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New Learners, New Models:
Cultivating an Information Literacy Program

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Introduction

The beginnings of a comprehensive plan for information literacy at the University of Rhode Island date to March 1998, when a group of interested reference librarians met with the Vice Provost for Information Services / Dean of Libraries to address information literacy goals and to investigate how they could best be integrated into the curriculum. A number of reference librarians had been informally discussing ways to improve the library's instruction program, and the interest of our new Vice Provost / Dean in developing an information literacy program and offering credit-generating courses in the library provided the avenue and support we needed for these thoughts to come together into a plan.

Current Library Instruction Program

The starting point for the development of a program to teach information literacy at the University of Rhode Island was an examination of the current state of library instruction. The University Library has a very active bibliographic instruction program. In academic year 1998/99, eight reference librarians, assisted by three graduate students of library science, taught 325 library instruction sessions which reached 7,323 students out of a student population of approximately 14,000. These numbers have been growing steadily over the past three years, and reflect a 15% increase in number of classes taught and a 37% increase in number of students reached from 1995/96.

Of the total sessions taught in 1998/99, 46% were for students in two introductory freshman courses. Every semester, librarians teach two "bibliographic instruction blitzes", one for URI 101, a one-credit course familiarizing freshmen with college life, and one for Writing 101, a beginning introductory writing course. In URI 101, librarians introduce students to the online catalog, and in Writing 101 students are introduced to the library's core, interdisciplinary periodical database.

In addition to the freshmen "blitzes", individual reference librarians teach "one-shot" bibliographic instruction classes in their areas of expertise. In 1998/99, librarians taught 160 of these subject-specific classes, accounting for 49% of all classes taught. These classes are typically requested by individual faculty members who contact the appropriate librarian to arrange a session in the library. The instruction is usually geared to introducing students to a particular set of information resources that they will need to complete a specific assignment in the course.

While this system is a sincere attempt to provide students with an understanding of the library and specific research tools, it is haphazard and not subject to an overall plan or strategy. "One-shot" instruction depends solely on the initiative of individual faculty members to request a library session, which is then subject to the ability to find a mutually acceptable time and location for instruction to take place. Furthermore, since these sessions tend to be planned around the practical library skills needed to complete a specific assignment, a conceptual understanding of how information is structured, overall research strategies, and how to critically evaluate information once it is found are de-emphasized.

Furthermore, the "one-shot" system misses many students. Some students receive similar instruction multiple times throughout their undergraduate studies, while others receive only

minimal instruction, if any at all. Whether or not a student receives instruction varies by discipline and also by course within an area of study. For example, business students tend to receive more library instruction than engineering students do, and within the College of Business, marketing students receive more library instruction than do finance students. Part of this discrepancy is due to the varying research requirements of different programs, and part is simply the result of varying levels of individual initiative exhibited by instructional faculty members and librarians.

In contrast to the "one-shot" instruction just described, the URI 101 and Writing 101 programs are more methodical and thought-out, in that a standardized set of basic concepts and tools are covered and all students in these classes are reached. However, these programs too have shortcomings. Each class receives only 50 minutes or at most 1 hour and 15 minutes of instruction, which only scratches the surface of what students need to learn. Furthermore, in our experience, students do not appear to retain much of what is covered in these sessions.

Both modes of instruction, "one-shot" BI's and URI 101 / Writing 101 "blitzes," are very time and resource intensive. For "one-shot" classes, librarians must prepare customized presentations and lessons geared to the particular assignment at hand. The content of URI 101 / Writing 101 sessions is standardized, but covering the large number of sections each semester at current staffing levels is a strain.

Why Change?

In order to develop an effective information literacy program, we not only needed to identify what we thought should change, but how to change it. We needed to create a vision that would allow us to work toward what it was that we wanted to accomplish.

As a starting point, we examined the 1989 American Library Association President's Report on information literacy. The report recommends a "learning process [that] would actively involve students in the process of knowing when they have a need for information, identifying information needed to address a given problem, finding needed information, evaluating the information, organizing the information, and using the information effectively to address the issue at hand." [1] In addition to the information literacy competencies outlined in the ALA report, there were two additional ideas we wanted to address in the development of our program. One was the need to incorporate information concepts, as opposed to just "skills", into our instruction. Secondly, we were excited about the extended opportunities we were creating for increased student/library interaction, e.g. through credit-generating courses in information literacy. To enhance the learning we would need to use an instructional method that allows students a sense of discovery and empowerment in their research that would remain with them long after their university experience.

