Learning by doing: bridging information literacy theory with practice

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Addressing information literacy skills at the freshmen level can often result in frustration for everyone involved. Teaching the same content over and over becomes tedious for librarians who often have other duties to concentrate on, and stand-alone library sessions can seem irrelevant to freshmen, especially when they are bombarded with additional information about choosing majors and student organizations. In spite of this, many university and college libraries still participate in their college’s version of a first year, or freshmen seminar, program. By utilizing scalable instruction and asynchronous methods of learning, librarians can create information literacy modules tied to an assignment freshmen are already working on. This process allows librarians to teach information literacy skills to a large number of students without overextending themselves.

Background

Some variation of a freshmen seminar has been in place at the University of Pittsburgh at Johnstown (Pitt-Johnstown) for eight years. The current program, called University Scholarship, is a required, one-credit, semester long class that students take in the fall of their freshmen year. The course offers strategies for various aspects of academic success including study habits, school/life balance, and research.

Owen Library became involved in the freshmen seminar program around the time of its inception; however, the level of involvement has varied. At one point, the library component consisted of two major pieces: a required 50-minute library orientation class and a short quiz. Due to the serious time strain on librarians (who at this time were teaching approximately 25 orientation classes each fall semester) and unsuccessful evaluations of the program, Owen Library ceased this method of instruction after the fall 2006 semester.

At the beginning of the fall 2007 semester, I determined, as the Library Instruction Coordinator, the need to readdress the library component of University Scholarship. The University of Pittsburgh’s University Library System (ULS) had recently published several online information literacy tutorials created with Captivate software. I developed a multiple-choice test that students completed after viewing the four tutorials. This brief test was modeled off the Standardized Assessment of Information Literacy Skills (SAILS) test, which the ULS had also recently begun utilizing for assessment purposes. University Scholarship instructors administered the test to their students and graded them using Scantron sheets.

The multiple choice test was revised and updated for the subsequent year, but I still sought an opportunity to create more of an integrated, learning-focused presence in the University Scholarship program. This opportunity came in the summer of 2009 when I was approached by the University Scholarship coordinator. The University Scholarship coordinator also identified the need for a library component that focused more on critical thinking and outcomes-based learning. The solution of this collaboration was a set of self-paced information literacy modules that were integrated into Blackboard and tied to an existing assignment.

Goals of Collaboration

The Library Research Modules provide dual benefits: they allow the University Scholarship program to reach their
The four topics of the Library Research Modules are “Getting Started on Library Research” (Module 1), “Finding Books” (Module 2), “Finding Articles” (Module 3), and “Finding Quality Web Sites” (Module 4). Module 1 covers developing a research topic, identifying key words and concepts, and selecting the best research tools. Module 2 takes students through the use of the library catalog (PITTCat+), finding books in the library, check-out procedures, and the Interlibrary Loan process. In Module 3, the students are introduced to a general database, Academic Search Premier, and the basics of searching for articles. Finally, in Module 4, students learn how to effectively find and evaluate information on the Web. Each module contains a PowerPoint presentation with a brief introduction to the topic, pertinent handouts and research guides, links to relevant ULS online tutorials, and a four or five question assignment which requires students to complete hands-on activities simulating real-life research scenarios. The four assignments are worth ten points each and graded using a score sheet.

The module content was loaded into the Blackboard site of the University Scholarship instructors prior to the start of the semester; everyone included the same content in their course pages ensuring that the modules were consistent across all sections. I was designated as “TA” in Blackboard for each of the twenty five sections of University Scholarship; this designation allowed me to add content, update due dates, and fix broken links. Most importantly, I was able to access the Grade Book so I could download completed assignments (which were submitted using Blackboard’s new Assignment feature) and enter grades for the students.

The module assignments’ due dates were staggered in order to make grading more efficient. Blackboard has a feature that allows the instructor to schedule an end date for assignments so they cannot be accessed after a certain date. I set these end dates based on the instructors’ due dates, which were slightly different for each section and let University Scholarship instructors determine whether or not they would accept late assignments. A number of assignments were turned in after the module assignments were removed from Blackboard; students either printed these out and brought them to the library or emailed them to their instructor who sent them to me electronically. In addition to submitting grades in Blackboard, I set up a spreadsheet for each section of University Scholarship to keep track of grades and who had completed their assignments for each module.

**Survey Results**

In order to gauge the successes and failures of the Library Research Modules, I created an online feedback form using Google Docs (http://www.google.com/docs). The survey, available at [http://tiny.cc/librarysurvey557](http://tiny.cc/librarysurvey557), was added to the Blackboard announcements page for each section along with a note from instructors encouraging students to complete it. The survey produced less than a 20% response rate; the low response rate was disappointing, but not surprising given the time in the semester it was administered and its voluntary nature. The survey included three Likert scale-type questions [Figures 1-3] and three open-ended questions. Results were mixed, but provided us with a good indication of how the modules can be tweaked for future semesters.
The open ended questions provided the most useful feedback; for the question *List the Most Valuable Thing You Learned About the Research Process*, responses included:

- “PittCat was very useful. I wasn’t aware of the extent of resources available.”
- “How to find good, useful information on the internet, rather than [sic] googling and finding [sic] unuseful and unreliable information.”
- “I learned how to navigate [Blackboard] and use the digital drop box.”

The last response is especially interesting because while learning how to use Blackboard was not a goal of the program, it certainly proves an added benefit that students became more comfortable with the course management system Pitt-Johnstown uses for most classes.

Responses to the question *What Still Confuses You About Library Research* can be used to improve the Library Research Module assignments for future semesters:

- “Figuring out which keywords would work best to narrow the topic of interest down.”
- “It’s a little too hard to understand. There are too many ‘you have to do this to go here, here, and here...then you can go here.’ I also wish the library staff was a bit more
approachable. It feels too awkward to ask them for help at times. Almost like you’re disturbing them.”

