

SPARKS! IMLS Final Report
Holy Names University
Paul J. Cushing Library

Flipped Info Lit:
Extending Experiential Information Literacy Instruction with Digital Learning
Objects

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Nicole Branch, co-PI
October 27, 2014

Narrative

Project Title: Flipped Info Lit

Description of Project Partners: *List the names and describe the roles and contributions of any project partners as identified in your project proposal.*

- Karen G. Schneider, University Librarian, Project Principal Investigator
 - Lead author for the grant; fiscal manager and project coordinator
- Nicole Branch, Research Librarian, Project Co-Principal Investigator
 - Grant co-author, project manager, videographer, general coordination
- Daniel Ransom, Research Librarian, Videographic Support
 - Video production, outreach to departments involved in the grant
- Nicole Greenland, Library IT, Technical Testing and Client Configuration
 - Product evaluation, LMS (learning management software) integration, computer setup, general technical consultation
- Josh Rose, Adjunct Librarian, Assistant Videographer
 - Provided desk coverage to enable Branch and Ransom to fulfill scope of the grant; produced some of the videos
- Mio Matsuhisa, HNU Grants Compliance Officer
 - Advice, consultation, and fiscal management

Overview: *Provide a very brief (150 words or less) overview describing the need, problem, or challenge addressed by your project, the audience served, your project design, your intended results, and the extent to which you achieved your intended*

results. (Note: IMLS may use this overview as a project abstract or summary for public information.)

This project supported the creation of short multimedia recordings university students could view to introduce or repeat crucial concepts taught in information literacy workshops. This project brought together the concept of the "flipped classroom," in which students interact with content outside of the classroom and then engage in active learning during class time, with lecture capture software, a learning technology for producing mixed-media recordings. The target audiences for the project were student groups enrolled at Holy Names University in Oakland, California. The grant achieved success beyond the original research problem: the video tutorials proved to be effective pre-instruction tools, but also proved useful in virtual reference services.

Changes: *Provide a bulleted list of any changes in key personnel, budget allocation, scope, or schedule and reference the request to and approval by IMLS.*

There were a few key changes we instituted while implementing this project. These changes included¹:

- In the period after grant submission, an alternative lecture capture product, Panopto, was identified through literature review, and after consultation with an organization that had successfully deployed Panopto in a similar setting. Based on this review, it was felt that in accordance with 2 CFR Part 215, the IMLS General Terms and Conditions, current Holy Names University grant guidelines, and the Paul J. Cushing Library grant compliance work plan developed for SPARKS! LG-46-13-0242-13, evaluating Panopto would be both prudent and fair. Panopto turned out to be the product that most closely matched the grant requirements as well as the network operating environment of the parent institution. The primary advantage of Panopto over the initial product, Tegrity, was its support for client fallback; if a web browser does not have the Silverlight video viewer installed, Panopto will "fall back" to play through another means. This saved hundreds of hours of client installation on campus computers.
- The scope of Flipped Info Lit was slightly expanded to include a number of very short (1-3 minute) instructional videos designed to be embedded in virtual reference responses. This innovation followed the realization that student queries via text were often too complex to be answered through the library's text-a-librarian service. This was a successful extension of the original scope; videos shared via text-a-librarian were nearly always viewed.
- As discussed later in the narrative, we determined that the graphic design expenditures were unnecessary, and received approval to reallocate those funds within the grant.

¹ The following text is adapted from the memorandum, "Justification for Product Substitution: Panopto Lecture Capture Software," submitted to IMLS August 29, 2014.

- Due to staff transitions in the athletics department, our original project partner from athletics moved on from the institution. This change impacted our ability to implement the project in relation to student athletes as we had anticipated. As a result, the project related to athletics was adjusted and the English Department was brought on as an addition project partner.

Activities Completed During the Project: *List the high-level activities completed during the project and compare them to the activities you set out to complete for the project. Whenever possible, describe activities in both quantitative and qualitative terms. If you did not complete all the activities, explain why.*

The high-level activities of this project fall into four categories: project initiation, video production, course and research services integration, and assessment.

