Archives, Undergraduates, and Inquiry-Based Learning: Case Studies from Yale University Library

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Abstract

This article discusses the integration of primary sources into the teaching of undergraduate courses through the application of specific learning theories. Creative assignments and inquiry-based learning exercises illustrate how librarians and archivists can collaborate with faculty to integrate collections into the curriculum. Through several case studies from Yale University, the article examines how learning theory can provide inspiration for partnerships with faculty and new outreach approaches.

The archival community has long encouraged the use of archival and primary sources in research and teaching at colleges and universities. Archivists and librarians work with educators to integrate primary source materials into the curriculum, most often in support of in-depth original research projects.[1] In the last decade, resulting in part from the Boyer Commission Report on Undergraduate Education, universities began to teach undergraduates with primary sources and to encourage undergraduates to

[1] Some of the numerous works on this topic include Michelle McCoy, "The Manuscript as Question: Teaching Primary Sources in the Archives—The China Missions Project," *College and Research Libraries* 71, no. 1 (January 2010): 49–62; Marcus Robyns, "The Archivist as Educator: Integrating Critical Thinking Skills into Historical Research Methods Instruction," *American Archivist* 64, no. 2 (Fall/Winter 2001): 363–84; Mary Jo Pugh, *Providing Reference Services for Archives and Manuscripts* (Chicago: Society of American Archivists, 2005); and presentations and bibliography from "Beyond Show and Tell: Engaging Undergraduates with Primary Sources," 2008 Society of American Archivists Annual Conference session, http://saa.archivists.org/Scripts/4Disapi.dll/4DCGI/events/eventdetail.html?Action=Events_Detail&InvID_W=672, accessed 7 April 2010.

perform original research.[2] This focus on primary sources and original research has opened the door for librarians and archivists to partner with faculty to bring primary source materials into the classroom and curriculum. Often this integration of primary sources is done through a traditional orientation or "treasure tour" highlighting the gems of archival collections. Many faculty members find this approach adequate for their needs.[3] However, faculty often don't realize that librarians and archivists can help them design interactions with primary sources based on their course learning objectives using active learning techniques that ask students to engage deeply in an interpretive activity. Orientations or more in-depth research sessions on primary sources in preparation for a research paper or project are effective for some faculty needs; however inquiry-based learning exercises offer a middle ground between these general orientations and in-depth research and enable us to partner with faculty in support of meeting faculty goals in teaching undergraduates.

Learning theory and cognitive development studies show that students are ready early in their college career to engage with unmediated primary sources.[4] Archivists and librarians can work with faculty to create assignments and active learning exercises that highlight their collections, and more importantly, foster student cognitive development and critical thinking skills. This article reports on applications of specific learning theories to the integration of primary source exercises into undergraduate courses in support of faculty pedagogical goals. I argue, based on educational theory and practical case studies of assignments implemented at Yale, that one of the best ways to increase student engagement and teach higher-level critical thinking skills is to use active learning techniques such as inquiry-based learning with objects from collections. Assessment of the effectiveness of these applications is addressed, not based on student outcomes as Yale is just beginning to implement these new approaches, but rather on how new outreach and partnerships with faculty have integrated our collections into

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[2]   Boyer Commission on Educating Undergraduates in the Research University, *Reinventing Undergraduate Education: A Blueprint for America's Research Universities* (New York, 1998), Stony Brook University, http://naples.cc.sunysb.edu/Pres/boyer.nsf/, accessed 15 February 2010.

[3]   Wendy Duff and Joan M. Cherry, "Archival Orientation for Undergraduate Students: An Exploratory Study of Impact," *American Archivist* 71, no. 3 (Fall/Winter 2008); 499–529.

