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## **Nurturing Independent Learning in the Undergraduate Student in History: A Faculty–Student Mentoring Experience**

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Four undergraduates and a history professor planned for and carried out research in the Belgian State Archives in an attempt to answer the call from the Boyer Commission’s seminal report that identified the need for meaningful undergraduate research opportunities in the American higher education system. Our faculty–student mentoring experience provided an opportunity to develop practical skills for historical research. Success of the mentoring project was determined through ongoing dialog and through analysis of student reflective essays. While an international project of this scope may not be feasible for many institutions, mentoring projects in domestic or even local archives could be similarly beneficial.

*Keywords:* undergraduate research, mentoring, out-of-classroom teaching, nontraditional, history, humanities

Some educators have considered “undergraduate research ... the pedagogy for the twenty-first century” (Dotterer, 2002, p. 81). There is little doubt that undergraduate research opportunities have provided meaningful learning experiences for college students, and one of the best ways of teaching undergraduate research is through mentoring (Association of American Colleges and Universities [AACU] National Panel Report, 2002; Council on Undergraduate Research [CUR], 2012; Hu, Scheuch, Schwartz, Gayles, & Li, 2008; National Conference on Undergraduate Research [NCUR], 2012). Many mentorship experiences allow undergraduates to participate in nontraditional and innovative environments that complement typical undergraduate academic courses (Cox & Andriot, 2009).

While faculty–student mentoring is common in the sciences, it is practiced much less often in the humanities (Hu et al., 2008). This is unfortunate

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for students in humanities and related disciplines who might benefit from greater collaboration with faculty and hands-on participation in humanities research (Southeastern Pennsylvania Consortium for Higher Education [SEP-CHE] Faculty–Student Undergraduate Research Project, 2009; Stephens and Thumma, 2005). Since much of humanities research, and particularly history research, takes place in archives, we wanted to apply the mentoring concept to archival research.

Like most history educators, we have struggled with the problem of helping students both to *think historically* (Pace, 2004; Wineburg, 2001)—a process of mastering and applying concepts and knowledge—and to understand how to *do* historical research—the use of the historical research method. This is a problem that has become increasingly pronounced for historians. Until rather recently, history educators focused on presenting historical content through narrative presentations of events, peoples, systems, and so forth. Inquiry-based models of history, what Stéphane Lévesque called, “disciplinary-history,” prepare students for “critical investigation and analysis of the evidence” (Lévesque, 2008, p. 19). From our perspective, a faculty–student mentoring experience seemed the best option to achieve both historical thinking and historical doing and an option in keeping with the growing focus on undergraduate research (Boyer Commission, 1998, 2002; CUR, 2012; Markie, 2006; Merkel, 2003).

While undergraduate mentorship can be discussed in terms of traditional coursework, our primary research purposes were to determine whether undergraduate mentoring opportunities can be suitable for archival research in history and to better understand the mentoring process and how it can improve teaching and learning. In addition to highlighting our mentoring experience, we also present arguments for undergraduate mentoring and raise questions and possibilities for further research.

For this project, we define mentoring as a process through which students learn and apply a disciplinary skill set. The mentoring process includes: explicit instruction, modeling behaviors, reflection, providing feedback, and creating an environment for effective support. We identified two sets of goals for this project; one set for the students and one set for the professor. We wanted students to learn how to (a) participate in the planning of a multiinvestigator research project, (b) learn a set of discrete historical research skills, (c) build a sense of teamwork, and (d) develop autonomy as researchers. The instructor was interested in finding out how students approach research problems (identify research questions, gather sources, and draw conclusions) in an applied setting with an eye toward improving the way research problems are taught to students, secondly, he wanted to determine how research skills could best be taught to students outside of the classroom, and finally, he wanted to determine what, if any, were limitations of teaching research skills in a short period of time.

## Literature Review

### Background and Theoretical Foundation

The current emphasis on undergraduate mentoring is relatively new. Two decades ago, Jacobi (1991) claimed, "There is a critical need for more research about mentoring, especially as it applies to undergraduate success" (p. 526). A survey of the literature in the time since Jacobi's statement shows more theoretical and empirical justification for undergraduate mentoring that points to many successes across various disciplines (Nakamura, Shernoff, & Hooker, 2009). Few sources, however, highlight successful history of undergraduate student mentoring experiences (Taraban & Blanton, 2008).