We drew on the research of Patricia Senn Breivik who, in *Student Learning in an Information Age*, reports on the limits of the lecture system in the classroom. She argues that "classroom business-as-usual cannot be tolerated on campuses that place a high value on student learning." [2] She refers to the 1994 ASHE-ERIC Higher Education report *Redesigning Higher Education: Producing Dramatic Gains in Student Learning*, which documents research on the limitations of lecture as a method of instruction. [3] "If higher-order thinking skills are 'retained and used long after the individual has forgotten the detailed specifics of the subject matter taught in schools' [4] and if, as the old adage suggests, education is what remains after the facts are forgotten, what does the accumulated research reviewed [in this report] imply for the quality of

our graduates? Would it not be wiser to focus less on facts and more on developing higher-order skills?" [5]

We also referred to the Carnegie Foundation's 1998 Boyer Commission Report, *Reinventing Undergraduate Education: A Blueprint for America's Research Universities*. [6] The Commission provides ten suggestions for improving undergraduate education with recommendations for each. Number one on their list is "Make Research-Based Learning the Standard." Research-based learning, action research, inquiry learning, and authentic learning are all models involved in producing learning from within, learning that will remain with the student long after they have completed the task at hand. "Resource based learning is a commonsense approach to learning. If students are to continue learning throughout their lives, they must be able to access, evaluate, organize, and present information from all the real-world sources existing in today's information society." [7]

Finally, we developed a working definition of information literacy at the University of Rhode Island Libraries. Christine Bruce, in *The Seven Faces of Information Literacy*, [8] discusses several definitions of "information literacy." The most popular definition in use currently was developed by Christine Doyle using the Delphi technique: "Information literacy is the ability to access, evaluate and use information from a variety of sources." Recognizing Shapiro & Hughes' [9] contribution suggesting that academe should conceive of information literacy as a new liberal art, we formulated our own definition: "Information literacy is the ability to understand the concepts and values of information in the context of data, information, and knowledge. Further, it is the ability to understand where information comes from, where it goes, and what the relationship is between the learner and the information world. It also means being able to effectively gather, analyze, and use information in a meaningful way."

Draft Plan

In October 1999, we released our "Draft Plan #2 for Information Literacy at the University of Rhode Island." The Draft Plan includes the following objectives:

- Develop a definition of information literacy for the University of Rhode Island.

- Develop and introduce an incremental, four-year-plus program for student mastery of information literacy concepts and skills.

- Implement the program by working with teaching faculty outside the Libraries.

- Provide more teaching labs, locations, and facilities.

- Develop a core group of library faculty specifically for teaching.

For each objective we developed action items, time frames and responsible parties. While these are still in a fluid state, we have made considerable progress in envisioning new models for the information literacy framework.

Students at the freshman, sophomore, and junior levels would have the option of achieving information literacy competency by fulfilling a series of instructional modules or by taking the 3-credit course Library 120: Introduction to Information Literacy or the 1-credit course Library 140: Special Topics in Information Literacy at the appropriate times. The senior year of the information literacy program would require completing a capstone portfolio project, in conjunction with the capstone course required for graduation in the student's major.

The Draft Plan also addresses information literacy needs of graduate students and faculty by calling for seminars and workshops in those areas. Also suggested are annual meetings to introduce new information products to faculty. Finally, the Draft Plan calls for the creation of a

learning laboratory dedicated to the support of librarian/faculty collaboration in the design of courses and assignments.

The Courses

While the "Draft Plan #2 for Information Literacy at the University of Rhode Island" is a comprehensive document that addresses working toward information literacy on a number of levels, in our view, the credit courses are truly the heart of the program. They are also the source of our experience and accomplishments in information literacy instruction thus far.

Library 140: Special Topics in Information Literacy

Library 140: Special Topics in Information Literacy was the first credit-generating course developed and taught under the library's fledgling information literacy program. It was the result of discussions among a working group of librarians and supportive teaching faculty, who determined that the most promising way of successfully integrating information literacy into the curriculum was to develop partnerships with faculty teaching core courses in major disciplines. The discipline on which the group decided to focus first was business.

Library 140 is a 1-credit course that covers the information resources in a particular subject area and is designed to run concurrently with a course in that discipline. In spring semester 1999, reference librarians Andrée Rathemacher and Mary MacDonald team-taught two sections of the course with a focus on business information. Students who enrolled in Professor of Management Clay Sink's sections of Management 110: Introduction to Business were required to also register for Library 140. Both sections of Library 140 were fully enrolled, with 25 students each.

