

CREATING AN ENGAGING LIBRARY ORIENTATION

First year experience courses at UC San Diego

Crystal Goldman
University of California, San Diego

Dominique Turnbow
University of California, San Diego

Amanda Roth
University of California, San Diego

Lia Friedman
University of California, San Diego

Karen Heskett
University of California, San Diego

This article focuses on the development of an engaging library orientation module for UC San Diego First Year Experience (FYE) courses. The library module included a brief in-class presentation about research concepts and library services, an online interactive library scavenger hunt given as an in-class activity, and a homework assignment where students created public service announcements highlighting their favorite library space or resource. Over 400 FYE students completed the library module, and many indicated a marked increase in comfort using the library by the end of the module. Recommended practices are included for those wishing to create a similar module.

BACKGROUND

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, and students may choose to enroll in their college’s newly created First Year Experience (FYE) course.

In Fall 2013, the Council of Provosts was charged with creating an FYE Program pilot in order to support all students’ transition to UCSD (About FYE, 2015). For the first year of the two-year pilot program, the FYE was offered as a for-credit elective course open to as many as 120 students from each college. In total, 472 students enrolled in a Fall 2014 FYE class (Guan, 2015).

The library was asked to contribute to the information literacy portion of the course, which was offered in the third week of the 10-week Fall quarter. The library shared the 50-minute discussion section with another campus service, leaving 25 minutes for instruction. After many conversations with the Provosts and other campus leaders, librarians successfully made the argument that the information literacy segment of FYE should focus on library services and resources, rather than traditional database instruction.

The library’s contribution to the FYE Program was designed by Learning Services Program (LSP) librarians and consisted of three distinct but connected elements. The first was a brief 15-20 minute presentation about library resources given during the FYE class lecture. The second element had

students participating in a 20-30 minute online interactive library scavenger hunt as an in-class activity during their discussion section. Finally, students completed a homework assignment for which they had to create a public service announcement (PSA) featuring their favorite library resource, space, or service.

LIBRARY ORIENTATIONS FOR FIRST-YEAR STUDENTS

Students who receive an orientation to library resources and services are more likely to seek needed research assistance with course papers, projects, and presentations (Brown et al., 2004; Pellegrino, 2012; Vance, Kirk, & Gardner, 2012; Du Mont & Schloman, 1995; Boff & Johnson, 2002; Ury & King, 1995). Donald, Harmon, and Schweikhard (2012) pointed out the importance of introducing students early to the library space. Students are often intimidated by the size of the library, feel inadequate because they lack knowledge about where items and services are located in the building, and are uncomfortable with both the research process and asking questions of library staff (Mellon, 1986; Gross & Latham, 2007; Jiao & Onwuegbuzie, 1999; Cahoy & Bichel, 2008; Van Scoyoc, 2003). A library orientation exercise designed so that students can succeed can help combat these feelings.

Unfortunately, scavenger hunts used as library orientations have a poor reputation among academic librarians and can easily devolve into busy-work where dozens of students mob the reference desk with the same set of often badly-designed or out-of-date questions, frustrating both students and librarians alike (McCain, 2007; Rugan &

Nero, 2013; Ly & Carr, 2010; Giles, 2015). However, Rugan and Nero (2013) “hinted at the potential of such hunts if thoughtfully constructed” (p. 7), and McCain (2007) found that well-designed library scavenger hunts support their effectiveness as a teaching tool. Other studies regarding active learning exercises such as scavenger hunts, treasure hunts, Amazing Library Races, mysteries in the library, and self-guided library tours on mobile devices have also shown success in library orientations. They provide low-pressure games that introduce library locations and research concepts, without the high stakes of a graded class research assignment (Giles, 2015; Foley & Bertel, 2015; Broussard, 2010; Burke & Lai, 2012; Kasbohm, Schoen, & Dubaj, 2006; McCain, 2007; Marcus & Beck, 2003; Cahoy & Bichel, 2008; Boss, Angell, & Tewell, 2015). Additionally, Pike and Alpi (2015) found that students “prefer to have the opportunity to experience library tools and resources on their own devices, which they were more likely to use in the future” (para. 23).

Ly and Carr (2010) noted that their support “for effective scavenger hunts comes from student centered learning theory, Millennial student characteristics, [and] the concept of library as place” (p. 2). Indeed, Burke, Lai, and Rogers (2013) found that their learning objectives-focused scavenger hunt provided students with more confidence in replicating these real-life situations and further reported that faculty agreed that the hunt “led to increased understanding, deeper learning, and almost complete recall of important library functions” in their students (p.74).

Several studies have also shown the effectiveness of using public service

announcement assignments for undergraduate courses in raising student awareness of issues and services highlighted in the PSAs (Artello, 2014; Truong & Zanzucchi, 2012; Kingston, MacCartney, & Miller, 2014; Abrams, 2012; Koch & Lomore, 2009). These studies encompassed PSA assignments in a wide variety of subjects, and the reported cross-disciplinary usefulness of such projects fostered the desire for LSP librarians to test their efficacy in a library setting. For example, Kingston, MacCartney, and Miller (2014) found that a PSA assignment encouraged self-reflection and gave students a venue to apply their knowledge. Similarly, Koch and Lomore’s (2009) students claimed that the PSA assignment “helped them to gain a better understanding of the course material, that it helped them to learn to apply... concepts and theories, and that it was enjoyable” (p. 270). Multiple scholars also tout the effectiveness of PSA projects at enhancing students’ motivation while simultaneously fostering creativity and critical thinking (Abrams, 2012; Artello, 2014).

