Flipped Library Instruction Panel
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What is flipped instruction?

Flipped instruction is an instructional strategy where "students gain first exposure to new material outside of class, usually via reading or lecture videos, and then use class time to do the harder work of assimilating that knowledge, perhaps through problem-solving, discussion, or debates" (*Cynthia J. Brame, Assistant Director, Center for Teaching, Vanderbilt University*). Under this model:

- What is traditionally done in class (first exposure in class through lecture, assimilation through homework) is done outside of class
- Content is moved out of class time to allow for active learning/interactive experiences
- Students are exposed to content by having the opportunity to repeat content as needed, review material at their own pace, engage with supplemental material, and participate in introductory preparation.

Pedagogical foundations

Student learning can be split into two basic categories: acquisition and assimilation. Acquisition is the learning of facts and basic procedures, which in library instruction might be learning the steps involved in selecting a database appropriate for a topic. Assimilation takes that learning a step farther and has students applying their knowledge of facts and procedures to various situations. It may include elements of problem solving or critical thinking: Is this a credible source? Which sources in my results list are most relevant to my topic? Most instruction demands both types of learning, but in the flipped classroom acquisition activities happen outside of the classroom and assimilation activities happen during class, with instructor support.

Acquisition and assimilation correspond with different levels of Bloom's taxonomy of learning. Remembering and understanding are processes of acquisition, whereas the higher order cognitive skills (applying, analyzing, evaluating, and creating) are assimilative learning processes. In the flipped classroom, the learning that requires lower-order cognitive skills happens outside of the class, permitting classroom time, where the instructor is available to support students, to be used for the higher-order cognitive skills of assimilative learning.

The library literature has begun to highlight some examples of flipped information literacy instruction, and includes reports of positive feedback from students and faculty (Datig & Ruswick, 2013; Lemmer, 2013). More thorough assessment of the flipped classroom has occurred in other disciplines. Using a mixed methods approach, Strayer (2012) found that inverted instruction

influences the classroom environment by making students more open to cooperation, group learning, and innovative instruction. In their comparison of students in a large introductory biology class receiving instruction in either a flipped or traditional fashion, Moravec, Williams, Aguilar-Roca, & O'Dowd (2010) found significantly higher test scores on content delivered to students in the flipped model.

Types of flipped instruction

Any activities performed by the student outside the classroom in order to prepare for engaging, active exercises in the classroom can be part of a flipped model of instruction. This includes online tutorials, lecture-capture videos, quizzes, or podcasts. By providing the content traditionally associated with class activities outside of face-to-face time, more time is allowed for engagement and discussion in the classroom.

Holy Names University Flipped Info Lit! Project

Holy Names University (HNU) is a small private institution located in Oakland, California that provides a liberal arts education to undergraduate students, adult learners, and graduate students. HNU was founded in 1868 by the Sisters of the Holy Names— nuns dedicated to providing education to the poor. A majority of undergraduates are first generation college students and the student body is one of the most ethnically diverse in the country. Over the past three years the HNU's Paul J. Cushing Library has grown it's information literacy program from a handful of classes to a full program that systematically attempts to reach every undergraduate student with a menu of research workshops that address all five ACRL information literacy standards.

In summer 2013 HNU librarians began experimenting with flipped instruction through a project they titled Flipped Info Lit: Extending Experiential Information Literacy Instruction with Digital Learning Objects. The Flipped Info Lit project is a one-year innovation project made possible in part by the Institute of Museum and Library Services (SPARKS! grant LG-46-13-042). The grant period is July 1, 2013 through June 30, 2014, and is led by Principal Investigator Karen Schneider, University Librarian, and Co-Principal Investigator, Nicole Branch, Librarian for Research and Digitization. The project team also includes Daniel Ransom, Librarian for Research and Electronic Resources; Nicole Greenland, Associate Director for Library Technology; and Josh Rose, Adjunct Librarian.

Through this project, HNU Librarians proposed to create short audiovisual recordings students can view to repeat crucial concepts taught in information literacy workshops. The target audience for the project included: students enrolled in first-year composition courses; student athletes; and nursing students.

Implementation of the Flipped Info Lit! Project

Daniel Ransom serves as the liaison librarian to the Holy Names University nursing program, and in that role leads a series of guest lectures for the graduate level Family Nurse Practitioner track. Taking advantage of HNU's Flipped Info Lit project, Ransom prepared videos in advance of lectures to cover many of the core issues nursing students face, such as effective use of the APA writing and citation style and accessing scholarly journals online. With many of the mechanical hurdles students need help with included in those videos, more face-to-face class time was available for interactive exercises, discussions of the research process, and presentations on scholarly writing.

