Readin', Writin', Arithmetic, and Information Competency: Adding a Basic Skills Component to a University's Curriculum

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The University of Tennessee, Knoxville, is developing Information Across the Curriculum. Similar to writing competency programs, this approach will require students to take a number of information-intensive courses and necessitate a close partnership between librarians and teaching faculty in establishing requirements, integrating information skills into the curriculum, and evaluating outcomes.
There is told a story – it may be true, it may be apochryphal – about a librarian at one of the country’s early colleges. He was stopped while rushing across campus one day, a book under his arm, and was asked how things were in the library. “Just fine,” he replied. “Or they will be just as soon as I get this last book back on the shelves.”

For nearly a century, librarians saw their role to make sure that the materials in their collections stayed there, often – literally – chained to the shelves. If you were a lucky student you might have access to the collection a few hours a week. But soon after the emergence of librarianship as a profession, in the last quarter of the last century, there emerged an urgency – and eventually a mission – to instruct students in how to use the library. Literally, how to use the library: where specific books, and the restrooms, were located, for example. In many ways this is analogous to teaching people how to turn on terminals or computers and how to use the keyboards.

By the middle of this century, however, librarians began to realize that merely showing students how to find their way around our buildings was insufficient. And so was born “bibliographic instruction.” Hannelore Rader traces librarians’ interest in information literacy to Montieth College 40 years ago. There is also a long tradition of course-integrated library instruction, particularly at small colleges such as Earlham and University of Wisconsin at Parkside beginning in the 1970s. More recently, and more urgently, this need for instruction has extended to the use of resources not necessarily stored physically on library shelves, that is to digital and online information.

In instructing users, librarians have used a variety of methods. Similar to the instruction information technologists provided about how to use the basic kinds of software packages and tools--word processors, e-mail, spreadsheets, statistical analysis, database managers--librarians taught one-on-one at reference or help desks, in special class sessions, through printed documentation and guides, and, more recently, through new electronic media. During this period of focus on bibliographic instruction, librarians introduced millions of students to the wide variety of information finding and content resources they needed to do their work. We taught them about finding tools: indexes, catalogs, and directories. We taught them about reference materials: encyclopedias, dictionaries, biographies, and more. And we taught them about the key resources in their disciplines such as journals, books, conference proceedings, financial documents, and social science data. We struggled to make our students information literate.

In 1990, the American Library Association Presidential Committee on Information Literacy endorsed the value of information literacy as a means of correcting “social and economic inequities” in American society. In the words of the report, “Ultimately, information literate people are those who have learned how to learn. They know how to learn because they know how knowledge is organized, how to find information, and how to use information in such a way that others can learn from them. They are people prepared for lifelong learning, because they can always find the information for any task or decision at hand.” While there is little to argue with in this statement, there have been several factors that have worked against a complete and successful integration of information literacy programs in large enrollment colleges and universities. First of all, the responsibility for these efforts often rests solely on librarians and their ability to persuade, cajole, and otherwise worm their way into classes.
Difficulties in garnering the support of teaching faculty in such a venture, and the role and status of librarians on campus, often result in the uneven delivery of library instruction to a relatively few number of students who happen to take courses offered by sympathetic faculty. Library instruction programs are also typically labor-intensive and difficult for librarians to sustain and institutionalize over the long haul.

We must recognize that information literacy is not sufficient. Today, students must be able to demonstrate information competency -- the ability to think in a critical and integrated manner about their information needs and how to find, evaluate the quality, use, and manage what they need. As librarians, we understand that the approaches we’ve used are not sufficient to support and provide students with the basic level of information competency they need to do their work while in our institutions, let alone to thrive in their professions or as citizens after they complete their basic formal preparation with us. And we recognize that neither librarians nor information technologists by themselves, or even together, can impart these skills effectively. The pervasive nature of information technology applications in the library and in the classroom provides an opportunity for librarians to initiate a dialog on their campuses about the value of integrating information skills into coursework and the teaching of these skills by faculty.

A fundamental weakness of the various information skill-building attempts by librarians and information technologists is the separation and remoteness of the instruction we’ve been giving from the actual work to which our students must apply these skills. Late last summer, David Rothenberg wrote of his disappointment in his students’ inability to research and write papers, a situation he discovered after they had handed in their assignments. He blamed himself, not the students and not librarians or information technologists, for not teaching the appropriate skills. In blaming himself he put his finger on what is a more effective way of teaching information competency skills. Like writing and math, information competency is a set of skills best learned as part of a subject-oriented course, in which there is strong and solid context, and best taught and judged by the faculty member responsible for the course.