Project Initiation

During the initiation of this project, the PI and co-PI reviewed the project plan and managed the change in lecture capture product (see above, “Changes”). The PI also attended a grants compliance workshop within the first week of the grant period that proved extremely useful for managing the grant. The co-PI also designed a guide to market the project to our university community and beyond and to track our progress (<http://hnu.libguides.com/flippedinfolit>). In this phase, we held orientation sessions with project partners and adjusted our plans based on personnel changes and other activities that affected our project. To introduce the project to the campus, research librarians produced a brief project introduction video using the lecture capture software to model the technology and to build awareness for the project.

Video Production

In accordance with our yearlong project plan, we created 27 lecture capture videos, including 25 short video tutorials (1-5 minutes in length) and two videos capturing traditional classroom lectures (15-20 minutes in length). The primary target audiences for these videos were 1) first-year students enrolled in English composition classes; 2) nursing students; and 3) student athletes. The videos were also distributed to the general student population. The video topics include APA citation style (11 videos); information discovery and access (10 videos); information literacy concepts (five videos); and project marketing (one video).

Course and Research Services Integration

Target Audiences

In English courses, our focus was the first-year composition course ENGL 1B, which takes place in the second semester of a yearlong required course sequence for first-year undergraduate students. Over the past five years, librarians have developed a

strong partnership with English faculty, resulting in nearly all first-year composition courses receiving at least one library-led instruction session. For this project, the liaison to the English department worked with 11 sections of ENGL 1B to provide 17 interactive research workshops. All 11 sections received a workshop titled “Database Teach-In.” In this session, students learn about and explore in groups one of four databases and then teach that resource to their peers. Faculty for six of these workshops also elected to have their classes participate in a second library-led workshop titled “Automating Citations.” In this workshop, students learn the fundamentals of APA/MLA citation style and participate in an interactive activity to begin using the citation management software RefWorks.

Nursing students were also targeted for this project based on the need for in-depth information literacy support. Nursing students at Holy Names are often working adults returning to school after time spent in a professional setting. Highly motivated and engaged, nursing students frequently seek out the assistance of librarians, and are particularly interested in developing their skills related to finding scholarly materials and using APA formatting. The Flipped Info Lit project focused on students in the Family Nurse Practitioner track of the Masters of Science in Nursing degree program. The library liaison to nursing targeted NURS 214, a course on health promotion and risk reduction, where he was invited to provide a series of three workshops related to APA citation style, academic research, and scholarly writing. Through these workshops, the nursing liaison reached the full first-year cohort of 50 students with the Flipped Info Lit project.

Student Athletes were the third focal group for Flipped Info Lit. We selected this group because we felt they were a population that could significantly benefit from virtual support, given their travel schedules. In the previous year, HNU librarians provided a successful workshop, “Using Library Resources on the Road,” to the women’s softball team. We envisioned expanding this workshop to other teams and embedding a flipped component to the program. The approach to student athletes shifted to an entirely virtual approach when a key ally and the project partner from athletics left the institution at the beginning of our grant year. Though we attempted to build support for team workshops with the remaining coaches, no workshops were scheduled. As a result, librarians produced and distributed videos for athletes through a LibGuide that was shared with all of the athletic coaches.

Course Integration

We integrated video tutorials into the information literacy instruction program in three ways. *Pre-instruction* tutorials were distributed to students to view prior to a scheduled library instruction session, with the goal of introducing a key information literacy concept students would engage with during the session. *Post-instruction* tutorials were developed to provide a reminder/refresher of a key concept or skill after the completion of an instruction session. We designed *stand-alone* tutorials to provide information about a concept or skill at the point of need regardless of prior or upcoming instruction. All three types of video tutorials were distributed to

students in a variety of ways, including linking in course management (BlackBoard) course sites, embedding in publicly available LibGuide online research guides, and as direct links during virtual reference interactions.

As part of the Flipped Info Lit project, librarians revised ENGL 1B and nursing lessons to include a pre-assigned video. For the English 1B database session, prior to attending the library workshop, students were given pre-work to view a brief tutorial about keyword development that used social media hashtags as a metaphor. This video facilitated an in-class discussion and keyword development activity that led into the database exploration component of the lesson plan. For the ENGL 1B citation workshop, students were asked to view a tutorial that drew connections between hip hop, social media, and Wikipedia as real-world examples of citation, references, and synthesis in academic writing. Students were again asked to watch the video before attending the research workshop, and the concepts were then integrated into the class discussion and activities.

