Using a Student-Generated Survey to Inform Planning For a User-Focused Learning Commons

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A peer-reviewed journal published by the Education Division of the Special Libraries Association (SLA)
Guardians
By Jacqueline Snider, Editor

Not often does a renowned Medievalist tackle the topic of children’s literature and examine the genre in both historical and personal terms. In addition, committees such as those dispensing the National Book Critics Circle Award and the Truman Capote Award for Literary Criticism recognized Seth Lerer’s book, *Children’s Literature: A Reader’s History from Aesop to Harry Potter*, describing the work as an “intellectual autobiography.”

Lerer’s chapter on literary prizes specifically the Newbery Award, the American Library Association, and libraries, for the most part, is complementary. He describes librarians as “guardians of literacy and culture for the young, and into this culture of guardianship came another, central feature of early twentieth-century life” (p. 276).

The articles in this issue of Education Libraries expand upon the concept of librarians as guardians. We learn how a school librarian helps students develop research skills; and how academic librarians design better learning commons for their students, help improve student retention rates, and adopt new roles as professor-librarians. As these articles demonstrate, our profession changes, influences, and commands an integral role in our educational institutions.


Photograph of Taos County, New Mexico. Children crowd into the Harwood Branch Library after school at Ranchos. I . . . , 12/1941 (Courtesy of The National Archives)
A Collaborative approach to implementing 21st Century skills in a High school senior research class
By Michael K. O’Sullivan and Kim B. Dallas

Abstract
Businesses and higher education leaders are looking for students with the ability to evaluate and analyze information and to use this information to solve real-world problems. These are the information literacy skills students need for the 21st century. However, several recent studies on the ability of college freshmen to handle the rigor of college courses and research indicate that high school students are not being adequately prepared to apply these skills. The authors provide a case study of a collaborative effort between an English teacher and the high school librarian to better prepare high school seniors on how to locate reliable information, analyze the information and then determine how it can be applied to solving a real world issue or problem.

Introduction
The goal of any high school is to ensure that its students have the knowledge and skills they need to be successful in college and in the workplace. However, several recent studies have claimed high school students are graduating without the necessary basic skills they need to be successful in college or at work. High schools throughout the country are being pushed to redesign and align their curriculum with college readiness standards. The problem is that there is no consensus among postsecondary institutions as to what constitutes “readiness”, and “readiness” may vary from institution to institution (Olson, 2006, April 26). This article will focus on how a high school research paper class, as an example, can be designed and structured to give high school seniors an opportunity to experience what college level research and writing involves.

A study conducted by ACT, Inc., entitled “Rigor at Risk: Reaffirming Quality in the High School Core Curriculum” (2007), states that to eliminate the essential skills gap between secondary and postsecondary education needed to be successful in college, high school courses should be made more rigorous. Many of these studies have focused on the basic reading, writing and math skills needed for college entry. However, simply requiring high school students to take more years of math, science and language arts will not ensure their success in meeting the rigorous academic requirements of college or the workplace.

The Partnership for 21st Century Skills, which includes the business community, education leaders and organizations, believes high school graduates must obtain strong learning skills in information gathering, communication, critical thinking and problem solving (Jobs for the Future, 2005). High school students need to be taught these sophisticated “higher-order” skills, such as the ability to locate and analyze complex information in order to solve real world problems.

For high school students to obtain these “higher-order” skills, the Partnership’s agenda calls for high schools to align their graduation requirements “with college and workplace entrance expectations” (Jobs for the Future, p. 12). An earlier report from the National Commission on the High School Senior Year recommended a similar strategy through the creation of K-16 councils in every state in order to strengthen relationships between high schools and two and four year institutions (Woodrow Wilson, 2001). Perhaps one of the reasons for the skills gap between high school and college is the fact that student standards are established in separate orbits. K-16 faculty members rarely work together on standards, curricula or assessment (Callan & Kirst, 2008).

Other studies also include critical thinking and research skills into their definition of college readiness skills. These studies have found that high school students are not being adequately prepared for the rigors of a college research assignment. In a 2002 report, the Association of American Colleges and Universities gave a concise summary of the problem (Hammond, 2008, May 2),
“Many colleges and universities have begun to encourage more in-depth, investigative, or research-based learning even in the first year, but high school and many AP courses continue to feature broad surveys and superficial ‘coverage.’ The senior year of high school, which ideally should emphasize the intellectual skills expected in college, is wasted for many students” (para. 5).

Another such study conducted by the Educational Testing Service (Foster, 2007) found that “college students and high school students preparing to enter college are sorely lacking in the skills needed to retrieve, analyze, and communicate information available online.” ETS, with the assistance of seven large university systems, developed an iSkills assessment tool to measure both college and high school students’ Information and Communication Technology (ICT) literacy performance (Katz, 2007). This assessment was designed to measure the students’ problem-solving skills by using technology. Various colleges have used this assessment to determine their students’ level of information and communication literacy skills.

But it is not sufficient to just measure the college students’ ICT literacy skills. Research has shown that one of the major reasons why students falter in college is that college courses are fundamentally different than high school classes. College instructors expect students to solve complex problems that do not have obvious answers, conduct research, draw conclusions and find evidence to support their arguments (Conley, 2007, p. 24). Integrating information literacy skills into the college curriculum apparently is as problematic as it is in high school.

While information literacy is seen as an essential component of higher education, it is unclear where it fits in the university curriculum (Quarton, 2003). Practically speaking this should not be an issue, because information literacy skills can and should be integrated through course work at both the high school and college level in all disciplines. To support this concept of integration, the Partnership for 21st Century Skills has developed a framework to help states, districts and schools integrate the core subject areas with 21st century skills (Silva, 2008).

The findings of each of these subsequent studies reinforce what the National Commission on the High School Senior Year stated in 2001. In that report, entitled “Raising Our Sights: No High School Senior Left Behind,” the commission emphasizes both public and private high schools should be providing students with more rigorous and academically challenging curriculum (Woodrow Wilson, 2001). The report even spells out several of the same skills that the Partnership for 21st Century Skills have identified as being critical for high school seniors to obtain. For example, the commission states that “high schools should be graduating students who are…capable of thinking critically and comfortable with…the problem-solving process (p. 10-11).” Students also should be able to connect key ideas between the sciences, history and society (p.13).

For high school seniors to be better prepared to handle the rigor and demands of a college research project, they should be exposed to classes in high school that require the application and use of specialized research skills and tools. According to Conley (2005), research projects should become a more central part of the high school curriculum in English as well as other subject areas. Conley adds that these research projects should progress from the “relatively simple” to the more complex throughout the four years of high school. He advocates for students to receive extensive experience writing many five to ten-page papers over four years (p. 83).

According to Gordon (2002), students “in K-12 are trapped in a reporting mode (p. 19).” High school research projects, when assigned, frequently center on reports, where students are required to read and summarize their findings into a four to five page paper. With the implementation of No Child Left Behind (NCLB) legislation, most high school curriculums have abandoned inquiry-based projects that challenge students to apply the knowledge they obtain through research, to solve or propose a solution to a real world problem. There is a difference between the skills needed to research and write a report and the skills required to research and write an analytical paper that actually applies the knowledge a student obtains to a specific social problem or issue.

One such class that can be offered at the high school level, which serves as a perfect vehicle in which to incorporate many of the 21st century skills, including information literacy, critical thinking and problem solving, is a research paper class for high school seniors. Such a class has been offered to seniors at Rosemount High School, a suburban high school in the Twin Cities, for the past 20 years. The entire content of this class is designed around a single research paper, and is designed to emulate the demands of a college...
research assignment. The class has proven to be demanding, rigorous but fair, and at times overwhelming for some high school seniors. This class is not just about writing a longer research paper (10 to 15 pages). The intent of this class is to introduce high school seniors to what it is like to research a subject in depth, to formulate research questions and develop curiosities that go beyond the basic facts of a topic. By breaking the research paper process into a series of steps with individual, specific due dates, the teacher has been able to stress the importance of time management and developing effective work habits. These skills, in addition to the research skills involved, are critical for seniors as they prepare to make the transition to college.

The Research Paper Class

When the Research Paper class was originally offered to seniors, the students were taught the basics of writing a research paper including how to select a topic, write a thesis statement, organize and find sources and finally how to put it all into a 10-15 page research paper. The role of the teacher librarian at this point was simply to take a couple of class periods to introduce students to the online catalog and research databases. However, just introducing the students to the library’s resources was not adequate enough preparation for college level research.

In spite of this instruction and receiving library instruction in middle school, and again introduced to additional skills as ninth graders, the high school seniors quickly abandoned these skills and resources and reverted back to what they thought worked. They jumped back into Google, Yahoo or some other random search engine, entered a question or phrase and fully expected the answers to appear. Not surprisingly, they quickly became frustrated. In most cases they found too much information, and in others, not enough relevant or reliable information. It became apparent they had very little, if any, critical research skills.

The high school seniors in this class are no different than any other high school senior or college student, for that matter, across the country. While most high schools won’t have a wide variety of information resources, both online or in print, that is not the case with college and university libraries. College libraries frequently have outstanding information resources available to their students – from subject encyclopedias, online catalogs and subscription databases, but many college students are either unaware of these resources or they do not know how to use them (Quarton, 2003). Quarton states, “…college students lacking these information skills are ill prepared to function in a technological and information-rich environment (p. 120).”

Integrating the Teacher Librarian

To determine exactly what research skills to incorporate and emphasize, the research paper teacher worked with the teacher librarian to revamp the curriculum for the class incorporating more intensive units involving library research skills as well as writing skills. As an example of true collaboration, the media specialist has become a co-teacher with the English teacher during the topic selection and research portion of the class.

As a result, the students’ information literacy skills have moved beyond the basic keyword and natural language approach in which they have been indoctrinated by the various Internet search engines. Since then, the research paper class has been enhanced by emphasizing two distinct skill sets—information literacy and research writing, both of which are critical for these students in preparing them for college. In addition, these students begin to realize there is a systematic approach to doing research that will result in writing a successful academic-level research paper.

Minnesota high school students are fortunate to have access to a vast array of online research databases, including several academic level databases. Minnesota as well as several other states frequently contract with various vendors to provide access to a wide variety of online research databases. With resources like these, Rosemount High School students can easily simulate the college level research experience in their suburban high school media center.

Including the school’s teacher librarian in the instructional process helps the students get started on the right foot with doing a research paper. In order to effectively incorporate the teacher librarian into a research paper class, it is important that he/she is introduced on the first day of class. In this situation, the librarian gives a brief overview of his background and how he will assist in orienting students to college level research skills. The teacher librarian conducts mini-lessons, lectures and administers exercises focusing on specific information literacy skills aligned with the Association of College and Research Libraries (ACRL) information literacy standards.
Step One: Selecting a topic
Topic selection is where each research paper class begins. At first students feel this should be an easy step, because they often do not know the difference between a suitable research paper topic and a report topic. Most high school students, when faced with the task of selecting a topic for research, will opt for the easy out by selecting one of the many tried and true high school topics. The research paper teacher and the librarian work together to help students brainstorm, narrow down ideas, expose them to controversial issues and put some limitations on acceptable topics. To get them started, topics from previous classes are shared, current events are discussed, and a variety of subject specific encyclopedias are provided as sources of potential topic ideas.

Students are given nearly two weeks to select a research topic in which they are really interested. Giving them more time to explore topic ideas also helps them get past the ‘brain freeze’, many students experience when trying to select a topic for a major research paper. They are encouraged to tune into news broadcasts, such as BBC News America, to get a broader perspective of world events, to scan topic ideas from online databases, such as Opposing Viewpoints or Global Issues in Context, to read the headlines in the daily newspaper, to talk to teachers or parents, or to scan the “List of Entries” in the front of a subject encyclopedia to come up with topic ideas.

As students mine these resources, they are reminded that the course requires them to write about a topic that is relevant to society or has an impact on society, and which may involve a controversial issue. These types of topics require analytical thinking and problem-solving. Students are encouraged to approach their topics with an open mind and to select a topic they are truly interested in exploring.

By providing students more time to explore and think about a greater variety of issues, the quality and perspective on topics chosen has improved. When students select a topic they are truly interested in, the quality of their research and their writing improves dramatically. The class is structured to encourage students to consider their topic in context with history and society and to seek a deeper conceptual understanding of the issues surrounding or connected to their topic. This frequently results in students becoming aware that their topic impacts or is connected to other disciplines. To accomplish this skill, students participate in a series of brainstorming exercises.

Step Two: Concept mapping
During these exercises, students are encouraged to take their initial topic idea and explore any and all aspects or ideas related to their broader topic, no matter how remote the connection might be. To help the students connect ideas to other related ideas or subtopics, they fill out a concept map or use a software program, called Inspiration 8, to create their own web map. Concept mapping is a brainstorming technique that helps create a visual image or diagram of a topic and how it connects with other ideas or concepts. Using this technique, students often discover even more interesting topic ideas than what they originally had. It enables them to visualize their idea and see connections or relationships between seemingly unrelated concepts.

A second part to the concept mapping exercise asks students to select one of the related topics from their brainstorming map that piques their interest as a potential area of inquiry or research. To complete this concept map refocusing, students may need to do some preliminary research, using a subject encyclopedia article, to obtain background information on their topic. The purpose of the refocusing exercise is to help students narrow the focus of their topic by examining the economic, social or environmental implications of their topic. They will contemplate specific causes, solutions, effects and/or benefits related to their main topic, as well as any people, places or things directly associated with or related to the topic. This aspect of the concept mapping exercise helps them gain a deeper conceptual understanding of their topic, which is considered one of the competencies required for the 21st Century (Silva, 2008). This refocusing exercise also helps them formulate effective research questions. For an example of a completed concept map and topic refocusing, click here http://www.district196.org/rhs/library/Documents/Concept%20MapExample.pdf

Step Three: Formulating a Research Question
The ability to formulate an effective research question that addresses the causes, effects or solutions related to their topic, helps the students focus their ideas and point them in the right direction to begin their research. Students are asked to develop several research questions to re-frame their topic in a variety of different ways in order to narrow their topic even more. Teaching students to come up with an effective research question, using question words like what, why or how, is a fundamental step in the research process and encourages students to critically analyze all elements of their topic.
A well developed research question also helps them formulate a working thesis statement that succinctly summarizes their main idea, position and solution to their topic. In order to develop a good research question, the students must have a clear understanding of what issues are relevant to their topic and what types of questions have been explored in relation to their topic. Once the research question is formed, students easily move onto the next step of finding and identifying keywords.