[4]   Robyns, "The Archivist as Educator." Robyns offers an excellent review of the research and literature on the stages of cognitive development of college students. He cites Irvin J. Lehman's findings in a survey of 1,051 college students stating that "freshman and sophomores were more open to critical thinking, because, at this stage, they are cognitively more receptive to new ideas and hold fewer 'stereotypic' beliefs." Irwin J. Lehman, "Changes in Critical Thinking, Attitudes, and Values From Freshman to Senior Years," *Journal of Educational Psychology* 54, no. 6 (1963): 305–15; Patricia M. King and Karen Strohm Kitchener, *Developing Reflective Judgment: Understanding and Promoting Intellectual Growth and Critical Thinking in Adolescents and Adults* (San Francisco: Jossey-Bass, 1994); William G. Perry, Jr., *Forms of Intellectual and Ethical Development in the College Years; A Scheme* (New York: Holt, Rinehart and Winston, 1970).

the curriculum through teaching exercises rather than traditional faculty and student research.

The Educational Landscape and Learning Theory

In 1998, the Carnegie Foundation commissioned *Reinventing Undergraduate Education: A Blueprint for America's Research Universities,* a report focused on improving undergraduate education. Also known as the Boyer Report, this work recommended creating opportunities for undergraduates to engage in research. Research-based learning and inquiry-based learning are strategies suggested for teaching students early in their undergraduate careers. As the report notes, first-year students should be exposed to a learning environment in which they "deal with topics that will stimulate and open intellectual horizons and allow for opportunities for learning by inquiry in a collaborative environment."[5]

The report often refers to the theory of inquiry-based learning, which grows out of a number of pedagogical approaches. Neil Postman and Charles Weingartner first articulated it as the "inquiry method" in 1969 in *Teaching as a Subversive Activity.* The authors posit that learning occurs through inquiry and asking questions, rather than through absorption of static knowledge. This method places the students at the center of learning and the teacher as a guide through the inquiry process.[6] In the last four decades, the underlying premise of inquiry-based learning has remained the same, though it has been repackaged in new learning theories such as problem-based learning, self-directed learning, cooperative learning, discovery learning, and even active learning.[7] One study on integrating inquiry-based learning into the curriculum at McMaster University states that

> …active engagement with content putatively results in deeper understanding and greater integration and internalization than traditional didactic, memory-oriented approaches to learning. Inquiry as a teaching method seeks to develop inquirers and to use curiosity, the urge to explore and to understand, as motivators leading to learning through personal engagement.[8]

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[5] Boyer Commission, *Reinventing Undergraduate Education,* 20.

[6] Neil Postman and Charles Weingartner, *Teaching as a Subversive Activity* (New York: Delacorte Press, 1969).

[7] Virginia S. Lee*,* David Greene, Janice Odom, Ephraim Schechter, and Richard W. Slatta, "What Is Inquiry Guided Learning?," in *Teaching and Learning Through Inquiry: A Guidebook for Institutions and Instructors,* Virginia S. Lee (Sterling, Va.: Sylus, 2004); Christopher Justice, James Rice, Dale Roy, Bob Hudspith, and Herb Jenkins, "Inquiry-based Learning in Higher Education: Administrators' Perspectives on Integrating Inquiry Pedagogy into the Curriculum," *Higher Education* 58, no. 6 (2009): 841–55.

[8] Justice et al., "Inquiry-based Learning in Higher Education, 843.

Another key component of inquiry-based learning is assigning meaningful roles for students within the inquiry process. Creating roles for students gives them a sense of responsibility and helps to model the desired learning outcome. The National Science Foundation outlines this aspect of inquiry-based learning, noting that

> Within inquiry-based learning, the teacher creates situations in which students take the role of scientists or mathematicians. Students observe and question phenomena; pose explanations of what they see; devise and conduct tests to support or contradict their theories; analyze data; draw conclusions from experimental data; design and build models; or any combination of these. Inquiry-based learning goes beyond memorization of facts to promoting new ways of thinking, emphasizing the development of questioning and problem-solving skills and the nurturing of inquiring attitudes or habits of mind that will enable individuals to continue the quest for knowledge throughout life.[9]

This definition is written from the perspective of science, but we can easily substitute historians, art historians, curators, or even archivists in the role of scientists and mathematicians. For example, Professor Ann Schmiesing at the University of Colorado collaborated with Special Collections Librarian Deborah Hollis to integrate collections into German courses using student-centered learning and inquiry.[10] Students in her graduate-level course assumed the role of curators creating an exhibition on eighteenth- and twentieth-century definitions of the Enlightenment using items from the library's special collections. Students in her undergraduate course selected materials for the class visit to special collections and created "a list of topics they hope the materials will illuminate."[11] The emphasis on role assignment and student choice helps to create a learning environment in which students are responsible for their own learning.

