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## New Learners, New Models: Cultivating an Information Literacy Program

Andrée J. Rathemacher  
*University of Rhode Island, andree@uri.edu*

Mary C. MacDonald  
*University of Rhode Island, marymac@uri.edu*

Joanna M. Burkhardt  
*University of Rhode Island, jburkhardt@uri.edu*

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# **New Learners, New Models: Cultivating an Information Literacy Program**

Andrée J. Rathemacher, Mary C. MacDonald, and Joanna M. Burkhardt  
University of Rhode Island Libraries

## **Overview of paper**

In the following pages we discuss the origins of our plan for developing an information literacy program at the University of Rhode Island; review our current program of library instruction; provide a background of how we arrived at what we want to change and accomplish; outline the components of our *Draft Plan for Information Literacy at the University of Rhode Island*, and discuss the development and content of the two credit-generating courses in information literacy that we have taught.

## **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. The first step in the planning process was to discuss what elements of the current library instruction program needed to change and why.

## **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 13,500. 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 325 sessions taught in 1998/99, 149, or 46%, were for sections of two introductory freshman classes. 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 the current 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?**

The three of us who were actively engaged with these questions knew that to develop an effective information literacy program, it was not enough simply to identify what we thought should change. We needed to come up with a vision, to figure out what it was we wanted to accomplish.

As a starting point, we examined the 1989 American Library Association President’s Report on information literacy. This 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.”<sup>1</sup> 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 information literacy program. One was the need to incorporate information concepts, as opposed to just “skills”, into our instruction. The other was the thought that if we were to extend and enhance the opportunities for student contact, e.g. through credit-generating courses in information literacy, then we would need to use an instructional method which would allow 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.”<sup>2</sup> 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 lectures as a means of learning.<sup>3</sup> “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’<sup>4</sup> 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?”<sup>5</sup>

We also referred to the Carnegie Foundation’s 1998 Boyer Commission Report, *Reinventing Undergraduate Education: A Blueprint for America’s Research Universities*.<sup>6</sup> 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, problem based learning, and authentic learning are all 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.”<sup>7</sup>

We found that the University of Rhode Island’s mission statement includes language that reflects what these research reports encourage us to do in stating that “the University is committed to providing strong undergraduate programs to promote students’ ethical development and capabilities as critical and independent thinkers.”<sup>8</sup> With all this in mind, we decided that to provide a means for URI students to become information literate, critical, and independent thinkers, we wanted to design an information literacy program that not only covered how to use the library, but also included the concepts of information, information organization systems, and the research process. This program would rely on resource based learning methods and strive to reach students in all programs at all levels.

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*,<sup>9</sup> discusses several important definitions for the term “information literacy.” Of these, perhaps Christine Doyle’s definition, which was arrived at using the Delphi technique, is currently the most popular: “Information literacy is the ability to access, evaluate, and use information from a variety of sources.” Taking this concept further, Shapiro and Hughes<sup>10</sup> suggest that within academe information literacy should be conceived as a new liberal art. With these ideas as a starting point, we arrived at our definition of information literacy: *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

After developing our vision and a sense of what we wanted to accomplish in an information literacy program, the next step was to shape our thoughts into a planning document, something that would let us share and discuss our ideas first with our colleagues and then with the University community at large.

In June 1999, at the request of the Director of Libraries, we began brainstorming ideas and possible formats for an incremental, multi-tiered information literacy program. During the previous year, we had developed and taught a 1-credit, subject-specific course in information literacy and had developed a second, 3-credit course to introduce students to information and research. We felt strongly that credit-generating courses would be at the heart of any comprehensive information literacy program that we would develop, yet we knew that courses alone could not reach the entire student population and would need to be supplemented by other forms of instruction.

