Participant Learning in an Archival Education and Outreach Program to Fraternities and Sororities: An Implementation of Evidence-Based Librarianship and Information Science

What can researchers do when they want to transform a traditional lecture into a collaborative, hands-on learning experience? How can participants learn and become empowered to construct and maintain historical records that reflect their experiences? An archivist can lecture students about basic archival practices and the students can learn a few skills, but hands-on activities for record creation and maintenance that facilitate participants’ learning will create collaborators with basic, but important, archival skills.

At Iowa State University (ISU), the University Archivist and the Assessment Librarian partnered to create an educational outreach program with Greek (fraternity and sorority) students and alumni. By following the Evidence Based Librarianship and Information Practice (EBLIP) process, the traditional lecture program was transformed into an authentic hands-on learning experience. Students learned how to evaluate their organization’s materials and to create long-lasting records through hands-on activities.

This research project spanned two years and culminated in a qualitative study that measured the learning of students and alumni who created a university community archive focused on fraternity and sorority life. A community archive is an archive in which members are owners who create and input materials and in which a member’s current activities have a place in the historic record. This model fits the needs of this research project in a hybrid form, in which the archivist played a pivotal role in reviewing and checking metadata to facilitate discoverability while the records

1. Due to space limitations assessment results discussed in this paper can be accessed at the URL http://lib.dr.iastate.edu/refinst_pubs/40/.
2. Andrew Flinn and Mary Stevens, “‘It Is Noh Mistri, Wi Mekin Histri’: Telling Our Own Story: Independent and Community Archives in the UK, Challenging and Subverting the Mainstream,” in Community Archives: The Shaping of Memory, Principles and Practice in Records Management and Archives (London: Facet Publishing, 2009), 3–27; Kimberly Christen, ‘Archival Challenges and Digital Solutions in Aboriginal Australia,’ SAA Archaeological Recorder 8, no. 2 (2008): 21–24, available online at www.kimchristen.com/uploads/5/6/2/0/5620339/saa_2008.pdf [accessed 12 March 2013].
were still in custody of the community. The term “community archives” will be used to refer to this hybrid model.

**Background**

After years of “sage on the stage” lectures to fraternity and sorority groups, the University Archivist felt stymied. Her goal had always been to create a partnership with Greek students, but connections did not endure. Students seemed courteous during lectures but they never came back for more when the opportunities presented themselves. Occasionally, a Greek chapter would have the Special Collections Department house their records, one goal of the lecture, but many chapters did not want to turn over their materials—even if the records would be under better care. Additionally, there was no record of learning outcomes or of students’ changing needs. To review this program, the Assessment Librarian chose the EBLIP model because it parses action research into manageable, systematic steps. The results from this research show that EBLIP facilitates transformative and manageable solutions.

This qualitative research of 34 students and alumni measures hands-on learning experiences using multipronged assessments. Small sample sizes like this are not unusual for qualitative studies. EBLIP is a good framework to use for qualitative studies because it can address the “why” of many library research questions. This project fits under the EBLIP education domain; but, rather than teaching information literacy skills, it reviewed the teaching of basic archival practices. The use of the mnemonic SPICE (Setting, Perspective, Intervention, Comparison, Evaluation) in formulating the question is important to this project because EBLIP literature emphasizes that a well-formulated research question is the key to success.

**Literature Review**

In 1997, Jon Eldredge introduced the EBLIP model in his article “Evidence Based Librarianship: A Commentary for Hypothesis.” He proposed that the processes in

3. Anthony Cocciolo, “Situating Student Learning in Rich Contexts: A Constructionist Approach to Digital Archives Education,” *Evidence Based Library and Information Practice* 6, no. 3 (2011): 4–15, available online at http://ejournals.library.ualberta.ca/index.php/EBLIP/article/view/10244 [accessed 12 March 2013].

4. Lisa M. Given, “Evidence-Based Practice and Qualitative Research: A Primer for Library and Information Professionals,” *Evidence Based Library and Information Practice* 2, no. 1 (2007): 15–22, available online at http://ejournals.library.ualberta.ca/index.php/EBLIP/article/view/155 [accessed 12 March 2013].

5. Andrew Booth and Anne Brice, “Six Domains of Evidence Based Information Practice,” in *Evidence-Based Practice for Information Professionals: A Handbook*, eds. Andrew Booth and Anne Brice (London: Facet Publishing, 2004): 144–47.

6. Andrew Booth, “Clear and Present Questions: Formulating Questions for Evidence Based Practice,” *Library Hi Tech* 24, no. 3 (2006): 355–68, available online at http://www.emeraldinsight.com/journals.htm?articleid=1571814 [accessed 12 March 2013].

7. J. Eldredge, “Evidence Based Librarianship: A Commentary for Hypothesis,” *Hypothesis* 11, no. 3 (1997): 4–7, available online at http://research.mlanet.org/hypothesis/hypo11-3.pdf [accessed 12 March 2013].
evidence-based medicine (EBM) and evidence-based health care (EBHC) parallel the skills of health sciences librarians. Andrew Booth described the processes for using the best available evidence in conjunction with user needs and preferences. EBLIP does not support one method over another; instead, EBLIP can rigorously shape qualitative educational studies.