Subsequent reports and studies show a notable increase in undergraduate research in the sciences following the Boyer Report.[12] It is, however, more challenging to document an increase in original research and collection integration in the humanities curriculum. To increase undergraduate research in the humanities, Schmiesing and Hollis suggest educators treat the archives or special collections as "a research laboratory in which students polish their archival research skills and learn techniques for writing for diverse scholarly and public

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[9] Center for Inquiry-Based Learning, "*What Is Inquiry-Based Learning?*," http://tasc.pratt.duke.edu/about.inquiry.php., accessed 4 February 2010.

[10] Ann Schmiesing and Deborah R. Hollis, "The Role of Special Collections in Humanities Undergraduate and Graduate Teaching: A Case Study," *Portal: Libraries and the Academy* 2, no. 3 (2002): 465–80.

[11] Schmiesing and Hollis, "The Role of Special Collections in Humanities," 743.

[12] Hu Shouping, George D. Kuh, and Joy Gaston Gayles, "Engaging Undergraduates Students in Research Activities: Are Research Universities Doing a Better Job?," *Innovative Higher Education* 32, no. 3 (October 2007): 171.

audiences"; in essence, viewing the archives as a research laboratory for the humanities.[13] The Society of American Archivists' *Guidelines for College and University Archives* develop this idea: "Academic archives should also serve as an educational laboratory where students may learn about: a particular subject; the different types of available resources; the proper procedures and techniques for using primary archival resources in their research projects."[14] The characterization of archives as laboratory creates an experimental space where hands-on experience in analyzing, asking questions of, and telling stories with primary source documents are possible. Archival materials allow for the development of analytical and interpretive skills; skills often associated with the empirical work done in a laboratory.

Case Studies from Yale University

In the last decade and a half, the Yale University Library has been rethinking its core service model related to faculty and student support. To address the changing technological landscape and the need for more coordinated outreach to faculty, and to better integrate library collections into teaching and learning at Yale, the library established the Collaborative Learning Center (CLC) in 2007.[15] The center brings together the expertise and support services of units across campus engaged in teaching and learning activities.

The core of the CLC service model is course consultation. During this process, a team of experts from across campus meets with faculty about a particular course or instructional problem. During a consultation, the team explores course objectives, assignments, and the particular collections, technology, and new teaching approaches that would best support the course. We have been quite aggressive in our outreach efforts to set up these course consultations. As Daniel Traister states, even if in the past faculty initiated contact with the library, "in truth, no laws legislate such an order of proceeding. Librarians who look for classes to which something of potential use to the students (or faculty) might be found in collections can always propose such a visit to instructors rather than waiting to be asked."[16] Tamar Chute also advocates for aggressive outreach techniques including mining course catalogs and syllabi for possible connections

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[13] Schmiesing and Hollis, "The Role of Special Collections in Humanities," 465.

[14] Society of American Archivists, "Guidelines for College and University Archives," http://www.archivists.org/governance/guidelines/cu_guidelines5.asp, accessed 7 April 2010.

[15] The Collaborative Learning Center supports the teaching and learning efforts at Yale University. The center offers a mix of expertise and services to help faculty prepare lectures, assignments, and teaching methods. Support team assist faculty with the use of collections, pedagogy, and technology in their courses. See http://clc.yale.edu, Yale University, Collaborative Learning Center, "About the CLC.".

[16] Daniel Traister, "Public Services and Outreach in Rare Book, Manuscript, and Special Collections Libraries," *Library Trends* 52, no. 1 (2003): 97.

between institutional collections and the curriculum.[17] We take this advice seriously at Yale; each year a small team of archivists and librarians looks through the course catalog to identify courses that have content related to primary sources housed in our special collections and archives. We then contact professors individually by email outlining both the collections relevant to their upcoming course and a description of exercises and assignments using our collections that we have facilitated in previous courses. At present, about 25 percent of the professors contacted arrange a course consultation. The key to success in these outreach efforts is in the approach. Instead of contacting professors with a plan that sounds overly programmatic (a mistake made by librarians trying to shoehorn faculty needs into the strictures of the Information Literacy Competency Standards[18]), we've had some success at Yale by listening to faculty and trying to understand their specific objectives and suggesting some creative collaborations based on learning theory. The case studies below do not represent a radical new type of service model; they illustrate how learning theory is the specific place from which we gain inspiration for partnerships with faculty.