For nursing students, explanatory videos were created that complemented in-class discussions led by the liaison librarian to nursing. The videos focused on the mechanics of writing as dictated in the American Psychological Association's (APA) publication manual. The videos incorporated demonstrations of setting up APA-compliant documents and how to cite a variety of sources. These videos allowed the liaison librarian to focus the in-class discussions on other challenging aspects of scholarly writing, such as information access and retrieval. Students were asked to view videos in advance of class meetings with the librarian. The videos were available through their course BlackBoard site. The in-class demonstrations opened with interactive, on-screen quizzes derived from the video content. These quizzes both encouraged student interaction, important during in-person instruction, and provided positive reinforcement for students who engaged with the video content.

We used the post-instruction model with ENGL 1B courses and the library's signature APA workshop, Occupy APA. Post-instruction videos were designed to enforce/repeat key concepts from workshops or to answer questions that arose during workshops that went unanswered due to time constraints or being incompatible with the focus of the workshop. Videos produced to enforce concepts included demonstrations of scholarly databases and APA citation concepts or formats. Videos produced to respond to questions included how to properly cite an eBook and how to format documents in APA format in Microsoft Word.

Stand-Alone Video Tutorials

We developed stand-alone videos to use with student athletes and for virtual reference services. As previously discussed, we were unable to hold in-person workshops with student athletes due to personnel changes, so in lieu of this we created videos covering core resources student athletes might use on the road. We also produced a video explaining from-anywhere access to resources generally.

An unanticipated application of the video tutorials arose during virtual reference interactions. At the beginning of the project period, the library adopted a new virtual reference interface, Mosio, that provides web chat and SMS engagement. This new platform proved to be tremendously successful, and virtual reference increased from around 50 inquiries annually to over 300. Most popular was the addition of SMS (text) reference. However, librarians soon realized a major limitation of text reference: patrons were asking complex questions over text, and librarians had difficulty responding appropriately within the short character limit. Librarians began producing lecture-capture videos to respond to some of the most frequently asked complex questions, and distributing links in response to virtual reference inquiries.

Documentation and Assessment

The project was documented on a LibGuide dedicated to managing the project and through LibGuides intended to help disseminate the video tutorials. Guides included:

- APA Video Tutorials: <http://hnu.libguides.com/apavideotutorials>
- English 1B Video Tutorials: <http://hnu.libguides.com/engl1bvideos>
- Flipped Info Lit Guide: <http://hnu.libguides.com/flippedinfolit>
- Student Athlete Video Tutorials: <http://hnu.libguides.com/studentathletes>

To evaluate and assess the project, the investigators collected information about the number of views of each video tutorial and conducted a survey of students enrolled in the English courses in which the videos were used. The results of this assessment are reported in the *Project Results* section of this report.

Project Results:

The projected tasks and our accomplishments during the grant period include:

Projected Task	Accomplishments During Grant Period
Lecture capture technical training.	Project participants began technical training by using online resources provided by the vendor. A lecture capture technical training was provided by the vendor via webinar on March 21, 2014.
Program design meeting	Project leads from the library met with faculty and staff from English, Nursing, and Athletics in January and February 2014 to design specific project activities and to provide technical support for BlackBoard integration.
Program partner feedback and program management meetings	Research librarians solicited ongoing feedback from project partners through email and in-person meetings.
Instructional	Research librarians participated in Panopto training and several workshops