**Step Four: Keywords vs. Subject Headings**

Once a student settles on one of their research questions, they are instructed on how to identify the keywords or key concepts incorporated in their questions. For example:

What **benefits** can an urban **mass transit** system provide in revitalizing **economic development** and growth in today's U.S. **metropolitan areas**?

Using the keywords/search terms from their research question, the teacher librarian stresses the importance of developing a comprehensive, dynamic list of related keywords or synonyms, and in identifying the appropriate subject headings for the key concepts in their research question. Using the Library of Congress’ catalog, WorldCat or a university level catalog, students are expected to identify the Library of Congress (LC) subject headings that are used to categorize issues dealing with or related to their topic. The students also receive instruction on the difference between a keyword and subject heading search and how to apply these approaches to improve their search results. An example of a completed keyword/subject heading exercise:


**Step Five: Developing a Search Strategy**

The next component in the research process introduces the high school students to the world of college level research. They are introduced to college level resources and receive instruction on how to employ various search strategies in order to improve the relevancy of their search results. The students are instructed on how to apply their keywords and/or subject headings using various research databases to which the library subscribes or has access to, including *Academic Search Premier*, *Expanded Academic, Health and Wellness Resource Center*, *ERIC, Opposing Viewpoints*, *LexisNexis* and *Science Resource Center*. A list of the library’s online resources is available at http://www.district196.org/rhs/library/database.html.

All of these databases allow remote access, so students can do research at home or at other off-campus sites.

The students learn the difference between popular and scholarly articles, how to locate and identify scholarly sources, as well as the resource trail a scholarly article will provide them. To become acclimated to the world of “academic” research, the students are required to include at least three scholarly articles in their works cited page. Students are shown how the results from these subscription databases differ from the results obtained from an Internet search using Google or some other search engine. If they choose to include information from a random internet search, an online internet evaluation form must be completed to verify the reliability of the information provided at the website:

http://www.district196.org/rhs/library/webevaluation.cfm

In order to use the databases more effectively to locate relevant information, students are taught how to apply more advanced, college related research skills from the use of Boolean operators to help narrow or broaden their search results, to applying limiters to their search or employing truncation in order to retrieve related articles. They also are shown how to take advantage of such database features as creating a research folder to save their articles, marking and e-mailing their results home, downloading or saving their marked articles under favorites and how to properly cite their sources in MLA format. The students use NoodleTools, a note taking and bibliographic citation program.

These high school seniors also learn about the valuable service, librarians can provide through interlibrary loan. They quickly learn that not everything is full text online or through Google, and are encouraged to submit book and journal article requests to the teacher librarian. Using a statewide service, entitled Minitex, provided by the Minnesota Office of Higher Education and the University of Minnesota, the teacher librarian is able to pretty much fulfill any interlibrary loan request from a journal article to an academic book.

**Step Six: Writing the Research Paper**

As students begin the transition from the research to the writing phase, the research paper teacher has established various benchmarks to help the high school students stay on task and on schedule. At various stages in the research and writing process, deadlines and points are assigned to different phases in the process. Students are expected to submit documentation of their research, a copy of their thesis
statement which clearly states their problem and how they plan to resolve it. Other benchmarks students are expected to meet include an annotated bibliography following the MLA style guide, note cards using NoodleTools, an online bibliographic and note taking program, rough drafts of the first five pages, followed by drafts of their paper for peer review. As a final assessment, each student is expected to orally present their thesis along with a summary of their research findings explaining how they supported their thesis. By structuring the class in this manner, the research paper teacher effectively demonstrates the importance of establishing and following a schedule when undertaking a major research paper assignment at the college level.

Students are required to use a variety of sources in their works cited page, including subject specific books, scholarly articles and government documents in addition to the more popular resources they obtain from the newspaper and periodical databases at their disposal. By making this a required and graded part of the course, students are exposed to higher reading and vocabulary levels that require critical thinking and analytical skills.

**Step Seven: Assessment**

Likewise, at various points in the class, the teacher and the librarian will administer specific information literacy assessments using the online assessment tool, Trails9.org. The specific skill assessments, that have been used with the high school seniors, have included the identification of potential sources, the ability to develop, use and revise search strategies and the ability to evaluate sources and information. These online assessments are administered several weeks after the students have completed a part of their research. Before the students log into Trails9.org, the librarian will conduct a short review of the basic elements that comprise the particular skill area being tested.

The teacher and the librarian have used the results of these assessments to not only determine if the high school seniors fully comprehend the concepts and skills involved in these aspects of the research process, but also to evaluate, revise and improve the instructional components related to the specific information literacy skills.

To further assist the students in the research and writing process, the teacher and teacher librarian developed an online Research and Writing Center Page that incorporates examples and tips on various aspects of the research process, as well as advice and examples for the writing process. The Research and Writing Center page <http://www.district196.org/rhs/library/ReswritingCenter.htm> was patterned after several prominent College and University online Writing Centers.

**Conclusion**

By integrating more advanced research skills into the core curriculum of a research paper class, high school students will be better prepared to handle the stress and rigor of a college research assignment. This class incorporates the essence of 21st century skills, by enabling students to apply and use the knowledge they obtain about a certain topic in order to propose a possible solution to a real world problem or issue (Silva, date, p. 2).

The research paper class at Rosemount High School has been structured to incorporate college level research skills with the writing elements required for a college level research paper. By structuring the course with these two elements, students have reported they feel less intimidated by the idea of doing college research and/or including a research librarian in the research process.

Several students, who have gone on to a four-year college or university, have reported they not only scored well on their first major college research paper, but they also had very little trouble navigating and using their college library’s resources. One former student reported, “Everything we learned was huge. Some kids never get this information before they get to college and they had a ton of trouble.”

This class provides a perfect opportunity for the research paper teacher and the high school librarian to collaborate in developing a class that prepares students for the rigor of college and the world of work in the 21st century.
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Using a Student-Generated Survey to Inform Planning
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By Sharon A. Weiner and John M. Weiner

Abstract
A master’s comprehensive University is planning a learning commons to support undergraduate learning. The planning process included a literature review, site visits to commons, consultations with experts in the field, discussions with campus specialists, and surveys of patrons. The literature reports two primary forms of data gathering for learning commons: interview/observation and purposive surveys. This report describes the findings of a survey conducted to determine students’ perceptions of services relevant in learning commons. The findings indicated that the students wanted help with their information processing needs.

Introduction
To support undergraduate learning at the University of Massachusetts Dartmouth, the Library planned a learning commons as part of an extensive renovation project. The planning process included a review of the education and library literature, site visits to existing commons, consultations with experts in the field, involvement of key campus stakeholders, and survey data. This article is a report of a pilot survey conducted to engage students in the planning process and identify their needs related to a learning commons from a student perspective. This survey was developed and administered with the assistance of undergraduate students in introductory statistics courses.

Why a Learning Commons?
Institutions of higher education are changing their educational approach from a “teaching” paradigm to a “learning” paradigm. This transformation requires an emphasis on student learning outcomes; the inclusion of faculty as well as other campus professionals as partners in student learning; the seamless integration of technology in learning; and acknowledgement that learning occurs through all aspects of a student’s college experience. These changes in higher education as well as rapid advances in technology have prompted modifications to the structure, functions, and services offered by academic libraries. The library has a significant role in the learning process, in fact, it “may be the most important observation post for studying how students really learn.” Faculty and librarians who work together on library-based learning can stimulate positive learning experiences for students. Some characteristics of a “good learning experience” are that: it helps to develop information literacy competency; it is customized to the student’s immediate needs and learning style; and it occurs in a non-threatening environment.

One innovative concept for space, services, and operations to support undergraduate learning developed during the last twenty years is the “learning,” “information,” or “knowledge commons.” While the mix varies by site, a commons integrates traditional library services with other learning support services on a campus, such as information processing, tutorial services, report preparation, enhanced technology, and preparation of visual displays. The design of an information commons facilitates interaction and serendipitous learning. A learning commons differs from an information commons because it focuses on the creation of knowledge over the transmission of knowledge. A learning commons is “clearly and explicitly aligned strategically with the institution-wide vision and mission—that is, is a dynamic and active partner in the broad educational enterprise of the institution, not just the library-centric enterprise.” Its parent library fosters a philosophy of integration with its campus. The technology resources are greater in a learning commons and are seamlessly integrated. The collaborative work spaces are many and varied. A learning commons is not library-centric; it is learner-centered. It incorporates related learning support functions within the library and reaches out to them outside of the library.

The popularity and use of commons by students whenever they are implemented provides support for
their importance. Published reports of success with the commons concept have focused on space design, staffing issues, and service models. The purpose of these reports was to provide insights that would aid in planning. Data capture to inform decision-making included surveys, focus groups, interviews, and site visits. “Best practice” is a frequently cited justification for the service configuration adopted. Changes in a library’s operational strategy imply additional costs for facility renovation, changes in service configurations, changes in operational procedures, training of personnel for new roles, and the integration of differing functions. Definitive data can justify the expense and effort and motivate the acceptance of a new model.

Description of University of Massachusetts Dartmouth Library
The Claire T. Carney Library at the University of Massachusetts Dartmouth (UMD) is the focal point of a campus that serves a masters comprehensive institution with a student population of over 9,000 FTE’s. At the time of the survey, the Library was engaged in a plan for a building renovation. The first floor of the Library was open with many windows and few book stacks or visual obstructions. There was some seating, but the area was primarily used for university functions such as lectures and banquets. The second floor included the reference desk and reference collection, along with 40 public workstations. The fourth floor included the Archives and Special Collections. Floors 3-5 were filled with book stacks along with some seating for individuals along the perimeter windows and banks of seating interspersed through the stacks. The lower level had been renovated to include two computer labs and the PhotoGraphic Services Department which provided photography, videography, and graphic design service to the campus. Offices for the Library staff and most of the Computing and Information Technology Services staff were located throughout the building. Other related services were located in other buildings. The campus Writing Center was located in the building for the College of Arts and Sciences. Tutoring services were located in respective academic subject areas.

Clearly, learning support services were dispersed throughout the campus and were not well-integrated or coordinated. This model worked well until changes in learning preferences and recent trends in higher education favored closer cross-departmental relationships and easier access to services by the student population. Initially, faculty and other learning specialists were interviewed to determine their suggestions and insights regarding the nature and function of the commons-in-planning. The purpose of this report was to describe a survey to determine student perceptions in relation to a proposed learning commons.

The Student Perspective
Since learning commons are student-centered, it is important to involve students in the planning process and to incorporate their perspective into the planning. In this project, several students were members of a campus-wide planning committee; and leaders of the learning commons project reported on it at Student Senate meetings. Another opportunity for student participation and feedback occurred when a professor assigned students in his introductory statistics classes to develop and administer a survey relating to student perspectives on learning commons-related services. Surveys are useful for obtaining information about physical and digital services for learning commons and can also provide information about the people needed to provide support services.

Elements of Learning Support Services
The literature indicates that traditional library services, tutoring, computer instruction, the study hall environment, and report preparation are important elements of learning support services for students. A well-planned learning commons integrates these elements in its design.

Traditional Library Services
Reference and other informational services are core to an academic library’s operation. Libraries have a role in teaching information management skills and information literacy competencies that can become a “comprehensive knowledge management paradigm.” At the Claire T. Carney Library, there was a reference desk on the second floor while the circulation desk was on the first floor.

Tutoring
Tutoring services may be provided through individual appointments; walk-in, email, or telephone service; study groups; and online instruction. Students who use tutoring services can take a more active role in their own learning processes. Because there is a social dimension to tutoring services, more effective learning may occur. These services can have a positive influence on GPA, course passing rates, course completion rates, persistence, and retention rates. Tutoring services at UMD were dispersed in the buildings of the College that supported them; there were no tutoring services in the library.
Computer Instruction
Computer literacy is essential to the successful functioning and global competitiveness of our citizenry. “Citizens who do not possess these critical skills are far more likely to be unemployed and in poverty and are far less likely to be in professional, managerial, or technical positions”\(^33\). Instruction in the use of computer hardware and software at UMD occurred in campus computer labs managed by the information technology department or in computer labs managed by academic departments. While valuable, these learning opportunities were often independent of other learning capabilities. By integrating the various instructional and learning opportunities in the learning commons, a student would develop the skills and knowledge in presumably a more effective and lasting way. That hypothesis would be essential to study as the learning commons became a reality. However, this survey was designed to determine student perceptions prior to the development of integrated learning opportunities and facilities.

Study Hall Environment
Students need quiet spaces for individual study. This is particularly true of graduate students and faculty. Architectural designs for renovated or new library buildings include spaces conducive to quiet study. The study hall environment is an important learning and social area in libraries\(^33,35,36,37,38,39,40\). At UMD, the main floor of the library was often used for campus receptions and lectures. Quiet study occurred on the other floors of the library. Those were the locations for the book stacks and some staff offices. A frequent first step in creating a commons is an emphasis on facility renovation. This survey explored the importance placed on the environment by students.