Taught in a workshop style, the course covered general information concepts as well as business information. Each class began with a short introduction to the day's topic. Students then gathered into groups to work on an in-class worksheet. There was no final exam for the course. Instead, each student wrote a "Memo-to-Your-Manager" on one of a number of current issues in business. The Memo served as an assessment tool by which students demonstrated how well they had mastered the learning objectives of articulating their information needs, developing search strategies, and finding, critically evaluating, and communicating information.

Student evaluations of the course were positive overall. Some students seemed to resent being "forced" to enroll in a course they had not planned on taking. However the majority found the class very helpful. The results of a survey of the students in the class conducted by the University's Instructional Development Program revealed that 94% of the students surveyed thought they learned "a great deal" or "a fair amount," and 73% rated the course "excellent" or "good." While a number of students complained that the course was too much work for one credit, most had positive comments, such as: "It was not as bad as I first assumed! Some of the lessons actually helped me in my other classes!"; "I found it very helpful for my business classes and many other classes. Many students don't know how to do research. This class teaches that!"; and "I learned a lot in this course, and I know what I learned will help me a lot in my university and more future life [sic]. In my opinion, everybody has to learn what we studied in this course."

Students seemed to appreciate the "hands-on" nature of the class. However, students complained if there was too much presentation by the instructors or if they couldn't see the immediate relevance of the material covered. It was interesting to note that many students seemed to resist our attempts to provide them with a more conceptual framework through discussing, for example, the principles behind subject headings and descriptors, or why

companies are required to disclose financial information, or how to evaluate sources of information. This led us to question whether or not freshmen are ready to engage with information-related concepts at a more abstract level.

In retrospect, the level of student engagement with the course might have been higher had it been more closely integrated with the content of Management 110, as students did not always see the relevance of what was covered in Library 140 to what they were learning in management. This would have required working more closely with the instructor of MGT 110 to coordinate the content of both classes as well as a more flexible approach on our part to what we wanted to cover. These issues will be reconsidered as we reinvent Library 140.

Unfortunately, the future of Library 140 in its current form is in question. Two more sections of the course with a focus on business information were scheduled for fall 1999 – one that would again run concurrent with a section of Management 110, and one that would be open to anyone who wanted to enroll. However, during the summer, a decision was made by the University administration that concurrent registration could not be required of students. With Library 140 no longer required, only a few students registered for the section connected to Management 110, and only a handful registered for the "stand-alone" section. Both sections were canceled. We plan to revisit Library 140 in the future, but for now we are focusing our energies on Library 120: Introduction to Information Literacy.

Library 120: Introduction to Information Literacy

LIB 120: Introduction to Information Literacy was the second credit-generating course developed and taught in the library's information literacy program. It was developed by library faculty in consultation with instructional faculty as a natural precursor to Library 140. Library

120 was born out of the faculty's perceived need for a broader and deeper understanding of information, information retrieval, and evaluation and analysis of information.

The course goal is to create lifelong learners, problem solvers, and independent and critical thinkers. The course is based on active learning in the evolving world of information. We felt that students taking this course in its present form would be both interested and motivated, as it is not a requirement for any program. We also felt that a 3-credit course would be "taken seriously" by most students.

Library 120 is a 3-credit elective that focuses on the basic conceptual understanding of what information is, where it comes from, and how it is used. Active, hands-on learning is central in this course. The course begins with a short introduction to information in everyday life. Classes lead students from the organization of information, the uses for information, and the audiences for which information is provided, to academic information tools. We address questions such as: what is a catalog, what is an index, what are subject headings, what are descriptors, what is a keyword, and why are all these things useful. The Internet is explored as a separate unit, with concepts from other units re-emphasized for this specialized medium. Critical thinking skills and resource evaluation techniques are stressed throughout the course. Weekly in-class and take-home exercises and worksheets provide reinforcement and practice for both skills and concepts.

The final project for the course is to provide a "paper trail" for research leading to a research paper, which could be one assigned for another class, or just a topic of interest. We ask for a topic thesis statement, a list of search terms used, a notation of which ones "worked" and which ones did not. We ask what research tools were used, what information was found in each,

what resources were used, and which of those provided material actually pertinent to the topic. We require a detailed outline of the paper or the paper itself, and a complete bibliography.

The first section of Library 120 was taught by Mary MacDonald and Joanna Burkhardt in fall semester 1999. The course was taught at the Providence campus of the University, which caters to older, non-traditional students. The average Providence campus student is 40, works full-time, and has a family. These students are very focused, very motivated, and very enthusiastic. We felt that Library 120 would get a fair trial and an honest evaluation from this population. We also felt that this group would better tolerate the vagaries and glitches associated with a new course.