In the 1990s, the focus in education for undergraduates shifted from teaching to learning (Thomas & Gillespie, 2008). This change in emphasis is demonstrated by the work of the Boyer Commission (supported by the Carnegie Foundation for the Advancement of Teaching and comprised of leading professors and administrators employed by American universities and institutes), which produced a report that acknowledged shortcomings and even failures of undergraduate education and called for, "a new kind of undergraduate experience available *only* at research institutions" (Boyer Commission, 1998, pp. 7-8). Members of the Commission argued that the particular "ecologies" (Boyer Commission, 1998, p. 9) of research universities were suited, and even obligated, to assist undergraduates in research opportunities. Though the Boyer Commission's call was specifically geared for research universities, many liberal arts colleges, comprehensive universities, and aspiring research universities, in order to distinguish themselves, have since successfully carried out undergraduate mentoring programs (Levesque & Wise, 2001). The Boyer Commission's call to action emphasized that undergraduate teaching and research are mutually enhanced through mentorship experiences.

Leading theorists suggested the idea that educators should be focusing on what Brighouse called, "autonomy-facilitating education" (Callan, 1997; Brighouse, 2006, p. 29; Reich, 2002). Dewey suggested that the experienced adult has the obligation to teach the young (Dewey, 1938). One of the goals of mentored undergraduate research, therefore, is for students to benefit from the experience of the professor in order to develop autonomy in research skills.

Imitation is an important method of developing autonomy. One might question whether imitating a professor has significant value for the undergraduate researcher, but Warnick (2010) suggested that even if someone imitates another "there are still avenues of creativity and criticality that remain open" (p. 12). While completing a research project is an important product, the value of *process-oriented* imitation itself has intrinsic value for learning research skills. For example, one might imitate Socrates by asking critical

questions, but end up with different conclusions. Warnick summarized this point, “[T]here are certain processes of critical inquiry that can be modeled—openness to testing ideas, to new evidence, to changing one’s mind ...” (2010, p. 13). Critics of undergraduate mentoring might argue that explicitly imitating a mentor in a guided research project may in fact produce nothing novel. While there may be an element of the banal, “An imitated action is *never* an exact replication of an action; it is always different, if only in the time and space in which the action is performed” (Warnick, 2008, p. 116). In other words, the possibility that the undergraduate researcher would attempt to replicate her mentor’s results may not be worth concern, since the protégé-turned-researcher would necessarily engage with her own project (whether cognizant or not) to create a unique experience related to the researcher’s context. Thus, it seems that the skills learned through imitation do contribute to building student autonomy.

We see developing student autonomy as a critical element of student development theory, where the student is encouraged to take charge of developing his or her skills and interests in order to excel. We use experiential learning theory, drawing on Kolb, Dewey, Lewin, and Piaget, to focus on “adaptation and learning” more than “content or outcomes” (Kolb, 1984, p. 38). Our theoretical perspective elevates the role of experience, blending it with cognition, perception, and behavior to provide a holistic approach to learning (Kolb, 1984). We recognize that “knowledge is a transformation process, being continuously created and recreated, not an independent entity to be acquired or transmitted” (Kolb, 1984, p. 38). Through mentoring experiences, we expect students to learn skills under the guidance of a mentor, as students continue to develop as a whole person. While a professor might act *In Loco Parentis* when needed, students are largely responsible to search for and carry out solutions to their problems. Students are therefore developing “self-authorship” in their lives (King, Baxter-Magolda, Barber, Brown, & Lindsay, 2009, p. 108). Faculty partner with students to carry out research (Baxter-Magolda & King, 2004), and in this way, collaborative investigative model is applied (Dotterer, 2002; Stephens & Thumma, 2005) to experiential theory.

### **Benefits of Mentoring**

Researchers have suggested that undergraduates who engage in research projects discover the experiential side of higher education, in which researchers are exposed to primary material in a nonclassroom environment, and students may test new ideas by analyzing existing approaches or by hypothesizing new ones (Elgren & Hensel, 2006; Kauffman & Stocks, 2004; Kinkead, 2003). Professors who mentor such learning hope to “infuse research and research-like experiences into the curriculum” (Elgren & Hensel, 2006, p. 4) through undergraduate research opportunities.