Preparation of Reports
Including writing centers in academic libraries may be the optimal way to maximize relationships between departments, foster collaboration, and expedite referrals\(^41\). Librarians and writing center professionals work with highly integrated processes to help students to construct new knowledge\(^42\). “Writing centers and information literacy instruction have grown to a point where formal collaborative partnerships might be the best way to open new lines of development...more powerful, more dynamic, and more effective instructional practice can be achieved than either has been able to achieve alone”\(^43\). The location for the Writing Center at UMD was in the building for the College of Arts and Sciences.

This survey included four dimensions of possible learning commons services: tutoring, computer instruction, study hall, and report preparation. In libraries that do not have learning commons, tutoring services are usually restricted to instruction about library services and resources and assistance with library-supported database searches. A learning commons could also include tutoring in academic subject areas, writing, software use, and information utilization. This study also considered the study hall function.

Methods
The literature reports two primary forms of data gathering for learning commons: interview/observation of best practices and purposive surveys of patrons\(^44,45,46,47,48,49\). A survey is a structured set of questions designed to elicit descriptions of characteristics representing feelings, attitudes, perceptions, or experiences\(^50\). Responses can be collected by capturing the verbal and/or written expressions provided by the respondent.

Students in two introductory statistics courses assisted in the development and administration of a preliminary survey questionnaire to 100 students at the University of Massachusetts Dartmouth. This was a convenience sample selected by the students in the course and was intended to serve as the data spring board for a larger more definitive survey of students and faculty. The intent of this questionnaire was to determine which items to incorporate into a larger study. The response rate was 58%. SPSS was used to compute the statistical results.

Results
Demographic Characteristics and Academic Majors
The literature identified variables such as generational characteristics and student status as important demographic variables for studies of college students\(^52\). Considering those findings, the study included the following variables: age, residence, and work status. Most of the respondents (60%) were in the age range from 18-20 and most lived on campus (79%). The majority of the respondents were sophomores (45%); most of the respondents declared majors in the Colleges of Arts & Sciences or Business. The percentage of respondents by major was proportional to the percentage of the student population in each major. The ages of more than 60% of the respondents ranged from 18-20 and about 30% ranged from 21-23. First-year students represented 12% of the respondents; sophomores represented 45%; juniors were 17% of the total; and seniors were 26%. Seventy-one percent of
the respondents indicated that their grade point average was at least “B.”

Study Hall Environment
The questions dealing with this environment probed to understand the students’ impressions regarding the adequacy of the present library environment for study purposes. The study hall questions included items regarding conference rooms, computer workstations, and spaces for individual or small group study. The responses to the questions were organized to capture intensity of feeling regarding the adequacy of each item. Most of the students found the present study environment in the library, the computer software available, the computer-supported instructional material resources, and the lounging areas to be acceptable. However, fewer than half were satisfied with the group conference rooms and number of computer workstations.

Tutorial Services
The questions relating to tutorial service were addressed. The questions were:

- Knowledge of present tutorial services
- Quality of tutorial services provided in the library
- Tutoring services desired by the respondent
- Sources of present tutoring services
- Access to tutoring programs
- Perceived need for tutorial services

Fewer than half of the respondents knew about any of the tutoring services. Only about one-third commented that the quality of the services offered in the library was average; another one-third did not comment. Approximately one-third of the students indicated that they would like to use literature search, mathematics/statistics, science subjects, and report preparation services. A little more than one-third of the respondents indicated that they had minimal need for tutorial services.

Report Preparation Services
Four questions probed for students’ impressions of existing and desired report preparation services. The first involved identifying the tasks found to be difficult to accomplish. From one-quarter to one-third of the respondents had difficulty in finding literature, editing and revising, organizing notes and data, preparing drafts, developing a bibliography, or developing an outline for a report. The second question dealt with sources in finding literature. Forty-eight percent indicated that internet search engines were most useful while thirty-one percent indicated that reference librarians were most useful. The third question considered editing and revising drafts. The students reported that classmates and teachers were most useful. The fourth question dealt with the most useful source in developing the bibliography. The predominant response was internet search engines. None of these variables were related to study hall environment.

Instruction in Computer Software
This dimension had three questions. The first dealt with identifying the software that the respondents found difficult to use. Statistical software (36%) and business software (38%) were most frequently cited. Sources of assistance recognized were friends and computer facility staff. When asked to indicate preferred instructional modes desired in learning software, the respondents chose web instruction.

Predicting Study Hall Environment
A stepwise regression was performed to identify the variables that were likely to be relevant in enhancing the study hall environment. All of the variables from the tutorial services, report preparation, computer
operation, and personal/demographic dimensions were included in the analysis. The stepwise procedure identified the following variables as statistically significant:

- Access to existing tutorial programs
- Special tutorial programs on campus
- Display preparation tutorial
- Difficulty preparing displays

These four variables explained about 38% of the variation in the measure of study hall environment. Omitted from the relationship were variables from the computer software operation and personal/demographic dimensions. Interestingly, two of the variables selected as relevant had to do with display assistance. The other two variables dealt with access to and availability of tutorial services.

**Subgroup Analyses**

The possibility that different subgroups of the students might require different kinds of services was explored using class standing, age, grade point average, and major area of study. For each subgroup, the relationship between the study hall environment variable and the tutorial services, report preparation, and computer operation dimensions was analyzed using stepwise regression.

**Age 18-20**

Thirty-six (64%) of the respondents were in this subgroup. The study hall environment factor was related to three variables, all from the tutorial services dimension. The first variable was the student’s awareness of accessibility to existing tutorial services. Awareness of special tutorial programs on campus was second and the students’ desire to use a humanities tutorial service was third.

**Age 21-23**

Sixteen respondents (29%) were in this subgroup. The regression involved one variable, the student’s perception of access to existing tutoring programs.

**Grade B or Better**

Forty respondents (69%) were in this subgroup. The regression involved four variables. The first was the student’s perceived access to existing tutorial programs. Identification of the best source in developing a bibliography was the second selected. The remaining two dealt with the student’s knowledge of tutorial services – research design and science subjects.

**Business Majors**

Fifteen students (26%) were in this subgroup and two variables were entered into the regression. The first was the source for developing a bibliography. The second was the student’s awareness of departmental tutorial services.

**Discussion**

The intent of this survey was to expand on the frequently reported practices for planning learning commons by including a preliminary survey of student perceptions of their learning needs and how the library can assist in accomplishing them. The findings were intended to identify the questions to be used in a larger survey of students and faculty. However, some of the findings were unexpected. The emphasis on tutorial service requirements suggested that the planning emphasize specific services instead of the usual first focus on environmental changes.

The student respondents were predominantly sophomores (45%) and seniors (26%). The majority were from the ages of 18-20 (64%) followed by ages 21-23 (29%). Seventy-nine percent lived on campus and 94% were full-time students. Seventy-one percent had a grade point average of B or better. The respondents to this survey formed a ‘reasonable representation’ because the percentages of students within major educational programs were close to the ones cited for those particular programs.

Assuming that the respondents do represent the student body of interest, the environment needed to provide the ‘ideal’ learning commons, based on literature reports and expert opinions, would include programs designed to assist the student in furthering his/her learning outside of the classroom.

What services provide that capability and who should sponsor them? The results indicated that two issues were relevant to the responding students. One was the tutorial service including a range of subjects and accessibility. This is a form of on-demand learning in which the student recognizes a learning obstacle and seeks assistance in resolving it. Respondents indicated difficulty in finding literature, editing and revising, organizing notes and data, preparing drafts, developing a bibliography, developing an outline, and putting the package together. Their sources of assistance also were clues to the need for a more comprehensive tutorial process. They received editing and revising assistance from classmates. They used internet search engines to build bibliographies. The students favored web instruction for software. That mode of instruction
could be useful in other subjects as well. “In recent years, there has been a transition in library instruction from a tool-based approach to a problem-solving and learning approach, which necessitates working closely with the writing center.”

The results of this survey underscore the importance of the learning commons in supplementing the instructional effort. The classroom is a recognized site for dissemination of information and stimulation of critical thinking. A conservative recommendation suggested that the student study three hours a week for every hour spent in class. The learning commons concept gives the student a place to accomplish this recommendation together with the necessary assistance to make the time fruitful.

While the study recommendation may be based on sound experience, another consideration is evident. Students exhibited a desire for rapid acquisition and processing of information. This desire can be addressed with a learning commons. The tutorial services that seem to be relevant are those that provide the student with an immediate response to a learning need. Computer-supported text mining, organization of information, and analysis can enhance productivity. Those services call for integration of computer, library, and instructional technologies to form the supplements appropriate in this on-demand learning environment. If the students in this survey are representative of the population of students in colleges today, the emphasis on library-based programs may take precedence over physical changes to the facility.

These results can inform other academic libraries interested in developing surveys to garner student feedback about learning commons. Potentially important areas for further probing include the following:

- Need for tutorial services
- Need for trained peer consultants
- Use of internet resources for information access
- Use of internet for bibliographic development

Students indicated a repeated need for tutorial services and assistance with processing information. These included: finding literature, editing and revising, organizing notes and data, preparing drafts, developing a bibliography, developing an outline, and putting the package together. The finding that students preferred to obtain assistance from peers supports the possibility of introducing trained, peer consultants to provide a primary level of assistance in answering student queries. The increasing use of internet resources as well as the increasing concern regarding the ‘value’ of such sources suggests more emphasis on this area in future surveys. Similarly, the findings suggest that students’ perceptions regarding ways of providing instruction in effective information use should be emphasized.

**Conclusion**

This survey captured data at one university regarding students’ attitudes, needs, and perceptions regarding a set of services to enhance undergraduate learning. The logical site for the innovative services is the academic library. This resource is called by various names including “learning,” “information,” or “knowledge commons.” Planning was accomplished by reviewing the education and library literature, site visits to existing commons, consultations with experts in the field, discussions with campus stakeholders, and surveys of patrons. The literature reports two major forms of data gathering: interview/observation of best practices and purposive surveys of patrons.

The inclusion of a variable for a study hall environment was based on the obvious importance placed on appearance and comfort. Remodeling a library may take precedence over restructuring programs. Acquiring furniture may take precedence over instruction occurring in the library. The results of the relationship analysis suggested that a study hall environment wasn’t necessarily a priority for the students in a public university with a student body consisting of undergraduate and masters programs. Seventy-six percent found the present environment (i.e., before remodeling) acceptable. Forty-eight percent felt that there were sufficient computers and fifty-eight percent considered the software to be adequate. Sixty-one percent felt that lounging areas were satisfactory. These results confirm the lower priority placed on the environment by the students.

Subgroup analysis showed the apparent importance of tutorial services and the need for instruction in information processing. The classroom is the recognized site for the dissemination of new knowledge and the stimulation of critical thinking. However, without supplemental assistance in acquiring the necessary skills, the time to achievement may be long and the frustrations high. Those observations and the desire to provide solutions have motivated many academic libraries to include a learning commons. That environment may differ in services and structure.
in each university. However, all are intended to enhance learning.

There is evidence to indicate that students are knowledgeable about computers but may not have information literacy competencies. This survey reinforces that evidence. The students clearly identified the need for tutorial services related to information processing and emphasized the desirability that these be easily accessible. That desire matches another involving more rapid and specific learning of required material. These findings suggest additional areas to probe with students in developing a data-driven plan for a learning commons.

Appendix I. Survey Instrument.

Survey of Library Services

Libraries are in a transition from the services and beliefs associated with the traditional repository of knowledge to one of active involvement in learning. However, in making this transition, there are differing opinions regarding the array of the new library services and functions. In addition, differing approaches in providing services have been suggested. To assist the staff at the Claire T. Carney Library at the University of Massachusetts Dartmouth develop the innovative, effective program of services you require, please take a few minutes to answer this important survey. This survey will be kept confidential. Please sign below to indicate that you have read this consent form and agree to fill out the survey.”

Should the library provide a study hall environment? Libraries have introduced various areas intended to enhance study opportunities including conference rooms, computer stations, educational carrels, and quiet rooms. Studies have suggested that students prefer two types of areas – quiet and social – both considered as examples of an ideal study environment.

Please answer the following questions regarding the Library’s present study environment. Respond by circling the answer or answers that best describe your experience and needs.

1. Present study environment is ---?
   a. Poor
   b. Acceptable
   c. Outstanding
   d. Unknown, don’t use library

2. Present individual study space is ---?
   a. Very inadequate
   b. Below average
   c. Acceptable
   d. Above average
   e. Very average
   f. Unknown

3. Present conference rooms for small group study are ---?
   a. Very inadequate
   b. Below average
   c. Acceptable
   d. Above average
   e. Very average
   f. Unknown

4. The number of existing computer stations are ---?
   a. Too few
   b. Sufficient
   c. More than needed
   d. Unknown

5. Do the computers provide the necessary software?
   a. In less than 25% of the computer stations throughout the library

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b. In about 50% of the computer stations throughout the library
   c. In all of the computer stations throughout the library
   d. Unknown

6. The number of educational carrels are ---?
   a. Too few
   b. Adequate
   c. Sufficient
   d. Unknown

7. The technology supported by the educational carrels is ---?
   a. Outdated
   b. Reasonably current
   c. State of the Art
   d. Unknown

8. The library’s computer-supported instructional material resources are ---?
   a. Very inadequate
   b. Below average
   c. Acceptable
   d. Above average
   e. Very adequate
   f. Unknown

9. The availability of lounging areas is ---?
   a. Very inadequate
   b. Below average
   c. Acceptable
   d. Above average
   e. Very adequate
   f. Unknown

Should the Library provide Tutoring Services? As libraries change to meet current needs, there has been emphasis on providing facilities and services that supplement learning opportunities offered in the classroom. One such supplement might be tutorial services.