Researching what other academic institutions with information literacy programs had done provided us with many ideas on issues such as how to address oversight of an information literacy program, designing web-based tutorials and modules, offering credit-generating courses, and collaborating with teaching faculty. We looked to the experience of institutions such as the University of California at Berkeley, Florida International University, and the University of Arizona with teaching library councils that provide oversight for campus-wide information literacy programs. For examples of the use of web-based tutorials to introduce information literacy competencies we looked at the University of Wisconsin – Parkside, the University of Texas, James Madison University, the University of Arizona, and the SUNY system. We gained insight into collaborations between librarians and teaching faculty through learning about programs at Earlham College, Florida International University, Wayne State University, Seattle Central Community College, and Towson University.

As we worked on our plan, our informal group of three became a formal entity in late spring 1999 after the formation of a number of strategic planning task forces throughout the University Libraries. With a new identity, the Task Force for Teaching and Research, we were joined by two additional librarians. 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 have 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 to improve and replace the current library instruction framework. We would like to form an Information Literacy Council which would be charged with producing information literacy competencies, creating objectives and action plans to implement the objectives, and evaluating the progress of the University community toward these competencies. The Council would include librarians who specialize in information literacy and persons with relevant expertise in technology and instructional development. We would especially like to include interested faculty from other departments.

According to the Draft Plan, students at the freshman, sophomore and junior levels would have the option of achieving information literacy competency by fulfilling a series of web-based modules, which could be completed with or without facilitation by a librarian. The modules, discussed in greater depth below, would cover an introduction to information gathering, the research process, and a series of special topics on subject-specific resources, critical thinking skills, and organization and presentation skills. Students who took the 3-credit course *Library 120: Introduction to Information Literacy* would in effect “test out” of the module program. Junior-year students wishing to increase their competency could take *Library 140: Special Topics in Information Literacy* as either an honors or special program opportunity.

The senior year of the information literacy program would consist of students completing a capstone portfolio project. Many curriculums at the University have a capstone course in the final semester. The portfolio project would be connected to these courses. It could be traditional or electronic and would consist of a student’s work illustrating his or her efforts, progress, and achievement toward becoming information literate. Librarians would design an Information Literacy Portfolio Project Guide for students and a Portfolio Assessment Guide to assist teaching faculty in evaluating the portfolio.

Although it is mainly focused on undergraduates, the Draft Plan also addresses the information literacy needs of graduate students and faculty. The Plan recognizes that some graduate students arrive to graduate school directly from their undergraduate studies, while others may have taken time out of their schooling for work or a family and are returning after a period of time. In all cases, graduate students are beginning a new level of research that is far more sophisticated than they are likely to have experienced as undergraduates. To address the needs of graduate students, the Plan proposes offering a series of half-day seminars dedicated to subject-specific research strategies.

For faculty, the Plan recommends creating a learning laboratory dedicated to the support of librarian/faculty collaboration and to the design of courses and assignments. Also suggested are new faculty orientation workshops to introduce

the concepts and curriculum of information literacy and annual workshops to introduce new information products. Of course, the entire Plan calls for close collaboration with teaching faculty and involves them centrally in the teaching of information literacy.

## **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 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 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, making positive comments about the worksheets, for example "the worksheets are fun; I like them." and "At first I thought these worksheets were stupid, but now that I have to do research for Management 110, I realize how useful they are." 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 Professor Sink 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 Professor Sink's Management 110 section, 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***

[Mention pre- and post-tests somewhere in this section?] 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 who recognized the need for a stand-alone course in information literacy, and 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 which focuses on the basic conceptual understanding of what information is, where it comes from and how it is and can be 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 is being taught by Mary MacDonald and Joanna Burkhardt this semester. The course is being 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.

Ten students began the course in September and nine remain. They are very excited about the course and its content. They are eager and appreciative participants in class discussions and assignments and take the subject and the work seriously. The only complaint we have heard is “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 attempt, we expect our evaluations to be positive.

We have scheduled two sections of Library 120 for the spring semester, one in Providence and one on the main URI campus in Kingston. We are doing our own marketing of the course, which includes word-of-mouth, posters, and written recommendations from our first class. Our hope is to fill both sections with 20 students each. This would bolster our arguments regarding both the need and the demand for the course. In the best of all possible worlds, both sections would close out, with a waiting list.