The book Evidence-Based Practice for Information Professionals: A Handbook provides an overview of EBLIP, as well as detailing the stages of the EBLIP process. A chapter devoted to question formulation defined the SPICE mnemonic as Setting, Perspective, Intervention, Comparison, and Evaluation. As EBLIP matured, the “concept of what constitutes evidence” grew to include practitioner-observed, research-derived, and user-reported data. The focus on the pragmatic and systematic could support the formulation of answerable questions.

The SPICE model helps define a research question. Librarians can use SPICE within the EBLIP model to develop focused, answerable research questions, which can help facilitate decision making based on the outcomes of the research. Booth later focused specifically on the importance of formulating the question you want answered.

Methodology

**Question: Define the Problem**

Booth clarified the reiterative nature of EBLIP in a recent work where he articu-
lated the inherent complexity and collaborative nature of EBLIP.\textsuperscript{18} The importance of question formation is central to EBLIP.\textsuperscript{19} Crafting a well-formulated question for this educational and outreach program involved cycling through the evidence several times and discovering the need for a collaborative hands-on learning of the project. Using SPICE helped delineate each aspect of the research project. The list below shows how SPICE focused the question on the specific details of this research project.

\begin{itemize}
\item \textbf{S} Setting: University Library and Greek Chapters.
\item \textbf{P} Perspective: Greek students and alumni interest in learning.
\item \textbf{I} Intervention: Create a new program that improves creation and care and collaborative opportunities.
\item \textbf{C} Comparison: Compare old outreach program with new hands-on learning program.
\item \textbf{E} Evaluation: Review assessment results as a determiner of effectiveness.
\end{itemize}

The final research question became:

\textit{Do fraternity and sorority students and alumni want to collaborate with the University Archives to learn best practices for creating and storing historical documents using a community archive?}

\textbf{Evidence: Gathering a Variety of Evidence}

Holistically reviewing evidence or data from multiple sources assists in making more informed decisions\textsuperscript{20} and generates a more systematic, nuanced approach to reviewing systematic and qualitative reports.\textsuperscript{21} The researchers used several types of evidence in this project: professional experience, vetted research, professional reports and existing professional data.

\begin{itemize}
\item Andrew Booth, “EBLIP Five-Point-Zero: Towards a Collaborative Model of Evidence-Based Practice,” \textit{Health Information & Libraries Journal} 26, no. 4 (2009): 341–44, available online at http://onlinelibrary.wiley.com/doi/10.1111/j.1471-1842.2009.00867.x/full [accessed 12 March 2013].
\item Andrew Booth and Anne Brice, “Formulating Answerable Questions,” in \textit{Evidence-Based Practice for Information Professionals: A Handbook}, eds. Andrew Booth and Anne Brice (London: Facet Publishing, 2004), 61–70.
\item Ross Todd. “The Evidence-Based Manifesto for School Librarians.” \textit{School Library Journal} 54, no. 4 (2008): 38–43.
\item Michael Q. Patton, “Enhancing the Quality and Credibility of Qualitative Analysis,” \textit{Health Services Research} 34, no. 5, pt. 2 (1999): 1189–208, available online at www.ncbi.nlm.nih.gov/pmc/articles/PMC1089039/pdf/hssrresearch00022-0112.pdf [accessed 12 March 2013].
\end{itemize}
Professional Experience
For more than a decade, the University Archivist conducted regular 45-minute lectures about best practices in creating and maintaining records to the Greek community. At the same time, there seemed to be little learning because almost all the records acquired by the archives were poorly created and poorly stored from the perspective of long-term preservation. The seminars seemed to have little impact on how records were created or maintained. The archivist was discouraged and felt that a sustainable relationship with the chapters was not possible.

To address this problem, the Archivist and Assessment Librarian reviewed the seminar’s content and pedagogy. The lectures to the Greek community, while filled with interesting content, did not appear relevant to the participants, nor did the seminars actively engage them. At this point, the researchers reviewed the literature.

Vetted Research
To gather evidence, the researchers focused on education and outreach, two of the six library research domains identified in EBLIP. The Assessment Librarian conducted a thorough search of literature searching several databases and journals. The databases included ERIC, PsycINFO, Library Literature OCLC, and the library’s search tool with mixed results. OCLC and ERIC provided the most valid literature regarding EBLIP. The journals, chosen because of their impact on the profession, included Archival Science, The American Archivist and RBM: A Journal of Rare Books, Manuscripts, and Cultural Heritage. The search also included the journal, Evidence Based Librarianship and Information Practice because it provided peer-reviewed research in the area of EBLIP.

Because EBLIP literature that looks at educational practice often focuses on the theory and practice of active-learning, the literature uses a variety of terms, including variations on active-learning, hands-on learning, authentic assessment, outcome-based learning, problem-based learning, and rubrics. Similarly, rich environments for active-learning and authentic assessment research areas overlap with constructivist theory. Therefore, the terms used during the search process included these words.