As expected, students were excited about the course and its content. They were eager and appreciative participants in class discussions and assignments and took the subject and the work seriously. The only complaint we heard was "Why wasn't this course offered before?" Students have volunteered to write letters to various Deans and Directors in support of the course. While we have yet to see the final results of this first semester, we expect our evaluations to be good.

We have scheduled two sections of Library 120 for the spring semester 2000, one in Kingston at the main campus and one in Providence. We are doing our own marketing of the course, which includes word-of-mouth, posters, and written recommendations from our first class.

With an eye to the future of our program, we have begun the process of petitioning for this course to fill a General Education requirement for the University in the area of Communications. Making Library 120 a General Education option has subsequently received the support of the Library Faculty, the Administration at the Providence Campus, and the Faculty

Senate General Education Committee. If approved as a General Education course, the course would be one of only six which students can take to satisfy the Communications requirement.

Information Literacy Modules

While credit-generating courses are at the center of our Draft Plan for information literacy at the University, we envision these courses being supplemented by instructional "modules." We conceive of modules as tutorials, some of which are web-based, covering general topics such as the library catalog, periodical databases, and research strategies, as well as subject-specific topics like company information or drug information. Web-based modules could be used either as stand-alone units for students to work through on their own or as teaching aids for librarians in a classroom setting.

Developing web-based modules to teach information literacy competencies would enable us to reach more students than we can through credit courses or traditional bibliographic instruction alone. Furthermore, they would be readily adaptable to the distance learning environment. Modules would also eliminate redundancies in instruction which now exist.

Going forward with this plan will require a tremendous amount of collaboration and cooperation with teaching faculty in different departments and colleges, because without their willingness to integrate modules into the curriculum, modules will at best be nothing but substitutes for "one-shot" instruction sessions and won't reach all the students they were intended to.

To move forward in this direction we have plans to develop a web-based module on the library catalog. We hope to test it on selected URI 101 classes in the coming semesters.

Conclusion

With our Plan still in draft form, and having taught each of our credit-generating courses just once, we are still in the early stages of a full-grown information literacy program. What we are doing is a work in progress, and many of our recommendations will take time, collaboration, and effort to accomplish. Yet we now have the beginnings of what we hope will be a thriving 4-year program at the University of Rhode Island. As we move forward and implement additional pieces of the plan, we hope to gather additional support, suggestions, assistance, and impetus from our constituents. We expect our plan to evolve as we gain experience. In the final analysis, we hope to incorporate a new and much needed understanding of information and information literacy into the URI college experience. This, in turn, will provide powerful skills and analytical expertise that students will use in all of their post-college pursuits.

Notes

[1] American Library Association, Presidential Committee on Information Literacy, "Final Report" (Chicago: American Library Association, 1989). <http://www.ala.org/acrl/nili/ilit1st.html> (3 Nov. 1999).

[2] Patricia Senn Breivik, *Student Learning in the Information Age*, American Council on Education/ Oryx Press Series on Higher Education (Phoenix, Ariz.: Oryx Press, 1998), 23.

[3] Breivik, *Student Learning in the Information Age*, 23-24.

[4] B. S. Bloom, "The Search for Methods of Group Intervention as Effective One-to-one Tutoring," *Educational Leadership* 41 (1984): 14; quoted in Breivik, *Student Learning in the Information Age*, 24.

[5] Lion Gardiner, *Redesigning Higher Education: Producing Dramatic Gains in Students Learning,* ASHE-ERIC Higher Education Report, No. 7 (Washington, D.C.: Graduate School of Education and Human Development, The George Washington University, 1994), 46-7; quoted in Breivik, *Student Learning in the Information Age*, 24.

[6] Boyer Commission on Educating Undergraduates in the Research University, "Reinventing Undergraduate Education: A Blueprint for America's Research Universities," (Stony Brook, N.Y.: State University of New York, 1998). <http://notes.cc.sunysb.edu/Pres/boyer.nsf> (4 Nov. 1999).

[7] Breivik, *Student Learning in the Information Age*, 25.

[8] Christine Bruce, *The Seven Faces of Information Literacy* (Adelaide, Australia: Auslib Press, 1997), 26.

[9] Jeremy J. Shapiro and Shelly K. Hughes, "Information Literacy as a Liberal Art: Enlightenment Proposals for a New Curriculum," *Educom Review* 31, no. 2 (March/April 1996). <http://www.educause.edu/pub/er/review/Articles/31231.html>(21 Oct. 1999).

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