1. Present tutoring services include – (circle all that you know about)?
   a. Search strategies for literature
   b. Bibliographic Instruction
   c. Computer Operation
   d. Science subjects
   e. Mathematics/Statistics
   f. Professional Studies
   g. Humanities
   h. Research Design
   i. Text Analysis
   j. Report Preparation
   k. Display Preparation

2. Quality of present tutorial services provided in the library are ---?
   a. Poor
   b. Below Average
   c. Average
   d. Above Average
   e. Outstanding
   f. Unknown

3. What tutoring services would you like to use – (circle all of interest)?
   a. Search strategies for literature
   b. Bibliographic Instruction
c. Computer Operations
d. Science subjects
e. Mathematics/Statistics
f. Professional Studies
g. Humanities
h. Research Design
i. Text Analysis
j. Report Preparation
k. Display Preparation

4. Sources of tutoring services presently available – (circle all you have used)?
   a. Departmental
   b. Special Programs on campus
   c. For-Hire tutors

5. Access to existing tutoring programs?
   a. Poor
   b. Difficult
   c. Acceptable
   d. Easy
   e. Very Easy
   f. Unknown

6. Your perceived need for tutorial services?
   a. Minimal
   b. Average
   c. Moderate
   d. Urgent

**Should the library include report preparation services?** Libraries have been the repositories for knowledge. As they change to active learning centers, the utilization of information and its dissemination become more important.

1. Which tasks do you have difficulty in accomplishing – (circle all that apply)?
   a. Finding literature on the subject
   b. Organizing notes and data from the literature
   c. Developing an outline for the report
   d. Preparing drafts of the report
   e. Editing and revising
   f. Developing the bibliography
   g. Preparing displays
   h. Developing a completed package

2. Which source was *most* useful in finding literature for a report?
   a. Reference librarians
   b. Internet search engines
   c. Special Programs on Campus
   d. Classmates
   e. Friends
   f. Family
   g. Teachers

3. Which source was *most* useful in editing and revising drafts?
   a. Reference librarians
   b. Internet search engines
   c. Special Programs on Campus
   d. Classmates
   e. Friends
   f. Family
   g. Teachers
4. Which source was most useful in developing a bibliography for your report?
   a. Reference librarians
   b. Internet search engines
   c. Special Programs on Campus
   d. Classmates
   e. Friends
   f. Family
   g. Teachers

*Should the library include computer software operation services?* Computers are an important tool in identifying, organizing, analyzing and disseminating information. Should the library actively feature this technology as part of its array of new active learning center services?

1. Indicate the software that you have difficulty using (circle all that apply)?
   a. E mail
   b. Internet
   c. Word Processing
   d. Statistical software
   e. Spreadsheets
   f. Search engines
   g. Literature sources
   h. Presentation software
   i. Business/Accounting software
   j. Text Analysis software

2. Which source was most useful in offering help in using software?
   a. Librarians
   b. CTIS staff
   c. Special Programs on Campus
   d. Classmates
   e. Friends
   f. Family
   g. Teachers

3. What form of instruction would you consider most desirable in learning software?
   a. Via email
   b. Via web instruction
   c. Via Special Programs on Campus
   d. From Classmates
   e. From Friends
   f. From Family
   g. None

*Special Characteristics?* The following questions are intended to identify your group attributes. This information is important in ensuring that space and facilities are allocated commensurate with important individual and group needs.

1. What is your class standing?
   a. Freshman
   b. Sophomore
   c. Junior
   d. Senior

2. How old are you?
   a. Less than 18
   b. 18 - 20
   c. 21 – 23
   d. 24 – 26
3. Where do you live?
   a. On campus
   b. Off campus

4. What is your grade point average?
   a. B or better
   b. Less

5. What is your area of interest?
   a. Arts & Sciences
   b. Business
   c. Engineering
   d. Nursing
   e. Visual & Performing Arts
   f. Marine Science
   g. Continuing Education
   h. Other

6. What times would be most convenient for you to use the library? (circle all that apply)
   a. Between 8:00 AM and 5:00 PM
   b. Between 5:00 PM and Midnight
   c. Between Midnight and 8:00 AM

7. What days would be most convenient for you to use the library? (circle all that apply)
   a. Monday
   b. Tuesday
   c. Wednesday
   d. Thursday
   e. Friday
   f. Saturday
   g. Sunday

8. What is your current work status?
   a. Full-time student
   b. Student & Part-time work
   c. Student & Full-time work

By answering these questions carefully, you are helping in the design of the first, data-driven, student-centered learning commons in the world. It will happen at the University of Massachusetts Dartmouth because of you. Thank you for participating in this survey.
References


22. Ibid. 3.

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43Beagle, The Information Commons Handbook, 1.

Acknowledgements: The authors wish to express their appreciation to the students of selected Introduction to Statistics classes at the University of Massachusetts Dartmouth for their participation in developing and conducting this survey. Also, the authors appreciate the diligent reporting of attitudes, perceptions and impressions by the students who took the survey.

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Shhh! No talking about retention in the library!
By Heidi Blackburn

Abstract:
Student retention rates have long been a topic among school administrators, but it is an issue barely mentioned in library circles. This article will discuss the role the academic library can play in increasing and maintaining student retention rates on campus. By focusing briefly on four main topics, including reaching out to students early and often, getting them in the library door and getting them to stay, the reader will be able to see the broad picture of how crucial libraries are to fighting student attrition.

Introduction
Why is nobody talking about retention in the library? As the famous Hermione Granger once declared, “Fear of a name only increases fear of the thing itself.” So why are librarians so afraid to talk about retention? Administrators fret over it, student support services do their best to keep the numbers up and the Board of Regents usually still finds something to improve. “Retaining a student is fundamental to the ability of an academic institution to carry out its mission. A high rate of attrition is indicative of a failure on the part of an institution to achieve its purpose. For institutions that rely heavily on tuition and fees to support academic programs and services, including the library, student retention is critical” (Mezick, 2007, p. 561). If retention is the bread-and-butter of the school, then libraries are the good-for-you side vegetable that complements the meat of the curriculum. So why do librarians, some of the biggest champions of education and learning, turn a blind eye to keeping students in school? Is it because academic libraries are considered old-standbys, content with the status quo as long as the funding is steady?

And this is the library….. Libraries have always had an assumed role in academia. From the earliest monasteries to the first universities, collections of texts have played a central part in providing scholars with information. For the oldest, most prestigious schools, the library was often the heart of the campus and a great source of pride. But now schools build multi-million dollar sporting arenas, residence halls and student unions to lure in students. However, these eager youngsters will still need help locating peer-reviewed resources and where will they turn? Libraries have become overlooked as campuses try to impress students with free Wi-Fi in the cafeteria, instead of focusing on the library’s access to millions of articles and documents through regional consortia. Student representatives showcase lavish new laboratories and research facilities but do not mention the one-on-one support librarians can provide these budding Einsteins. On the tour, the student’s introduction to the library is generally along the lines of “And this is our library which was built in (insert date). It’s open (insert time) to (insert time). A lot of people like to hang out there later at night because that’s when it’s the busiest. Do you want to take a peek inside or move on?” Inevitably, the prospective student will feel pressured to “hurry along” with the tour and will wind up feeling overwhelmed approaching the library when his or her first research assignment comes along. “Librarians can no longer depend on the campus to recognize that ‘we are the heart of the campus,’ but rather seek to identify and cater to the needs of the individual in the most effective manner” (Dennis, 2007, p. 91). When it comes to student retention, there are four key points for libraries; get to students early and often, get them in the door and keep them coming back.

Getting to them early
Ah, the freedom of being a first-year college student. The sudden independence (for some) to dress as they like, attend class when the mood strikes, hang out late, and oh yes, study when and where they see fit. “…becoming a new student in the research university environment required acclimation to the library and its enormous variety of information sources. For student success in most college courses, even in the first term, students must have basic information literacy skills immediately. To put off the initial development of these skills until the second term is indefensible” (Gardner, 2004). The first time many students head to the library can be daunting, due to the mazes of bookshelves, the confusion of locating materials using a mysterious call number and/or the sheer stress of a paper that is unfortunately due the next day. How can librarians help these students stay in school if they do not have the skills to locate the academic resources needed be successful?

Bibliographic instruction, both in the classroom and in the library, can go a long way towards student
retention through information literacy proficiencies. By giving students the skills to cope with the research demands of higher education, they are more likely to succeed. Instruction can vary from a one-credit semester long class, a request by an instructor for a classroom visit or simply a one session research seminar. At the very least, simply visiting the library with a first-year orientation class can help alleviate student reservations about using the library. In Library Assessment in Higher Education, one analysis showed that over a 15-year period, students were more likely to return for their sophomore year and continue on to graduate after participating in a freshman orientation class, even though many of the participants were less prepared for college than their peers who did not take the class (Matthews, 2007). Higher grades, retention rates and increased use of campus support services such as writing centers and libraries was also reported in another similar study, where once again, the students faired better than their counterparts (Matthews, 2007).

Although information literacy curriculum is thoroughly established on most campuses and is generally thought to be a good use of time, there is a lack of published works reporting on the evaluation of this instruction beyond pre-post testing. The assessment of students’ abilities to regurgitate facts does not test genuine learning to see if students have acquired the necessary proficiencies. Assessment that is integrated into the course would force students to transfer their new skills to real classroom assignments, proving they have or have not met the student learning outcomes involving information literacy. From assigning complex annotated bibliographies to simply asking students to describe how they found their sources, integrating assessment into existing assignments requires some additional planning but the benefits of authentic assessment far outweigh the costs. Additional literature on assessment and information literacy is in no short supply but the key element is giving students skills to succeed will ensure their success on campus will culminate in graduation.

“It is unrealistic to expect a student from a small public school system or a large overburdened urban school system to have the proper skills for academic library research. It is also unrealistic to expect the majority of the student population to be academically successful without these skills. The academic libraries in general, and academic librarians in particular, play a pivotal role in the education and retention of students” (Kelly, 1995).

No one likes being thrown into the lake without instructions on how to swim. Why would universities use the same method by giving students research assignments and then just ushering them out of the classroom with a general nod toward the library? Yet, because of program restrictions and time constraints, students often do not have time to attend instruction sessions or to take for-credit library classes not required by their major. Add this hindrance to an already over-scheduled curriculum where professors are not integrating librarians into the course content and it comes as no surprise that students are moving on to campuses where they feel academically supported.

Enter the First-Year Experience; a time-honored tradition of providing students with answers to every pre-meditated situation that could possible arise in the next four years, as well as opportunities designed to equip them with lifelong learning skills. A well-planned First-Year Experience can be a godsend for students who breezed through high school and do not have the study skills required for higher education. It is equally beneficial for students who managed to scrape an adequate standardized test score to meet the minimum acceptance level but who are fully unprepared for a rigorous course load. Colleges can avert a dropout crisis by stepping up this programming to ensure that these students persist beyond their first semester, because it has been shown that successful orientation programs directly affect student retention rates (Dennis, 2007). These programs, whether a week or semester long, can also provide contact with faculty and staff who will reach out to help students through the transition and become a support system. According to a study done by George Kuh, et al. (2007, p. 22) “…frequent informal contact with both classroom faculty and other university support staff contributes to collegiate success and to intellectual and emotional development in general.”

However, even if the university has a program for introducing students to campus, the library may not receive its much-needed time in the spotlight. A handout with the library hours or a campus scavenger hunt clue gathered at the reference desk does little to build information literacy skills, arguably the most important skills a student will have to foster before graduation. When designing orientation curriculum, these skills need to be at the top of the roster and librarians should be consulted throughout the creation and implementation of these courses. Librarians have been “left out of the loop of the initial introduction of students to what many institutions believe really matters in college” (Gardner, 2004). Quality
interaction between students and librarians needs to take place, and while Boolean search skills may not be necessary on the second day of class, learning about the library setting and its resources is vital in starting students off on the right foot. Educators, administrators and librarians should strive to cultivate a program that builds as the student progresses, and one that balances fostering academic skills with the creation of the inevitable summer-camp atmosphere that many First-Year Experiences provide. In a nationwide survey conducted by Boff and Johnson (2004) concerning library involvement in the first-year survey, the results showed a staggering lack of library participation in such programs. “Out of 386 respondents, 315 schools had a library component, 67 percent required the library component, and 33 percent did not. Only 13 percent indicated they devoted 11 percent or more of the first year curriculum to the library component. When asked as to the in-class time devoted to the library component, almost half of the responding institutions reported no more than one hour” (Gardner, 2004).

The library is not often thought of as a “student support service” in the conventional sense, such as Financial Aid, Academic Advising or Health and Counseling centers. Indeed, the word “support” is often closely linked in the mind with such synonyms as “second-string,” thereby somehow diminishing the importance of the participant. If academic departments and faculty rank first on campus, numerous student-supporting offices often see themselves in second place and act accordingly as passive participants in the fight to keep students in school. The time for “scholars versus staff” and “us versus them” is over. Schools and libraries need to do a better job of working together to boost retention rates. If a student comes to an advisor with failing grades in the middle of the semester, the drop-out process is already in motion. Could the student’s professor, teaching assistant or resident hall director have suggested that the student seek help in the library? Is there a network of librarians, academic advisors, counselors, and student affairs personnel who work together to develop a greater understanding of the student population and their needs? (Kelly, 1995). Professors, counselors, and advisors should encourage students to seek help in the library before they start to lose academic ground. Braunstein, McGrath, and Pescatrices (2000-2001) all identify academic performance as a major, if not the most significant, cause of student withdrawal (Braunstein, 2001). While completing the assignment is ultimately the responsibility of the student, a full team should be ready to support the student if he or she is drowning academically.