The archival literature did include articles related to student learning and assessment. Leaders in archival instruction promote hands-on learning with students interacting with primary resources. Rubrics for archival education improved au-
authentic assessment.\textsuperscript{25} One constructionist research study showed improved learning outcomes when students worked with external partners for the archives.\textsuperscript{26}

In regard to active learning, content relevance for the learner facilitates reflection and incorporation of ideas.\textsuperscript{27} Active learning and technology can focus instruction on student choice that increases the power and the relevance of the learning.\textsuperscript{28} Archives can provide historical materials that students see and discuss, allowing them to create their own knowledge by working on problem-based questions.\textsuperscript{29} Students participate more with primary sources when given hands-on activities.\textsuperscript{30} User-centered “learning by doing” enriches student experiences when creating digital libraries for clients.\textsuperscript{31}

One article looked at 18 years of research on science instruction and found that students’ conceptual understanding increased when taught with an inquiry-based model.\textsuperscript{32} Different research showed that students who scored low on a pretest performed better on a posttest when participating in an inquiry-based educational model.\textsuperscript{33}

Additionally, using a variety of assessments triangulates the data in a manner that adds rigor and validity to the results.\textsuperscript{34} Matthews and Bowles-Terry focused on implementing a variety of assessments, including a pre- and posttest, essay questions, and instant feedback.\textsuperscript{35} Likewise, using technology increased the learning

\begin{thebibliography}{99}
\bibitem{25} Magia G. Krause, “Undergraduates in the Archives: Using an Assessment Rubric to Measure Learning,” \textit{American Archivist} 73, no. 2 (2010): 507–34.
\bibitem{26} Cocciolo, “Situating Student Learning in Rich Contexts.”
\bibitem{27} Joshua C. Roberts and Jay Bhatt, “Innovative Approaches to Information Literacy Instruction for Engineering Undergraduates at Drexel University,” \textit{European Journal of Engineering Education} 32, no. 3 (2007): 243–51, available online at www.tandfonline.com/doi/full/10.1080/03043790701276171f.UaqiUDvItBk [accessed 12 March 2013].
\bibitem{28} Thea Lindquist and Holley Long, “How Can Educational Technology Facilitate Student Engagement with Online Primary Sources? A User Needs Assessment,” \textit{Library Hi Tech} 29, no. 2 (2011): 224–41, available online at www.emeraldinsight.com/journals.htm?articleid=1927524 [Accessed 12 March 2013].
\bibitem{29} Cocciolo, “Situating Student Learning in Rich Contexts.”
\bibitem{30} Krause, “It Makes History Alive for Them.”
\bibitem{31} Mary M. Somerville and Navjit Brar, “A User-Centered and Evidence-Based Approach for Digital Library Projects,” \textit{Electronic Library} 27, no. 3 (2009): 409–25, available online at www.emeraldinsight.com/journals.htm?articleid=1799978&show=abstract. [accessed 12 March 12, 2013].
\bibitem{32} Daphne D. Minner, Abigail Jurist Levy, and Jeanne Century, “Inquiry-Based Science Instruction: What Is It and Does It Matter? Results from a Research Synthesis Years 1984 to 2002,” \textit{Journal of Research in Science Teaching} 47, no. 4 (2010): 474–96, available online at http://onlinelibrary.wiley.com/doi/10.1002/tea.20347/abstract [accessed 12 March 2013].
\bibitem{33} Lois Magnussen, Dianne Ishida, and Joanne Itano, “The Impact of the Use of Inquiry-Based Learning as a Teaching Methodology on the Development of Critical Thinking,” \textit{Journal of Nursing Education} 39, no. 8 (2000): 360–64.
\bibitem{34} Ross Todd, “The Evidence-Based Manifesto for School Librarians.”
\bibitem{35} Melissa Bowles-Terry, “Library Instruction and Academic Success: A Mixed-Methods Assessment of a Library Instruction Program,” \textit{Evidence Based Library and Information Practice} 7, no. 1 (2012): 82–95, available online at http://ejournals.library.ualberta.ca/index.php/EBLIP/article/view/12373/13256. [Accessed 12 March 2013].
\end{thebibliography}
scores of students while building relationships with the librarian.\textsuperscript{36} Assessment that evaluates the cognitive, behavioral and affective changes in learning provides a big picture understanding of learning and instructional outcomes.\textsuperscript{37}

**Professional Reports and Existing Professional Data**

“Reinventing Undergraduate Education: A Blueprint for America’s Research Universities,” often referred to in the literature, called for research-based learning starting with an inquiry-based freshman year and the strategic use of technology.\textsuperscript{38} Several other professional learning groups mentioned the importance of the 2012 annual Horizon Report, which describes the impact and quality of learning analytics.\textsuperscript{39} A report from Abilene Christian University provided practical evidence that technology added to students’ experience through improved communication with teachers, increased control over of the learning environment, and improved collaboration.\textsuperscript{40}

**Appraisal/Decision**

After reviewing the evidence, the researchers knew they needed to forgo the lecture format and create a dynamic learning experience; they decided to conduct a needs assessment with students.

**Needs Assessment**

The Assessment Librarian contacted the University Office of Greek Affairs. The two departments made appointments with students. Through the interviews, the researchers hoped to identify the participants’ specific needs. Five participants were interviewed using open-ended questions. Four Greek students were interviewed, along with one other student interested in properly creating personal records. The results are listed below.

- Students wanted a workshop with a mix of discussion and hands-on activities.