Student-Curated Online Exhibit

The Intellectual in Politics, an undergraduate seminar taught by graduate instructor Justin Zaremby, employed an assignment that began with collaboration between Zaremby and archivist Diane Kaplan in the Manuscript and Archives (MSSA) Department. The course was cross-listed in humanities and political science and comprised fourteen sophomores and juniors. While earning his graduate degree at Yale, Zaremby worked in the MSSA Department and developed an appreciation for the collections. As he set out to design the course The Intellectual in Politics, he approached Kaplan about the possibility of integrating MSSA materials into his course. Kaplan arranged a CLC course consultation with a team consisting of an instructional technologist, a librarian, and a staff member from the Visual Resources Collection to discuss Zaremby's learning objectives for the course.[19]

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[17] Tamar G. Chute, "Perspectives on Outreach at College and University Archives," in *College and University Archives: Readings in Theory and Practice,* ed. Christopher J. Prom and Ellen D. Swain (Chicago: Society of American Archivists, 2008).

[18] Association of College and Research Libraries, "Information Literacy Competency Standards for Higher Education," http://www.ala.org/ala/mgrps/divs/acrl/standards/informationliteracycompetency.cfm, accessed 29 March 2010. For a full discussion of the drawbacks of using the term "Information Literacy" with faculty, see Rebecca S. Albitz, "The What and Who of Information Literacy and Critical Thinking in Higher Education," *Portal: Libraries and the Academy* 7, no. 1 (2007): 97–109.

[19] The course support team consisted of Diane Kaplan, head of Public Services in Manuscripts and Archives; Pam Patterson, systems programmer in the Instructional Technology Group; Carolyn Caizzi, technology specialist in the Visual Resources Collection; and Barbara Rockenbach, director of Undergraduate and Library Research Education.

Aside from identifying the need for students to work with primary source objects as a course objective, Zaremby also wanted his students to understand how intellectual movements affect politics and how the academy factors into specific moments in political history. As a result of the course, he wanted students to better understand the ethical implications and responsibility of those involved in this interchange of politics and intellectualism. Drawing inspiration from the University of Colorado case study discussed earlier and the inquiry method, the team designed a course assignment and identified support necessary to help Zaremby achieve his goals.[20]

In the resulting course assignment, students designed and created an online exhibition based on the themes of the course. In the syllabus, Zaremby stated, "In lieu of the traditional seminar paper, students will work together to curate an on-line exhibit on the relationship between the university and the larger world. Students will work with the remarkable collection at the Manuscripts and Archives division of Sterling Memorial Library to explore how the themes of the course are revealed through historical moments and figures. This assignment counts as 50% of the course grade."[21] Students assumed the role of curator, each selecting five documents around which they created a narrative about a moment or theme. These student-curated mini-exhibits work together to form a larger online exhibit, organized around the themes of intellectuals, politics, and education.[22]

Central to this assignment was an inquiry-based exercise that took place during class time involving members of the course support team and the decorative arts curator, John Stuart Gordon, from the Yale Art Gallery. The goal of the ninety-minute session was to introduce students to the course assignment and to the potential collections from which they could choose objects. Gordon began by describing what it means to be a curator—the process of defining a thesis for an exhibit, the concepts of inclusion and exclusion involved in object selection, and the need to create a narrative thread through the exhibition text. He then walked students through the design of an exhibit, modeling the curatorial process

The class broke into four groups of three or four students and examined specific online exhibitions. They were given twenty minutes to explore the exhibit and to answer questions about its effectiveness. The students were also asked, as curators, to critique the choice of objects as they related to the exhibition's stated thesis. The final component of this peer-based exercise required students to report their findings to the class, giving them some experience and

[20] Schmiesing and Hollis, "The Role of Special Collections in Humanities,"476.