One of the perpetual problems acknowledged in the literature is the vast dissimilarity in perceptions of *successful mentoring* (Harwood & McCormack, 2008; Pitney & Ehlers, 2004). Names for undergraduate mentoring in higher education include sometimes interchangeable terms: experience, opportunity, project, internship, capstone, or what Wrobel (2008) called, “productive collaboration” (p. 159). Mentorship projects may be tailored to benefit an individual student or a group of peers; they may be brief or last more than a year; and they may be student or faculty initiated (Taraban & Blanton, 2008). As identified by Jacobi (1991), major themes in mentoring relationships include acquiring knowledge, role modeling, mutual benefits, direct interfacing, and acknowledgment of the mentor’s expertise or achievement.

While the definitions and successes of mentoring are contested, there are numerous benefits for those who participate that are worth outlining. Mentored research “bridges the academic and student services domains while at the same time being responsive to the institutional context” (Nagda, Gregerman, Jonides, von Hippel, & Lerner, 1998, p. 55). In an age where an undergraduate education is increasingly insufficient for training professionals, components of the graduate experience are being married into the undergraduate experience. Gardner (2008) attested to the difficulties faced by undergraduates as they embark on graduate work and suggested that the transition to graduate school is likely facilitated by engaging in undergraduate research. In particular, undergraduate research opportunities stimulate students to pursue graduate or other professional research experiences (Hathaway, Nagda, & Gregerman, 2002).

Undergraduate research projects promote teaching in a nontraditional environment, enhance learning, and inhibit attrition. Research, especially in the freshman and sophomore years, has proven to be very beneficial to further college experiences (Russell, Hancock, & McCullough, 2007). As Gold-berg suggested:

When students work closely with faculty who are active in research, the students can experience learning with its highs and lows, from tedious attention to detail to the excitement of a new insight. They can see how an expert works with objects or people or experiments or texts. (p. 21)

But the benefits of mentoring do not belong to students alone. Mentoring undergraduate research has also been beneficial to faculty. Collaborating with undergraduates can help faculty to follow research and teaching paths, simultaneously that keep them focused on students and innovative instruction techniques (Thomas & Gillespie, 2008). These instruction techniques may be applied by the professor into other instructional settings, such as the classroom, small group activities, and during office hours.

### **The Hundredth Penny Tax Mentored Learning Experience**

To conduct an archival mentoring experience, the professor chose a research project that involved extracting archival data from the registers of the Hundredth Penny Tax of 1543–1545, instituted by Charles V (Holy Roman Emperor, 1500–1558). The Hundredth Penny Tax records are unpublished and available only in the Belgian State Archives in Brussels. This research project would serve as the medium around which the professor could build a supportive mentoring relationship that would help him enhance coaching, role modeling, and other teaching skills (Roberts, 2000) in order to support student autonomy.

The professor and students created an electronic database and data-set to catalog their findings and to make the information more accessible. Funding for this research experience was provided through a university-sponsored mentoring grant, which covered travel and maintenance (room and board) for the professor and four undergraduate researchers for the month-long trip. Students were required to enroll in at least three directed research course credits.

While we had clear ideas about what our mentoring project's particular research goals were from the outset, we realized that if undergraduate mentoring was to help alleviate the transition between undergraduate work and the next stage in the student's career (Russell, Hancock, & McCullough, 2007), we would need to involve all of the students in the planning and implementation phases of the project. Weimer (2006) and Shore (2005) confirm that mentoring experiences benefit students when they are included as participating members in every level of the project and learn the process from start to finish, including not only the physical tasks involved, but also the concepts and theories behind the purposes of the research project.

We agree with Williams, Matthews, and Baugh (2004), who argued that like an individual learning to play baseball:

Much of [mentored] knowledge ... cannot be easily isolated from the situation in which it is manifest. Because much of the most critical knowledge is improvisational and resides with the thinking and actions of practitioners, interns must fully participate in this milieu for sustained periods to absorb the collective wisdom, conceptual tools and culture of the community of educational leaders. (p. 68)

So for our project, the students and the professor together made key decisions as a committee about the form the research database would take, what software would best suit the needs of the project, and which students would be assigned aspects of the project based on their experience and interests. We fully intended to build a sense of teamwork and camaraderie in order to provide the students with feelings of ownership for the project. We felt strongly that for the mentoring experience to be successful, faculty and students needed to work together as the project took shape.