By combining the games dynamic of a scavenger hunt with a PSA about the students’ favorite part of the library, this library orientation module sought to increase students’ awareness of and comfort level with the library and its resources, while also stimulating creativity and strengthening critical thinking skills.

MODULE GOALS AND OBJECTIVES

Considering the participants in the FYE Program—a self-selecting, small percentage of UCSD students with little to no experience with university libraries—and

because there was no research assignment tied to the library orientation, LSP librarians felt strongly that traditional information literacy instruction would not be suitable. Information literacy in a vacuum has been shown to have little impact on students (Seamans, 2002; Glenn, 2001). Thus, the orientation module had a more general learning goal: to introduce students to library spaces and resources.

While traditional information literacy instruction was not an aim of this module, the general learning goal did tie to dimensions of information literacy as defined by the Association of American Colleges & Universities (AAC&U) *Information Literacy VALUE Rubric* (AAC&U, 2013). This rubric was used because UCSD is accredited by the Western Association of Schools and Colleges (WASC) Senior College and University Commission (WSCUC). In 2013, WSCUC included information literacy and critical thinking in their core competencies for accreditation, and the Commission recommends institutions make use of the AAC&U VALUE rubrics (WSCUC, 2015). The learning goal of the UCSD library orientation module aligned with the *AAC&U Information Literacy VALUE Rubric* under Dimension 2: Access the Needed Information, where one of the milestones states that the student “accesses information using simple search strategies, retrieves information from limited and similar sources” (AAC&U, 2013, p. 2). This is the most basic information literacy milestone for Dimension 2, which LSP librarians deemed appropriate for freshmen.

Further, LSP librarians aligned certain questions in the mobile scavenger hunt (see

Appendix A) with one of the knowledge practices under “Searching as Strategic Exploration” in the Association of College & Research Libraries (ACRL) *Framework for Information Literacy for Higher Education*; this states that “learners who are developing their information literate abilities understand how information systems (i.e., collections of recorded information) are organized in order to access relevant information” (ACRL, 2016, p. 9). The purpose behind these particular scavenger hunt questions was to have students learn how information is organized in and accessed through the UCSD library.

Consideration was also given to the revised Bloom’s Taxonomy when pairing the online scavenger hunt with the PSA project. This combination of assignments was meant to help students go beyond remembering and understanding information about the library, which is at the lower end of the six cognitive processes described in the taxonomy, to analyzing and critiquing what they had learned, which is at the higher end (Bloom, 1956; Anderson & Krathwohl, 2001). In both assignments, students were required to acquire or construct three of the four of types of knowledge used in cognition, including factual knowledge (of the terminology used in academic libraries), conceptual knowledge (of the classification system used to shelve books in the library stacks), and procedural knowledge (of how, when, and where to ask questions in a library, as well as the procedures used to access course reserve materials) (Anderson & Krathwohl, 2001; Armstrong, n.d.; CELT, n.d.).

The LSP librarians designed these assignments to serve as a foundation for

undergraduates' further information literacy-related learning. The purpose was to make students comfortable coming into library spaces and using library resources and services.

TIMELINE

The LSP librarians and the Council of Provosts planned the form of the library module throughout Spring and Summer 2014. The LSP librarians then had approximately six weeks in late summer to select a technology option, and to design and beta test the scavenger hunt activity before the start of the Fall quarter. Within that same timeframe, content for the lecture and the public service announcement assignment needed to be created.

The library module was slated for Week 3 of the ten-week quarter, with the PSA assignment due before the Week 4 discussion section (see Figure 1). During Week 2, LSP librarians conducted train-the-trainer sessions with discussion leaders

(DLs) to prepare them to instruct students on the scavenger hunt activity and the PSA homework assignment.

TECHNOLOGY SELECTION

Scalability of the scavenger hunt activity was an important consideration in the event the pilot was ultimately adopted for all incoming freshmen, which is a goal of the Council of Provosts. The technology platform needed to be mobile and flexible, allowing students to use their own devices. Additionally, the platform needed to be easy to learn and maintain so that it could be used by a librarian with little or no programming knowledge and supported by the library's Information Technology Services department.

The first platform considerations were traditional GPS-enabled scavenger hunt applications. LSP librarians decided to forgo GPS technology, as the geographic area of the activity was limited to the library building, which does not lend itself well to

FIGURE 1—TIMELINE OF THE TOPICS COVERED DURING THE FYE COURSE

W1: Opportunities, Challenges, and Expectations of University Life
W2: Making the Most of the Classroom
W3: Academic Integrity and Information Literacy
W4: Personal Well-being and Academic Success
W5: Enhancing Your Communication Skills in the Classroom
W6: Diversity, Equity, and Inclusion: Understanding Yourself and Others
W7: Campus and Community Involvement
W8: Choosing and Committing to a Major
W9: Research Opportunities, Experiential Learning, and Faculty Engagement
W10: Lessons Learned and Planning Forward

GPS locating. Furthermore, activities in which students were required to use the library's website would not have had a corresponding GPS location.

Next, educational gaming applications were considered. The Edventure Builder platform that was ultimately selected for the FYE program because it met the requirements for mobile readiness, scalability, ease of use, and lack of GPS; it also had the additional benefit of completion reporting. Created by Green Door Labs, Edventure Builder is an online tool that enables mobile location-based educational game creation (Edventure Builder, 2016). The platform uses a WYSIWYG interface similar to blogging applications. This makes it user-friendly and easy to learn for activity creators and designers. The application allows for the creation of customized content and question types, and the use of image and video links. Activity creation occurs in real-time and is coupled with unlimited editing capabilities, which gives developers the ability to create and test simultaneously during the building phase. Included in the platform is the option to create branching logic that facilitates "choose your own adventure" style gaming. The branching logic feature provides students with the opportunity to participate in self-directed learning paths that helps increase engagement (Roth, et al., 2016). Assessment of the activity or game is available using built-in analytics. Activity creators and designers can also obtain feedback on how students answered individual questions.

