

# **Evidence Based Library and Information Practice**

## Evidence Summary

# Flipped Library Instruction Does Not Lead to Learning Gains for First-Year English Students

#### A Review of:

Rivera, E. (2017). Flipping the classroom in freshman English library instruction: A comparison study of a flipped class versus a traditional lecture method. *New Review of Academic Librarianship*, 23(1), 18-27. http://dx.doi.org/10.1080/13614533.2016.1244770

### Reviewed by:

Kimberly Miller
Learning Technologies Librarian
Albert S. Cook Library
Towson University
Towson, Maryland, United States of America
Email: kimberlymiller@towson.edu

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#### **Abstract**

**Objective** – To determine whether a flipped classroom approach to freshman English information literacy instruction improves student learning outcomes.

**Design** – Quasi-experimental.

**Setting** – Private suburban university with 7,000 graduate and undergraduate students.

**Subjects** – First-year English students.

**Methods** – Students in six sections of first-year "English 2" received library instruction; three sections received flipped library instruction and three sections received traditional library

instruction. Students in the flipped classroom sections were assigned two videos to watch before class, as an introduction to searching the Library's catalog and key academic databases. These students were also expected to complete pre-class exercises that allowed them to practice what they learned through the videos. The face-to-face classes involved a review of the flipped materials alongside additional activities.

Works cited pages from the students' final papers were collected from all six sections, 31 from the flipped sections and 34 from the non-flipped sections. A rubric was used to rate the works cited pages. The rubric was based on the Association of College and Research Libraries' *Information Literacy Competency* 

Standards for Higher Education (ACRL, 2000), Standard Two, Outcome 3a, and included three criteria: "authority," "timeliness," and "variety." Each criterion was rated at one of three levels: "exemplary," "competent," or "developing."

Main Results – Works cited pages from the students who received non-flipped instruction were more likely to score "exemplary" for at least one of the three criteria when compared to works cited pages from the flipped instruction students (68.6% vs. 52.7%). Differences were found in the scores for "timeliness" (88.2% non-flipped scored "exemplary" compared to 58% flipped), and "variety" (55.9% non-flipped scored "exemplary" vs. 35.5% flipped). This pattern was not found for the "authority" category, in which 61.8% of non-flipped works cited pages scored "exemplary" vs. 64.5% of flipped works cited pages.

Conclusion - The results suggest that the flipped library instruction approach did not improve student learning outcomes. The study's findings are limited by the small sample size, the unknown impact of the variability of research assignments between sections, and the lack of control over whether students in the flipped sections completed the pre-class assignments. The author also notes that future research should examine how well the content of flipped library instruction mirrors that of non-flipped instruction sessions. The study concludes that the flipped classroom model needs further research to understand whether it is a strong fit for oneshot library instruction.

### Commentary

Information literacy instruction remains an essential element of academic libraries' missions; however, frustration with the "one-shot" model for course-embedded instruction persists (Julien, Gross, & Latham, 2017, p. 12). As such, librarians continue to explore instructional approaches that promise to improve student learning outcomes, enabling them to make the most of limited contact time with learners. With its typical blend of pre-

class preparation and in-class application, the flipped classroom is one model that offers librarians expanded opportunities to connect with learners and extend information literacy instruction.

Evaluating the current study with Koufogiannakis, Booth, and Brettle's (2006) ReLIANT instrument finds that the study provides a clear objective, the details of the flipped classroom intervention, and the rubric used to score the students' works cited pages. The study's data support the author's conclusion that the flipped intervention alone did not improve student learning outcomes, as measured by the works cited rubric. Many academic libraries are transitioning towards using the Framework for Information Literacy for Higher Education (ACRL, 2015), so librarians who wish to replicate this study may find value in translating the article's Standardsbased (ACRL, 2000) rubric criteria to the newer information literacy framework.

However, the article does not provide critical student population information necessary to fully understand the study's design or evidence. No overall sample size (i.e., how many students received instruction) is provided for either the flipped or non-flipped instruction sessions, and there is no demographic information to demonstrate whether students in the flipped and nonflipped groups were similar along study variables. It is also unclear whether the six sections were randomly assigned to the flipped or traditional sessions. While six total sections received instruction over two semesters (p. 23), there is no information about which instruction methods (flipped vs. non-flipped) were used each semester. This may introduce potential confounds, such as maturation, if students' experience levels or other characteristics differed from one semester to the next. Without such information, it is difficult to evaluate whether study results are due solely to the educational intervention.

Considering the educational context, there is no description of the lesson design for the traditional classes or how it compared to the content of the flipped lesson. Controls for measuring whether students in the flipped classes completed their pre-class work would be required to understand what element of the flipped approach should be improved. For example, incentives for student participation vs. the actual structure and content of the flipped lesson.

Considering how the flipped tutorial content, with its focus on search and retrieval skills, aligns with rubric criteria (focused primarily on evaluation concepts) may provide an additional facet to interpreting study results.

This study provides evidence that, like any education intervention, the flipped classroom model by itself may not improve student learning outcomes. Instead, librarians must carefully consider how well different instructional models could work in relation to local scenarios, classes, and content. The current study's discussion of considerations for flipped lesson design, lesson content, and outcomes measurement provides librarians with a starting place to continue expanding research into flipped classroom effectiveness.

#### References

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