[21] Justin Zaremby, The Intellectual in Politics Course Syllabus (Yale University, Spring 2009).

[22] The online exhibit, *Otherwise Engaged: Intellectuals, Politics, and Education*, can be found at Yale University Library, http://www.library.yale.edu/mssa/exhibits/OtherwiseEngaged/, accessed 21 October 2010.

confidence that they could apply to their own curatorial and design work.

Following this class session, students visited MSSA individually, where they received guidance from the reference staff in using finding aids and viewing collection materials. Zaremby required students to make at least one visit to the collection to spend time with the actual objects, making careful selections before these objects were digitized. The students created wall labels for the digitized objects in their online exhibit, which required some research using secondary literature, but the students worked primarily with the source documents to produce the exhibit text. In some cases, students worked with several collections to form their mini-exhibit, but most often students found connections between objects in a single collection with guidance from MSSA staff.

From the perspective of the course instructor, Justin Zaremby, the key for student learning was having students interact with primary source objects in the archives to aid their understanding and retention of the course material. The theory of object-based learning (OBL), an inquiry method, inspired the instructional design of the assignment and in-class exercise. OBL is defined as learning that is done through direct interaction with objects. Most of the literature on OBL derives from museum studies, especially museum education.

Eilean Hooper-Greenhill discusses the role of museum objects in inspiring thought and encouraging learning.[23] She compares the recall rates of object-based learning with more traditional forms of learning and observes that the "use of interactive exhibits and handling or talking about objects promotes recall rates as high as 90% compared with reading (10%), hearing (20%), and watching (30%)."[24] In a discussion of art objects, Philip Yenawine describes his move from teaching about objects to teaching with objects stating, "Now I often seek to grasp what people already know that I can help them use to begin to decode unfamiliar work. I switch the focus from what objects say to what viewers think."[25] Both Yenawine and Zaremby turn over some authority to the learners. Zaremby did not serve as the gatekeeper of course content, but as facilitator of learning, letting his students participate in the selection of their objects of inquiry, thus inviting them to become authorities themselves. The creation of the online exhibit expanded the students' authority beyond that of the traditional term paper, because their audience was not just their professor, but their fellow classmates and others in the Yale community who viewed the online exhibit.

In assessing the outcomes of this collaboration, we have Zaremby's satisfaction with the final products and student responses as our evidence. Zaremby

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[23] Eilean Hooper-Greenhill, *Museums and their Visitors* (New York: Routledge, 1994).

[24] Hooper-Greenhill, *Museums and their* Visitors, 145.

[25] Danielle Rice and Philip Yenawine, "A Conversation on Object-Centered Learning in Art Museums," *Curator* 45, no. 4 (October 2002): 289–301.

said, "I hope this project will serve as a model for further collaboration between undergraduate seminars and the remarkable collections housed at Yale. Students unanimously agreed that this assignment provided an enjoyable yet challenging opportunity for archival research and curating (a new experience for all of them)."[26] Through this assignment, students participated actively in the intellectual and aesthetic process of creating an online exhibit, their own learning process, and in the learning process of their peers.

Asking Questions of the Documents

A second course where a team applied inquiry-based methods to contribute to course learning objectives was a freshman seminar called African American Freedom Movements in the Twentieth Century, taught by history professor Glenda Gilmore. Soon after his arrival at Yale, archivist Bill Landis scheduled coffee meetings with many of the history professors to learn about their work and research needs. In an initial meeting with Gilmore, he learned that she was concerned that her students were unable to integrate primary sources from Yale collections with secondary sources to develop an argument in their written work. In her experience, when students were required to use primary sources, they just added them to their paper without connecting them to larger historical issues. Readers of Yale senior essays also identify this as a problem. Students tend to find a primary source related to their topic and drop it in the middle of the paper with no understanding of how that source fits into a larger scholarly dialogue in the secondary literature. Professor Carol A. Senf from the George Institute of Technology also cites this concern when trying to integrate primary sources into an English course assignment, stating that the professors are often, "disheartened by the inclination of some students to compile material from various sources without thinking why that material is relevant or useful to their topics."[27]

As a result of this conversation, Landis and Gilmore began a collaboration to address this issue in students' written work. Landis invited the American history librarian and the director of Undergraduate and Library Research Education to participate in the collaboration as well.[28] The course learning objectives specified that students be able to 1) write a paper using only primary sources and a single secondary source; 2) act, think, and argue like historians;

[26] Justin Zaremby, email to author, 20 July 2009.