\textsuperscript{36} Harold Goss Jr, “Extending Library Instruction: Using Blogger to Collaborate, Connect, and Instruct,” *Journal of Library & Information Services in Distance Learning* 4, no. 4 (2010): 166–84, available online at www.tandfonline.com/doi/abs/10.1080/1533290X.2010.524831#.Ua-x10DvtBk [accessed 12 March 2013].

\textsuperscript{37} Heidi Julien and Stuart Boon, “Assessing Instructional Outcomes in Canadian Academic Libraries,” *Library & Information Science Research* 26, no. 2 (2004): 121–39, available online at www.sciencedirect.com.proxy.lib.iastate.edu/science/article/pii/S0740818804000222 [accessed 12 March 2013].

\textsuperscript{38} The Boyer Commission on Educating Undergraduates in the Research University, *Reinventing Undergraduate Education: A Blueprint for America’s Research Universities* (Stony Brook, N.Y., 1998) available online at www.niu.edu/engagedlearning/research/pdfs/Boyer_Report.pdf [accessed 12 March 2013].

\textsuperscript{39} L. Johnson, S. Adams, and M. Cummins, *NMC Horizon Report: 2012 Higher Education* (Austin, Tex.: The New Media Consortium, 2012), available online at www.nmc.org/publications/horizon-report-2012-higher-ed-edition [accessed 25 April 2013].

\textsuperscript{40} Abilene Christian University—ACU Connected, *Abilene Christian University 2010–11 Mobile-Learning Report*, available online at www.acu.edu/technology/mobilelearning/documents/ACU_M-_2010-11.pdf [accessed 12 March 2013].
• They wanted to learn how to create “good” records as long as it wasn’t “too much to do.”
• The students asked that their work be made accessible 24/7 and part of the library’s collections.
• They wanted to have access to expert advice 24/7.
• They wanted to learn about digital recordkeeping as well as print.
• They wanted a “fun” workshop.

One result surprised the researchers:

• All of the students who were interviewed separately said they wanted a recruitment tool for getting new members.

These criteria shaped the goals, learning outcomes, and activities in the new workshop. Originally, the researchers were planning to focus on print records but, after conducting the needs assessment, incorporated digital records as well. The researchers realized an important, if not obvious, outcome. These days, most records, whether they are pictures, flyers, or house documents, are now born digital. After creating the new workshops the researchers would compare the results of the old lecture and the new workshops to assess if in fact the updated program was an improvement over the old one.

Application/Intervention
The researchers created hands-on learning activities that included both digital and print elements. The activities incorporated technology as much as possible, especially when creating assessments. The learning outcomes would be:

• To learn basic skills in records creation and management.
• To learn about collaborative opportunities with the Special Collections Department and the importance of student records through actively engaging with the community archive.
• To understand the importance of including correct metadata when adding images to a digital community archive.

Hands-on Learning
The participants stated they wanted to be active, to enjoy the experience and to create long-term records. The researchers held three workshops comprising of two sessions, each lasting two hours.
The first session in the workshop covered the maintenance and storage of print records. Basic archival supplies were provided to the students. The second session centered on digital records and storage. Participants were asked to bring their own materials for both the print and digital workshops.

The second workshop session focused on the creation, description, and preservation of digital images and documents. This workshop also introduced the idea of the hybrid model of a community archive, where the chapters are encouraged to regularly and actively upload images and other items to a share site on Shutterfly™. Due to the unlimited amount of space and the usability of the interface, the Archivist selected this cloud photo storage vendor. The Shutterfly™ share site is monitored by the Archivist, who routinely harvests new images and adds them to the university archives for permanent storage.

With additional workshops and increased publicity, the Greek Community Archives has the potential to create an easily sustainable collaboration between the archives and the chapters, in addition to meeting the fraternities’ and sororities’ needs to recruit new members and preserve their legacies.

For each session, the Archivist provided a ten-minute overview of fundamental concepts and issues related to the creation and preservation of records. She also walked the participants through basic procedures for proper storage of print and digital materials.

The Archivist sent each participant an e-mail with specific information regarding the workshops, including what items they should bring to each session, how to open a Shutterfly™ account, and a link to the pretest. Funds from a research grant for this program made it possible to purchase gift cards as incentives to participants.

**Assessments**

Four different assessments were used to measure participant learning and engagement. Goggle forms were used to create pre- and posttests (after beta-testing the instruments with students). Final pretests and posttests included questions about the creation and management of print and digital records. Additionally, questions also addressed the relevance of the workshops.41

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41. Sarah Passonneau and Michele Christian, "Pre-test, Post-test, and Comment Box: ISU Archival Workshop—Supplementary Material for Participant Learning in an Archival Education and Outreach Program: An Implementation of Evidence Based Librarianship and Information Science," Reference and Instruction Publications and Papers (Aug. 2013), available online at http://lib.dr.iastate.edu/refinst_pubs/40/.
As participants completed the posttest at the end of the workshop, they were asked to write a short response about one thing they learned and one question they still had. Students and alumni were also asked to comment on the best way to keep the collaboration going between the archives and the chapters. This was the second assessment point used to evaluate student learning.

