Transforming Research into Practice: Using Project Information Literacy Findings to Revitalize Instruction and Outreach

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Abstract

Librarians at three institutions used Project Information Literacy (PIL) findings to develop instruction, outreach to faculty, and a new assessment tool. California Maritime Academy Library developed new information literacy lesson plans in response to two findings from a national student survey: students reported the most difficulty getting started with research and students often work collaboratively when evaluating sources. Phoenix College (AZ) Library in the Maricopa Community College District developed an interactive faculty training workshop, a LibGuide, and evaluation tools to create better handouts for course-related research assignments. UC Irvine Libraries designed a major information literacy assessment project undertaken with first year students in 2010-11. Assessment results are presented here for two institutions.

California Maritime Academy Library

Introduction

Along with 24 other campuses, California Maritime Academy (a campus of the California State University) participated in Project Information Literacy's (PIL) 2010 national college student survey, with a participation rate of 11% of the upper class student body (n=58). The 2010 PIL survey has been the largest college student information literacy survey in the United States to date. PIL administered 22 survey questions by email, asking students what resources they use, what motivated them when doing research, how they evaluated information, and other questions addressing both course-related and everyday life research.

Cal Maritime received an institutional report of our students' responses which, in most cases, did not differ significantly from the national results reported by PIL (Head & Eisenberg, 2010 Nov). The Information Fluency Program (Cal Maritime's instruction program) focused on two major findings from this report: 1) Students reported the most difficulty with the early stages of research, and 2) Evaluating information is often a collaborative process for students.

Responding in Fall 2010 to PIL major finding #1 above, Cal Maritime instruction librarians developed two new learning outcomes for LIB100, a 2-unit Information Fluency course: students would develop methods for vetting new topics and gain awareness of sources for context and background in order to start research projects earlier and with more confidence. New lesson plans were developed to explore methods and sources for "Getting Started." In addition, a LibGuide "Getting Started" section was created to accompany curriculum-integrated instruction in English 100. Finally, in Fall 2011, the instruction coordinator developed new lesson plans for English 100 to address the same "Getting Started" learning outcomes developed for the credit-bearing class.

Responding in Fall 2010 to PIL major finding #2, collaborative in-class exercises replaced individual homework assignments for evaluating websites for authority and purpose in LIB100, the credit-bearing class.

The following section will describe the new instruction methods used to address PIL major finding #1 (Getting Started) in curriculum-integrated instruction and subsequent assessment of student learning. Additionally, this section will describe new instruction methods used to address PIL major finding #2 (Collaborative Evaluation) in the credit-bearing information fluency course and subsequent assessment of student learning

Methods

New "Getting Started" instruction was implemented with three sections of English 100 in Fall 2011. Instruction began with a text-message-based poll asking students a variation of one of the PIL survey questions: "What is the hardest thing about research papers?" Student responses echoed PIL results with many students identifying early-stage tasks as most difficult. After closing the poll, the instructor informed students about the PIL survey and what students across the country said was most difficult about research papers. The instructor then introduced sources for vetting a new topic for their particular assignment, which are explicitly compared/contrasted with Wikipedia. Students explored their topic in one or two recommended sources, with individual help from the instructor.

This lesson differs from a simple source demonstration by explicitly articulating that getting started is a stage in the research process, one that is challenging for many students. The effectiveness of this new lesson plan was assessed by comparing Fall 2011 to Fall 2010 usage statistics for the English 100 LibGuide. Only statistics for links to outside resources were included, not statistics for page views within the guide. This assessment method was chosen to reflect student awareness and use of background sources.
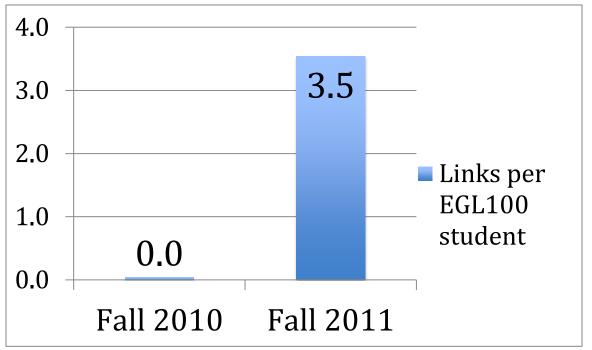
New "Collaborative Evaluation" instruction in a semester-long course was implemented in Fall 2010. Students worked in class with partners to evaluate sources and report back via a shared online forum. Evaluation exercises included two sessions on evaluating authority and the purpose of a website. Later in the semester, the prompt for the final reflection essay instructed students to "mine the forums" for material.

The effectiveness of this lesson plan was assessed by rating the sources cited in the final bibliography project for the class, comparing projects from two semester prior to the revised instruction plan with projects submitted in three semesters after collaborative evaluation exercises were implemented (n=266 web source citations, 2009-2011). The instruction coordinator assigned "pass" or "fail" ratings to each source based on authority and purpose criteria discussed in class.

One other significant instructional change was made along with switching from individual to collaborative evaluation practice: websites evaluated collaboratively had more subtle credibility issues than fraud/hoax websites used in previous semesters. These new websites included press releases, anonymous .edu projects, hobbyist and lobbyist sites, and "content farm" articles.

Results and Conclusions

Usage statistics on the English 100 LibGuide showed an increase in links per student to both Getting Started resources (Figure 1) as well as all outside resources overall (Figure 2). These statistics reflect the entire semester, not just the month in which instruction occurred. Increased usage of "Getting Started" resources was not surprising, given its new focus in the classroom, but the statistics showed that without explicit instruction, students wholly ignored the Getting Started resources.