[27] Carol A. Senf, "Using University Archives to Demonstrate Real Research," *Changing English* 12, no. 2 (August 2005): 297–307.

[28] The course support team consisted of William Landis, head of arrangement, description, and metadata coordinator; Gregory Eow, Kaplanoff Librarian for American History; and Barbara Rockenbach, director of Undergraduate and Library Research Education.

3) ask historical questions of primary source materials and formulate a hypothesis; and 4) demonstrate an understanding of historical methods. Gilmore believed that students needed exposure to primary source materials both inside and outside of class to achieve these objectives. Two in-class sessions were designed to support her goal of helping students better understand both the kinds of questions that primary source documents can help generate and how one might ponder those questions as the basis for more intensive research. The design of these two ninety-minute sessions was based on the inquiry method and student role assignment.

The assignment began with an in-class session during which Landis and Gilmore introduced the students to the concept of archives and modeled the process of using historical evidence to generate questions and make arguments about history. During this session, Landis and Gilmore introduced several primary source documents from the William Sloane Coffin, Jr. papers.[29] Coffin was the chaplain at Yale from 1958 to 1975, and, during this time, he participated actively in the civil rights movement. Landis and Gilmore used a letter from this collection to model the process of historical analysis, leading students in discussing the types of questions the letter raises and linking those questions to the secondary source that students were reading for the course. The letter came from a Yale alumnus, who, angered by Coffin's support for the Freedom Rides, addressed it to "Rev. Rabble Rouser Wm. S. Coffin Freedom Riding Jailed Chaplain of Yale University."[30] The students were surprised to read such an articulate, and yet vitriolic, letter from a well-educated Yale alumnus opposing Yale's involvement in the civil rights movement. The students asked many questions about where the author of the letter was from and what the author did for a living, raising important issues of regional and professional influences on U.S. citizens' beliefs about race during the 1960s.

The students broke into four groups of three students and assigned a box containing items selected from the Coffin collection.[31] The process began in class, but Gilmore required the students to visit MSSA outside of class to spend more time with the documents in preparation for the second class session. The MSSA reference staff welcomed the opportunity to work with these groups, since the staff often finds that students exposed to collections early in college return to use them later for their junior seminars and senior essays. In the second session, students presented the documents in each of their boxes to their

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[30] William Sloane Coffin, Jr. Collection, Manuscripts and Archives, Yale University, MS 1665, Series I, box 13 f. 266 1 page + 1 envelope + 8 clippings. Notes: hate mail, vitriolic.

[31] Items included objects such as photographs; Black Panther materials such as a "Black Panther Coloring Book," a 1969 memo from the FBI New Haven director quoting text from a Black Panther press release. and a letter from an alum expressing dismay at Yale's awarding an honorary degree to Martin Luther King, Jr.

classmates, discussing possible narrative threads and sharing questions and issues raised by the documents.

Several learning theories were applied to the design of these two sessions. The goal of the first session was to model the historical method, using the inquiry process, to increase students' confidence in their ability to do this type of work. Educational theorist Albert Bandura was one of the first to connect student confidence and learning in his theory of self-efficacy.[32] Self-efficacy, as it relates to education, places one's belief about his or her ability to succeed in a given situation at the center of learning. When students encounter barriers in their learning, their level of self-efficacy indicates the amount of energy they will exert in that learning situation. All too often, librarians and archivists focus on teaching and building skills rather than building confidence. Until students feel comfortable with what is being asked of them in a given assignment, they are neither motivated nor capable of engaging fully in the work, which explains why modeling is such an important aspect of research education. Modeling to increase students' self-efficacy was particularly important in this course since it was a freshman seminar. None of these students had encountered unmediated primary source materials before.