As a hosted software service, the pricing model is based on a per-month, per-game structure. This model allows for test-driving the platform without the need to make a

large software investment. Additionally, a tiered license pricing structure will enable LSP to scale use to meet increased numbers of student participation if needed in the future.

DESIGN CONSIDERATIONS

Although the scavenger hunt was designed to be mobile and could be completed using a variety of phones and tablets, a paper option was made available. The LSP librarians and the Council of Provosts desired to eliminate any technology barriers from this library activity. To limit librarians' workload, students who completed the activity on paper were still required to use library computers to input their results. Students were also given the option to complete the scavenger hunt using photo capture or no photo capture to account for different mobile device technologies. Finally, students were able to connect their mobile devices to the library's Wi-Fi network, permitting them to complete the activity without having to incur data charges.

The overall objective to introduce students to library spaces and services was accomplished by creating two types of questions. The first directed students to physical spaces, for example the reference desk. To limit potential service point disruption, LSP librarians posted signs in front of key areas with validation codes that would enable students to report visiting those points. The second type of question asked students to use a service: for example, looking up a course reserve item or consulting a LibGuide. In these ways, students gained familiarity with the library building and its services, and they gained the skills that LSP librarians deemed

appropriate for freshmen.

The LSP librarians created the initial list of activity questions based on the resources or services they believed would be most crucial in a college student's first year. The questions and their wording were vetted by other UCSD librarians and library student workers during the activity's testing process. As a result, language revisions were made and several questions were added to include library programs as a "stop" on the activity. The UCSD library has a strict policy that prohibits photographing people without a signed consent form. Therefore, questions involving photo capture needed to highlight objects rather than people, such as equipment or art displays. Appendix A includes the final list of the questions used in the library activity.

To create a positive learning experience, the activity was designed to record completion and to allow students to move on to the next question after two attempts, whether or not their answers were given correctly. Each question included hints to help students obtain the correct answer the first time. Feedback was given for wrong answers to help students answer correctly during their second attempt. To encourage full participation, student completion was captured by having them input their name and course section number at the end of the activity.

PUBLIC SERVICE ANNOUNCEMENTS

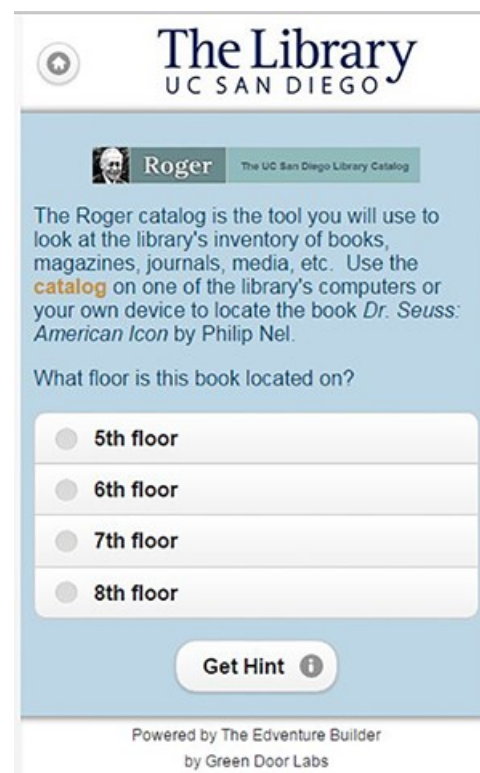
After completing the library scavenger hunt during their discussion section, students were given a PSA homework assignment

that was due the next week. The following prompt instructed students on what to create for their assignment:

A public service announcement (PSA) is a message that seeks to raise awareness or change attitudes and behaviors. In this assignment, you will be creating a PSA about your favorite feature or service of the UCSD Geisel Library. Your PSA will be targeted toward other first year UCSD students and should explain what this feature or service is and why you like it.

There are three ways that you can

FIGURE 2—SCREENSHOT OF LIBRARY SCAVENGER HUNT SAMPLE QUESTION



[ARTICLE]

complete this PSA assignment.

1. Create a video about your favorite library feature or service (no more than 3 minutes in length).
2. Create a poster or photo collage about your favorite library feature or service. You may create this in either electronic or paper format, but paper will need to be scanned or photographed.
3. Write a poem (haiku, limerick, sonnet, etc.) about your favorite library feature or service.

You should spend **no more than 30 minutes** completing your PSA.