design training (focused on designing digital learning objects)	related to using technology in instruction, including student response system training, SMART board training, and a HNU Dean's Conference with a focus on instructional design.
Design program branding	Program branding was completed in winter 2013. We simplified branding by adopting a simple, institutional logo design for the opening and closing bumpers of all videos.
License lecture capture software	Panopto was licensed in September 2014.
Implement learning management system building block	In September 2014, the HNU Library Associate Director for Technology worked with Panopto to implement the BlackBoard building block.
Modify/develop learning plans for active learning sessions	During the fall semester, research librarians reviewed and modified lesson plans for spring semester information literacy workshops. Video tutorials were recorded for use in pre and post instruction and integrated with adapted lesson plans.
Design and record four APA digital learning objects and one learning object targeting student athletes.	Research librarians produced 11 APA videos and one video targeting student athletes. Additionally, 10 library resource videos were applicable to student athlete needs related to using resources virtually.
Design and record three digital learning objects for nursing students and two learning objects for student athletes.	Two video tutorials were produced as pre-workshop content specifically for nursing students. Additionally, the APA and library resource videos were applicable to nursing students. Three videos were produced as pre-workshop content for freshman composition students and four library resource videos were distributed to emphasize content from in-class ENGL 1B workshops.
Produce marketing materials	The project was marketed with a promotional video about the project, through emails to faculty and athletic staff, and through LibGuides promoting and disseminating the videos.

Collect data related to use of learning objects, student learning outcomes, and partner experience	The number of “views” per recording was automatically recorded within the Panopto system and a survey was distributed to students enrolled in English composition courses. The survey was developed in April 2014 and disseminated to students in May.
Analyze data and findings	Data was synthesized and analyzed at the end of the project period in summer 2014.
Produce lecture capture recording reporting on findings	A lecture capture video of findings was produced in the summer and fall of 2014. The video can be accessed through this link: http://hnu.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=df2277cf-0fb3-f70e-dcce-52cf81c00387 Alternatively, this is a podcast produced from the same recording: http://oc.panopto.edgesuite.net/sessions/a3f27242-9e99-45d7-b92b-24110410f778/df2277cf-0fb3-f70e-dcce-52cf81c00387-a09bf881-555c-461c-83a3-994f17cda3bb.mp4?invocationId=ef5db5ad-cb5b-e411-9460-22000a94d455
Produce white paper reporting on findings	In lieu of a traditional white paper, research librarians Nicole Branch and Daniel Ransom presented the project at the California Conference on Library Instruction on April 18, 2014. A description of the panel is available here: http://www.cclibinstruction.org/workshops-conferences/2014-conference/

Production and Views:

We far exceeded our goal of 10 short video tutorials and two lecture videos. In total, we produced 27 videos, including 25 video tutorials and two lecture videos. These videos included 11 APA videos, 10 library resource videos, five information literacy concept videos, and one project promotional/marketing video.

The category of video that had the most views was library resources. Of these, Requesting an Article (41 views²) and Finding a Book Using WorldCat (27 views) were the most viewed. Course embedded concept videos also had a high number of views, including Introduction to Citation (28 views). The marketing video, Introduction to the Flipped Info Lit Project, has 30 views. All other videos were viewed between 0 and 11 times. Five videos were not watched at all. We attribute a number of views to course integration and point-of-need dissemination. The most viewed videos were either an assigned part of a course workshop or distributed through virtual reference.

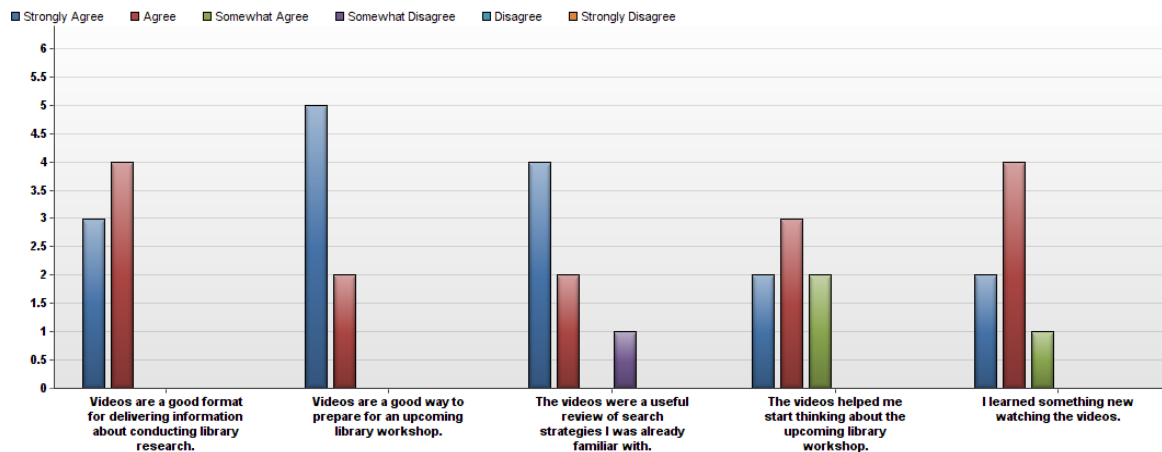
² The number of views reported excludes views by library staff.