Fall 2010: 0.0; Fall 2011: 3.5. Legend: Links per EGL100 student. Y-axis: 0.0 to 4.0.

Figure 1: Links made to outside resources included on the "Getting Started" tab of an English 100 LibGuide
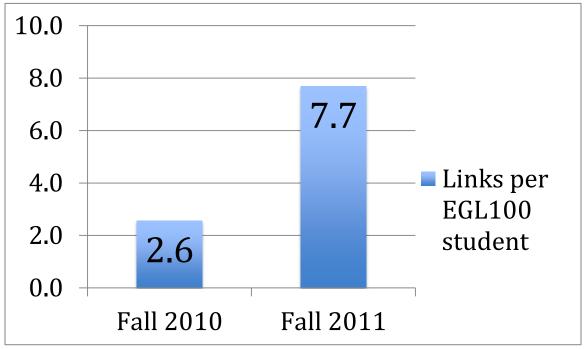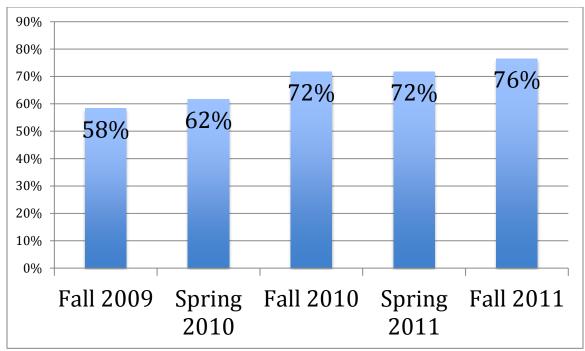
Figure 2: Links made to all outside resources included in an English 100 LibGuide

These statistics suggest that offering "Getting Started" resources in a LibGuide may not be sufficient to encourage students to use them. But, combining the resources with explicit instruction on the initial stage of the research process may increase student use of both recommended background sources and sources such as article databases and websites recommended by librarians for later stages of the research process.

Figure 3 shows an improvement in the quality of student sources cited in a semester-long course after the introduction of collaborative evaluation exercises. The reliability of these results is limited by the fact that this instructional change was not the only variable changed in this instructional scenario; furthermore, the assessor of student work was the same instructional coordinator who implemented the new lesson plan. It appears that collaborative evaluation exercises may be part of a more effective lesson plan in teaching students to evaluate websites for authority and purpose, but this hypothesis would require a controlled study with independent assessors to confirm.

Figure 3: Percentage of credible website sources cited in final projects of a semester-long information fluency course at California Maritime Academy.

Phoenix College Libraries

Introduction

In Fall 2011, the Maricopa County Community College District (MCCCD) libraries offered a three-hour faculty workshop entitled, *Research Assignment Handouts: Essential Elements to Promote Student Success*. The workshop was based on the research findings from the PIL report (Head & Eisenberg, 2010 July). The PIL research showed that the majority of sample handouts for research assignments do not adequately guide students to finding and using information. Some specific findings include:

- "Six in 10 handouts recommended students consult the library shelves - *place based source* - more than scholarly research databases, the library catalog, the Web, or, for that matter, any other resource."
- "Only 13% of the handouts suggested consulting a librarian for assistance with research."
- "Few of the handouts (14%) that directed students to use the library's online scholarly research databases…specified which database to use by vendor or file name from the hundreds that tend to be available."
- "Details about plagiarism, if mentioned at all, were scant and tended to emphasize the disciplinary recourse instructors would take against students who were caught in acts of academic dishonesty." (p. 3)

The goals of the workshop were for faculty to gain a greater appreciation for the importance of a well-designed instructional handout for research assignments. Faculty were to

come away with specific elements and resources to improve their assignment handouts to help students navigate through the research process.

Methods

At the end of the workshop, participants (n=21) completed an evaluation survey to determine overall satisfaction with the workshop. They were also asked to complete a self-assessment to measure learning. In addition, six months after the workshop, participants were contacted via email to answer two follow-up questions about what changes they made to their research assignment handouts and to what extent did the changes improve the quality of work done by their students.

Results

Faculty were highly satisfied with the workshop. The majority strongly agreed that the topics were relevant (89.5%), activities were pertinent and worthwhile (89.5%), facilitators were effective (94.7%), they learned something new and useful (88.9%), the time was well spent (84.2%), and expectations were met (89.5%).

Results from the self-assessment showed that all participants were able to list at least one common pitfall and one essential element of research assignment handouts. The most common pitfall identified by faculty was not making reference to librarians in their handouts. Participants were asked to describe how they would use what they learned in the workshop to redesign their own research assignment handout, and every faculty member included a redesign that reflected recommendations from the PIL study.

Three faculty members responded to the follow-up email. One faculty member wrote, "My handout did not change as much as my conversation in class. I'm introducing the CRAAP test and having students turn in a CRAPP form for two sources on their upcoming information speech about a piece of art." Another faculty member explained, "I added specific information on how to cite sources with examples." The third faculty member shared, "It encouraged me to meet with a librarian faculty at our college for her to review my research essay assignments and to look for ways to improve the way I share information resources with my students. For example, I revamped the way I discuss citing materials, and accessing courses in the college's database." In response to the effect of this change, the faculty member explained, "I have noticed that students have less questions about how to do the assignment and I am generally getting more college-approved sources instead of random websites from the Internet."

Conclusion

Based on the positive Fall 2011 evaluation and assessment results, the workshop was presented again by the MCCCD libraries in Spring 2012, which in turn received similar positive results. The workshop is currently being converted into an online workshop. All materials from this workshop are open content which can be copied or modified, and accessible from the PIL website.

References

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