Traditional instruction reformed with flipped classroom techniques

Lee, Jennifer; Beatty, Susan; Feng, Patrick; Hoffman, Nadine; McDermott, Brenda

http://hdl.handle.net/1880/50494
Other

http://creativecommons.org/licenses/by-nc-nd/4.0/
Attribution Non-Commercial No Derivatives 4.0 International
Downloaded from PRISM: https://prism.ucalgary.ca
Traditional instruction reformed with flipped classroom techniques

Jennifer Lee, Susan Beatty, Patrick Feng, Nadine Hoffman, Brenda McDermott

Flipped classroom techniques | Multiple sessions | First-year interdisciplinary course

The traditional vs. the flipped classroom

- The flipped classroom moves away from a traditional lecture-then-homework model.
- Pre-class: students prepare by watching short content-based videos or doing readings. Assessment may also be included.
- In-class: content and learning is reinforced with in-class activities and assessment results can be used to inform in-class work.
- Students: held responsible for learning and increased attendance, engagement.
- Instructors: less traditional lecturing, more facilitation.

Library & writing learning goals

1: Plagiarism, Citations, and Citation Searching
- Read a citation and identify its major components.
- Identify the type of resource from a citation.
- Cite a resource.

2: Research Process and Accessing Information
- Choose, and search a database by combining search terms.
- Use database features: full-text links, emailing references.
- Use databases to generate synonyms and other terms.

3: Source evaluation
- Distinguish between scholarly, reliable, and popular sources.
- Use library databases in my research.

4: Writing/Annotated Bibliography
- Read and summarize a source and assess it in relation to your research.
- Use library databases in my research.
- Practice annotating and paraphrasing a student-supplied paper.

TRADITIONAL

Pre-class activity and quiz

- Three Myths about Plagiarism
- The CRAPsy Song (aka, the C.R.A.P. Test Song)
- The CRAPsy Song (aka, the C.R.A.P. Test Song)

In-class activity

- Customized, interactive video on quotations and citations.
- Created by the Student Success Centre.
- Created with Articulate software.

FLIPPED

Classroom activities

- Practice annotating and paraphrasing a student-supplied paper.

The course: Science, Technology, & Society 201
- Inquiry-based learning.
- Semi-flipped: only library and writing sessions used flipped techniques.
- Pre-class quizzes.
- Assessment: 25% of final grade.

Reflections and Findings

- In-class exercises were helpful to reinforce the content of the research skills sessions.
- Ability to write an annotated bibliography.
- Ability to use library resources.

What did students think about the flipped classroom?* Agree (n=33)

- Pre-tests were helpful in preparing for the research skills sessions 79%
- In-class exercises were helpful to reinforce the content of the research skills sessions 70%
- Time-intensive course goals, sequencing, content prep, grading 69%
- Decreased workload: resource sharing for overlapping areas: citation and plagiarism.
- Tip: ensure detailed written instructions (step-by-step is not too much)

The course: Science, Technology, & Society 201
- Inquiry-based learning.
- Semi-flipped: only library and writing sessions used flipped techniques.
- Pre-class quizzes.
- Assessment: 25% of final grade.

Reflections and Findings

- In-class exercises were helpful to reinforce the content of the research skills sessions.
- Ability to write an annotated bibliography.
- Ability to use library resources.

What did students think about the flipped classroom?* Agree (n=33)

- Pre-tests were helpful in preparing for the research skills sessions 79%
- In-class exercises were helpful to reinforce the content of the research skills sessions 70%
- Time-intensive course goals, sequencing, content prep, grading 69%
- Decreased workload: resource sharing for overlapping areas: citation and plagiarism.
- Tip: ensure detailed written instructions (step-by-step is not too much)

Selected references


Contact information (all from University of Calgary):
- Jennifer Lee, Librarian for Chemistry, Computer Science, Environmental Design, Libraries and Cultural Resources, jlee@ucalgary.ca
- Brenda McDermott, Supervisor, Student Accessibility Services Exam Centre (formerly Coordinator, Writing Support Services), bemcderm@ucalgary.ca
- Patrick Feng, Assistant Professor, Faculty of Arts, pfeng@ucalgary.ca
- Nadine Hoffman, Natural Resources, Energy & Environmental Law Librarian, Libraries and Cultural Resources, nadine.hoffman@ucalgary.ca

Selected references


* Ethics approval granted for survey and publication.