In order to carry out the research and assess the impact of this experience on the students and faculty member, we developed several phases in our undergraduate research mentoring project, including planning, preparation, implementation, follow-up evaluations, and qualitative analysis. Before the project began, the professor solicited applicants by sending an email to students majoring in history and those enrolled in history classes, by making classroom announcements, and by word of mouth. The professor asked potential applicants to respond with a cover letter and resume and to speak to their historical and linguistic abilities. Particularly, strong contenders were those with the aptitude for historical thinking and the ability to work in a small mentored environment. In his interviews with potential research team participants, the professor assessed the students based on their linguistic ability, potential to gather the necessary data, ability to engage in academic research, and at least basic computer competency. Four students were selected whom he thought were most qualified.

After the faculty-student research team came together, we identified specific skills that we wanted students to acquire through participation in the mentoring experience. First, while the students would be working alone on discrete aspects of the project, we knew that collaboration would be essential at all levels. Second, we wanted students to learn how historical archives function and how documents are cataloged and retrieved. In a general sense, we wanted students to understand that research in an archive required learning the way a particular archive is organized and its rules of use. Third, we wanted students to learn how to handle rare documents and how to read sixteenth-century manuscript documents (in our case, in French). Fourth, we wanted students to learn how to organize the results of research by creating and maintaining a document database including accuracy checking. We also wanted students to take advantage of being in the archives to test their new historical and linguistic skills as they began research on their own topics of interest in order to pursue their aspirations of becoming history and language teachers. All of these purposes we hoped could be accomplished through a mentoring relationship with a professional historian. Ultimately, the professor was more interested in the mentoring experience than in data collection.

Although members of the student research group had previously traveled overseas and could read modern French, they had little collective experience in reading sixteenth century handwriting. To prepare the students for this change, the professor taught them paleography through a series of campus-based training meetings. The professor provided digital images of tax registers similar to those the students would be consulting and coached the students on how to read these registers. The students also met with representatives of the university international studies center to clarify university expectations pertaining to foreign field study.

Once the students arrived in Belgium and the professor introduced them to the Belgian archives, they began their archival extraction efforts. Following an example demonstration by the professor, the students read each entry in the Hundredth Penny tax register (consisting of seven volumes of roughly 1,000 manuscript pages each) and input the numerical and descriptive information directly into the database. Merchant names, including unique identifiers, were assigned so that they could be identified with export commodities. The most difficult, yet continually engaging aspect of the project, was making sense of the early modern French and transcribing it into the database. This is the stage where the faculty member devoted much of his archival time. The students discovered that even with advanced language proficiency in modern French, they tended to struggle not only with the handwriting, but also with the archaic language forms. The professor was always available for consultation, whether to instruct, encourage, or advise. He occasionally stopped the students' work to address particular entries with the group (offering direct instruction), comparing cases and situations for the students' benefit. As the professor worked through problems with students, there were often new variables to consider, whether new types of commodities, French vocabulary, or the specific challenges of deciphering sixteenth century handwriting. The professor coached students through the process. Eventually, the students' immediate demand for the professor's help waned. By the end of the second week in the archives, the students were primarily autonomous in their work, peer tutoring taking the place of constant faculty supervision (Smith, 2008). This method of offering what was meant to be temporary support or assistance from the professor, gradually withdrawing assistance as the students' proficiency increased to the point where students were confident enough to conduct research on their own, was heavily influenced by the work of L.S. Vygotsky, who studied a similar phenomenon with school-aged children (Vygotsky, 1978).

During the evenings after the archives had closed, students had a chance to reflect on the day's work. Students met together with the professor to discuss their extraction efforts. These informal dinner seminars included discussions about the history profession, university life, and Belgian culture and were an opportunity for continued mentoring away from the research tasks. Conversations were often lively as students learned with a history professor in a nontraditional setting. According to Cox and Orehovec (2007):

By embracing the notion that faculty-student interaction outside the classroom need not be formal or academic to hold value, institutions of higher learning can begin to tap the full potential of such interactions as an integral component of the undergraduate experience. (p. 360)

As a result of such relationships, mentored students can feel more connected and supported in their academic pursuits (Wallace, Abel, &

Ropers-Huilman, 2000). These evening debriefings also included opportunities for students to discuss academic works that drew on the Hundredth Penny Tax registers. It was hoped these evening readings would have a “personalizing” (Cox & Orehovec, 2007, p. 356) effect on the students, helping them understand the merits of academic work in a nontraditional environment and providing successful models to create impetus for students in their ongoing and future archival work.