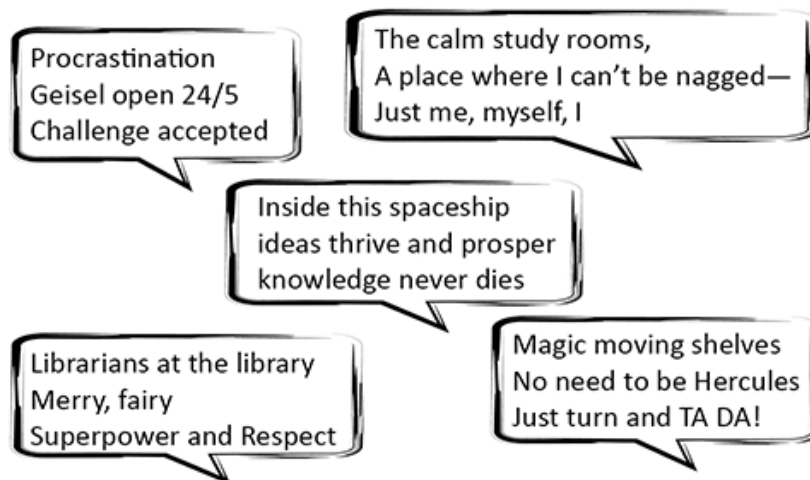
The assignment had to be submitted online, so if students elected to construct a paper poster or collage, they were asked to digitize it using a camera or scanner. Not coincidentally, the library’s large format scanner was featured as a “stop” on the scavenger hunt (see Appendix A). In order

to submit the assignment, students needed to email a file with their PSA or post it to a social media account, tag it with #UCSDFYE14, and email a link to their post. The PSA was a credit/no credit assignment. Students were not scored on the content of their PSAs; they received full credit for simply completing and submitting the assignment.

LSP librarians created several examples of all three options for students to use as models or inspiration for their PSAs. The most common PSA students turned in were haiku poems (see Figure 3), followed by poems in other styles, photo collages, hand-drawn posters, and a very few videos.

The PSAs highlighted a wide variety of services, resources, and spaces within the library, including the helpful library staff, extended library hours, compact shelving, study rooms, walking desks in the Learning Commons, and puzzles available for stress relief. A theme emerged in the results showing student appreciation of the unique,

FIGURE 3—A SELECTION OF STUDENT HAIKU



geometric architectural form of the library building; many likened it to a spaceship (see Figures 3 and 4).

The objectives of the public service announcement assignment were to integrate creativity into the library orientation module, allow students to apply the knowledge they had gained, and encourage students to reflect on their experiences and critically analyze what they had learned.

EVALUATIVE FEEDBACK

In total, 411 out of 472 FYE students finished the scavenger hunt, giving the activity an 87% completion rate. The largest number of students completed the activity using a smartphone (72%). Another 21% completed the activity on paper, with only 4% using a tablet and 3% using a laptop (see Figure 5).

Both before and after the activity, LSP

librarians asked students about their comfort level using the library; however, the remainder of the pre- and post-evaluation was coordinated and disseminated by the FYE Program, not the LSP. Creating evaluation questions about the library will be a more collaborative process for the second year of the pilot program, so the LSP can garner additional information to assess the library portion of the FYE course.

Students were asked at the beginning of the FYE course if they desired to learn about the library; 80% agreed or strongly agreed. At the end of the course, 77% of those students felt satisfied with what they had learned.

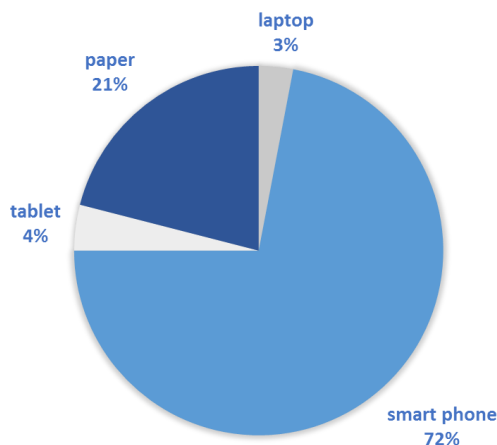
Students were also asked to rate their library-related knowledge and skills pre- and post-course. Overall, students reported an increase in their knowledge and skills after the library activity (see Figure 6). In the pre-survey, only 12.5% rated their library skills

FIGURE 4—HAND-DRAWN POSTER OF THE LIBRARY BUILDING AS A LAUNCHING SPACESHIP



[ARTICLE]

FIGURE 5—DEVICES USED TO COMPLETE SCAVENGER HUNT



as high, 62.72% rated their abilities as neither high nor low, and 24.78% rated their abilities as low. Their experience in the FYE Program resulted in a statistically significant increase ($P < 0.001$) in students' self-analysis of their knowledge and skills. The post-survey showed that 61.12% now ranked their library knowledge and skills as high, 36.26% were neither high nor low, and only

2.62% believed their library skills remained low.

Finally, students were asked to rank their comfort with using the library on a scale of 1-5; the change in the perceived level of comfort was statistically significant ($P < 0.001$) with a 27% overall increase in comfort after the FYE library activity (see