Many student skill development efforts such as writing competency have been an important part of the college and university experience, particularly through what is typically termed the “general education” curriculum. Libraries have always had natural links to the writing curriculum, particularly through freshman composition courses. For example, librarian Constance A. Mellon wrote about the connection between writing and library research in the early 1980s, before the rise of information and instructional technologies. Mellon and her colleagues developed a library research model that parallels the three-stage writing process of pre-writing, writing, and rewriting. In their model, users work through a process of pre-library, library awareness, and library competence. The approach indicates an early recognition among some librarians that the evolution of writing programs and theories could provide a model upon which to develop approaches to teach library skills.

Writing Across the Curriculum (WAC), an effort begun in the 1970s to integrate the teaching of writing skills into students’ coursework, now provides us with a model upon which to build a conceptual framework for the integration of information competencies. WAC is based on the theoretical framework that “writing skills are
primarily thinking skills, that writing is a dialectical process of developing an understanding of something, and that higher order thinking skills can only evolve through a writing process in which the writer engages in an active, on-going dialogue with him- or herself and others.” Proponents of WAC believe that the most appropriate pedagogical approach to implement this theory integrates writing into the disciplinary courses rather than through separate composition courses. According to Jean Sheridan, “It implies a concern of all faculty, not only writing instructors…. It is a student-centered pedagogy that … focuses on students’ subjective engagement with the material.” Sheridan goes on to note that, despite some resistance, there is widespread acceptance of this approach on a number of college and university campuses."

WAC has been faced with it critics, however, particularly for the lack of hard data to confirm that course-integrated writing is more effective than stand-alone courses. Coupled with that criticism is the rise of competing “literacies” on our campuses today. Faculty are being asked to incorporate a number of literacies or competencies into their courses—traditional foci such as writing, speaking, and mathematics as well as new initiatives such as computer skills and cultural diversity. For a presentation last year at LOEX, a national library instruction organization and clearinghouse, librarians at Pennsylvania State University collected faculty reaction to the term “information literacy” and got the following responses:

“Information literacy? That sounds dangerously like a trendy phrase I’m likely to be hostile to.”

“I am coming up for tenure next year and I just don’t have the time to add anything new into my courses. I think untenured faculty should be exempt.”

“Does this mean that students will have to hear the same basic library lecture in all their classes? If so, I’m not interested.”

“Is this really necessary? Our department feels that if students need something from the library, they will learn how to use it on their own.”

“Our department expects that students know how to use a library by the time they get here. This is not what they should be coming to college for.”

As Craig Gibson has written, “The real challenge of the 1990’s is for instructional librarians to develop the necessary political skills to convince faculty colleagues and administrators that there is a coherent set of intellectual skills in information-seeking that can be taught, evaluated, and dove-tailed with the large goals of the institution.” Some libraries, again at smaller institutions, have seen some success in the curriculum integration model for information-seeking skills. For example, librarians at California State University at San Marcos have developed a program that integrates library and information technology use skills into the general education curriculum. A similar approach has been employed at the University of Hawaii—West Oahu where librarians teach an introductory three-credit course plus specialized sessions in introductory courses in the disciplines. Implementation on a larger scale, however, continues to be elusive, and the burden for teaching these skills still rests exclusively on librarians. At the University of Tennessee, the foundation is slowly being laid for an information across the
curriculum approach that follows the model of Writing Across the Curriculum where teaching faculty are responsible for integrating these skills into their courses.

Librarian Steve McKinzie, in an article called “Research Across the Curriculum,” suggests that teaching library research methods “should mirror what we’ve already learned about teaching writing: that it requires more than a single session or a single course. It demands intensive, thorough, and dedicated application over the entirety of a student’s academic career. There should be a … genuine and in-depth explanation on how to locate and critically evaluate resources in a host of classes and throughout the academy’s disciplines.” When Paula Kaufman, Dean of Libraries, first floated the idea of incorporating information competency skills into the curriculum at UTK about 5 or 6 years ago, she was met by stares, puzzled looks, and derisive laughs. Most faculty with whom she spoke really did not understand the need to go beyond bibliographic instruction nor did they want to take on what they saw as a shifting of yet more teaching burdens to them. But the environment is changing.