Students, through the mentoring process, acquired more autonomy as they developed specialization in specific areas, such as letter or word recognition, merchant or place name, and commodity identification. The professor stayed alert to the needs of the students, meeting with students to see what was needed for the project and mentoring them as historians to see the archives in terms of their own research. During their stay, the professor encouraged students to pursue their own research topics within the archives. As the students took opportunities to do this, the professor assisted them in determining which sources might be valuable.

### Methods

Like most qualitative researchers, we used a variety of methods to carry out the project and analyze its success. Creswell claimed that qualitative researchers ought to create individualized data gathering methods (Creswell, 2008). For us, these methods included informal interviews, group discussions, and analytical narratives written by the students. As Creswell verified, “Qualitative research is emergent rather than tightly prefigured” (Creswell, 2003, p. 181). Therefore, the professor adapted discussion questions and teaching methods to fit the changing needs and concerns of the students.

To assess the mentoring experience, the faculty member and students utilized conversational, informal interviews as outlined by Patton (1980) and Moustakas (1990). This dialog occurred each day within the archives and during nightly group discussions held before, during and after dinner and lasting one to three hours. The discussions were a time for the group to assess the mentoring experience and make further plans. They also served as an opportunity for the professor to give needed guidance, instruction, and clarification. As Moustakas suggested, dialog can be helpful in, “encouraging expression, elucidation, and disclosure of the experience being investigated” (1990, p. 47). The dialogs were often begun in the form of “unstructured interviews consisting of a few, open-ended questions” (Creswell, 2008, p. 199). Example questions included, What do you like about the mentoring experience in the archives? How can we improve the mentoring? What are you interested in gaining from this experience? How has your training prepared you (or not prepared you enough) for this experience? In this group, “turn taking” in talking was encouraged, so that participants felt they could fully express themselves.

Since the students and faculty member stayed in the same apartment building during the data collection phase, the research team spent much of their time together. And because the team lived and worked together, unstructured interviews were carried out through conversation and dialog. As students knew the goals of mentoring from the outset, as well as the plan for publication of the experience, they helped in these discussions by answering such questions as how can the professor be more helpful in developing student independence? What problems have you run into today and how were they resolved?

Note taking during the discussions was sometimes challenging, given the participatory nature of the mentoring project. Nevertheless, information related to these dinner discussions and on mentoring related dialogs at the archives and elsewhere was captured by professor and lead student who served as participant observers, taking notes, analyzing pictures and documents, and particularly listening to the students.

Another significant method for soliciting feedback from students about their experiences was through thematic analysis of ungraded voluntary reflective narratives written by the students in response to the professor's request. After the group returned to the USA, an email was sent by the professor asking for additional final feedback about the mentoring experience. The professor asked students in an open-ended format to respond with their thoughts and what they had learned in relation to the mentoring experience. Three of the four students completed these narratives, analyzing their own experiences with the mentoring project, and returned them to the professor via email.

Within two months of the project's completion, the voluntary student responses were collected. As Crotty suggested, there are "various modes" and "possible ways of reading" that "prove suggestive and evocative ... as we take human situations and interactions as text" (Crotty, 1998 p. 110). Drawing on the examples of Patton (1980), Moustakas (1990), Cotten and Wilson (2006), and Crotty (1998), themes were extracted from the responses through heuristic analysis of the students' own words.

## Results

The commonalities and emphases placed by the students on topics within their narratives as well as in the information gathered during informal and formal dialog between the students and professor, suggest three major benefits from this mentoring experience. First, students recognized more effective learning through out-of-classroom experiences with the professor. Students saw the professor as a positive influence and a mentor who coached students toward independence. One student claimed the professor "was always ready to help us with our many difficulties. The team finally arrived at the point where we were self-sufficient." Another student wrote, "the enthusiasm,

wonderful sense of teamwork, and the great sense of humor that the other students and I shared with [the professor] as our mentor,” made the “field study well worth it.” The mentoring experience provided a unique out-of-classroom opportunity to learn first hand from a professional how to do archival research.

Second, students viewed the mentoring experience as something that helped them acquire and apply specific skills. One student explained it was the “best possible finish to my undergraduate career.” Another student claimed:

I know that the skills and the knowledge that I acquired from participating in this project will not only serve as a benefit and an advantage to me in relation to my professional career but also as a life-changing experience for me as an individual.