The third assessment piece was photographs taken of participants during the workshop modules. Photo documents of an activity can complement other results and demonstrate processes. In this case, the Assessment Librarian asked the participants to explain what they were doing. This was written in a logbook and paired with the photo for later analysis. The researchers reviewed the photos to examine the participants’ process.

Finally, because the workshops centered on hands-on learning, the researchers created a rubric to assess participants’ skills. The rubric was based on the Born-Digital Archiving Rubric by Emily Doyle, which came from Megan Oakleaf’s RAILS site. The use of the rubric would provide the researchers an opportunity to evaluate the quality of the work produced by participants. If there was a pattern in which important elements to recording or maintaining records were missed by participants, the researchers could reevaluate and redesign the content of their workshops to more effectively focus on key learning outcomes.

Developing interrater reliability (consistency in the evaluation of the same phenomenon by two or more different raters) is important when implementing a

42. Ibid.
43. Uwe Flick, “Visual Data: Photography, Film and Video,” in An Introduction to Qualitative Research (Thousand Oaks, Calif.: SAGE Publications Limited, 2009), 240–46.
44. Valerie Haberl and Beth Wortman, “Getting the Picture: Interviews and Photo Elicitation at Edmonton Public Library,” available online at https://libres.curtin.edu.au/libres22n2/HaberlWortman_refereedl.pdf [accessed 12 March 2013].
45. Sarah Passonneau and Michele Christian, “Photos and Comments: Archival Workshop—Supplemental Material for ‘Participant Learning in an Archival Education and Outreach Program: An Implementation of Evidence Based Librarianship and Information Science’,” Reference and Instruction Publications and Papers (Aug. 2013), available online at http://lib.dr.iastate.edu/refinst_pubs/40/ [accessed 22 August, 2013].
46. Sarah Passonneau and Michele Christian, “Rubric: ISU Archival Workshop (Based on Doyle’s Archival Rubric at RAILS, 2011)—Supplementary Material for the Article ‘Participant Learning in an Archival Education and Outreach Program: An Implementation of Evidence Based Librarianship and Information Science’,” Reference and Instruction Publications and Papers (Aug. 2013), available online at http://lib.dr.iastate.edu/refinst_pubs/40/ [accessed 22 August, 2013].
47. Emily Doyle, “Born-Digital Archiving Rubric,” RAILS: Rubric Assessment of Information Literacy Skills (last modified Mar. 2011), available online at www.railsontrack.info/rubrics_details.aspx?wkid=144&catid=14 [accessed 12 April, 2011].
48. Megan Oakleaf, “Rubrics,” RAILS: Rubric Assessment of Information Literacy Skills (last modified Aug. 2013), available online at http://railsontrack.info/rubrics.aspx [accessed 12 April 2011].
49. Lorrie A. Knight, “Using Rubrics to Assess Information Literacy,” Reference Services Review 34, no. 1 (2006): 43–55.
50. Robert R. DeVellis, “Inter-Rater Reliability,” in Encyclopedia of Social Measurement 2, ed. Neil J. Salkind (Thousand Oaks, Calif.: SAGE Publications, 2005), 317–22.
rubric. Consensus estimates, consistency estimates, and measurement estimates are the three types of statistical interrater reliability models.\footnote{Megan Oakleaf, “Using Rubrics to Assess Information Literacy: An Examination of Methodology and Interrater Reliability,” \textit{Journal of the American Society for Information Science and Technology} 60, no. 5 (2009): 969–83, available online at \url{http://onlinelibrary.wiley.com/doi/10.1002/asi.21030/full} [accessed 12 March 2013].} Consensus estimates work when raters can agree on how to score participants’ products.\footnote{Marilee J. Bresciani et al., “Examining Design and Inter-Rater Reliability of a Rubric Measuring Research Quality Across Multiple Disciplines,” \textit{Practical Assessment, Research & Evaluation} 14, no. 12 (2009): 2, available online at \url{www.pareonline.net/pdf/v14n12.pdf} [accessed 12 March 2013].} For this research, it was important that the raters agreed on how to score the products; therefore, the consensus estimate was used.

Using these four different types of measures (pretest and posttest; short comments; photo artifacts and a rubric) provided different data points to assess the learning of participants. Triangulating the data with multiple assessments added rigor and validity in the final analysis of results.

The needs assessment, the workshop redesign, and the multipronged assessments addressed participants’ needs and learning. Two important and seemingly unlike needs were being met.

First: Greek participants had a 24/7 access to a digital community archive that included the participating chapters using it as a recruiting tool.

Second: Special Collections now had a portal to curate a new collection of Greek student and alumni digital records.

\section*{Results/Performance Evaluation}

The 34 participants included seven alumni and 27 students. The alumni group had four women and three men. The student participants included 16 females and 11 males. Four of the student participants had no house. Two students were African American, one was Latina American and the remaining 24 were European American.

\subsection*{1. Pretest and Posttest Results}

Tables 1–4 display the results related to \textit{Learning Basic Skills in Records Creation and Management}.