[L]ibrarians, more than ever, need to forge new and strategic partnerships on campus. As the use of electronic and web-based resources increase and the pattern of library use around the country at many institutions decreases – in terms of study space as well as a place to retrieve scholarly information – libraries face a significant challenge in trying to maintain the academic and social vitality they once enjoyed. Many students think the library of today is outmoded and irrelevant, and they instead rely on other sources of information, particularly electronic sources for their education. A resulting problem is that students, particularly first year students, have a hard time discerning between what is valid information on the Internet and what is no, what qualifies as appropriate data and information for their research papers and what does not” (Gardner, 2004).

Getting to them often
Once the word is out on campus that the library is ready to serve each student in order to help him or her achieve academic success, the work does not stop there. Getting the student to recognize the library as useful is but the first step; librarians must then foster relationships with students while instilling lifelong information literacy skills. Often, the librarian may only have one opportunity to create an impression on a student, through a one-time information literacy class, during a tour or when he or she is approached with a question. “These opportunities offer librarians a chance to learn more about students, in addition to providing information about library systems and resources. This can be a perfect time to find out what library experience students have had and what their plans are for the future” (Kelly, 1995). Every year curriculum and technology change, which means librarians should take time to find out what the library should offer to best serve students and keep them coming back each semester. In the Hennig-Thurau et al. (2001) study on student loyalty, the library was listed as one of the campus auxiliaries that impact a student’s impressions of their university experience. The university library has the ability to serve as a foundation of the community. (Hennig-Thurau et al., 2001).

Libraries as buildings have been taken for granted for so long that one must be reminded that libraries as a concept are equally important to a student’s success.
“…in addition to high quality teaching, the emotional commitment a student makes to the university is extremely important. Part of this loyalty to the university is determined by the quality of the experience a student has with university services such as the library…” (Hennig-Thurau, et al. 2001).

Students should see the library as a supportive bunch of people willing to provide resources that enable academic success, not as a looming cathedral built to house mysterious and elusive texts. How can libraries find out what happens outside the building in order to build this loyalty? By stepping out from behind the desk and into the light, so to speak. Make a point of having a booth or table at recruiting events, open houses and orientations so that students can at least match a face to the library, even if they do not remember the name. Volunteer to judge student events, hand out prizes at Homecoming or help coordinate the all-campus rally. Any activity that highlights the library and/or librarians will be worth its weight in PR gold and helps students recognize that the library is more than books and study spaces. Even showing moral support can go a long way, so attend athletic events, cultural fairs, career days, and theater performances. “The more librarians interact with the university community, the greater their impact will be on students’ lives” (Mezick, 2007, p. 565).

Librarians can also reach out to students outside the library by becoming student club or organization sponsors. Perhaps the Anime club who is constantly asking for interlibrary loaned DVDs is looking for someone to show them new materials, or perhaps the Creative Writing Society could use a hand finding places to publish their works. Being involved with students on a co-curricular level can be just as beneficial for all parties involved as the formal student-teacher relationships built in the classroom.

Of course, the most essential interaction happens in the classroom. Embedded librarians have become popular with large universities, who assign subject specialists to collaborate with faculty in assisting students directly with projects through in-class instruction as well as individual support. Although many schools have specific librarians for this type of service, every librarian can serve in an unofficial capacity. “…the roles of the personnel are to serve the school community as an information specialist, teacher and instructional consultant. Within this context, the library and its resources can provide invaluable assistance in a program designed to prevent students from dropping out of school” (Coleman, 1990). If a librarian is not assigned to meet with specific classes or professors, he or she can still be involved by helping faculty design curriculum that involves library resources. Attending department and/or department head meetings, even sporadically throughout the semester, will help librarians stay on top of what changes are being made to assignments and classes.

Encouraging relationships with students in the classroom, even if the class only meets with the librarian once a semester, is important. “Spending time with students will help determine how best to teach them about the library and how to use information resources. Developing effective instruction sessions and adding useful collection resources can also be results from frequent interactions with students in formal and informal situations” (Dennis, 2007, p. 91). Does the reference desk receive overwhelming requests on how to locate the archives for a project? Perhaps the instruction librarian should add this stop to the class tour. Do students consistently ask for a certain subject guide? Find out if a copy is available online, if the link needs to be updated or moved to a user-friendly location on the library’s website. Are students and faculty aware the library will be open later during final exams? Maybe department or campus e-mails could be sent out as reminders. “Promoting the use and services of the library through letters and interactions with faculty and through announcements in student newspapers will also demonstrate the commitment the library has to the student population” (Kelly, 1995).

A librarian who mentors students and teaches a class has a greater opportunity to be remembered than one who only uses the library to interact with students (Dennis, 2007). A student will remember the librarian who visited the classroom and brought candy or played an interactive game, even if they do not completely master Boolean Operators. In his or her darkest academic hour, a panicking student needs to remember a helpful face over how to build an advanced search string. He or she will seek out the librarian, who can use the opportunity to work on maintaining the relationship for the future. Students who feel respected and at ease asking for help will be more likely to succeed in reaching their goal of graduation (Mestre, 2008). But what about the librarians who never set foot in a classroom? Being aware of what is going on with individual students on campus can seem like a gargantuan feat at major universities, but every student matters. Start small, with the library’s own student workers and fan out from there. If the workers feel comfortable at the library, they will do their own part by encouraging their peers to use the library for
collaboration and research. A student will likely seek help with class work if he or she had positive interactions at work with a supervisor. This contact may even lead him or her to recommending the librarian to a friend who is also struggling.

**Getting them in the door**
The university may employ the largest group of caring, friendly librarians around, but even in this digital age, the library building itself will still play a central part in student retention. Literature on libraries changing from academic archives to hip study halls is growing as schools reinvent the image of libraries on campus. In his article on college retention, John Bean states “…specific campus resources, such as the library as academic factors affecting student retention decisions. [He] also identifies physical places for socializing, including library study areas, as being an element common to programs designed to encourage student persistence (Bean, 2003). No longer do students want quiet study tables and towering rows of dusty books, microfilm and theses. They want sunny window nooks with Wi-Fi capabilities, group collaboration rooms with audio and video plug-ins and a java spot near the door for a caffeine fix during late-night cram sessions. Smart universities have picked up on these trends, and more importantly, how these new buildings or additions attract and retain students. “…library administrators report that students also are looking for a place to meet other students, work on group projects, and seek out opportunities for interacting with fellow students. The library has become a social environment, a place to be, and a destination, where students can experience the company of fellow students” (Waxman, 2007, p. 429). Potential students touring campus want to see a building that they can envision themselves using and libraries who do not work to keep up with these patron demands will soon see themselves lacking patrons. In these days of belt-tightening and budget scrutinizing, not every campus can order new couches or put in an espresso machine but it is the attitude that is crucial, not necessarily the architecture. Lounge chairs and tables gathered and arranged to encourage browsing or a classroom turned into a study room can equally boost morale. “A library that supports fun, non-traditional activities will invoke positive attitudes about its space. Areas specifically designed for comfort, pleasure and productivity will be remembered and reused” (Dennis, 2007, p. 90). Libraries who fail to act will feel the effects quickly as students migrate towards user-friendly spaces. “Gate counts and circulation of traditional materials are falling at many college libraries across the country, as students find new study spaces in dorm rooms or apartments, coffee shops, or nearby bookstores” (Carlson, 2001, p. A35). Why would students stay on campus if the study atmosphere is less than hospitable? Buildings that have not been updated in decades, with uncomfortable seating or confusing layouts will hinder students both physically and mentally from committing to using the library. Structures that offer cramped spaces and poor lighting often drive students to more attractive parts of campus, or to the nearest off-campus coffee shop” (Carlson, 2001, p. A35).

Although various schools are hopping on the bandwagon in an effort to redesign their libraries to include coffee shops or technology centers, not everyone is onboard with this design. “In addition the challenge of finding funds for this project, the library also faces the challenge of convincing some faculty and administrators that this ‘learning commons’ is appropriate for a library environment. Many think the library should be a hall of books, a quiet place, with no food or drinks allowed. The concept of students relaxing and ‘hanging out’ between classes challenges some views of the role of the traditional library” (Waxman, 2007, p. 429). Libraries are responding in a multitude of ways to those who question the proposal of changing the library’s image so drastically. Several schools chose to plunge full speed ahead and ignore such objections, while others pulled back and hesitantly take small steps to test the campus body’s reaction. Yet most play a balancing game between pleasing students and faculty and meet these demands by finding middle ground. A majority of faculty still envision the library as a “…quiet place for students to study or meet in groups to share ideas and strategies. It is a non-threatening environment where even the most basic question can be asked without embarrassment” (Kelly, 1995). While these will always be fundamental student needs, there has been a swell in student requests added to the list. “Student demand is increasing for access to information in multiple formats and the productivity hardware and software that can be used to incorporate that information into a finished product and foster ‘knowledge creation.’ This increased reliance on technology, as well as the shift towards cooperative learning and group study, has led libraries to adopt the idea of an Information Commons” (Mezick 2007, p. 565). In the future, whether libraries will blend a mixture of “old school” with “new school” or adopt the idea of becoming an “Information Commons” all together is something only time will tell. No matter the name, the architecture or the manner in which information needs are met, it is essential that students are free to come to the library in
the pursuit of knowledge and excellence with the assurance they will be welcomed and supported.

Getting them to stay
So students are on campus, receiving academic assistance, and attending to their business of earning those diplomas. Librarians are out spreading the word across campus, both directly to classes and indirectly through other means. In a perfect world, students are aware of the various ways they can seek research help, they frequent the library for solo and group study and check out unending amounts of materials. So how do librarians get them to stay happy and on campus? Nurturing students so they become lifelong learners and information literate by the time they graduate is every librarian’s dream. But the students themselves have to commit to finishing their degree, preferably at one school. Their tuition dollars pay for the lights to stay on and the new bookshelf to stay full. As the saying goes “It takes money to make money.” School administrators are fully aware that departments can only do so much with shrinking budgets, yet inevitably the library budget is often the first on the chopping block. Directors constantly have to fight to keep their budgets as online database and periodical subscription costs skyrocket. Yet these big-budget technological wonders attract students and so the circle goes around and around. Libraries must justifiably spend vast sums of money on these services to attract and retain students, who in turn pay ever-increasing amounts of tuition. Studies have shown that new library materials and services give both the students and the school a competitive edge. Mezick’s study on the relationships between library expenditures and student retention showed “…the strongest relationships exist between total library expenditures, total library materials expenditures, and serial expenditures at baccalaureate colleges” (Mezick, 2007, p. 564). Although additional documentation and hard evidence (like the aforementioned study) may be required to convince a stringent administrator, librarians know that if they supply it, somebody will use it. Reminding faculty and administration that libraries play an integral part in campus life is an on-going cycle but one that will eventually become natural as the school begins to understand the connection between a strong, well-supported library system and student retention rates. Getting students to stay is by far the hardest step in the process, due in large part to campus politics that must unfortunately be depended on for much of the success or failure.

Conclusion
So why are librarians not talking about retention? Is it the fear of shining the spotlight on the library and its activities (or lack thereof) dedicated to keeping students on campus? There is no shame in saying “We aren’t doing enough to prevent student attrition,” only in deciding not to take any action to tackle the problem. Libraries are not stand-alone entities, but part of a team putting forth a campus-wide effort to keep students on the path to graduation. The sooner librarians accept responsibility and unlearn the notion that retention is strictly an administrative issue, the sooner they can focus on the task at hand. By reaching out to students early and often, they can build supportive relationships with the student body. Providing patrons with the necessary resources (both physical and online) to complete assignments will move students through the door and help boost academic success. Convincing students to stay by continuing to pay for such resources will lead to a higher overall campus retention rate. Librarians as a profession are dedicated to the worthy cause of serving others, and will surely take the opportunity to carry on helping to ensure not only student success, but also overall success for their institution.

References


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Librarian as Professor: A Dynamic New Role Model
By Martha Fallahay Loesch

Abstract
The 20th century information explosion provided widespread technological innovation and ease of access to information, and due to the 21st century emphasis on digital collections and electronic resources, libraries around the world are facing an uncertain future. This naturally causes librarians to re-evaluate their professional role, but perhaps academic librarians are best prepared for the future due to their co-existing role as professors. Essentially they have always been teaching, but now they must conquer the disparaging image and status treatment to which they have been subjected and evolve their profession by joining their teaching faculty colleagues in classrooms on college and university campuses worldwide.

Introduction
Recent library literature is rampant with gloom and doom projections for academic libraries. Students no longer have to enter a library building as most information is available electronically; physical books, journals and newspapers are being replaced my electronic ones, professors provide students with electronically scanned copies of course materials housed on the campus course management system, and material not accessible in the campus library may be obtained through electronic interlibrary loan or by utilizing the World Wide Web. Further, the open access publishing movement is providing free access to a growing number of published articles thus weakening the hold libraries presently have on their journal subscriptions. “Libraries are transitioning from an analog to a digital environment and Lyman Ross and Pongracz Sennyey profess that “academic librarianship needs to fundamentally revise its practices to become competitive in a digital environment.” (Ross & Sennyey, 2008, p. 147, p. 151).

Other contributing factors leading to the uncertain future of academic libraries are outlined by Wade R. Kotter:
- Library budgets that are flat or declining;
- An information explosion with no end in sight;
- Continuing inflation in the cost of serials and other library resources;
- Critiques of higher education that ignore or downplay the role of the library; and
- A relentless tide of technological innovation. (Kotter, 1999, p. 1)

Now that the demise of academic libraries is predicted, although certainly not universally accepted, where does this leave the librarians? The library science literature espouses that academic librarians need to re-examine their professional role and some authors suggest that librarians need “more proactive methods … [of] active participation in the scholarly life of the campus.” (Sennyey, Ross & Mills, 2009, p. 255). Therefore academic librarians should take charge of their status as academics and teach full semester credit-bearing courses. Think beyond information literacy instruction and collaborative teaching and consider teaching in their own specialty field or perhaps a university core course, thereby joining the ranks of the teaching faculty on campus. Academic librarians have always been “teaching,” even while assisting patrons in the library; now they just need to expand that aspect of their profession to take command of the classroom. And because librarians will inevitably weave information literacy into their curriculum, perhaps their students will gain an educational advantage. But to be successful in the classroom there are a few hurdles that librarians must first overcome.