FIGURE 6—STUDENT SELF-PERCEPTIONS OF LIBRARY KNOWLEDGE AND SKILL

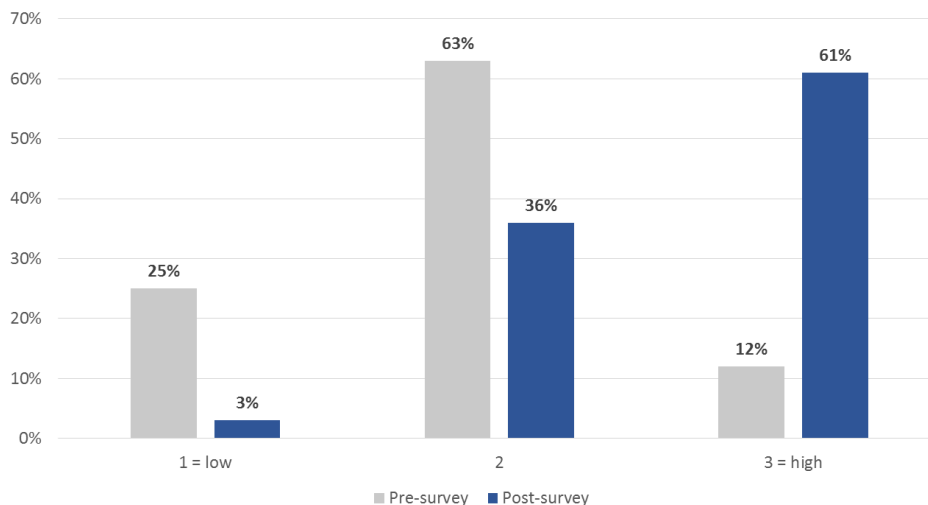


Figure 7). During the post-evaluation, 48% of FYE students reported an increase of 1 on the comfort level scale (e.g. the student went from a 3 to a 4), 14% had an increase of 2, and approximately 1% each had an increase of 3 or 4. About 34% of students experienced no increase in their comfort with the library, 2% had a decrease of 1, and .5% had a decrease of 2.

NEXT STEPS

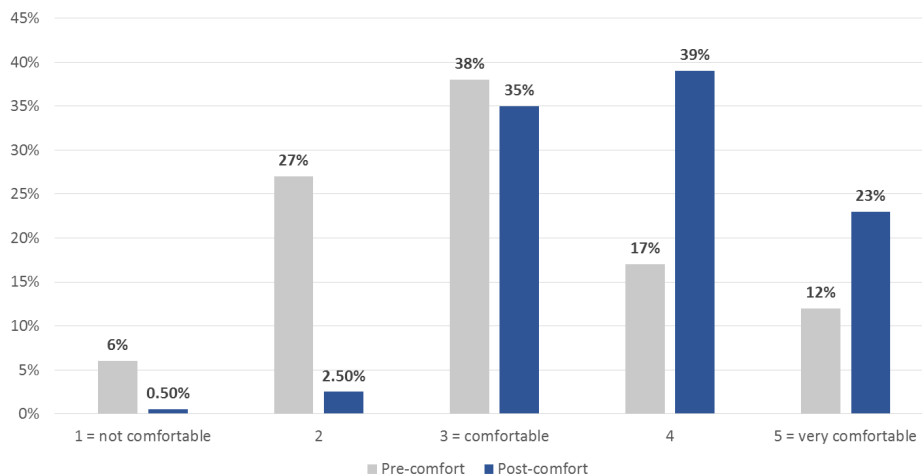
In planning for the future of the library module, the LSP intends to incorporate feedback and coordinate with the FYE Program to discuss new directions their staff and faculty envision for the 2015-2016 academic year. Librarians will then decide what improvements to make to the module so that it best meets the FYE Program’s evolving needs.

The two-year pilot FYE Program will be expanded significantly in its second year. During 2014-2015 there were 120 students

allowed from each of UCSD’s six colleges, and during 2015-2016, the program expects to accept 140 freshman students per college into the program. Sections for first-year transfer students will admit up to 65 transfer students per college into the FYE Program. In total, this would add 510 students to the program. Other new features under consideration for the 2015-2016 academic year are the inclusion of an electronic badging system and incentives to encourage students to revisit the campus programs that provided guest lectures during FYE classes.

LSP librarians will implement a variety of changes to the module, from technical to collaborative. Librarians will work with the FYE Program staff to develop questions for the pre- and post-surveys that touch on both the library and research. From a technical standpoint, librarians will be testing the wireless internet throughout the library building to assure—as much as possible—that students will not experience connectivity issues. Librarians will also

FIGURE 7—STUDENT COMFORT LEVEL BEFORE AND AFTER SCAVENGER HUNT



examine the number of attempts students made for each question on the scavenger hunt to ensure that incorrect answers were not due to problems with wording.

RECOMMENDED PRACTICES

Reflecting on this experience, LSP librarians would recommend the following practices to those developing similar collaborations.

Create a team that has a variety of skills.

The LSP was privileged to have a solid team in place that included people with institutional history, a project manager, an instructional technologist, and an instructional designer. Each person made unique and valuable contributions that led to the success of this project.

Foster internal and external communication.

Throughout the project, the LSP needed to communicate with a contact person within the FYE Program to ensure students had a positive experience, especially since librarians had very little actual interaction with FYE students. Additionally, the LSP needed to make sure other programs within the library were both informed about the activity and willing to allow LSP librarians to post signs with validation codes at service points.

Select a flexible and scalable technology solution.

One of the most important factors that led to the module's success was that the selected technology solution was flexible enough that last-minute design decisions could be

made related to institutional review board (IRB) requirements for this study. The selected technology is also scalable so LSP librarians are prepared for the future when they are asked to accommodate many more users.

Manage internal and external expectations.

At the beginning of the project, librarians had several conversations with Provosts about why it would be better to focus on an orientation to library services and spaces rather than traditional information literacy concepts and research skills. LSP librarians used literature about information literacy pedagogy to manage the Provosts' expectations about what type of instruction could be reasonably provided given the time constraints, access to students and lack of research assignment. Internally, the LSP needed to manage the expectations of librarian colleagues related to how much information students were introduced to. After the activity was created, the LSP received many requests from other library departments for additional "stops" at their respective service points to be included in the activity in the future.

Consider accessibility.

