**RECYCLING THE FIRST-YEAR ONE-SHOT WORKSHOP: USING INTERACTIVE TECHNOLOGY TO FLIP THE CLASSROOM**

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**INTRODUCTION**

Librarians at UC San Diego have a long-standing partnership with one of the writing programs on campus. The writing program coordinator has always been supportive of students in writing courses reaping the ongoing benefit of information literacy instruction and, for many years, students in their first academic term have attended a one-shot library instruction workshop. This proves to be beneficial, as research shows that students who receive an orientation to library resources and services are more likely to seek needed research assistance with course papers, projects, and presentations (Boff & Johnson, 2002; Brown, Weingart, Johnson, & Dance, 2004; Du Mont & Schloman, 1995; Pellegrino, 2012; Ury & King, 1995; Vance, Kirk, & Gardner, 2012).

The format and timing of the library workshops for this program have varied over the years, and in the summer of 2015, the coordinator expressed an interest in adopting a consistent flipped classroom model for several lectures during the fall quarter. In consultation with the library instruction coordinator, it was decided to test a similar flipped model for the library workshops as well. The flipped, also known as inverted, classroom is a method whereby activities that would normally take place inside the classroom are completed outside the classroom, particularly using technology to facilitate the outside learning (Lage, Platt, & Treglia, 2000). The benefit of such a model is that several studies have shown that students increasingly prefer online instruction over traditional lecture-based instruction. Convenience, the ability to meet the needs of varied learning styles, and students’ desire to review material repeatedly during the learning process have been cited as contributing factors to this preference (Blake, 2009; Silver & Nickel, 2007). Further, studies by Clarkburg and Chin (2010) and Silver and Nickel (2007) demonstrate that there is no statistical difference in students’ ability to correctly answer information literacy questions after they have received either face-to-face or online library instruction. Thus, the flipped model proved to be a useful possibility for redesigning several components of the writing course, including lectures and the library workshop.

**THE ENVIRONMENT**

The organizational system at the University of California, San Diego (UCSD) is relatively unique for an American institution—all undergraduate students are enrolled in one of six colleges located in its own “neighborhood” on campus, each with its own core curriculum, writing program, residential facilities, traditions, and First Year Experience (FYE) program. This is designed to combine the environment of a small liberal arts college with the many resources of a large research institution (Undergraduate Colleges, 2016). Students do not choose a college based on their major and, outside of the writing programs and FYE courses, they take classes with students from the other colleges. Furthermore, the colleges (e.g., John Muir College, Eleanor Roosevelt College, etc.) are administratively separate from academic departments, which are organized under disciplinary divisions or schools (e.g., the Division of Arts and Humanities, the Jacobs School of Engineering, etc.).

The college that the library worked with for this project was Eleanor Roosevelt College (ERC), and more specifically, their writing program called Making of the Modern World (MMW). ERC’s defining theme is “international understanding… students at ERC explore their identities and commitments as global citizens” (Eleanor Roosevelt College, 2016). ERC has an enrollment of approximately 3,500 undergraduate students from all majors at UC San Diego, and over one-third of those students study abroad during their tenure at the university (About Eleanor Roosevelt College, 2016).
MAKING OF THE MODERN WORLD

The focus of this case study is a transfer student-specific course. While many transfer students arrive at UC San Diego with credits that meet ERC’s English composition requirement, those that do not need to take a two-course series (MMW 121 and 122) in order to fulfill the college’s core curriculum. Incoming freshmen must complete a separate five-course series (MMW 11-15), in which the library is also embedded. All courses in the MMW program integrate humanities and social sciences within specific time periods; for example, MMW 121 covers the pre-modern world (from antiquity to the eighteenth century) and MMW 122 covers the modern world (from the eighteenth century to the present). This case study examines the use of the flipped model in MMW 121.