For those videos with few or no views, a number of factors may have impacted our results: 1) some videos were produced late in the semester, leaving less time to integrate and disseminate them; 2) some videos were produced in anticipation of virtual reference questions, but not used in this way; 3) some videos were course integrated but not specifically assigned by the course faculty. Over the next semester we plan to continue distributing all of the video tutorials and will monitor if adjustments to distribution and marketing impact the number of views.

Student Survey:

Sixteen students enrolled in ENGL 1B completed a survey that was created in Qualtrics and distributed to all students enrolled in ENGL 1B in the spring 2014 semester (147 students)³. Though the response rate was small, at least one student from each faculty member who participated in the project responded. Of the 16 respondents, all had attended at least one library workshop as part of ENGL 1B. Seven respondents had watched at least one video, four students reported watching a video before the library session and five reported watching the video after the library session. Two students reported watching the research hash tag video, six reported watching the citation introduction video, two reported watching one or more database videos, and two reported watching one or more APA videos.

Of the students who watched the videos and completed the survey (7 students), response to the videos was very positive.

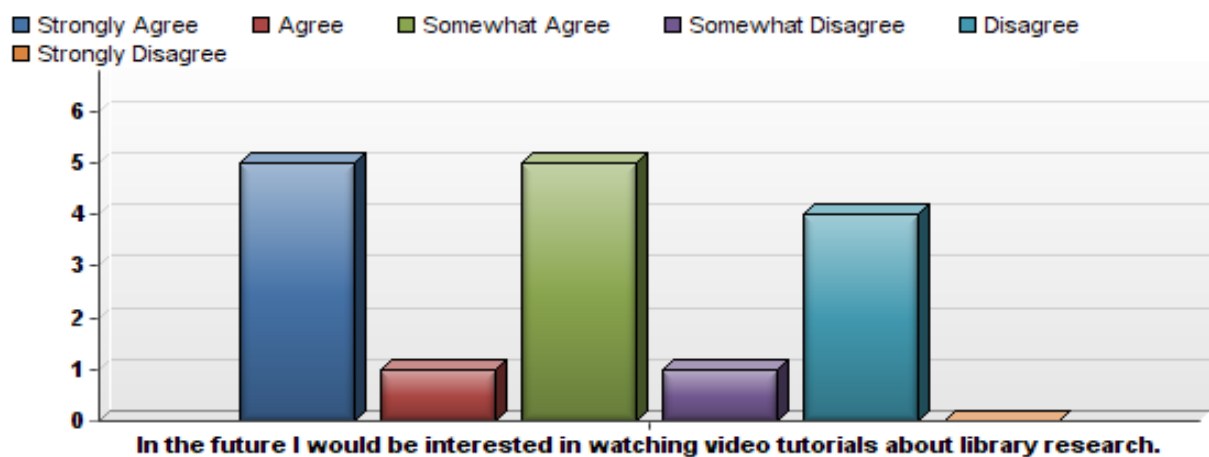


- 100% of students agreed (4) or strongly agreed (3) with the statement “Videos are a good format for delivering information about conducting library research.”
- 100% of students agreed (2) or strongly agreed (5) with the statement “Videos are a good way to prepare for an upcoming library workshop.”

³ See Attachment X for a complete set of survey questions.

- 85.7% of students agreed (2) or strongly agreed (4) with the statement “The videos were a useful review of search strategies I was already familiar with.”
- 71.4% of students agreed (3) or strongly agreed (2) with the statement “The videos helped me start thinking about the upcoming library workshop.”
- 85.7% of students agreed (4) or strongly agreed (2) with the statement “I learned something new watching the videos.”