Librarian Image
The typical stereotype of the bespectacled, middle-aged matron with her premature graying hair coiffed in an austere pun with her finger pushed to her lips shushing young patrons talking or giggling in a library is unforgiving. But unfortunately, it is an image which undoubtedly clouds the mind of many people for the general public truly has no comprehension as to what an academic librarian (or any librarian) really does. Librarians have had to contend with this damaging
image for centuries, and although they have learned to laugh at it, they ultimately still feel oppressed by it. Even today, academic librarians are endlessly justifying their professional role in educational institutions.

One would think that college and university professors would possess a favorable image of the academic librarian in light that both professions share the same principle to serve the educational needs of the students while adhering to the university mission. However, the professional division between teaching faculty and librarians is legendary. Pauline Wilson wrote a lengthy article on what she termed an “organizational fiction;” librarians essentially elevate themselves to the status of professors as a defense mechanism against “an unflattering stereotype,” but one she admits is “not only difficult to change, it may be harmful as well.” (Wilson, 1979, p. 146). Despite conceding that “teaching is a small part of the set of behaviors that constitutes the role of librarian,” Wilson refuses to permit teaching and the credential of professor to be associated with academic librarians; rather she belittles their role: “library-use instruction would be better thought of as informing rather than teaching.” (Wilson, 1979, p. 157). Perhaps Robert D. Leigh and Kathryn W. Sewny, summarize the librarian’s frustration with image more aptly: “librarians want to be recognized as part of an intellectual profession but feel that public perception relegates them more often to the role of clerks.” (Walter, 2008, p. 59).

Although librarians appear to have a sound understanding of the role of teaching faculty, the reverse has been found to not be true. Several studies have been undertaken to illustrate this fact. Scott Walter examined and reported on many such studies and concluded:

Many faculty share their student’s inability to consistently distinguish between librarians and support staff as well as a similarly truncated vision of the scope of librarian work. .. few faculty members were aware of the range of instructional responsibilities held by many academic librarians, and that many did not consider teaching to be a significant responsibility for librarians when compared with other responsibilities that they associated with the profession. (Walters, 2008, p. 60).

Viewing the differences between faculty and librarians from a sociological perspective, Christiansen, Stombler, and Thaxton noted the disparity on several levels. From an organizational viewpoint, librarians work full days year round principally in the library which may be separated from other academic buildings on campus, while faculty often teach only two or three days a week, work in their home or office and have summers off to conduct research. Librarians seek out professors with whom to collaborate on information literacy instruction, but faculty are “resistant to librarian involvement in their classroom activities.” (Hrycaj & Russo, 2007, p. 694). Whereas librarians find contact with faculty to be role defining, “for faculty, however, librarian-faculty relations are of little or no concern.” (Christiansen, Stombler, & Thaxton, 2004, conclusion). Christiansen, et. al. further noted a definitive status division between librarians and teaching faculty:

But there is more to this disconnection than just organizational function. The perception among faculty is that librarians’ work is service-oriented – their primary duties are the organization and facilitation of access to knowledge and other resources. By contrast, faculty see their own work as focusing on the production and dissemination of knowledge. As many sociologists have discussed in numerous contexts … contemporary society generally views service-oriented work as being of lesser importance than production, primarily due to the implicit superordinate-subordinate relations that appear inherent in service. (Christiansen, et al., 2004, Status-Difference section, para. 2).

The fact that librarians are greatly outnumbered on campus by teaching faculty, that more faculty are present on governing committees, and that “most faculty feel that librarianship is not a true science and that the Master’s in Library Science (MLS) provides a vocational rather than academic education” (Hoggan, 2003, p. 436), only reinforces the status division between faculty and librarians. With such overwhelming odds and the rampant disrespect of teaching faculty, is it no wonder that librarians have an image complex.

Despite the devastating view of librarians by academics and the public, librarians persist in their endeavors to teach, either by seeking collaboration with faculty to educate students on information literacy in the classroom, or by conducting classes in the library building. Fortunately, there are some faculty
who are willing to acknowledge librarians, or at least are concerned that their students develop information fluency, to warrant collaborative classroom teaching. However, there is no doubt as to “which member of this teaching-related triad (teaching faculty/students/librarians) is considered most significant within the educational cycle…the teaching faculty as sitting on the apex in this established relationship.” (Julien & Pecoskie, 2009, p. 151).

A Paradigm Shift

During the past few decades, education has been experiencing a profound paradigm shift. The Transmission Model of teaching in which professors lecture, students take notes, and tests and written assignments serve as assessment has been found to encourage “superficial reproduction rather than genuine learning.” (Wilkinson, 2000, p. 28). This lack of a deeper, more profound understanding of the subject matter, as well as the research process, led to the formation of the Research Model, also known as “active learning,” “case-based learning,” and “problem-based learning.” This shift equates to the progression from instructive learning to constructivist learning; or passive to active learning. The emphasis transfers from teaching to a focus on student learning.

In the Research Model, a professor presents the students with a real-life problem which they must solve individually or in groups, the students are encouraged to seek research to support their conclusions, and often they engage the use of emerging technologies. The advantages of this model is that “students are more likely to understand and remember something that they have figured out by themselves … [and] that we are trying to teach students not simply a body of knowledge, but a method; not simply content, put process as well.” (Ibid, p. 32). “The research model assumes that content is not an end in itself, but a means to a greater end, which is learning how to learn.” (Ibid, p. 36).

As the name of this new model implies, research is paramount and this has proved to be a significant advantage to librarians. James Wilkinson, in his chapter entitled “From Transmission to Research: Librarians at the Heart of the Campus,” envisions the Research Model providing great opportunities for librarians to assist both faculty and students. Faculty will need support incorporating the research methodology into their curriculum, while students will require help not only in finding appropriate resources, but in framing their questions in a manner to assist in their learning. (Ibid, p. 37-38). Often students allocate only minimal time and effort to the research process and often do not begin the actual process far enough in advance of creation to utilize other beneficial services such as interlibrary loan, or expanding their search in another direction, or seeking the opinion of a professor on the topic, or even just organizing the paper into a well structured document. Not only do students require instruction on when to begin research, but also where to begin (with resources from the library website, including paid databases, not Google) and how to formulate their thesis. “Students need coaching in the art of asking good questions – questions, that is, that lead to learning. They need to see how a question might play out in terms of time and research effort.” (Ibid, p. 38). Librarians have been teaching information literacy classes for centuries, but to have our latest movement in the development of lifelong information literate students coincide with the paradigm shift from Transmission Model to Research Model has proven prophetic.

In emphasizing problem solving techniques, the Research Model requires students to perform more information gathering, and although undergraduate students may be adept with the new technologies that are at their disposal, there is such an overabundance of information that to acquire it, evaluate it, organize it and integrate the right information effectively can be challenging. As more and more library content is digitized and added to the library’s digital collections, patrons (faculty, students, staff, visitors) will need assistance both in learning that such collections exists, and in locating the collections on the various library websites. Unlike the journal databases that are restricted to the university users, digital collections are open source and available to everyone to view and use; but learning to cite the library or organization that owns the collection is another issue to be included in the learning process. Who better to assist them in their research development than librarians?

In the Research Method, forming questions takes on increased importance and librarians can assist faculty in creating research opportunities within the curriculum to benefit the learning process of the students. Librarians have tried desperately to participate in curriculum development from its inception during collaborative teaching opportunities, but these have been sporadic at best. Teaching faculty remain reluctant to include librarians in their classroom instruction and still think of information literacy as separate and distinct from their subject matter. However, progress to include information fluency...
standards into university wide courses is burgeoning and is also compatible with the paradigm shift.

**Librarian as Professor**

Academic librarians transform patron questions into teaching opportunities constantly; they rarely search for information and just hand it to a student. Instead, academic librarians first ask their own questions to obtain the real object of inquiry, and then demonstrate to the student how to search for the desired information. The point is to have students perform future searches independently. This concept is certainly not new; rather is dates back to the nineteenth century when the librarians of our first prominent universities and public libraries instituted the theory. Samuel S. Green wrote in 1876, “Give them [patrons] as much assistance as they need, but try at the same time to teach them to rely upon themselves and become independent.” (Weiss, 2004, p. [10]). Thus library instruction began at its most basic level only to expand so that soon college and university librarians were teaching their students in what was then newly termed the “laboratory library;” instruction took place in the library building, not in a classroom. “George W. Harris, Librarian of Cornell University, suggests that a ‘lecture to the entering class from the librarian, explaining the plan of the catalogue and its arrangement, pointing out the principal works of general reference’ would be helpful.” (Ibid, p. [13]). Since then librarians have taught bibliographic instruction or information literacy in a cornucopia of iterations that have progressed from information laden library tours to full semester credit-bearing courses. As Howard L. Simmons so fittingly states in his article entitled, “Librarian as Teacher: A Personal View, “ librarian’s “work in information literacy and resource-based learning confirm my long held conviction that most librarians are, first and foremost, teachers.” (Simmons, 2000, p. 43).

Although academic librarians have proven to be practiced and proficient teachers of information literacy, can they or do they wish to branch out to other disciplines as well? A literature search on the topic of librarians as professors in higher education inevitably retrieves articles on librarians teaching bibliographic instruction or information literacy, with very few other options. However, one exception is an article in which Gretchen V. Douglas writes about her experience teaching full semester, credit-bearing computer courses at the State University of New York (SUNY) at Cortland entitled “Professor Librarian: A Model of the Teaching Librarian of the Future.” Douglas refers to herself as “professor librarian,” obviously relishes the role and views it as a natural progression of her profession. She dovetails computer application course teaching with librarianship because both “cross all disciplines,” and because librarians are adept at using technology:

On many college campuses, libraries were the first place computers were used in academic pursuits. Librarians had to learn to use the technology to survive. In turn, librarians had to teach the campus community how to effectively use the new technology to find information previously available in print sources. We are expert technology users and we already teach in many capacities. So I believe that the librarian as professor is the next step in the evolution of the profession. I believe our next step is to teach credit-bearing courses in computer applications. (Douglas, 1999, p. 26).

Despite Douglas’ perceptive concept of the professor librarian and her wonderful expose on the evolution of technology in higher education, her vision of future librarians teaching only computer application courses is restrictive. Librarians are ready and able to tackle much more.

At Seton Hall University in South Orange, New Jersey, the librarians have had innovative opportunities to teach beyond library instruction or information literacy. As the new millennium approached, the university was in the process of creating a new core curriculum. From its inception, librarians were involved in the creative process and they fought long and hard for the inclusion of information literacy as a required proficiency in the core design. It was an arduous task expanding several years, but the outcome was successful on several levels. Not only was information literacy infused in all the core courses, but the librarians also won the respect and admiration of several of the faculty members serving on the core curriculum committees. This second accomplishment was of major significance as it provided a prime opportunity for librarians to be counted equally among the faculty under consideration for teaching the new core courses.

Librarians have taught and continue to teach core courses at Seton Hall University. Among those having taught a core course is a reference librarian, an archivist, a cataloger and the dean of the library. All faculty and administration go through a semester of training and preparation before embarking upon the
actual teaching process which has proven to be a successful and rewarding experience. Librarians at Seton Hall have also branched out to other realms of teaching credit-bearing courses; teaching in their specialty field based upon their second master’s degree or work experience. A cataloger teaches in the Women and Gender Studies program, part of the Elizabeth Ann Seton Center for Women’s Studies on campus, and a reference librarian serving as the library liaison to the Stillman School of Business, teaches a business course. A science librarian with a doctorate in anthropology was approached by the Anthropology Department in the College of Arts and Sciences to consider teaching in their program. The opportunities for librarians of all specialties to teach within the various colleges or departments in an institute of higher learning are numerous; they just have to think beyond the enclave of the library and strive to number themselves among their teaching faculty colleagues.

Conclusion
The library as place in the 21st century may be facing an uncertain future due to increased electronic accessibility to information and the digital revolution, but for librarians, the climate is ripe for expanding teaching opportunities. Now more than ever, students and faculty need assistance with the retrieval of pertinent and meaningful information for their research needs. More than that, faculty and students need assistance with incorporating research into the curriculum and by extension, into the learning process. The Research Model stresses problem solving as a direct result of research, thereby making “inquiry and investigation” the “key activities” of graduate and undergraduate education. Wilkinson boldly proclaims, “Without the collaboration of librarians, attempts to improve teaching and learning are less likely to succeed.” (Wilkinson, 2000, p. 26). Librarians have been teaching information literacy classes for centuries, but to have this advancement in the development of lifelong information literate students coincide with the paradigm shift from Transmission Model to Research Model has proven prophetic.

The time for teacher-librarian collaboration is especially relevant so that increased respect among the professions is paramount. For professors to change both their teaching habits and their course work to conform to the Research Model is difficult, but the process can be lightened with the assistance of an understanding and patient librarian. Since librarians have been eager for just such collaborative opportunities, surely their patience and diligence will be forthcoming. However, faculty must understand the necessity for as well as the desire to incorporate information literacy into their curriculum in order for the partnership to be successful. Faculty may also obtain additional support by applying for course specific new technologies from their information technology center. Meanwhile, if librarians increase their presence on campus by serving on governance bodies and participating in social activities, it will allow them further opportunities to network with their faculty colleagues and to persist in their collaborative teaching endeavors.

It is also necessary for students to begin their research process well in advance of their writing and or production process in order to take full advantage of research avenues and services at their disposal through library websites. Glitches with technology can also prove problematic for students, so waiting until the last minute to create their product is a habit which the students must learn to correct. Faculty and librarians can emphasize this advantage incessantly, but ultimately it is up to the students to be responsible for their own coursework.