**Reflections**

As with any program, especially one in its pilot phase, some issues with the Library Research Modules became apparent during the first semester. Among the most common problems encountered were confusion with question terminology in the module assignments, the copious amount of grading, and a degree of miscommunication and disconnect with the University Scholarship instructors.

**Common Problems**

Despite input from other librarians and the University Scholarship coordinator, I noticed occasional problems with question terminology in the module assignments. Feedback from students, both during the semester and on the feedback form, confirmed that they misunderstood instructions for several questions. One such confusion occurred in the “Finding Articles” module. On the ULS website, the electronic databases are divided into subject categories to assist students in picking the most relevant databases for their topic. The module assignment instructed students to choose a subject category related to their bibliography topic and then choose a database from that list that might have relevant articles. Many students were able to choose a database name, but instead of naming a subject category as described on the website, they listed their bibliography topic (e.g. “rebellions” or “war”). I will address discrepancies such as this by rewording questions and making adjustments to the PowerPoint and supplemental material. Another option is testing the module assignments on library student workers to get a student’s point of view on the clarity of instructions.

In an attempt to provide useful feedback to students, I volunteered to grade the module assignments for each section of University Scholarship. While this earned major points with the University Scholarship instructors, it proved to be an overwhelming commitment. Despite the assurance from instructors that grades need not be posted quickly, I felt some degree of responsibility to provide swift feedback to students. Since the assignments were mostly open-ended questions, they took much longer to grade than multiple-choice or fill in the blank type assessments.

Having a librarian grade the modules also contributed to a certain amount of miscommunication and, possibly, disconnect between University Scholarship instructors and the library module assignments. I was deemed the “point person” for the Library Research Modules and communicated frequently with students who misunderstood assignment instructions, had difficulty uploading their assignments in Blackboard, or needed extensions. As a result, the University Scholarship instructors tended to refer students to me for any questions that came up regarding the modules rather than answering questions themselves. This might have resulted from my volunteering to grade the assignments, or was perhaps due to the instructors’ lack of understanding of the modules and corresponding assignments.

To avoid these problems in the future, I will explore more involved training for University Scholarship instructors so they will be more equipped to answer questions and help students with the modules.

**Future Plans**

Despite the problems that occurred, the Library Research Modules did meet the goals of the collaboration and, with some modifications, will be implemented again in the fall of 2010. In addition to revising the module assignments for question clarification, I will review the PowerPoint and handouts to ensure they meet the outcomes determined for the program. As previously mentioned, I will also examine ways of further preparing University Scholarship instructors, including emphasizing the importance and significance of the modules.

The Library Research Modules worked very well at an introductory level, but the program could easily be expanded for subject disciplines. Currently, some freshmen enroll in the University Scholarship section corresponding with their major (i.e. engineering, business, nursing, athletics, or education) while most students enroll in the general Arts & Sciences sections. I would like to explore ways of customizing the modules for the major sections of University Scholarship while still providing consistent instruction to all freshmen.

**Conclusion**

While the Library Research Modules fit perfectly into the frame of Blackboard, having an institutional learning management system (LMS) is not a requirement for success. Librarians finding themselves without access to an LMS should consider open source software such as Moodle (http://moodle.org/) or even a wiki, such as PBWorks (http://pbworks.com/), an easy to use source with good support for academic wikis. The librarian would simply need to make the wiki public and set up an email address for students to submit their assignments.

When approaching instructors or freshmen seminar coordinators about collaborating on first year instruction, librarians can discuss how the online, asynchronous method of instruction allows students to complete all work outside of class while still learning the same content they would have been exposed to in a 50-minute class session. Perhaps more importantly, the Library Research Modules reach a large number of students without overwhelming librarians. By utilizing scalable and virtual instruction methods, librarians can foster the development of freshmen information literacy skills in an engaging and innovative way.
APPENDIX A

Sample slides from Library Research Module 3, “Finding Articles”
To view the entire PowerPoint, please visit:
http://web.me.com/mnmallon/Melissa_Mallon/Presentations.html
APPENDIX B
Assignment questions for Library Research Module 3, “Finding Articles”

1. Find the subject database list on the Library’s web site. Pick a subject that is closely related to your bibliography topic, and examine the list of databases related to that subject. Which subject category did you choose? Read the descriptions of the databases, and chose one that could have relevant articles. Which database would you search in? Why?

2. Access Academic Search Premier. Do a search for your topic. What keywords did you use? How many articles are listed? How could you narrow down your search?

3. Go back and do another search, only this time limit the results to scholarly/peer-reviewed articles. Now how many articles are listed? What is the reason for this?

4. Look at the abstract (summary) of the articles in the results list to see if they are relevant to your topic and/or support your claim. Write down an article’s title and author and a brief description of why it would be a good source for your bibliography.

APPENDIX C
Assignment score sheet for Library Research Module 3, “Finding Articles”

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<th>Student Name</th>
<th>Comments</th>
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<td></td>
</tr>
<tr>
<td>Database name</td>
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<td></td>
</tr>
<tr>
<td>Why chosen?</td>
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<tr>
<td><strong>Question 2</strong></td>
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<td></td>
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<tr>
<td>Number of results</td>
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</tr>
<tr>
<td>How to narrow search</td>
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<td></td>
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<tr>
<td><strong>Question 3</strong></td>
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<td></td>
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<tr>
<td>Number of results</td>
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<tr>
<td>Reason for why (scholarly articles, etc.)</td>
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<tr>
<td><strong>Question 4</strong></td>
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</tr>
<tr>
<td>Describe relevance (supports claim, authoritative, etc.)</td>
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<tr>
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