Accessibility can refer to many things. Due to the short timeframe, LSP librarians were not able to focus on accessibility in terms of universal design, although it is a priority in the future. Instead, the LSP concentrated on making the activity accessible without a mobile device. To accomplish this, students were offered a paper form that they could fill out and then enter their answers using a library computer. Informal data suggests that most students who took advantage of this option did not do so because they did

not have mobile devices, but rather because they found it easier to work in groups, their phone did not have enough charge, or the Wi-Fi connection was slow.

Make a realistic timeline.

Due to many factors out of the LSP's control, the activity's design and implementation timeline was very short – only six weeks. In many ways, LSP librarians were fortunate. There was a dedicated team in place and the LSP was able to push the contract with the software vendor through quickly because it was used as a “training tool” for a new contract process. Under normal circumstances, more time would have been needed to get a software contract signed. While beta testing went fairly smoothly, ideally additional time would be allotted in case of unanticipated issues.

Consider maintenance.

The only maintenance that LSP librarians need to conduct routinely is to run through the mobile scavenger hunt once per year to ensure that information is still accurate and links are current. In an effort to keep changes to the activity questions nominal, LSP librarians strove to incorporate information and or links that are unlikely to change. Further, as a hosted service platform, Edventure Builder maintains the technology used for the activity, which relieves UCSD of that responsibility.

CONCLUSION

A pilot project of this scope requires a number of pieces to fall into place. The LSP had the good fortune and foresight to have a variety of skill sets to draw upon: instructional design expertise, technological

skill, librarians with strong ties to the faculty and Provosts, and a strong understanding of project management. All of these factors allowed the LSP to work quickly to create a scalable product which provided a base upon which to build further undergraduate library instruction.

The three-pronged library module—lecture, scavenger hunt, PSA assignment—created for the FYE Program remains a unique product. However, the LSP librarians have been able to further utilize the Edventure Builder scavenger hunt for other first-year students, such as incoming international students enrolled in a transition program, as well as an introductory chemistry course. The flexibility and scalability of this activity has allowed the work of LSP librarians to be reused, thus saving time and energy in the future.

REFERENCES

About FYE. (2015). In *UC San Diego First Year Experience*. Retrieved April 20, 2015, from <http://thecolleges.ucsd.edu/fye/about-fye/index.html>

Abrams, K. (2012). Student-designed public service announcement (PSA) videos to enhance motivation and engagement. *College Teaching*, 60(2), 84. doi: <http://dx.doi.org/10.1080/87567555.2011.586657>

Anderson, L.W., Krathwohl, D.R., (2001). *A taxonomy for learning, teaching, and assessing: A revision of Bloom's Taxonomy of Educational Objectives* (Complete edition). New York: Longman.

Armstrong, P. (n.d.). *Bloom's taxonomy*. Vanderbilt University Center for Teaching.

Retrieved from: <https://cft.vanderbilt.edu/guides-sub-pages/blooms-taxonomy>

Association of American Colleges & Universities (AAC&U). (2013). *Information Literacy VALUE Rubric*. Retrieved from <http://aacu.org/sites/default/files/files/VALUE/InformationLiteracy.pdf>

Association of College & Research Libraries (ACRL). (2016). *Framework for Information Literacy for Higher Education*. Retrieved from http://www.ala.org/acrl/sites/ala.org.acrl/files/content/issues/infolit/Framework_ILHE.pdf

Artello, K. (2014). What they learned: Using multimedia to engage undergraduates in research. *Innovative Higher Education*, 39(2), 169-179. <http://dx.doi.org/10.1007/s10755-013-9266-z>

Bloom, B.S. (1956). *Taxonomy of educational objectives: The classification of educational goals*. New York: Longman.

Boff, C. & Johnson, K. (2002). The library and first-year experience courses: a nationwide study. *Reference Services Review*, 30(4), 277-287. <http://dx.doi.org/10.1108/00907320210451268>

Boss, K., Angell, K., & Tewell, E. (2015). The amazing library race: Tracking student engagement and learning comprehension in library orientations. *Journal of Information Literacy*, 9(1), 4-14. <http://dx.doi.org/10.11645/9.1.1885>

Broussard, M. (2010). Secret agents in the library: Integrating virtual and physical games in a small academic library. *College & Undergraduate Libraries*, 17(1), 20-30.

<http://dx.doi.org/10.1080/10691310903584759>

Brown, A. G., Weingart, S., Johnson, J. R. J., & Dance, B. (2004). Librarians don't bite: Assessing library orientation for freshmen. *Reference Services Review*, 32(4), 394-403. <http://dx.doi.org/10.1108/00907320410569752>

Burke, A. & Lai, A. (2012, May). *iPod apps, mobile learning, game dynamics: This ain't your typical library orientation*. Paper presented at the LOEX Annual Conference, Columbus, Ohio.

Burke, A., Lai, A., & Rogers, A. (2013). The North Carolina State University Libraries' mobile scavenger hunt: A case study. In C. Harmon & M. Messina (Eds.), *Mobile Library Services: Best Practices* (pp. 65-78). Maryland: Scarecrow Press.

