



Evidence Summary

Multiple Sessions for Information Literacy Instruction are Associated with Improvement in Students' Research Abilities and Confidence

A Review of:

Henry, J., Glauner, D., & Lefoe, G. (2015). A double shot of information literacy instruction at a community college. *Community & Junior College Libraries*, 21(1-2), 27-36.
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Abstract

Objective – To evaluate the impact of providing multiple information literacy (IL) sessions, instead of a single “one-shot” session, to students in face-to-face and online English courses.

Design – Non-experimental, using pre-test and post-test surveys for one group, and only a post-test survey for the other group.

Setting – A small community college in North Carolina, United States of America.

Subjects – 352 students enrolled in 2 successive 3-credit English courses, excluding those under the age of 18, for a total of 244 participants.

Methods – The researchers selected two English courses, ENG 111 and ENG 112, of which most students were required to take at least one to earn a degree or certification. After consulting with faculty, the researchers designed two workshops for each course that integrated active and group learning techniques. The ENG 111 workshops covered pre-searching (e.g., mind mapping and selecting search terms) and database searching in the first session, and website analysis and research (e.g., URLs, Google’s advanced search, and the evaluative CRAAP test) in the second session. The ENG 112 workshops covered subject database searching in the first session and evaluative analysis of magazine and scholarly journal articles in the second session. Instructors provided web-based tutorials to online course sections as a

substitute for the face-to-face sessions. Course assignments were the same for both online and face-to-face classes.

The researchers used anonymous online surveys. ENG 111 students completed pre-test and post-test surveys for their two workshops during the fall 2014 semester. The surveys consisted of seven fill-in-the-blank and multiple-choice questions measuring pre-searching, research, and website analysis skills, and three Likert-type 1-5 rating scale questions measuring comfort levels. ENGL 112 students completed their post-test survey in the spring 2015 semester, which consisted of the same three 1-5 rating scale questions measuring comfort levels, to further test the effectiveness of multiple sessions.

Main Results – The ENG 111 pre-test survey had 244 (66.67% female and 33.33% male) respondents and the post-test had 150 (72.37% female and 28.69% male) respondents. When comparing results, scores increased for pre-searching, specifically understanding of methods for brainstorming search terms (9%), and for all measures of website analysis and research, namely understanding of library databases (7.63%), choosing correct evaluative criteria (4.49%), recognizing reliable top-level domains (TLDs) .edu (1.15%) and .gov (11.21%), and Google’s advanced search (10.43%). Post-test scores decreased on the measures of understanding of a thesis statement (7%) and narrowing a topic if there’s too much information (6%). For comfort levels, neutral responses did not vary much, but there was a shift in responses from “not comfortable” to “somewhat comfortable” and “very comfortable.” Across three measures, namely getting started with a research paper, library research skills, and writing an academic research paper, participants’ “not comfortable” responses decreased and their “comfortable” responses increased. The ENG 112 post-test survey had 29 (60.71% female and 39.29% male) respondents and measured the same comfort levels. In addition, responses showed further improvement for all three questions. Within-subject analysis of both surveys showed slight gender variations. On several pre-test and post-test measures, females scored

lower than males in understanding of databases, Google’s advanced search, and website analysis.

Conclusion – The researchers conclude that expanding IL instruction from a single “one-shot” to four sessions had a positive impact on student learning, particularly the ability to evaluate websites and to use Google’s advanced search. Student participants expressed increased comfort levels and confidence in their research skills. To address decreases on the post-test survey described above, the researchers planned to focus more on research topic narrowing and using thesis statements alongside the research process in future IL sessions. In terms of instructional strategy, the researchers found timing the workshops closely with the course assignments was helpful and concluded that the use of hands-on, interactive elements was successful in engaging and assessing students’ understanding in the workshops.

Commentary

This article adds to the substantial body of literature in the research areas of IL instruction in academic libraries (Detmering, Johnson, Sproles, McClellan, & Linares, 2014). In particular, the researchers cite considerable evidence supporting their application of active learning and multiple instructional sessions as a substitute for the “one-shot” instruction. Although not explicitly mentioned, it also integrates elements of faculty-librarian collaboration and embedded librarianship, both of which have been shown to improve the effectiveness of IL instruction (Mounce, 2010; Hamilton, 2012).

This review used the ReLIANT tool for evaluating research on educational and training interventions in library and information science (LIS) (Koufogiannakis, Booth, & Brettle, 2006). According to this checklist, there are flaws in the study design and results that affect this article’s internal validity and relevance to LIS practitioners.

The educational context and research instruments are mostly well-explained and

appended to the report, but there is considerable ambiguity in the study's purpose and design. The researchers state the article examines the effectiveness of expanding IL instruction from one to four sessions.

However, this is not formulated clearly as a research question or statement of purpose and, perhaps consequently, the article lacks discussion of how and why the research design was selected. Additional limitations include a lack of advanced statistical analysis, such as cross-tabulation and the chi-square test of statistical significance, no differentiation in data collection methods or analysis between face-to-face and online students, and lack of pilot testing for the surveys. There is also limited description of the population; community colleges are generally recognized to be quite diverse in terms of age, ethnicity, and academic level of students. Except for gender and age, the researchers do not specify what demographic questions were included in the surveys nor do they describe the institutions' demographic make-up, which could aid LIS practitioners in assessing the study's relevance and applicability.

The one-shot is a mainstay of information literacy instruction and as the authors note, a well-recognized limitation is its attempt to cover too much content. Librarians have been testing various strategies to address this, such as more effective assessment, e-learning, and even full-credit courses (Mery, Newby, & Peng, 2012). A key strength of this article is its description of a strategy that is manageable in scope; developing e-learning and full-credit courses is not an option for many libraries, particularly smaller institutions like community colleges.

Based on its design, this article shows an associative rather than a causal relationship. LIS practitioners may find it helpful as a pre-experimental or case study providing descriptive insights into faculty-librarian

collaboration, active learning techniques, and the potential for multiple sessions to lower library anxiety and bolster students' confidence in their research skills.

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