The posttest results show a great increase in skills and knowledge. Table 3 has a greater total number of participants reporting that they do/will use appropriate materials for their records in the posttest than in the pretest.
Table 1. A Comparison of Pretest and Posttest Results: How Skilled Are You in Creating Chapter Records That Will Last for 30 Years or More?

|                | Pretest Number | Pretest Percentages (from Total) | Posttest Number | Posttest Percentages (from Total) | Percentage Difference between Pre- and Posttests |
|----------------|----------------|----------------------------------|----------------|-----------------------------------|-----------------------------------------------|
| Very Skilled   | 8              | 23.53%                           | 13             | 38.24%                            | 15%                                           |
| Skilled        | 14             | 41.18%                           | 18             | 52.94%                            | 12%                                           |
| Slightly Skilled| 4              | 11.75%                           | 3              | 8.82%                             | -3%                                           |
| Unskilled      | 8              | 23.53%                           | 0              | 0.00%                             | -24%                                          |
| Total          | 34             | 100.00%                          | 34             | 100.00%                           | NA                                            |

Table 2. A Comparison of Pretest and Posttest Results: Where Do/Where Will You Keep Your Records (e.g. Scrapbooks, Governance Documents, etc.)?

|                | Pretest Number | Pretest Percentages (from Total) | Posttest Number | Posttest Percentages (from Total) | Percentage Difference between Pre- and Posttests |
|----------------|----------------|----------------------------------|----------------|-----------------------------------|-----------------------------------------------|
| Attic          | 1              | 2.94%                            | 0              | 0.00%                             | -3%                                           |
| Basement       | 2              | 5.88%                            | 0              | 0.00%                             | -6%                                           |
| Records Room/Library | 14        | 41.18%                            | 12             | 35.29%                            | -6%                                           |
| Living Room    | 0              | 0.00%                            | 0              | 0.00%                             | 0%                                            |
| Special Collections Department | 7        | 20.59%                            | 20             | 58.82%                            | 38%                                           |
| Don’t Know     | 3              | 8.82%                            | 0              | 0.00%                             | -9%                                           |
| Other          | 7              | 20.59%                            | 2              | 5.88%                             | -15%                                          |
| Total          | 34             | 100.00%                          | 34             | 100.00%                           | NA                                            |

Table three shows that, participants marked more boxes in the posttest than the pretest. It is unclear why this is the case. Of special note are the skills participants learned regarding the use of archival-like materials in the care and longevity of print materials.

An important aspect of maintaining digital records is keeping at least two copies.

During the workshop, the Archivist showed an example of digital rot for an image that was only five years old. The results from table 4 show an increase in the number of participants who will keep their digital records in more than one place.

A second set of questions measures the motivation and relevance of the workshops. Tables 5 through 8 illustrate how attitudes either did or did not change related to the purpose and relevance of the workshops; how participants rated the importance of collaborations; and why people attended the workshops.
Table 5 and 6 had only 33 responses in the posttest compared to 34 for the other posttest questions. It is probable that a participant accidentally skipped these two questions or did not want to answer the questions.

One fewer person in the posttest said that the workshop was very relevant compared with the pretest responses.

Some time was spent explaining the role Special Collections could play in keeping chapter records. Table seven shows the comparison of pre- and posttest results for the question “Would You Keep Your Chapter’s Records at Special Collections?” There were seven no responses in the posttest; three were students who felt this was a good idea, but they knew their chapter would not support the idea.
Of the four Greek alumni who said they would not keep their records in special collections, all but one felt that keeping records at Special Collections was a positive thing but felt that doing so might go against the National Office’s rules. One participant voiced this problem in additional comments by stating, “Have to wait and see. With floods it would be nice but I’ll have to contact our national office.”

Results for query in the posttest “Your Main Purpose for Attending This Workshop

| Table 5. A Comparison of Pretest and Posttest Results: For Your Needs, This Workshop Is: (Please Check Answer That Is Appropriate.) |
|---------------------------------------------------------------|
|                                              | Pretest Number | Pretest Percentages (from Total) | Posttest Number | Posttest Percentages (from Total) | Percentage Difference between Pre- and Posttests |
| Very Relevant                                      | 16             | 47.06%                          | 15              | 45.45%                          | –2%                                             |
| Relevant                                          | 11             | 32.35%                          | 13              | 39.39%                          | 7%                                              |
| Slightly Relevant                                 | 4              | 11.76%                          | 3               | 9.09%                           | –3%                                             |
| Irrelevant                                        | 0              | 0.00%                           | 0               | 0.00%                           | 0%                                              |
| Very Irrelevant                                   | 0              | 0.00%                           | 0               | 0.00%                           | 0%                                              |
| Other                                             | 3              | 8.82%                           | 2               | 6.06%                           | –3%                                             |
| Total                                             | 34             | 100%                            | 33              | 100%                            | NA                                              |

| Table 6. A Comparison of Pretest and Posttest Results: In Creating Chapter Records That Will Last for 30 Years or More, You Think You Are: |
|---------------------------------------------------------------|
|                                              | Pretest Number | Pretest Percentages (from Total) | Posttest Number | Posttest Percentages (from Total) | Percentage Difference between Pre- and Posttests |
| Very Confident                                    | 8              | 24%                             | 14              | 42%                             | 19%                                             |
| Confident                                         | 12             | 35%                             | 15              | 45%                             | 10%                                             |
| Unconfident                                       | 12             | 35%                             | 0               | 0%                              | –35%                                            |
| Very Unconfident                                  | 0              | 0%                              | 0               | 0%                              | 0%                                              |
| Other                                             | 2              | 6%                              | 4               | 12%                             | 6%                                              |
| Total                                             | 34             | 100%                            | 33              | 100%                            | NA                                              |