In addition, all survey respondents (those who watched at least one video and those who watched none) were asked to respond to the statement “In the future I would be interested in watching video tutorials about library research.”



Of the 16 respondents, 11 (68.7%) fell on the “agree” end of the scale, with five responding “strongly agree”; one responding “agree”; and five responding “somewhat agree.” Five respondents fell on the “disagree” end of the scale, with one responding “somewhat disagree” and four responding “disagree.” Six of the seven respondents who watched at least one video tutorial strongly agreed (3), agreed (1) or somewhat agreed (2) with this statement.

Lessons learned:

- Faculty-assigned pre-instruction videos were very successful. Explicit direction by the faculty member to view the video increased the likelihood of students viewing the video. The survey also revealed that students who viewed the videos found them to be helpful, indicating that this is a promising practice for deepening information literacy instruction.
- Point of need distribution (through virtual reference) proved to be very successful. This was an unanticipated application of this project, but we feel it is a practice that holds great promise, particularly with the rise in popularity of text reference on our campus.

- A significant finding was that with relatively little technical knowledge and standard equipment, lecture-capture videos can be quickly and easily produced to support student learning. Though the lecture capture software itself is not cheap, other production costs—in time and money—were far lower than anticipated. The software was easy to learn, and videos were easily produced using low-budget options. All the videos were produced using typical Mac and Windows laptops with built-in cameras and simple external microphones (Duet Executive) we already had available. We considered purchasing a green screen, but the Head of Access Services used magnets to hang a sheet on a rolling whiteboard to create a very effective “studio.” Though we had originally budgeted for professionally-designed video bumpers, we decided having these created for each video set was a hassle, so we used PowerPoint slides to quickly and conveniently create opening and closing bumpers for the videos.
- Initially, librarians spent a lot of time rehearsing and scripting, with the goal to produce highly polished videos. However, we began to see that a video could be “good enough”—clear and professional—without being a major studio production, and that this was a better model for encouraging adoption by teaching faculty and more in the spirit of what lecture capture is intended to be. Gaining experience with video production also helped in this respect; librarians can now record quick videos directly in response to a virtual reference question.

What’s next? Describe any plans to continue work in this area and/or to sustain the benefit of this project beyond this grant’s end date

This project was timely, as it was funded while our university was establishing our first Center for Excellence in Teaching and Learning, staffed by a faculty member, an instructional designer, and an assessment officer. The instructional designer in place at the time was familiar with the potential of lecture capture and enthusiastic about adopting it post-grant as a standard offering for online learning, and her successor, who arrived as the grant was ending, mirrored her enthusiasm.

Librarians are enthusiastic about continuing to use this model and continuing to test its application. Librarians intend to continue using pre-instruction videos with ENGL 1B courses, and we are actively working with athletics staff to re-introduce a flipped instruction model with their teams. Librarians are also interested in continuing to explore the use of lecture capture in provided virtual reference. We plan to record additional videos in response to virtual reference questions and will monitor the success of these videos in enhancing this service.

Finally, a significant mark of the success of Flipped Info Lit is its sustainability as a campus service. One of the campus departments elected to renew the campus-wide license for Panopto, and HNU’s new instructional designer immediately began working with teaching faculty on developing lecture-capture videos. Thanks to this

successful SPARKS! Grant, lecture capture has entered the educational vocabulary at our institution, and the library continues to be perceived as a thought leader for educational technology and innovation.

Final thoughts from the PI, Karen Schneider:

- In the years previous to this grant award period, I had spoken to IMLS about other SPARKS! grant ideas. This was helpful. I didn't waste our time writing grants for ideas that were poorly aligned with SPARKS!
- It was very useful to take grants compliance training at the beginning of the grant execution period. It would have been even more useful to take this training before we wrote the grant.
- Attending the SPARKS! informational webinar was the deciding point for us to move forward on the grant, as we learned more about SPARKS! and heard other people talk about their ideas.
- If I had to do it over again, I would not have tried to write a federal grant (no matter how small) in a 60-day timeframe. But I'm still glad we did it.
- Writing and executing this grant was like a practicum. We learned a lot about the federal grant process on a scale that was comfortable and achievable, and though the grant was small in dollar amounts, we were able to achieve a lot.