Traditional instruction reformed with flipped classroom techniques

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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 assessment results can be used to inform in-class work.
- Students: hold responsible for learning 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

4: Writing/Annotated Bibliography
   - Read and summarize a source and assess it in relation to your research
   - Video by the Student Success Centre: reading for abstractions, annotating, and paraphrasing

Pre-class activity and quiz

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

In-class activity

- Refine search terms – search a database, then use results to discover new terms
- Compare database content and search features

The course: Science, Technology, & Society 201

- Inquiry-based learning
- Semi-flipped: only library and writing sessions used flipped techniques
- 50 students
- Incorporated library and writing sessions in course design
- 4 sessions, each a week apart, alternating with instructor lectures
- First Writing Centre-Library collaboration within a course
- Assessment: 25% of final grade
  - 10 Pre-class quizzes
  - 15 Summative assessment (in-class)

Reflections and Findings

- Students benefit: instruction is linked to the skills needed for assignments
- Time-intensive: course goals, sequencing, content prep, grading
- Decreased workload: resource sharing for overlapping areas: citation and plagiarism
- Tip: ensure detailed written instructions (step-by-step is not too much)

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%

Instruction increased students’ confidence ‘

- Since attending, how confident are you in your…
  - ability to write an annotated bibliography 79%

Instruction increased likelihood of future behaviors ‘

- Since attending, I am likely to…
  - use library databases in my research 91%
  - annotate sources while reading 67%

Selected references


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* Ethics approval granted for survey and publication

Sources of care

- Popular vs. scholarly sources video (James Madison University) (http://www.lib.jmu.edu/resources/connect.aspx?id=3247)

Video by the Student Success Centre: reading for abstractions, annotating, and paraphrasing

- Created with Articulate software

- The CRAPpy Song (aka, the C.R.A.P. Test Song) (https://youtu.be/CMaLgec2XWY)

- Popular vs. scholarly sources video (James Madison University) (http://www.lib.jmu.edu/resources/connect.aspx?id=3247)

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