# **B** Evidence Based Library and Information Practice

# Evidence Summary

## Students May Demonstrate Information Literacy Skills Following Library Instruction

### A Review of:

Luetkenhaus, H., Hvizdak, E., Johnson, C., & Schiller, N. (2017). Measuring library impacts through first year course assessment. *Communications in Information Literacy*, 11(2), 339-353. <u>http://comminfolit.org/index.php</u>

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### Abstract

**Objective** – To determine whether there is a correlation between information literacy skill development and participation in one or more library instruction sessions.

**Design** – Learning outcomes assessment.

**Setting** – A public research institution with multiple campuses.

**Subjects** – 244 first-year undergraduates enrolled in a compulsory general education course during the 2014-2015 academic year. All subjects completed a series of library research assignments, followed by a final research paper. 65% of subjects participated in at least one library instruction session as part of the course, and 35% did not.

**Methods** – The researchers convened six librarians and six instructors/faculty to score 244 research papers using a rubric designed to measure six possible information literacy learning outcomes. Evaluators established inter-rater reliability through a norming session, and each artifact was scored twice. The authors analyzed rubric scores using Ordinary Least Squares regression modeling. Main Results – Participation in a library instruction session correlated with higher rubric scores in three information literacy learning outcomes: argument building; source type integration; and ethical source citation.

**Conclusion** – Students may achieve greater information literacy learning outcomes when they participate in course-integrated library instruction.

#### Commentary

This research presents a thoughtful attempt to measure the impact of library instruction integrated into a compulsory course for undergraduates at a large institution. During the 2014-2015 academic year, more than 4,600 students enrolled in this course completed a common set of library research assignments, and all were expected to write a final research paper. The researchers recruited 12 evaluators to score research papers authored by 5% of students enrolled in the course. A weighted sample was necessary to adequately represent students from a smaller campus. The validity of the sample cannot be determined because the authors do not disclose the populations of students representing each of the campuses involved in the study.

Each research paper was scored with a sixpoint rubric featuring five levels of achievement. The rubric aligned with the common research assignment, general education goals of the institution, and VALUE rubrics published by the Association of American Colleges & Universities (AAC&U). The authors indicate they convened a norming session to finalize the rubric, implying that the instrument was validated at that time. This study aligns with, and is similar to, current research about the impact of information literacy instruction on the products of student research (Jastram, Leebaw & Tomkins, 2014; Lowe, Booth, Stone & Tagge, 2015).

Students who had participated in 1-4 library instruction sessions authored a majority of the artifacts scored in this research project. The authors identified six possible information literacy learning outcomes, and report that participation in library instruction positively correlated with 3 of the 6 learning outcomes. For information literacy instruction practitioners, this finding seems encouraging. However, in discussion of the study's limitations, the authors note that their analysis does not address variables such as the number of library instruction sessions attended by students in the sample, or other forms of assistance included in individual courses. In a contrasting study of librarian engagement in first year courses, Booth, Lowe, Tagge, and Stone (2015) found that greater degrees of librarian involvement in a course improved student information literacy learning outcomes. Analysis using Ordinary Least Squares regression modeling enabled the investigators to control for variations in library instruction attendance on different campuses. The same model could also have been used to control for the variation in number of sessions attended.

The researchers report that papers authored by students who had participated in library instruction received higher scores in three areas: argument building (*p*<.05), source type integration (p<.05), and ethical source citation (p<.01). They offer a general description of a library lesson in the discussion, making a logical argument about the lesson's connection to higher scores in source type integration. The authors state that one of the campuses involved delivered "standardized" library instruction, but it remains unclear if the majority of the sample was exposed to the same interventions. Similarly, ethical source citation was not explicitly covered by the library instruction lesson. While scores appear to be higher, this research does not identify an intervention that helped students to perform well in ethical source citation. These ambiguities point to a general problem with assessment of library instruction due to variations in scope, content, and course implementation (Ackermann, 2007).

The authors suggest that this article "bolsters" the field of research about information literacy learning outcomes. Oakleaf (2007) has observed that a challenge to rubric-based assessment may be that rubrics are difficult to

transfer from one university setting to another. While this research may indicate that learning outcomes are improved by course-integrated library instruction, the findings are preliminary because the tool has not been generalized beyond a single academic year or to another institutional setting.

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