The digital revolution is a great benefit to researchers by making available a wealth of information not previously accessible to the general public, but ultimately places additional responsibility upon the librarian. As part of their profession, librarians must know where to find information, but the rise in digital collections expounds the amount of available information exponentially. Now is the time for increased specialization within academic libraries to allow librarians to keep abreast of the growing digitized projects in their specific disciplines. Creating libguides or subject guides will not only aid librarians in organizing their research options, but also provide the library user with a concise location on the library website to meet their research needs in a particular discipline.

As more information becomes accessible electronically, promotion of the library website becomes paramount; however, this mission cannot rest solely with the librarians, faculty and administration must also contribute their strong support. The library must once again regain its reputation as the “heart of the university.” Threats of the future demise of academic libraries are misguided at best, restoring scholarship as the cornerstone of universities should be the task at hand. As Thomas H. Benton states in his article entitled, “A Laboratory of Collaborative Learning: How can we put the library back at the center of undergraduate education, where it belongs?”

Education Libraries, Volume 33, No. 1, Spring 2010
“By working more closely together, and responding to new technology while preserving the traditional culture of scholarship and books, I am convinced, professors and librarians can put the library back at the center of undergraduate education, where it belongs.” (Benton, 2009, p. A34).

Although collaborative classroom teaching and the continued instruction of individual information literacy classes is vital, librarians can combine their subject knowledge and information literacy skills to take teaching of credit-bearing courses to a whole new level. Douglas’ concept of the professor-librarian teaching computer applications courses is a step in the right direction in light of the growing digital environment. Keeping abreast of emerging digital projects, creating libguides in specific disciplines, adeptness with computer technology, and incorporating information fluency in their coursework make a resourceful, dynamic professor-librarian. Now more than ever, information literacy skills and concepts should be integrated into the curriculum, not only to coincide with the Research Model, but to meet the ultimate goal of creating true, lifelong learners. Knowledge acquisition does not cease upon graduation, it is necessary both in the workplace and in our social and leisure pursuits as well.

References


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Editors Vibiana Bowman Cvetkovic (Reference Librarian and Web Administrator at the Paul Robeson Library, Rutgers University, Camden, NJ) and Robert J. Lackie (Associate Professor-Librarian at Rider University, Lawrenceville, NJ) have proved to be an excellent team. They have assembled an able group of contributors to this volume, established a format for each chapter that includes an introduction and extensive list of references, and provided an insightful introduction and conclusion to the work. While individual voices are heard, the chapters feel related to the whole, and the editors are to be commended for that. The work is structured around three questions. Part I deals with the notion of “Who are the members of Generation M” and what is their relationship with new media and technology. How does Generation M think, learn, and search? For me, this section of the book contained the most interesting chapters. Part II looks at the Culture of Technology addressing issues of privacy, security, and safety on the Web. Chapters within this section of the book deal with some of the major social networking tools and media available today (e.g., Facebook, YouTube, Wikipedia, video gaming, and WebComics), but somehow feels dated by not including some SMS and chat services (e.g., Twitter). In a year or so, there will be a whole range of services that might be added to a second edition. Part III outlines educational theories, practical applications, and best practices when integrating new technology into undergraduate curriculum. Here too, several chapters focused on specific tools for screen casting, for instance, that might be out-moded or superseded by more effective tools in the near future. The introductory chapters remind us that in titling the work “Gen M,” the authors could mean Millennials, but also Media, Mobile, Multitaskers, and Multisensory. They thrive on being connected, but often lack basic writing and other communication skills, and have difficulty with “higher order information skills such as analyzing and evaluating content” (p. 41). The collaborative and team approaches to learning developed in early grades carry over into adulthood where goal-oriented assignments directed toward future careers, flexible programs, use of technology, and “teaching strategies that are visual and interactive… appeal to this age group,” as do “group work projects and cooperative learning opportunities involving real-life problems and activities.” Active learning, as opposed to passive lectures “engages these students” (p.47). Educators must “modify their instruction to accommodate” these learners (p. 48). These young adults may all have been born between 1980 and 1999, but they should not be thought of as a monolith, though none remembers a world without computers. Their knowledge of technology does not mean that they cannot benefit from skill-building in other areas. This is especially true as academic institutions address those who come from the other side of the digital divide where their schooling has been affected by their economic situations. The authors recognize that skill gaps persist and need to be addressed, both within the university environment and the workplace. Michele Kathleen D’Angelo, a school psychologist and adjunct assistant professor of English at Rider University, uses her chapter, “Gen M: Whose Kids Are They Anyway?,” to describe Gen M’ers as having led sheltered lives. They are confident, “used to acting instantly on information,” being less concerned with their own privacy than previous generations. Proprietary information does not hold the same meaning for them as once did. These young people achieve, and feel pressured to achieve. They tend to be “rather conventional” and sometimes a bit self-absorbed. They are great consumers, good information manipulators, socially conscious, and skilled at analyzing visual data and images (p. 97-98). Susan Avery, Coordinator of Instructional Services at the Undergraduate Library of the University of Illinois
at Urbana-Champaign and author of Chapter 3, tells us that Gen M’ers do not appear to be aware that “the packaging of the message… influences the perception of the message” (p. 53). Her chapter, “Expanding Our Literacy Toolbox: The Case for Media Literacy,” differentiates between visual literacy (associated with images) and media literacy (associated with media and its messages). “Media literacy skills empower students to filter the information around them, allowing them to incorporate the best of it into their academic and social lives, and reject that which is inaccurate, inappropriate, or manipulated” (p. 56). Gen-M students “need to be able to deconstruct media messages and critique the quality of information sources”; in other words, to master information literacy skills as well (p. 59). All of these literacy skills—visual, media, and information—require critical thinking: perception, reflection, reasoning, and evaluation (p. 62).

Art Taylor, professor in the Computer Information Systems department at Rider University and author of Chapter 4 (“Gen M and the Information Search Process”), reminds librarians and educators that “the young adults of Gen M… often do not recognize incomplete fragments as such. They have a tendency to regard each fragment as valid as any other,” and their ability to critically evaluate Web content “appears to be lacking.” Gen-M’ers are frustrated by “the time it takes to find and evaluate content (and thus may avoid a particular research track if it seems too time consuming)... (perceiving) the lowest cost as the most convenient, readily available information with limited consideration for quality” (p. 72-73).

Dr. D’Angelo explains that for years “teachers have taught students how to learn collaboratively, and may have difficulty reading and writing on their own” (p. 99). Gen-M students have expressed dissatisfaction with teachers who are unable or unwilling to use technology, complaining about PowerPoint presentations with too many words on each slide. They like having slides made available to them ahead of class so that they can follow along without taking too many notes while conducting other activities during class, such as texting.

In Chapter 6 (“The Wired Life”), authors Karen J. Klapperstuck (Director of the Bradley Beach Public Library) and Amy J. Kearns (Program Coordinator for the Central Jersey Regional Library Cooperative and part-time lecturer at the School of Communications, Information and Library Studies at Rutgers in New Brunswick, NJ) point out how Gen M’ers manage to remain plugged into a number of different tools throughout the day, often seemingly simultaneously, and how carrying on several conversations (live, telephonically, shared, and/or online) is not considered rude. Telling everyone where they are, what they are doing, feeling, and thinking is the norm. Their view of privacy is that they broadcast to friends and friends of friends, not to the world (e.g., on a Website). “They are creators and not just consumers of content… wanting to manipulate, remix, and share content” and live in a state of “continuous partial attention” ignoring “the difference between online and offline” (pp. 116, 120, 122). Nicholas Schiller (Library Instruction Coordinator at Washington State University Vancouver) and Carole Svensson (Assistant Director of the Library at the University of Washington, Tacoma) remind us that Gen M’ers “have played thousands of hours of video games,” and teachers should begin to use games as educational tools.

Stephen Abram (Vice President of Innovation for SirsiDynix and Chief Strategist for the SirsiDynix Institute) explains how a “rich user experience, user participation, dynamic content… openness, freedom and collective intelligence by way of user participation, can also be viewed as essential attributes of Web 2.0” (p. 221). He notes a fundamental usage of Web sites and email where “information content (and largely textual information) reigns “to one where the content is combined with functionality and targeted applications that meet the needs of society and individuals in context. It is primarily about a much higher level of interactivity and deeper user experiences” (p. 222-223). Abrams notes the advantages of “socially driven content and advanced recommendation engines and environments” when “dealing with a world of too much information and too much choice” (p. 223).

Chapter 13 (“Gen M(obile)”) highlights a number of universities incorporating mobile learning into higher education, including the use of technology-driven “flash cards” (University of Pittsburgh) video lectures, quizzes, and simulations (University of West Florida); and wireless networks that enable “students to send private messages to their professor… and the professor conduct impromptu quizzes during class” (Wake Forest University). In Chapter 14, Lauren Pressley (Instructional Design librarian at Wake Forest University) recommends “blending both useful technology and strong pedagogy… to create an educational environment that will be most effective for today’s students. Educators need to adapt constantly to stay relevant and useful in students’ lives, especially Gen M students who have grown up with the emerging technologies and now operate in a very different information environment than the one familiar to most...
of their educators” (pp. 253-254). One impediment, she recognizes, is that today’s classroom looks much like those of decades past, while education theory tells us that individualized student-centered education is what Gen M needs to thrive in a global, knowledge-based economy. Ms. Pressley recommends hybrid learning approach that takes the best of traditional education and e-learning, but goes beyond. Hybrid learning allows “for more flexible scheduling for busy students, the ability to schedule more than one class per classroom per timeslot, as well as giving the professor the opportunity to think creatively about the restructuring of the course” (pp. 258-259).

The editors sum up the volume’s goal of encouraging those responsible with “guiding the next generation of scholars, artists, and leaders through the important endeavor of serious thinking” (p. 352). I’d say that they succeeded quite nicely.

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- ISBN-10: 0838909523
- $55.00
- Reviewed by Celeste Moore

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*The Quality Library* is a pragmatic self-help guide for libraries. Sara Laughlin and Ray W. Wilson have written this book “for library administrators and library employees who want to improve their libraries by improving their processes.” The authors focus on library customers and on the processes done at the library. The book is well organized and provides many practical tools for the library professional.

*The Quality Library* is the collaborative effort of authors Sara Laughlin and Ray W. Wilson. For decades, the authors have worked to help organizations perform better. This specialized expertise has served as a basis for this book. The book introduces the concept of continual process improvement. Once this concept is explained, the authors begin to show how continual process improvement can benefit libraries and ultimately their customers. The book has many useful features including two appendixes, a glossary of terms, a comprehensive list of references and a useful index. The authors have also provided a multitude of worksheets, flow charts and tables to demonstrate the importance of process improvement. All of these resources help the reader better understand how library staff can plan and implement the process of continuous improvement.

The book is organized into six chapters that introduce the reader to the approach of process improvement. The chapters include the Continuous Improvement Approach, Identification and Assessment of Processes, Standardization, Measurement, Rapid Improvement Process, and Managing Process Improvements. Many chapters include visuals such as tables, worksheets or flowcharts. Real life library examples are given throughout the book to demonstrate the effectiveness of the continuous improvement model. This book can help libraries better understand and perfect their own processes. With this knowledge, library personnel can develop a plan to move forward while continually assessing their progress. The result promises a more efficient library with greater staff and customer satisfaction.

The authors have written a helpful book to start libraries on the path to continuous improvement. This approach leads to more complete understanding of library by focusing on library tasks and processes. This understanding can help libraries become better by improving each of these processes. Careful attention is given to continual process improvement in academic and public libraries, but the guide could be used in a variety of library settings. Even in times of budget cuts and greater customer demands, this book offers a straightforward approach to enhancing library efforts.
The book provides readers with a thoughtful coverage of the continual improvement approach as a means to improving library quality. *The Quality Library* will help libraries develop a course of action and become more proficient information centers. The book promotes an ongoing reflective process that will empower libraries to do what they do, only better. This is a title worth buying and adding to your professional development collection.

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Written by Ron Nash, the nationally known teacher coach, “The Active Teacher” is a sequel to “The Active Classroom”, which focuses on creating student-centered classrooms and provides strategies, activities, and powerful presentation techniques for creating active and interactive learning environments. “The Active Teacher” addresses some obstacles to effective instruction such as inconsistent rules and procedures, use of lecture and of summative assessment as the only teaching and assessment tools, negativity in the classroom, and the lack of collegiality and effective collaboration in the school and classroom. The book emphasizes the importance of the three Rs, routines, rules, and relationships, and the importance of effective planning in order to address issues such as student achievement, positive classroom climate, effective instruction and assessment, and student motivation. The book is organized in eight chapters and an appendix. Each chapter ends with a “Final thoughts” section which summarizes the chapter’s ideas and prepares the reader for the following chapter.

Chapter 1: Positioning First Things First
The author talks about the importance of the course content, “what”, where teachers need to demonstrate command of their discipline, and of the teaching and learning processes, “how”, which offer students certainty, clarity, and consistency in an effective classroom. The importance of making clear and positively stated classroom rules routine during the first days of school as a foundation for efficient teaching and learning is emphasized.

Chapter 2: Investing in Sustainable Relationships
This chapter discusses about cultivating person-to-person, trust-centered relationships, a collaborative culture, and teaching to the strengths of students as keystones for efficient classroom management and teaching and for building a positive classroom climate. Developing listening skills by listening to parents, students, and colleagues are vital. Improving teacher-to-student and student-to-student communication and forging and sustaining adult relationships among colleagues and staff members in the school community ensure a positive school culture.