Cahoy, E. S. & Bichel, R.M. (2008). A luau in the library? A new model of library orientation. *College & Undergraduate Libraries*, 11(1), 49-60. http://dx.doi.org/10.1300/J106v11n01_06

Center for Excellence in Learning and Teaching (CELT), Iowa State University. (n.d.) *Revised Bloom's taxonomy*. Retrieved from: <http://www.celt.iastate.edu/teaching/effective-teaching-practices/revised-blooms-taxonomy>

Donald, M. S., Harmon, K.D., & Schweikhard, A. J. (2012). Find your place: Enhancing library relevance and involvement within a campus community. *College & Research Libraries News*, 73(10), 590-594. Retrieved from: <http://crln.acrl.org/content/73/10/590.full>

Du Mont, M. J. & Schloman, B. F. (1995). The evolution and reaffirmation of a library orientation program in an academic research library. *Reference Services Review*, 23(1), 85-92. <http://dx.doi.org/10.1108/eb049238>

Edventure Builder. (2016, January 7). Retrieved from <http://edventurebuilder.com/>

Foley, M., & Bertel, K. (2015) Hands-on instruction: The iPad self-guided library tour. *Reference Services Review*, 43(2), 309-318. <http://dx.doi.org/10.1108/RSR-07-2014-0021>

Giles, K. (2015). No budget, no experience, no problem: Creating a library orientation game for freshman engineering majors. *The Journal of Academic Librarianship*, 41(2), 170-177. <http://dx.doi.org/10.1016/j.acalib.2014.12.005>

Glenn, A.S. (2001). *A comparison of distance learning and traditional learning environments*. Retrieved from ERIC database (ED457778) <http://eric.ed.gov/?id=ED457778>

Gross, M. & Latham, D. (2007). Attaining information literacy: An investigation of the relationship between skill level, self-estimates of skill, and library anxiety. *Library & Information Science Research*, 29(3), 332–353. <http://dx.doi.org/10.1016/j.lisr.2007.04.012>

Guan, J. (2015). First Year Experience Program: UC San Diego Fall 2014—pilot year assessment. Unpublished report, First Year Experience Program, University of California-San Diego, La Jolla, California.

Jiao, Q. G. & Onwuegbuzie, A. J. (1999). Is

library anxiety important? *Library Review*, 48(6), 278-282. <http://dx.doi.org/10.1108/00242539910283732>

Kasbohm, K. E., Schoen, D., & Dubaj, M. (2006). Launching the library mystery tour: A library component for the “first-year experience.” *College & Undergraduate Libraries*, 13(2), 35-46. http://dx.doi.org/10.1300/J106v13n02_03

Kingston, L. N., MacCartney, D., & Miller, A. (2014). Facilitating student engagement: Social responsibility and freshmen learning communities. *Teaching and Learning Inquiry: The ISSOTL Journal*, 2(1), 63-80. Retrieved December 10, 2014, from <http://muse.jhu.edu/journals/iss/summary/v002/2.1.kingston.html>

Koch, E. J., & Lomore, C. D. (2009). “This is a public service announcement”: Evaluating and redesigning campaigns to teach attitudes and persuasion. *Teaching of Psychology*, 36(4), 270-272. <http://dx.doi.org/10.1080/00986280903175731>

Ly, P. & Carr, A. (2010). *The library scavenger hunt strikes back*. Paper presented at 2010 CARL Conference, Sacramento, CA. Retrieved from http://www.carl-acrl.org/Archives/ConferencesArchive/Conference10/2010proceedings/Pearl-Ly_final.pdf

McCain, C. (2007). Scavenger hunt assignments in academic libraries. *College & Undergraduate Libraries*, 14(1), 19-31. http://dx.doi.org/10.1300/J106v14n01_02

Marcus, S. & Beck, S. (2003). A library adventure: Comparing a treasure hunt with a

traditional freshman orientation tour. *College & Research Libraries*, 64(1), 23-44. <http://dx.doi.org/10.5860/crl.64.1.23>

Mellon, C. (1986). Library anxiety: A grounded theory and its development. *College & Research Libraries*, 47(2), 160-165. <http://dx.doi.org/10.5860/crl.47.02.160>

Pellegrino, C. (2012). Does telling them to ask for help work? *Reference & User Services Quarterly*, 51(3), 272-277. <http://dx.doi.org/10.5860/rusq.51n3.272>

Pike, C., & Alpi, K. M. (Summer 2015). Hunting for knowledge: Using a scavenger hunt to orient graduate veterinary students. *Issues in Science and Technology Librarianship*. <http://dx.doi.org/10.5062/F41834HP>

Roth, A., Turnbow, D., Goldman, C., & Friedman, L. (2016). Building a scalable mobile library orientation activity with Edventure Builder. *Library Hi Tech*, 34(1). <http://dx.doi.org/10.1108/LHT-09-2015-0085>

Rugan, E.G., & Nero, M.D. (2013). Library scavenger hunts: The good, the bad, and the ugly. *Southeastern Librarian* 61(3), 7-10. Retrieved from: <http://www.selaonline.org/SoutheasternLibrarian/Fall2013.pdf>

Seamans, Nancy H. (2002). Student perceptions of information literacy: Insights for librarians. *Reference Services Review*, 30(2), 112-123. <http://dx.doi.org/10.1108/00907320210428679>

Truong, M., & Zanzucchi, A. (2012). Going beyond the traditional essay: How new

technologies are transforming student engagement with writing outcomes. In Wankel, L. A. & Blessinger, P. (Eds.), *Increasing student engagement and retention using social technologies* (pp. 263-288). Emerald Group Publishing, Bingley, UK.

Van Scoyoc, A. M. (2003). Reducing library anxiety in first-year students: The impact of computer-assisted instruction and bibliographic instruction. *Reference & User Services Quarterly*, 42(4), 329-341.

Vance, J., Kirk, R., & Gardner, J. (2012). Measuring the impact of library instruction on freshman success and persistence. *Communications in Information Literacy*, 6 (1), 49-58. Retrieved September 17, 2014, from <http://www.comminfolit.org/index.php?journal=cil&page=article&op=view&path%5B%5D=v6i1p49>

Ury, C. J. & King, T. L. (1995). Reinforcement of library orientation instruction for freshman seminar students. *Research Strategies*, 13(3), 153-164.