Students reported that they could utilize prior knowledge while working on the project and learn new skills at the same time. “Every archive employs its own unique system of cataloging,” a student explained, “the specifics that I learned while working in the Archives Générales du Royaume may not carry over into future archival experiences,” but “the initiation into archival work at such an early point in my studies makes me more apt to continue, having already had some exposure.” One student said, “I gained additional knowledge about the past and learned to interpret the paleography of sixteenth century French.” Another summarized her skill set, “To this day, I cannot believe that I can decipher handwriting written in old French from the 1500s.” The students were able to expand on their prior language knowledge to acquire specific skills for archival research.

Third, as a result of the mentoring experience, students felt that they were better prepared for the workplace or for graduate school. “This international experience provided me with many learning opportunities to enhance my future career in history,” said one student. Another stated, “Being a part of the [project] has already opened other doors for me ... In light of my experience on the [project], [another researcher] has asked me to be a part of his team.” One student maintained, “This particular project complimented perfectly my area of study as well as my range of interest being a French and History Teaching major.” Each student agreed that the mentoring project enhanced their career and educational prospects.

Although some students found the project a little daunting from the outset, overall the student narratives and dialogs suggest a positive mentoring experience. Tensions within the group were minimal and related to feelings of inadequacy in dealing with such a large project, frustration with malfunctions in the electronic database, and difficulties navigating foreign environments. These issues were resolved with the professor’s assistance and through student to student encouragement, something that was not anticipated when the mentoring project was first conceptualized.

Students learned outside the classroom from the professor, developed skills, and prepared for future work. Furthermore, students recognized benefit from conversing with “people in a foreign land” in the “same location where documented past events occurred.” The data predominantly showed that students felt they had improved their abilities and had achieved a meaningful mentoring experience.

The professor set up the undergraduate research experience as a mentoring relationship, not a job that students could do to benefit the professor’s own research. In fact, the professor might have even done the work faster on his own. The benefit to the professor actually had a lot to do with his own teaching. He felt he gained a better understanding about the types of concerns students had when approaching primary sources, what kind of skills he could expect from students who had some language experience, and how research skills could best be taught to students. The professor felt that students benefited in multiple ways, including those outlined above. The professor also noted that students were introduced to historical methods in an applied setting, where primary documents reinforced knowledge derived from secondary source readings or perhaps contested the students’ knowledge base.

### **Discussion**

Both mentoring and student research project goals were attained in this hands-on, original document experience. The students’ confidence and understanding were enhanced as they personally handled the documents, took responsibility for accurately entering data, and saw themselves as key players in the project while working closely with the professor. Student involvement, not only in the planning stages, but also in shaping the direction of the project, ultimately provided students with a strong sense of ownership, a key component for undergraduate mentoring that creates a better experience for the undergraduate and faculty directed project (Elgren & Hensel, 2006).

Faculty–student interaction outside the classroom is significant for any undergraduate’s experience. What better setting to do this than in a mentored learning environment? As Stephens and Thumma (2005) claimed:

Lecturing to students two or three times a week no longer offers an efficient and effective means for promoting learning. In history, in particular, it promotes a static view of the past in which ‘the truth’ is transferred from master to pupil. (p. 538)

We concurred that faculty–student mentoring can provide a viable outlet for teaching that engages students with primary materials, an experience essential for twenty-first century history researchers. We also agree that mentorship is an expression of a learning relationship (Cox & Orehovec, 2007)

and that professors influence the academic and personal endeavors of students and have the ability to dramatically impact student learning outside the classroom (Markie, 2006).

Our team size of four students and one professor was a successful ratio in this research experience, and we suggested that other mentored research projects visiting foreign archives would do well with a team constructed of a similar faculty–student ratio. The team size also lent itself well to the interview dialogs. Creswell confirmed that “typically four to six” (2008, p. 206) people are well suited for this type of interview.

Selectively guided by the components of the cognitive domain of Bloom’s Taxonomy of educational learning objectives (1956), group discussions were a medium that helped provide immediate feedback for the professor on ways to improve the project as well as immediate feedback for the students on their performance. These frequent conversations contributed to project changes (e.g. sharing ways to improve electronic data entry), because students and faculty could frequently discuss their satisfaction or dissatisfaction with aspects of the project rather than waiting until the project was completed. These discussions helped the professor to see what questions the students had and adjust his teaching methods (e.g. allow more independence) to meet their needs.

This mentoring experience allowed students to gain essential research skills that enhanced their historical training. We found that students learned the specific skills we had intended: collaboration, archival procedures, reading and handling of rare documents, organizing data, and how to do personal research. The out-of-classroom experiences reinforced materials already taught to students, as previously suggested by Goldenberg (2001) and Astin (1993).