Chapter 3: Getting a Handle on Self-Control
The author provides a description of qualities of the most effective teachers who consistently display and maintain calm behavior, have self-confidence, control their own actions, emotions, and reactions, and solve discipline problems firmly, quietly, and without disturbing the flow of process in the classroom.

Chapter 4: Shifting Students from Passive to Active
As students process information and learn in different ways, differentiation and creation of a classroom culture which addresses the various needs of students who are kinesthetic, visual, tactile, and auditory are keys to success. Teachers committed to careful lesson preparation, planning, and continuous adjustment encourage students to move, work in cooperative groups, and chat. Student participation in their own learning provides opportunities for processing, reflection and discussion, and supports learning and memory.

Chapter 5: Harnessing the Power of Feedback
Feedback is connected to quality instruction. Individual feedback needs to be based on knowledge of student work and understanding of student’s strengths and weaknesses. The author suggests the use of feedback mechanisms such as checklists and rubrics as signposts, effective portfolios, or goal setting and gap elimination. Making feedback specific and instructive,
Chapter 6: Balancing Formative and Summative Assessment
The chapter expands the discussion about feedback and compares the two forms of assessment, formative and summative, in order to identify which one is more cost-effective in regard to student continuous improvement. Summative assessments have limitations as quiz and test scores do not provide students with feedback useful for future learning. Formative assessment, by allowing frequent checks for understanding, opportunities for useful feedback and for applying knowledge, is more cost-effective and beneficial for building confidence, motivation, and for students' learning. Formative assessment allows building quality control into the system. Formative assessment should come before summative assessment. Teachers need to balance carefully the use of both formative and summative assessments in order to provide students with vehicles for improvement in the short term and in the long term.

Chapter 7: Enlisting Investment Partners
The author emphasizes the benefits of collaboration among colleagues in the school community as a key to success and teacher retention. Collaborative teaming and collaborative improvement efforts rooted in the shared vision and core beliefs of the organization should include the students. Cooperation at the district level and creating a collaborative culture are also beneficial and much can be accomplished when teachers, principals, and central office coordinators put their knowledge and efforts together in pursuit of continuous improvement.

Chapter 8: Ramping Up Relevance
In an age where students are inundated with huge amounts of information, the role of the teacher is that of a process facilitator by helping students develop 21st century skills such as critical thinking, methodical questioning, problem solving, effective communication, and making informed decisions as they prepare for the workforce in an increasingly complex world. Such performance skills assist students in understanding and making sense of the content they are learning. Teachers need to constantly plan, evaluate, reflect, and adjust their teaching in order to be relevant in a world where students have continuous access to instant information, have a tendency for action, and do not accept the sit-still traditional classrooms.

Appendix: Preparing for Day Six
This section provides advice for teachers who want to succeed and stay in the profession for the long run. Teachers are encouraged to:
1. Keep an electronic journal during the course of the school year
2. Spend thirty minutes per week reading professional journals and books
3. Find time to watch each other teach
4. Schedule time to meet with other teachers frequently
5. Take time in class to have your students give you feedback.

This work would be an excellent addition to academic library collections supporting undergraduate and graduate programs in teacher education and school librarianship. The wealth of shared experiences, strategies, activities, and practical examples make this book a good resource for in-service teachers and for reflective practice professional development workshops.

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Learning to think things through: a guide to critical thinking across the curriculum is a prescription for instructors and students who strive to apply critical thinking into everything they do, regardless of discipline. It begins with two prefaces: one “To the instructor” and the other “To the Student.” The first describes how the author, Gerald M. Nosich of Buffalo State University, has used the techniques in his own teaching. It highlights changes made to the third edition and contains a helpful note on the exercises that appear in each chapter. The preface to students reminds them that reading the book is not sufficient; they must “take problems or questions the text asks and actually think them out.” The book “is not a body of information” that talks about how to think critically, “it is about actually thinking critically.

The work is relatively short—five chapters, each ending with a set of exercises that apply concepts from the text. Chapter One (What is Critical Thinking?) begins with defining the phrase and highlighting prominent features of critical thinking. What is Critical Thinking? discusses three parts of critical thinking: Asking questions, trying to answer those questions by reasoning them out, and believing the results of our reasoning. The chapter closes by listing impediments to critical thinking and using SEE-I “to make whatever you are working on clearer”:

- State it
- Elaborate (Explain it more fully, in your own words)
- Exemplify (Give a good example)
- Illustrate (Give an illustration, a metaphor, simile, analogy, diagram, concept map, etc.).

All eight Elements of Reasoning are covered in Chapter 2: Purpose, Question at Issue, Assumptions, Implications and Consequences, Information, Concepts, Conclusions/Interpretations, and Point of View. Three additional elements that co-exist with each of the others include reasoning (i.e., drawing conclusions on the basis of reasons), claims (judgments), and hypothesis. One of the best sections within this chapter appears toward the end and is designed to help analyze positions with which you disagree.

Chapter 3 helps the reader to apply critical thinking within a field, making logical connections and understanding the point of view of the discipline. The seven standards of reasoning are covered in Chapter 4—by far my favorite chapter:

- Clearness
- Accuracy
- Importance, relevance
- Sufficiency
- Depth
- Breadth
- Precision

Putting it All Together: Answering Critical-Thinking Questions, the fifth and final chapter of this work, reviews the core process of critical thinking.

The best feature of the book is the grayed-out text box that appears on nearly every page. These are designed to raise questions about what is being read in the main text. The author is constantly challenging the reader to think more deeply and revise his/her thinking, if/as warranted. At the end of each of these text boxes is a suggested action. For example, “write a paragraph describing how, in your best judgment, critical thinking is necessary within the subject matter you are studying.” Throughout the book, these text boxes force readers to think about what they’ve read and apply it to their own life/work/research.
The work might have benefitted by a better editor, but all-in-all, it’s well worth the investment. I’ve already applied some of what I learned in this semester’s class, and in reviewing homework assignments and final term projects, I see how my students have benefitted. I look forward to re-reading the work more closely and thinking about how I could incorporate even more during next semester.

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A collection of perspectives on service learning from practicing librarians, library and information science educators, students, and even an administrator, this volume is a testament to the impact service learning experiences can have on student learning outcomes and the communities in which they are practiced. The book opens with a history of service learning in library and information science education, and then draws examples from LIS programs all over North America, describing projects undertaken in a wide array of settings across the U.S., various parts of Africa, and on the Internet.

Reflection is a key component of service learning. A full chapter is devoted to the philosophical underpinnings of this type of learning, and practitioners each devote more than a few words to explaining their personal definitions of service learning, from a form of hands-on, experiential learning, to the more ambitious social entrepreneurship, in which students help find innovative solutions for community issues, to community inquiry, where the university and the community act as partners in life-long learning. On this spectrum, a fundamental shift seems to be taking place: whereas in the past student learning was the primary and perhaps even sole focus of service learning, now community engagement is considered a key component.

The difference can be found in the projects described in this book. While many are traditional internships in which students learn on-the-job skills from experienced librarians, the most compelling projects are those that engage with under-served populations: a Korean community in Illinois, Latino communities across the U.S., a tribal college in Washington, LGBTQ youths in Tennessee, people with disabilities in Second Life, the Delft and Bellville communities in South Africa, and the developing island nation of Sao Tome in West Africa.

In addition to testimonials, this book also includes road maps and frameworks for integrating service learning into the curriculum, making it a practical read for all LIS educators seeking to incorporate service learning into their programs.

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Whittaker, Beth M. and Thomas, Lynne M.  
Special Collections 2.0: New Technologies for Rare Books, Manuscripts, and Archival Collections  
ISBN: 9781591587200  
$45.00  
Reviewed by Elizabeth J. Bollinger

Beth M. Whittaker is currently an associate professor and head of special collections cataloging at The Ohio State University Libraries and Lynne M. Thomas is head of rare books and special collections and assistant professor at Northern Illinois University.

The introduction is thoughtful and thought provoking, covering why there is yet another “2.0” book, interspersed with quotes from their research and their survey of cultural heritage professionals. The book is not intended to be comprehensive on 2.0 technologies but focuses specifically on cultural heritage, special collections, archives and museums; focusing on the “dabblers” of technology.

The first chapter offers a variety of suggestions on the use of social networking services; offering descriptions of the services, how they could be used for professionals to create networking opportunities, donor communications, and discovering other related collections to our own. The second chapter covers the use of blogs and RSS feeds for use to promote collections, how to promote your blog once it is created, and even collection and preserving blogs. The material on blogs is basic and focused more for someone newly entering technology.

The third chapter focuses on an introduction to wikis and their use on both the public side and private side. Their example of using the wiki for coordination of this book and for collaboration was particularly useful. A specific example of a project using a wiki, The Edward T. Leblanc Dime Novel wiki, is discussed and provides a detailed view of how wikis can be implemented and it’s strengths.

The chapter “Media Sharing in Cultural Heritage Collections” offers strong examples of promotion of digital collections as well as the challenges of publishing content on the web which transitions smoothly to the chapter on Access to Collections. The Access chapter provides a good background of the difficulties in finding special collections in the catalog and other search tools, making suggestions on the Web 2.0 tools to use to expose these collections.

The final chapter, appropriately named “The Elephant in the Room: Digital Preservation 2.0”, is a discussion of digital preservation, mass digitization and copyright issues. Included in the appendix is the survey they conducted and a digital preservation primer, which includes a literature review and a software overview.

Special Collections 2.0 is a good introduction to Web 2.0 technologies for archivists and librarians, offers solid recommendations for software and standards, and provides examples of how the technologies can be used in appropriate and forward thinking ways.

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Jacqueline Snider wears several hats. First, she is manager of the Information Resource Center at ACT, a testing company, in Iowa City, Iowa. Since 2003, she is adjunct faculty at The University of Iowa's School of Library and Information Science. With regard to education, she received her M.L.S. from the University of Toronto, earned a Master's in Educational Psychology in 2006, and is a Ph.D. student in the College of Education at the University of Iowa. She has worked in public, academic and special libraries in Toronto, Chicago, and Iowa City.

Jacqueline has held various positions in the Education Division including Bulletin editor, Division Chair, and Membership Committee Chair. In addition, she is a founding member of the Iowa Chapter of SLA, and chair of its Student Relations Committee. She also is a member of SLA's Research Committee.

Jacqueline spends most of her free time working on her courses, and fretting about possible dissertation topics. Her professional interests include staff development, user needs, policy implementation, outputs, and outcomes, as well as customer service.

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Debbie Bogenschutz
Chair-Elect, Education Division

Debbie Bogenschutz has been Coordinator of Information Services at Cincinnati State Technical and Community College for 28 years. She chose SLA as her primary professional organization since she’s a generalist with a wide variety of specialist users, and SLA helps her keep on top on many different fields. The Education Division became her SLA home since education is the main concern. “Faculty in two-year colleges, especially technical educators,” Debbie explains, “often had not expected a career in education. They were working in their respective fields when they answered the call to teach. My research for faculty members is often on educational issues, while I’m helping students in a wide variety of disciplines.” Debbie is also active in the Cincinnati Chapter of SLA, having served twice as its President. In her leisure time, Debbie quilts, and is an avid reader of mystery fiction.

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Dr. Lesley Farmer coordinates the Librarianship program at California State University Long Beach. She has worked in a variety of library settings -- special, academic, school, public, for over 30 years. SLA helps Dr. Farmer keep current in the field, specifically in the areas of technology and management; her contacts in the Education Division have been particularly welcoming. The knowledge gained through association engagement also informs her instruction. Professor Farmer's research interests include literacies, educational technology, collaboration, and gender studies. Her personal hobbies (besides reading) include travel, photography and other 2D art, singing, and Girl Scouts.

Dr. Farmer also serves as the VP Association Relations for the International Association of School Librarianship, and edits IFLA's School Libraries and Resource Centers Section newsletter. Dr. Farmer is a frequent presenter and author. Of her two dozen books, the most recent titles are Your School Library: Check It Out! (Libraries Unlimited, 2009) and the 2010 book (co-authored with Marc McPhee) Neal-Schuman Technology Management Handbook for School Library Media Centers.

Dr. Farmer first joined SLA in the mid 1970s when she held a technical librarian position at Singer Business Machines' Research and Development Center. In the '80s she became more active, and headed the Internet Project initiative for the San Francisco Chapter. The group developed a Train the Trainer model for Internet use, and Lesley presented for overflowing groups. Dr. Farmer had already contributed to Education Libraries, so her appointment as Education Libraries Editor was a logical decision. She now leads the division, and encourages the membership to participate actively.

Karen McQuillen
Karen McQuillen is the Manager of Brigham Library of Educational Testing Service (ETS), in Princeton, New Jersey. She has been a member of the library's staff since December, 1983.

She has a strong background in searching the Internet and proprietary databases, and instructs ETS staff in the use of ETS Library Resources and Free Internet Technology Tools. She is part of an ETS cross-divisional team responsible for the launch of SharePoint 2007 corporate-wide. She is part of the SharePoint search enhancement team, and is working to optimize ETS organizational and knowledge management through collaborative technologies.

McQuillen received her MLS from Rutgers University in 1988, and her BA in English and Psychology from Trenton State College (now The College of New Jersey) in 1981. She was the 2005 recipient of the SLA Education Division's Anne Galler Award for Professional Excellence and in 2006 received an ETS Presidential Award for partnering with ETS leadership to develop a central Organizational Knowledge Resource and for helping position ETS for future growth. She is a past Chair of the Education Division of SLA, was president of the Princeton-Trenton Chapter of SLA in 1995-96, again in January 2008. SLA has enhanced her professional life greatly.

McQuillen has a collection of music from Les Paul on 78's to Les Paul on Podcasts, and a complete set of Donny Osmond albums from the '70s. She says she is waiting until he becomes enough of an icon so that she can sell them. (and mentions that her all 'round nerdiness has truly been revealed). She also enjoys movies, bicycling, and travel.

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