The Assignment

Students in MMW 121 complete a series of writing assignments meant to build their skills toward the requirements of their final paper. The first assignment requires them to read, annotate, and summarize a scholarly article of the instructor’s choosing. In the second assignment, students must read two scholarly articles, also chosen by the instructors. These articles share a common topic, and students are required to summarize the argument in each of the sources and explain how the two sources relate to one another in their approach to the common topic. In this summary, students address “areas of commonality and difference regarding: approach [to the] problem, method, sources, thesis, claims, evidence, and/or conclusions” (Keller-Lapp, 2015). The final piece of this second assignment is to create a single research question that both sources answer in a 4-5 page paper. In the third, and final, writing assignment of the quarter, students pose a conceptual problem, research topic, and research question of their choice (within the time-period covered by the course). They are then required to locate two scholarly, peer-reviewed sources that provide different answers to their question and use those sources to write a 5-7 page “analytical essay that develops an argument with a clear thesis that answers [their] question and addresses the problem” (Keller-Lapp, 2015). It is during this final assignment that the library becomes involved.

THE ORIGINAL ONE-SHOT WORKSHOP

In previous years, students attended a 50-minute library workshop where librarians introduced them to library resources and services, keyword selection, the library catalog, database selection, seven different search strategies, and locating sources in full-text. This workshop focused on demonstrating the mechanical process of searching. A point of concern for the librarians, however, was they never knew if students could later apply the concepts and processes they learned in order to successfully locate the topically-relevant scholarly, refereed sources required for their final writing assignment. In developing the flipped classroom model, librarians hoped to find ways to mitigate this concern.

THE FLIPPED CLASSROOM

The flipped classroom model was used for both the course itself and its library workshop portion. In the flipped version of the writing course, students viewed podcasts prior to two of the ten lectures. For the library workshop, while its original incarnation included only a single 50-minute one-shot workshop, the flipped version included three distinct components. The first was an online tutorial to be completed the week before the newly redesigned 50-minute one-shot workshop. Within that redesigned workshop—the second component—there was a new worksheet and multiple active learning activities. The final component involved drop-in research consultations provided the week after the workshop. The implementation of this new model for the library workshop required the expertise of a team of librarians in the UCSD Library’s Learning Services Department (LSV), including an instructional designer, an instructional technologist, an instruction librarian, and an instruction coordinator to handle logistics. The LSV librarians set learning outcomes for both the online tutorial and the in-person workshops, then used those outcomes to decide which games and activities would be employed in the tutorial to best evaluate student learning. The learning outcomes were also used as a foundation when the librarians created the worksheet students completed in the workshop, which were turned in to their TAs for course credit.

The Interactive Technology

As a precursor to attending the library workshop, students were required to complete an online tutorial, which mimicked the content previously covered in the original workshop model. The tutorial was meant to take approximately 20 minutes to complete, and required students to complete each section before they could move on to the next section.

The tutorial was created using Articulate Storyline 2 software to provide active learning experiences in an online environment. Through the use of “You Try” activities and worked example methods, students learned about keyword selection, search strategies, standard database features, and using the university’s link resolver to find the full-text of sources. Since students would be searching a variety of databases for their individual topics, this approach was favored because it teaches search strategies as transferable skills rather than how to search a specific database.
After learning about the research process, database search strategies, and how to access full-text sources, the final screen of the tutorial provided students with instructions to use the skills gained in the tutorial to search a database of their choosing and identify two relevant scholarly, peer-reviewed sources. It also included a link to a Google form where they were to submit their research topic, citations for the two sources, and a short justification for why these sources related to their topic. The completion of the form was included as a credit/no credit part of their final writing assignment grade.

The New One-Shot Workshop

With the more traditional topics of library instruction (e.g., how to search for and find sources) covered in the online tutorial the week prior, this new one-shot workshop involved librarians assisting students with developing a research question. As Arnold-Garza (2014) states in her description of Rachel Borchardt’s podcast episode about her attempt with flipping the library classroom, faculty collaboration is an important part of making this instruction model work. The MMW 121 coordinator added a level of authority and could work with professors and TAs to ensure students completed the tutorial and homework assignment before they came to the library workshop. This required preparation lent itself to a more productive in-person session, where students worked with the sources they found—they were required to bring printed copies of their sources to the workshop—while librarians guided them through several exercises to help them analyze the main claims of their sources, and use the differences between those claims to construct an open-ended research question answered by both sources (e.g., “How did the development of Islam change trade in medieval Eurasia?”), which was an essential element of their final paper.