| Table 7. A Comparison of Pretest and Posttest Results: Would You Keep Your Chapter’s Records at Special Collections? |
|---------------------------------------------------------------|
|                                              | Pretest Number | Pretest Percentages (from Total) | Posttest Number | Posttest Percentages (from Total) | Percentage Difference between Pre- and Posttests |
| Yes                                             | 12             | 35.29%                          | 22              | 64.71%                          | 29.41%                                          |
| No                                               | 13             | 38.24%                          | 7               | 20.59%                          | –17.65%                                         |
| Already Do                                       | 0              | 0.00%                           | 0               | 0.00%                           | 0.00%                                           |
| Not Sure                                         | 9              | 26.47%                          | 5               | 14.71%                          | –11.76%                                         |
| Total                                            | 34             | 100.00%                         | 34              | 100.00%                         | NA                                              |
Is” are in table eight. Table Nine has the results for the question “Are You Interested in Developing the Digital Community Archive for the Greek Community?” The results of the pretest and posttest were promising, but it is widely understood that self-reporting can lead to bias because respondents want to respond in ways that make them look better or in ways they feel the researchers want them to respond.\textsuperscript{53} Implementing several tools measuring the learning experience that occurred during the workshop balanced the self-reporting of the pre- and posttests.

| Table 8. A Comparison of Pretest and Posttest Results: Your Main Purpose for Attending This Workshop Is: |
|---------------------------------------------------------------|---------------------------------------------------------------|
|                                                               | Pretest Number | Pretest Percentages (from Total) | Posttest Number | Posttest Percentages (from Total) | Percentage Difference between Pre- and Posttests |
| To Learn How to Maintain the History of Your Chapter          | 12             | 35.29%                           | 12             | 35.29%                           | 0%                                               |
| To Help Promote and Recruit New Members                       | 12             | 35.29%                           | 13             | 38.24%                           | 3%                                               |
| To Strengthen the Relationships with the National Organization | 3              | 8.82%                            | 3              | 8.82%                            | 0%                                               |
| Other:                                                         | 7              | 20.59%                           | 6              | 17.65%                           | −3%                                              |
| Total                                                          | 34             | 100.00%                          | 34             | 100.00%                          | NA                                               |

| Table 9. A Comparison of Pretest and Posttest Results: Are You Interested in Developing the Digital Community Archive for the Greek Community? |
|---------------------------------------------------------------|---------------------------------------------------------------|
|                                                               | Pretest Number | Pretest Percentages (from Total) | Posttest Number | Posttest Percentages (from Total) | Percentage Difference between Pre- and Posttests |
| Very Interested                                               | 12             | 35.29%                           | 20             | 58.82%                           | 23.53%                                           |
| Interested                                                    | 12             | 35.29%                           | 10             | 29.41%                           | −5.88%                                           |
| Uninterested                                                  | 3              | 8.82%                            | 4              | 11.76%                           | 2.94%                                            |
| Very Uninterested                                             | 7              | 20.59%                           | 0              | 0.00%                            | −20.59%                                          |
| Total                                                         | 34             | 100.00%                          | 34             | 100.00%                          | NA                                               |

2. Short Comments

There were 28 comments from the posttest, falling into three categories related to things participants learned and three categories for things they still had a question about. Things Learned included Digital Records with 13 comments. The

\textsuperscript{53} Jon A. Krosnick, “Survey Research,” \textit{Annual Review of Psychology} 50, no. 1 (1999): 537–67, available online at www.annualreviews.org/doi/pdf/10.1146/annurev.psych.50.1.537 [accessed 12 March 2013].
second category was Materials/Records with six comments. Four alumni and two students had comments in this grouping, which included working with the correct material with three comments, metadata with two comments, and storage with one comment. Collaboration was a main category for Things Learned. This included both working with the archives/special collections, with three comments, and working with the archives/special collections and Greek Student Affairs center.

The results for One Question You Still Have generated only 12 comments, almost half from alumni. They uniformly had questions/concerns regarding how to manage large projects. In follow-up conversations, this group had concerns regarding the preservation/organization of old print records and the best method to proceed. Four comments from students asked or addressed the best ways to develop digital archives with pointed statements to “spend less time on print.” The other group of questions related to keeping chapter materials at Special Collections Department.54

3. Photo Record

The photos showed all students and alumni engaged and involved with the process. Pictures were printed and/or displayed on the computer. Participants were asked to describe what they saw in the picture. The researchers recorded the comments in a logbook. The comments were one data point that confirmed participants correctly understood the processes.55 Footnote 44 provides the URL that includes the document with some of the photos and comments.

4. Rubric

The researchers reviewed the print and digital images produced by the participants. The print images were reviewed for three factors:

1. Recording tool: Did the participant use soft lead pencils or a different writing tool?
2. Information: Did the participant include Who, What, Where, and When (WWWW) in recording the descriptive information?
3. Care: Did the participant put the print material into a photo archival cover?