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. This idea was suggested to us by Professor Sink, who collaborated with us in offering Library 140 and is a member of the University’s Faculty Senate University College and General Education Committee. Making Library 120 a General Education option has subsequently received the support of library faculty, students currently taking Library 120, and staff members at the Providence campus. If approved as a General Education course, the course would be one of only six which students can take to satisfy the Communications requirement.

Once listed as a General Education course, we expect that there will be increased interest in Library 120 from a much larger segment of the University student population. This would provide justification for the course, provide a more solid place in the curriculum for the course, and perhaps provide a demand which would require the expansion of the program.

### **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.” Modules, as previously described, are web-based tutorials 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. These 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 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.

Modules would have standardized content, e.g. "Industry Information," but could be customized within the context of classroom instruction to fit the needs of a particular situation. Choosing a module would be like buying a particular make and model of automobile – the body and engine are the same, but the color of the car and options like a sunroof or all-wheel-drive could be added. Requiring faculty who are interested in scheduling library instruction to pick from a standardized "menu" of modules would save a great deal of time that now is invested in preparing for customized one-shot classes. It would also ensure that all the concepts that have been identified as important in connection with that subject are covered.

Ultimately, we would like to see specific modules linked to particular general education courses and to core courses in each discipline. For example, all freshmen in URI 101 could be required to complete a module on the online catalog, while all junior business majors taking Management 301 could be required to complete a "Company Information" module and/or a "Business Research" module. Students could be tested online on their mastery of the content of the module, with their score incorporated into their grade for the course. It is our hope that required freshman and sophomore level modules could replace the URI 101 and Writing 101 "blitzes" and that junior level modules could eventually substitute for the majority of "one-shot" bibliographic instruction sessions. In the distant future, we envision a University-wide requirement for students to demonstrate increasing competence in information literacy throughout their college careers.

Going forward with this a 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 their curriculums, 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 are currently developing a web-based module on the library catalog. We hope to test it on selected URI 101 classes in the spring or fall of 2000.

## **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're doing is a work in progress, and many of our recommendations will take a great deal of collaboration, effort, and time to accomplish. Yet we now have the beginnings of what we hope will be a thriving information literacy program at the University of Rhode Island. As we move forward, and implement additional pieces of the plan, we hope to gather support, suggestions, assistance, and impetus from many constituents. We expect our plan to evolve as we gain experience. The dynamic character of information is undeniable. We hope to create a program which will offer the flexibility and adaptability to respond to that dynamism. In the final analysis, we hope to incorporate a new and much needed understanding of information and information literacy into the University of Rhode Island college experience. This, in turn, will provide powerful skills and analytical expertise which students will use in all of their post-college pursuits.

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<sup>1</sup> American Library Association, Presidential Committee on Information Literacy, "Final Report" (Chicago: American Library Association, 1989, online). Available: <http://www.ala.org/acrl/nili/il1st.html>. 3 November 1999.

<sup>2</sup> 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.

<sup>3</sup> *Ibid.*, 24.

<sup>4</sup> B. S. Bloom, "The Search for Methods of Group Intervention as Effective One-to-one Tutoring," *Educational Leadership* 41 (1984), 14; quoted in Breivik, 24.

<sup>5</sup> 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), 46-47; quoted in Breivik, 24.

<sup>6</sup> 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, online). Available: <http://notes.cc.sunysb.edu/Pres/boyer.nsf>. 4 November 1999.

<sup>7</sup> Breivik, 25.

<sup>8</sup> University of Rhode Island, "Mission Statement," (Kingston, R.I.: University of Rhode Island, online). Available: <http://www.uri.edu/home/about/mission.html>. 19 October 1999.

<sup>9</sup> Christine Bruce, *The Seven Faces of Information Literacy* (Adelaide, Australia: Auslib Press, 1997), 26.

<sup>10</sup> Jeremy J. Shapiro and Shelly K. Hughes, "Information Literacy as a Liberal Art: Enlightenment Proposals for a New Curriculum," *Educom Review* 31 (March 1996): 31. Online. Available: <http://www.educause.edu/pub/er/review/Articles/31231.html>. 21 October 1999.