Ransom and Branch also teamed on an APA citation workshop open to all HNU students, and created videos to respond to student questions and concerns that could not be covered during the workshop time, distributing those videos to participants via email.

CSU Monterey Bay

California State University, Monterey Bay, is a public, Hispanic-serving institution with 5,600 full-time equivalent students. The vast majority of students (96%) are undergraduates, and over half (57%) are first generation college students. Librarians at CSUMB have employed the flipped classroom approach for several years, having students view interactive tutorials before in-class sessions with librarians. More recently, one of the authors (Sarah Dahlen) decided to flip additional library instruction sessions, creating videos covering expository content in order to free up class time for active learning activities.

Flipping the one-shot

At CSUMB, all Spanish and Japanese majors are required to take a World Languages and Cultures capstone class during their final semester of college. This class prepares them to write their capstone paper, a graduation requirement. Sarah Dahlen had taught a one-shot information literacy session for this class for a couple of years and decided that it was a good candidate for flipped instruction. Her intention was to create videos covering some of the library research skills students would need to be successful with their capstones, skills that she had formerly covered in classroom demonstrations.

In Spring 2013, Dahlen created four videos using Panopto software. Each video was under 7 minutes and covered an area of library research: 1.) [How do I find books on my topic?](#) 2.) [How do I find books at other libraries?](#) 3.) [How do I find articles on my topic?](#) and 4.) [How do I find a book or article that I've seen cited?](#) Panopto was easy to use, but did not include some desired functionality, such as zooming and highlighting.

Dahlen re-recorded the videos using Camtasia Studio for use in Spring 2014. This program took much longer to learn but supported the inclusion of videos and PowerPoint slides in addition to screencasts. It also had editing capabilities allowing the user to cut out mistakes, zoom in and

highlight the screenshots, and embed short quizzes. The resulting videos look more polished and can be edited in the future if necessary: 1.) [How do I find books on my topic?](#) 2.) [How do I find books at other libraries?](#) 3.) [How do I find articles on my topic?](#) and 4.) [How do I find a book or article that I've seen cited?](#)

Based on a best practice shared at a flipped classroom workshop she attended, Dahlen created a comprehension quiz for students to complete after watching the videos. The quiz included questions such as "what's the difference between a keyword search and a subject search?", and required that students engage with the material and be accountable for its content. Before-class viewings of the videos increased in the second year the flip was implemented (50% in Spring 2013 to 75% in Spring 2014), probably due to the course instructor including the quiz (for a small amount of credit) in the course management system.

Having students watch the expository content in advance of the class session freed up time for them to create their own library course guides during class. The librarian facilitated a student brainstorm of the information-related skills they would need to be successful with their capstone papers. Students then split into groups and created course guides for the skill sets they had identified.

Feedback collected from these sessions did not focus on how well students liked the flipped classroom format, because such an evaluation did not seem appropriate for students who were only exposed to a single flipped session. Instead, evaluation focused separately on what the students thought about the videos and the in-class activity. Most students agreed that the videos covered some new search strategies and/or were good reviews of search strategies they already used. Interestingly, not many students reported referring back to the videos after the initial viewing.

Flipping capstone consultations

Additionally, Sarah Dahlen has worked with her colleague Eddy Hogan to flip one-on-one library capstone consultations. At CSUMB, all Social and Behavioral Science majors are required to have a consultation with a librarian about strategies and resources for their capstone topic during their penultimate semester. Previously, the two social science librarians had scheduled one-hour meetings with each student. Because some of the strategies covered in the consultations were redundant, Dahlen and Hogan switched to a flipped model in which students are required to watch four library research videos (totalling 30 minutes) in advance of their consultation. The subsequent face-to-face consultations then focus on the unique aspects of each student's topic, and can usually take place in 30-45 minutes.

The topics covered by these videos, created in Camtasia Studio, were similar to those created for World Languages & Cultures, though they employed examples from the social sciences: 1.) [How do I find books on my capstone topic?](#) 2.) [How do I get books that the library doesn't own?](#) 3.) [How do I find articles on my capstone topic?](#) and 4.) [How do I find a book or article that I've seen cited?](#)

This model has been in place for one academic year, and student feedback is being collected one semester after the consultation takes place, allowing students to gauge the usefulness of the consultations after having a chance to apply the skills learned. Students largely agreed that videos are a good format for delivering information about conducting library research, but opinions varied as to whether the 30-minute time frame for the in-person consultation was sufficient. Faculty feedback was solicited verbally at a department meeting, and faculty were generally supportive of the flipped model. Some faculty expressed a desire for students to have longer meetings with the librarians, and at least one faculty member was concerned that the content of the videos was too basic. Dahlen and Hogan intend to follow up with students about the suitability of video content.

References

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