The university conducted an undergraduate program review in 1995-6 and, with some vigorous lobbying, a librarian and a library school faculty member served on the review committee. They were able to use the review process as an opportunity to promote information competency as a necessary component of undergraduate education that was as critical to student development and learning as writing, speaking, and math. In its review document, the committee recommended that a foundational course be incorporated into the general education curriculum that would include “learning the art and science of information gathering…and transmission.” This recommendation was strongly supported by the report of the external review team. In tandem to this program review, the UTK Libraries Reference Department was developing a set of minimum information competencies. While the document was very basic, it provided a starting point with which to consider the development of a program to address how students would meet these competencies. The door was open to begin discussions of integrating information competencies into the curriculum.

Unfortunately, a variety of factors on campus resulted in the short-term tabling of any action on undergraduate curriculum reform. Two years’ later, however, the issue is back on the table and the library is renewing its efforts on behalf of information across the curriculum, efforts which are being met with a more favorable response that previous attempts. Although library leadership would like to think the changes in attitude are due to the constant placement of the issue on the table by the library, the monumental changes brought by wide access to the Web have been much more influential. In early October, Dean Kaufman met with a newly appointed committee charged to “reform” UTK’s general education curriculum. She again floated the idea, this time in the context of a discussion about integrating a set of now-separate skills courses into subject content courses. Ideas expressed just as they were five years ago were embraced with great enthusiasm and accepted with no dissension. Perhaps their time has really come.

And so begins the next phase, the hard part, of defining information competency and establishing assessment guidelines both for faculty teaching these skills in their courses and for the program itself. And of providing appropriate support for faculty and students, including those in need of remediation. Acceptance of the concept was the first step -- a huge step. Now, librarians and information technologists will need to form a
new partnership to lead our institutions successfully down this new path. What might this partnership look like? In moving from an environment in which bibliographic instruction is dominant to one in which information competency is a skill set integrated into the curriculum, our roles will change in significant ways. No longer at the mercy of the teaching faculty’s willingness to incorporate bibliographic instruction into specific classes, and no longer in “control” of the range of skills or methods by which students are taught, librarians and information technologists will serve as coordinators, collaborative curriculum developers, and providers of supportive instructional services for faculty and students. Among these supportive services will be one-on-one consultations, design of course-specific web pages and other instructional tools, “updating” for instructors, and remediation for students whom faculty have judged to have deficiencies in their information competency skills.

The beginnings of this new model are at work on the campus. For example, the Innovative Technologies Center at the University of Tennessee, Knoxville, provides a place for faculty to develop skills in various instructional technologies that can be applied in the classroom. ITC offers workshops and short courses for faculty in the development and production side of instructional technology while the UTK Libraries, through a series of Info Tech seminars, provides assistance in the area of content—web sites, bibliographic and nonbibliographic databases, and the like. This division of labor maximizes the skills and training of the librarians and the information technologists involved. It also requires close coordination and joint planning, a need that is still being negotiated in UTK’s case. A more integrated approach is already at work at the University of Iowa through the TWIST (Teaching with Innovative Style and Technology) project. The goal of the program is to “create a model training program for librarians and faculty on networked information resources…. They will develop their instructional skills in teaching others how to use these resources and how to incorporate the resources into curriculum design” (see their website at http://twist.lib.uiowa.edu). Another approach is underway at Indiana University where the library has proposed an assessment plan for information literacy. The plan establishes goals and suggests measurement techniques to assure their accomplishment. Still other models can be found in the New Learning Communities project of the Coalition for Networked Information. The goal of New Learning Communities is to integrate networked information into teaching and learning through collaborative partnerships of teaching faculty, librarians, information and instructional technologists, and students. Descriptions of model projects can be found at CNI’s web site (http://www.cni.org/projects/nlc).

From library instruction to bibliographic instruction to information literacy to information competency. As information resources and the tools to find them grow and increase in complexity so, too, do the means by which we help our students understand how to find and use them effectively. What was once the province of librarians — teaching students how to use the library -- now falls squarely on the shoulders of all of us, librarians, information technologists, instruction specialists, and faculty. Only by working collaboratively can we achieve our goals of educating students for the information age of the twenty-first century.


vii Sheridan, pp. 15-16.

viii Tasha Cooper and Loanne Snavely, “Multiple Literacies and Competing Agendas: How Does Information Literacy Fit In?” 1996 LOEX Conference.


xiii General Education Program Review Self Study prepared by the Office of the Associate vice Chancellor for Academic Affairs and Dean of Undergraduate Academic Affairs and the General Education Requirements Committee. Knoxville: University of Tennessee, 1996.