54. Sarah Passonneau and Michele Christian, “Short Answer Comments from the Archival Workshop: Archival Workshop - Supplementary Material for the Article ‘Participant Learning in an Archival Education and Outreach Program: An Implementation of Evidence Based Librarianship and Information Science,’” Reference and Instruction Publications and Papers (Aug. 2013), available online at http://lib.dr.iastate.edu/refinst_pubs/40/ [accessed 22 August, 2013].
55. Passonneau and Christian, “Photos and Comments.”
For the digital products put into the digital archive, there were also three areas evaluated:

1. Recording area: Did the participant record the information in the right location under properties?
2. Information: Did the participant include WWWW in recording the descriptive information?
3. Place: Did the participant put the image in the right file in the digital archive?

Out of 60 print products, 22 did not include part of each WWWW. All participants used the correct type of pencil both for the work they did in the workshop and the materials they recorded between the first session workshop and second session of the workshop. Only 38.24 percent (13) of the photos worked on between workshops had sleeves when the participants returned for the second session. The main reason for this was, as one participant stated, “I ran out of sleeves.” When reminded that participants could get the correct sleeve at the local craft store, participants noted “they forgot.” This implies that participants learned important skills but would follow the path of least resistance when maintaining materials.

Of 102 digital products, information was always recorded in the correct place. At the same time, not all images (only 41%) had complete WWWW information. The number one reason, participants explained, was that they did not have the information nor did they know where to get the information. Other participants stated they included all the information they had. While the results in this area are not overwhelmingly positive, it is important to note the large gain in knowledge and skills in this area. Using the rubric’s scale (beginning, developing or exemplary) showed that the participants as a whole were in the developing range in terms of their skills.56

All the participants said they learned more about the partnerships between the Special Collections/Archives department. Six months after the first workshop series, the archivist noted four additional Greek chapter donations, compared to only one donation in the six months prior to the first workshop series.

**Discussion: Evaluate Performance**

In EBLIP, it is important to evaluate the process and compare past activities with the current activities. This section of the paper will analyze and compare the outcomes of the hands-on learning workshops to the former lecture format.

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56. Passonneau and Christian, “Rubric.”
Learning

There were several long-term changes between the "sage on the stage" format and the hands-on learning workshops. One of the biggest changes was the ability to review participants’ learning and skills through the products they produced. A significant minority of images had all the correct metadata. Most often, the metadata missing from images included exact dates or all the names of people in an image.

There were 26 participants in the old lecture format; 34 participants took part in the new hands-on learning workshops. The results from the new hand-on learning workshops showed 26 percent increase compared to the old lecture results in participants thinking it was a good idea to store their materials in Special Collections.

The photos showed the engagement of participants. Due to the fact that participants were learning many new skills, a researcher took the pictures so as not to interrupt their workflow. Indeed, it is worth noting that most uses of photography in research expect the participants themselves to take the photos.57

The results of the rubric show gains in participants’ skills. In the former lecture format, participants did not work with their own materials. Therefore, no comparison can be made between products produced at the different programs. At the same time, the researchers now have a method of reevaluating participants’ skills over time.

Partnerships

Ongoing Greek donations to Special Collections/Archives and contributions to the community digital archive indicate both an interest in working with the department and enthusiasm for the digital community archive. The library, the Greek Affairs Office, and Greek leadership are discussing how to make this a sustainable, enriching program for all stakeholders. The old program did not generate partnerships.

Collections

The archives now have a growing relationship with current Greek students and alumni. The goal is to assign one student who works in the Greek Affairs office to work with the archives to monitor the acquisition of the photos by participants in the community archives to ensure the metadata is correct. Additionally, discussion of policies related to appropriate images and safeguarding chapters’ initiation rites and other “secret” rites are an important part of the community archives’ success.

57. Xavier Matteucci, "Photo Elicitation: Exploring Tourist Experiences with Researcher-found Images," *Tourism Management* (2012): 190–197, available online at www.sciencedirect.com/science/article/pii/S026151771200129X [accessed 12 March 2013].
The current success of this community archive collection is measured by gradual but continued growth, which is a positive trend compared to the past.

**Limitations**
This research included the results from three workshops, in which each workshop had two sessions—one for print and another for digital records that only included participants from the Greek community. Additionally, this involves only one institution, well known for its high number of Greek students active in all areas of college life.

Involving different student groups would be an important future direction for this project. Can these results be replicated with different student groups on this campus, and at other universities, colleges (including community colleges), and other institutions of higher education? It would be important to work with other archives to replicate and/or validate the results from this research.

**Conclusion**
The EBLIP model is recursive and the researchers continue to refine this project. After three workshops in which many participants wrote comments stating they wanted more time to work with digital images instead of print records, the workshops are now focusing on the digital community archive. Separate workshops and one-on-one consultations have been developed to address the long-term “preservation” projects that Greek alumni said are of great concern to them. Additionally, the researchers are expanding their efforts to other student groups, including the governing student bodies and other long-established groups.

Academic librarians must think outside the box to stay relevant to community members. This research shows that a thoughtfully implemented EBLIP research project led to the creation of new partnerships, a new collection. This highlights the central role the library can play in nurturing an essential, unique university collection that showcases an important campus group: Greek students.