Several other active learning techniques and technologies were employed during the new workshops. When students entered the library computer classroom, they were asked to post their research topic using the online bulletin board program, Padlet. Then, using its interactive features, the librarian and students collaborated to move topics into thematic pairs or groups—for example, by similar historical time period or geographic region.
Figure 2: Example of Padlet with student topics grouped into similar categories

Following the Padlet activity, students were asked to change seats and join the other student or students whose topic was grouped with theirs. Pairing students facilitated later exercises in the workshop, where students completed two think-pair-share activities—one where they described their research topic more fully to their partner, and another where they discussed the main claims of their sources and how they differed. This exercise helped the students focus their thoughts before they needed to write down information about their topics and sources on their worksheet.

The Consultations

In addition to the traditional flipped model of online course content followed by an in-person workshop, students were provided with drop-in research consultation hours a week after the workshops. During a four-day period, there were two-hour time blocks each day within which students could drop in to receive any additional help needed from a librarian, whether that was to find additional sources or to refine their research question. These consultations gave students more one-on-one time with a librarian to receive assistance and, for the students who needed and took advantage of it, it provided a way for librarians to reinforce the learning objectives of the tutorial and workshop that the student may not have understood.

The Results

One of the questions librarians had in the original one-shot workshop was whether or not students located the peer-reviewed sources required by the MMW 121 course instructors, using the search strategies taught by librarians. In the new flipped model, librarians worked directly with students and the sources they found to create a research question. In some cases, students realized they needed additional or different sources because those they found were not closely enough related to formulate a workable research question. This allowed librarians to emphasize the iterative nature of the research process, and to assist with developing new search strategies. Not only did working directly with students and their sources in the workshop let librarians see how well the students acquired the skills taught in the tutorial, but the data received from the homework assignment—the Google form of research topics, citations, and justifications—and post-questions about the online tutorial provided additional information as well.
This data shows if students did indeed find two scholarly, refereed sources—citation analysis revealed that 65% located the required type and number of sources. The data also shows how confident students felt about their searching ability after completing the tutorial. On a scale of 1-5—1 being not confident, 3 being confident, and 5 being very confident—on average, students ranked their confidence level at a 3.7 for selecting a database, identifying and using subject headings, and identifying related articles. The average confidence level for using times cited and bibliographies to find additional articles, identifying and using limiters, and using Boolean operators was a 3.6. The lowest average confidence level was a 3.4 for using truncation.

### Figure 4: Average student confidence level for their searching ability

<table>
<thead>
<tr>
<th>Task</th>
<th>Confidence Level</th>
</tr>
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<tbody>
<tr>
<td>select a database</td>
<td>3.7</td>
</tr>
<tr>
<td>identify/use subject headings</td>
<td>3.7</td>
</tr>
<tr>
<td>identify related articles</td>
<td>3.7</td>
</tr>
<tr>
<td>use times cited/article bibliography</td>
<td>3.6</td>
</tr>
<tr>
<td>identify/use limits</td>
<td>3.6</td>
</tr>
<tr>
<td>use Boolean operators</td>
<td>3.6</td>
</tr>
<tr>
<td>use truncation</td>
<td>3.4</td>
</tr>
</tbody>
</table>

### CONCLUSION

Overall, the writing program coordinator, course instructors and TAs preferred the new flipped model and, with some minor changes, will continue it for future MMW 121 sessions. Additionally, the writing program coordinator would also like to test the flipped workshop in the freshmen level course the library works with, MMW 13, in Spring 2016.

During the workshop, librarians were able to see how well students could implement the research skills they learned through the tutorial. In the previous iteration there was no contact with students after the one-shot session so, with the flipped model, librarians had a chance to affirm what was learned and help students begin to use their sources for the next phase of their research and writing process. This, in turn, filled an unmet need for the writing program.

Before the flipped model, the TAs were making some effort to explain research question development during discussion sections, but hadn’t been as successful as instructors hoped. The new model gave students a more solid foundation for understanding how to construct an appropriate research question that TAs could continue to build upon in later class.
meetings. Thus, the stakeholders in this one-shot workshop redesign project found that employing the flipped classroom model provided benefits for both sides of this partnership.

REFERENCES