Our project not only established a mentoring relationship, but did so in an international context. Archival experiences abroad can further the duty that, as Gage (2001) asserted, “universities have a unique responsibility to give their students a sound international education” (p. 43). To be sure, there are alternative approaches for carrying out mentored historical research. But there is significant value in learning to access original documents found in or near the location of their creation, in this case, Belgium. Living and working together in such a setting minimizes distractions and promotes mentored learning.

We argued that archival research mentored by a faculty member is helpful not only for students, but also for a professor as he develops his teaching methods, particularly to include student primary document interaction. This is important as historians increasingly recognize that using primary documents is essential in helping students develop critical thinking skills (Wineburg, 2001). While primary source research can be simulated in classroom settings, intensive archival research experiences in a mentoring situation

allowed students to acquire autonomy more quickly and to retain the research skill set over time.

In addition, our faculty–student mentoring experience helped students acquire archival skills during their preparation for, and research at, the Belgian State Archives that allowed students to transfer their new skills to other academic and workplace settings. As students worked with the professor, sometimes by imitating the professor’s data extraction techniques and his method of historical inquiry (Warnick, 2008), they became more autonomous, both within the project and in their own personal research efforts. First through example, then through encouragement, the professor taught students to interact with Belgian archivists and other scholars who were working in the archives and how to analyze primary documents.

Through the mentored research experience, the professor relayed to students his enthusiasm for archival work. The students took note of the physical trace evidence: the shreds of time worn paper and bits of wax from official seals littering the tables at the end of the day. Students personally handled (sometimes salty smelling) authentic sixteenth century records where no gloves were required. All students eventually shared the professor’s enthusiasm for Netherlandish history and out-of-classroom research as indicated in dialog and in voluntary reflective narratives.

We found that mentoring served as a spring board to autonomy and helped the undergraduates transition from the consumer to the producer phase. Kant argued that one should embrace autonomy to the point where one does not rely on dependent factors (1784). In this case, the dependent factor might be a professor to help students interpret primary documents. While undergraduates did not feel completely autonomous after our mentoring experience, there was no doubt that the students improved their historical skills and developed a strong sense of independence that informed their own research. In general, we felt that our faculty–student mentoring experience succeeded in answering the call from the Boyer Commission’s seminal report that identified the need for meaningful undergraduate research opportunities (Boyer Commission, 1998, 2002; Merkel, 2003). As suggested by the Boyer Commission, we found that undergraduate teaching and research were improved through mentorship.

### **Conclusions and Implications for Further Research**

In the last two decades, there have been many studies that demonstrate the value of faculty–student mentoring. With the findings of the Boyer Commission and an increasing body of literature on mentoring, universities are coming to accept the importance of mentored undergraduate research. Definitions of successful mentorship vary, but there are many evident benefits of mentoring undergraduate research. As faculty, students, and

administrative bodies come to see these benefits, the obstacles to undergraduate research can be diffused.

Our experience confirmed that mentored undergraduate research is applicable to history students. It verifies the benefits of mentored research detailed in other studies. It also suggests that history courses and educational activities outside the classroom might benefit from the inclusion of practical application of archival work. Students and the professor gained a better understanding of the mentoring experience as it relates to teaching and learning.

Overall, this research experience was a success because students were able to gradually work toward autonomy in a specific archival skill set and then implement those skills in their research. The merging of formal and informal learning, both in preparation for the research experience and during the actual data collection phase, brought learning into context. We found it interesting that though none of the students who participated in the project went on to pursue doctoral degrees in history, two became history teachers, another used his archival skills for his masters and dissertation research, and the other continued her graduate education in another field.

Because funding opportunities like these are limited, mentoring projects may be run as "field study" experiences where students cover their own travel and maintenance costs. While an international project of this scope may not be feasible for many institutions, mentoring projects in domestic or even local archives could be similarly structured. Although our project focused on undergraduates, it is clear that other venues (e.g. K-12, graduate programs, or adult education settings) would benefit from drawing on experiential learning theory to create meaningful twenty-first century pedagogies for autonomy learning students.

From our experiences, we argue that mentoring may successfully engage undergraduates in ways that traditional classroom experiences do not (Eamon, 2006). The experience was mutually beneficial to the students and the faculty member, and it acknowledges mentoring as a meaningful pedagogy for higher education and undergraduate archival research.

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