The work of William Perry in his construction of cognitive development bolsters this notion of self-efficacy. Perry hypothesizes that students develop intellectually as they move back and forth between internal and external authority. First- and second-year college students have spent most of their schooling with secondary, predigested materials, thus building a framework of external authority. Once in college, they are ready to engage with unmediated primary sources to begin to build internal authority. In other words, when faced with a primary source document, students need to process a multiplicity of interpretations, which leads to a need on the part of students to trust their own interpretations and not rely on external authority. Perry's scheme provides archivists and educators with evidence that undergraduates, even freshman and sophomores, are capable of engaging with primary source materials in an attempt to build their internal authority. In fact, this scheme suggests that in building internal authority early, students may in fact be better prepared to continue to higher levels of development later in their college career.[33]

Using insights from Bandura and Perry as a foundation, the inquiry exercise used in these two sessions is referred to as "think-pair-share." This active learning technique asks students first to think about a new concept individually while the instructor explains it. After time for individual thought, students are then paired to discuss the new concept together, often with a leading question

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[32] Albert Bandura, "Self-efficacy Mechanism in Human Agency," *American Psychologist* 37 (1982): 122–47. See also Duff et al., "Archival Orientation for Undergraduate Students."

[33] Perry, Jr., *Forms of Intellectual and Ethical Development in the College Years.*

on the topic. Last, students are asked to share their ideas with the class through an informal presentation.[34] This technique, while simple, works very well for students who are encountering primary source materials for the first time. We employed this technique over two course sessions, which helped to support student confidence building and understanding of the materials they encountered in the archival collections.

The think-pair-share exercise also puts students in a role, this time as a historian. The in-class active learning exercise supported the idea of building internal authority, as the students had to draw their own conclusions about the documents and, in addition, take on the role of teacher for their peers as they shared their thoughts in the class presentation. Gilmore believes this active learning exercise for freshman is essential to their development as historians, because "if we wait until the students are seniors they will see history as received wisdom."[35] Thus, she seeks to teach students how to think, not what to think. Additionally, Gilmore believes this exercise improved the quality of her students' writing, especially their ability to integrate the primary sources into larger historical arguments.

Rewriting History

These two case studies depended on strong partnerships with individual faculty members. This third case study involves a larger Library Research Education initiative in partnership with the Yale History Department. In the 1990s, the Yale Library and the Yale History Department created a two-part program to ensure all history majors acquired the skills to navigate the increasingly complex world of print and digital library resources. Participation in this program is mandatory, and all history majors must attend two library sessions: an orientation in their junior year and a senior essay colloquium during the semester or year they are working on their senior essay. In 2009, this program underwent a major overhaul.[36] Through strong partnerships with special collections and archives on campus, the Library Orientation for History Majors now centers on an inquiry-based learning exercise similar to the one used in Gilmore's course.

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[34] Ruth Kennedy, "In-Class Debates: Fertile Ground for Active Learning and the Cultivation of Critical Thinking and Oral Communication Skills," *International Journal of Teaching and Learning in Higher Education* 19, no. 2 (2007): 187.

[35] Professor Glenda Gilmore, interview with author, 30 April 2008.

[36] Gregory Eow, the Kaplanoff Librarian for American History, has dramatically redesigned the program. The Library Orientation now incorporates archival materials from the Beinecke Rare Book Library, Manuscripts and Archives, and the Divinity Library to create an active learning environment. The senior essay, which once consisted of library classes, now consists of individual pairings of library staff and senior essayists.

According to the learning objectives that guided the development of the new exercise, students should be able to 1) recognize and demonstrate the difference between primary and secondary sources; 2) assess the value of a given source as it relates to an argument; and 3) engage in critical thinking about primary sources. Previously, the orientation was lecture based; now the session is structured around reproductions of primary source documents in analog form given to students during the session. At the start of the session, students are given a choice of materials to work with during the session. From the Manuscripts and Archives collections, we provide as a possible topic, the civil rights movement, using the William Sloane Coffin, Jr. papers. From the Beinecke Rare Book and Manuscript Library, we provide ephemera from the 1904 world's fair (the Louisiana Purchase Exposition) in St. Louis, specifically pictures of the Philippines exhibit. The fair featured a sort of human zoo of different Filipino tribes and celebrated United States annexation of the islands. The final option is a set of materials on the Boxer Rebellion from the Day Missions Library, a library within the Divinity School focused on materials documenting missions around the world. These varied choices allow students some agency in the structure of the session.

