (American Association of Higher Education) Bulletin* Vol.53, No.1, pp.3-6.
- Breivik, P. S. and Gee, E. G. (1989) *Information Literacy. Revolution in the Library*. American Council on Education. McMillan, New York.
- Bruce, C. (1997) *The Seven Faces of Information Literacy*. Auslib Press, Adelaide, Australia.
- Farmer, D. W. and Mech, T. F. (1992). "Information Literacy: Developing Students as Independent Learners." *New Directions for Higher Education*, No.78.
- Oberman, C. (1995) "Avoiding the cereal syndrome or critical thinking in the electronic environment, *Information for a New Age. Redefining the Librarian*. Libraries Unlimited, Englewood, Colo.
- Rader, H.B. (1999) "Faculty-Librarian Collaboration in Building the Curriculum for the Millennium: The US Experience", *IFLA (International Federation of Library Associations) Journal*, Vol. 25, pp. 209-213.
- Raspa, D. and Ward, D. (2000) *The Collaborative Imperative: Librarians and Faculty Working Together in the Information Universe*. Association of College and Research Libraries, Chicago.
- Varlejs, J. (1991). *Information Literacy. Learning How to Learn*. McFarland, Jefferson, NC.
- Young, R. M. and Harmony, S. (1999) *Working with Faculty to Design Undergraduate Information Literacy Programs*. Neal-Schuman, New York.