WASC Senior College and University Commission (WSCUC). (2015). *2013 handbook of accreditation*. Retrieved from <http://www.wascsenior.org/content/2013-handbook-accreditation>

APPENDIX A—ONLINE SCAVENGER HUNT QUESTIONS

1. On a scale from 1 to 5, how comfortable do you feel using the Library and its resources?
 - 1 = not comfortable
 - 2
 - 3 = comfortable
 - 4
 - 5 = very comfortable
2. The Library is not only a place to study but also a place to view exhibited works. In fact the READ/WRITE/THINK/DREAM artwork over the library's main doors is part of the Stuart Collection by the renowned artist John Baldessari. Check out the art work in its entirety and tell us what you like best about the artwork. *Hint: Baldessari's artwork includes the black and white photos of students, the photomural of the sea, the pens and pencils, and the slender palm trees. Baldessari's work is viewable as soon as you walk through the doors.
3. The Information Desk is here to help you! The Information Desk can answer the all-important "How do I find Course Reserves" and other questions you may have about printing, locating library materials, etc. Whether you're looking for information related to the Library or campus, we can point you in the right direction. Visit the Information Desk, look for the validation code, and enter it below.
4. The library has computers, printers, copiers and a scanner for you to use. Locate the scanner on the first floor and provide us a description of where it is located. *Hint: Try the west wing near the windows across from the media desk.
5. Librarians can answer your research questions in-person and remotely through Ask a Librarian. You can check out the Ask a Librarian options from the library's homepage by using one of the library's computers near the Information desk.
What is your preferred way to get in touch with a librarian?
6. There are a lot of places to study in the library. You can look at the list on the library's website by clicking Places to Study under the Services menu. Go to one of the study spaces listed below and input the validation code you find there. *Hint: The study rooms listed are located on the first floor west wing, sixth floor, and the main (second) floor in the east wing.
 - Group Study Room 1040
 - Group Study Room 618
 - Child-Friendly Study Room 2072
7. Got questions? We have answers! In addition to getting help in person at the Research Assistance Desk (RAD), you can chat, email or text a librarian. Librarians can help with selecting a database to find articles, finding ebooks in our catalog, or finding answers to questions regarding primary and secondary sources, etc. Visit the Reference Assistance Desk and look for the validation code they have there and enter it below. *Hint: It's on the main (second) floor in the west wing.
8. We've created a guide to help you start your research. Go to one of the computers near the Information Desk. From the Libraries website, Click Course and Subject Guides from the Research Tools menu. Use the search box and type Get Started to locate the Get Started guide. When you have located the guide, go to the Find Articles tab.

What is the name of the multidisciplinary database that has publications in English, Spanish, German, French, Italian and Portuguese?
 - Academic Search Complete
 - Web of Science
 - JSTOR
9. While you are at the computer for the above question, look at the Get Started guide to learn about Wi-Fi in the library. *Hint: Go to the Using Computers, Printers & Photocopiers tab.

True or false: to access journals wirelessly in the library you need to be connected to the UCSD-PROTECTED network.
 - True
 - False
10. The Roger catalog is the tool you will use to look at the library's inventory of books,

magazines, journals, media, etc. Using one of the library's computers perform a catalog search from the libraries homepage to locate the book *Dr. Seuss: American Icon* by Philip Nel by searching the Roger catalog. *Hint: Under the Catalog menu, select Search UCSD and try a title search.

What floor is this book located on?

- 5th floor
- 6th floor
- 7th floor
- 8th floor

11. Is your library card number the same as your student ID number? *Hint: Your library card number is on the back of your student ID card.
 - Yes
 - No
12. The library buildings are open early and close late. Use one of the library's computers and click on Hours from the menu on the library's homepage. How late is the Library open on November 10th? *Hint Check out the library's Hours page on the website specifically and not just Today's Hours on the homepage of the website. November 10th has special hours.
 - 6:00 pm
 - 8:00 pm
 - 10:00 pm
 - Midnight
13. The Library also collects a wide range of rare books, manuscripts, archives, photographs, and other original primary sources in our Special Collections & Archives for your research use. You can check out the collecting areas by clicking Special Collections & Archives from the Collections menu on the library's homepage. *Hint: Try the west wing of the main (second) floor. Locate Special Collections, look for the validation code in the window, and enter it below.
14. There are two library buildings on the main campus. The image below is of the main library. *Hint: The name of the library building is on the library's homepage.



What is the name of the other library building?

15. Course Reserves are course-related materials that your professors make available either electronically or physically through the library. To get print material that has been put on reserve go to the Reserves computers near the circulation desk on the main (second) floor. Search by course (Library Orientation 101) or professor (Heath) for the book we have reserved. What is the call number for the reserve item?
 - PS3513.E2 Z785 1995
 - BP 195.W2 A426
 - D745.2 .M56 1999
16. Have you had a tour or library orientation from a UCSD library staff member prior to this activity?
 - Yes
 - No
17. After completing this activity, on a scale from 1 to 5, how comfortable do you feel using the [Institution initials] Library and its resources?
 - 1 = not comfortable
 - 2
 - 3 = comfortable
 - 4
 - 5 = very comfortable
18. If you used a mobile device to complete this activity, please tell us what type of device you used. If you used the paper version and then entered your answers online, select paper version as your answer.
 - A smartphone
 - A tablet
 - A laptop
 - Paper version, then enter on a computer