The fourteen students work in groups of two to three to examine a folder of reproductions of documents for fifteen minutes, identifying questions the documents raise. The students are asked specifically to think about a topic for a junior seminar paper for which they might use these documents as evidence. Following the think-pair-share model, students report back to the class on the research questions raised in their groups. These questions form the basis of the rest of the session as students use Yale-licensed online resources such as *America History and Life*, *Historical Abstracts*, and JSTOR to begin to answer the questions these documents provoke. A key component of the session is getting students to put primary sources in the context of an ongoing scholarly debate by having them discover secondary sources that provide evidence for their argument about the primary sources. This session is one step toward getting students to trust their own ideas about primary sources, but then going the next step to find secondary sources that support or question their conclusions, again beginning to build the internal authority vital to the students' critical thinking and cognitive development.

Assessment

At Yale, our next step is to implement a robust assessment program focusing on the impact these assignments and partnerships with faculty have on student learning outcomes. Our initial goal has been to rethink our outreach mechanisms to increase faculty awareness and integration of our collections

into the fabric of their teaching. We believe that faculty satisfaction with these early collaborations is a good start, but we know to ensure the viability of these collaborations and to increase outreach, we need to build evidence of the impact. In recent years, several tools have become available to help us with this assessment since we do not have the staff or expertise to build an assessment instrument.

The 2008 Archival Metrics project, a joint effort of the University of Michigan, the University of North Carolina-Chapel Hill, and the University of Toronto, provides a toolkit of standardized user evaluation tools that we know would be helpful in our efforts.[37] Additionally, we are aware of an assessment instrument developed as a part of Magia Krause's doctorate work at the University of Michigan.[38] Krause tested this instrument with ninety-three undergraduate students in a large history course there. The study included both a control and treatment group, with the treatment group receiving archival user education. Krause concludes, "This study provides empirical evidence—based on student performance rather than perceptions—that archival instruction can help students learn to meaningfully utilize primary sources."[39] We hope to implement this assessment instrument and rubric in several undergraduate courses in the coming academic year to measure impact and build evidence of the success of faculty/archivist/librarian collaborations and the use of inquiry-based learning theory.

Conclusion

These three case studies illustrate ways in which librarians and archivists can partner with faculty to utilize collections and develop creative, engaging assignments to support the teaching mission of the institution. Undergraduate students can interact meaningfully with primary sources in a middle ground between archival orientations and deep research projects. In fact, as some of the learning theory reviewed here shows, students are cognitively ready to work with unmediated primary sources, and engaging them with thoughtfully selected materials from our collections early in their college careers contributes to their cognitive development and critical thinking skills.

Though efforts to integrate archival collections into teaching are not new, we have found inspiration for this integration through the use of learning theory. As Ronald Schuchard posits, the archives are the bridge between the Library

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[37] Archival Metrics, 'Why Use Archival Metrics," http://archivalmetrics.org/, accessed 9 March 2010.

[38] Magia G. Krause, "Undergraduate Research and Academic Archives: Instruction, Learning and Assessment" (PhD diss., University of Michigan, 2010).

[39] Magia G. Krause, "Undergraduates in the Archives: Using an Assessment Rubric to Measure Learning," *American Archivist* (Fall/winter 2010).

and the curriculum if we envision archival collections as tools for teaching. "What I wish to see is a revolution in special collections, a teaching revolution, one that says special collections libraries have a vital teaching mission in the university as well as a research and preservation mission, and there is evidence that the revolution has begun."[40] I believe the teaching revolution is underway, and we can continue to increase our outreach and use of creative assignments based on learning theory to attract users to our collections and influence the teaching and learning in our institutions. These faculty collaborations are among the key components of the sustainability and value of the academic special collections and archives of the future.

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[40] Ronald Schuchard, "Excavating the Imagination: Archival Research and the Digital Revolution,"
Libraries and Culture 37, no. 1 (Winter 2003): 61.