


Collaborative Education between Classroom and Workplace for Archival Arrangement and Description: Aiming for Sustainable Professional Education

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ABSTRACT

The literature on archival education contains few empirical studies about how future professionals are educated in practice. Practical components in archival education can provide students not only with training opportunities for entry-level qualification but also (and more importantly) with different types of learning experiences that may last throughout their professional lives. This article looks at the practical component in the archival curriculum based upon a case study of the Archival Representation course at the University at Albany (State University of New York). This course uses actual collections from nearby archives in semester-long projects. The collaboration between classroom and workplace was initiated to enhance the students' learning experience. This study explores how professional knowledge is materialized and applied through practical archival processing projects. Specifically, it investigates (1) the major effects of project-based learning and how students and archivists perceive them; (2) the requirements necessary to make the collaboration a planned learning experience for students; and (3) the factors that can promote sustainable professional education through project-based learning. To address these areas, the study analyzed course evaluations, an online survey of students, and interviews with archivists. This article reports the benefits and challenges of project-based learning and suggests some elements important for creating a successful collaboration.

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KEY WORDS

Archival Education, Arrangement, Description, Processing

Since the archival profession was established in North America, many graduate schools have provided formalized archival education. While researchers have studied archival education from various perspectives, no substantial research exists on how a practical perspective can be incorporated into the curriculum.¹ I believe that hands-on practices can enhance the quality of the learning experience. In its “Guidelines for a Graduate Program,” the Society of American Archivists articulates that “teaching methods and technology applications should link theory to practice” to convey the core knowledge of arrangement and description.² Practical learning is considered an important element for professional education in general since a large number of schools include fieldwork in their programs.

However, many educators maintain that a “workshop” mentality or apprenticeships for professional education is less desirable because this approach may hinder a proper education based on professional knowledge and theoretical foundations of the discipline.³ For this reason, educators argue that careful coordination is necessary when combining practical components within academic curricula to create a sustainable professional learning experience for students.⁴ In the field of education, practical training has been identified as a way not only to qualify students for entry-level positions but also to provide different types of learning experiences that may not be easily acquired in an academic setting. Some researchers emphasize that learning happens in different forms in every setting, and practical experience offers its own advantages for an effective professional education.⁵ Archival researchers have called for more research on how to structure fieldwork as an educational experience within the archival curriculum. It is important to note that how practical projects are used in academic courses has not been studied systematically.

In this study, I looked at practical components for arrangement and description based upon a case study of the Archival Representation course at the University at Albany (State University of New York). This particular course uses actual archival collections for students’ projects. I examined the collaboration between classroom and workplace for project-based learning to understand how practical learning can be incorporated into the academic curriculum, addressing the following aspects: (1) the major effects of project-based learning and how students and archivists perceive them; (2) the requirements necessary to make the collaboration a planned learning experience for students; and (3) the factors that can promote sustainable professional education through project-based learning. To address these areas, the study analyzed course evaluations, an online survey of students, and interviews with archivists.

Literature Review

ARCHIVAL KNOWLEDGE AND APPRENTICESHIP

In the archival literature, researchers generally acknowledge the importance of fieldwork or practica as part of an archival education program. However, the practical components in the professional pedagogy have not been a major topic for serious research, especially archival processing, which is a key aspect of professional practice. Academic journals such as *The American Archivist*, *Archival Science*, and *Journal of Education for Library and Information Science* have dedicated special issues to archival education, but few articles in those issues deal with learning from practice. Most studies focus on the general characteristics and curricula of archival programs.

Archival curricula have expanded since the 1970s and 1980s when only a few graduate-level courses were taught. Today, a specialized track and sequential courses are based on clearly identified core knowledge.⁶ The core archival knowledge in graduate programs includes introductory courses, appraisal, arrangement and description, electronic records, legal issues, preservation, records management, and reference.⁷ Educators generally mention the need for field training for professional education.⁸ However, an archival practicum or field experience is not considered core knowledge, but rather an opportunity for the application of knowledge.⁹ Previous studies have not made an in-depth analysis of syllabi, course activities, and assignments to examine how core knowledge is being taught. Thus, little information exists about pedagogical methods in archival courses for connecting theory and practice.

Before the current form of archival education was established, archival knowledge and professional practice were often learned through apprenticeship. The education of archivists was believed to be best performed by those with appropriate academic qualifications and substantial practical experience. Ruth Helmuth maintained that students would be able to learn professional “attitudes of dedication, concern, and obligation”¹⁰ when they are taught by professional archivists who possess those same qualities; theoretical knowledge alone might be an insecure basis for professional qualification.¹¹ Without a standard format for professional education and common curriculum, however, it is difficult to control the quality of archival education, especially when conducted in individual courses by individual practitioners.¹² The Society of American Archivists has articulated requirements for professional education over the history of the profession. However, it has been frequently criticized for failing to take the lead in educating archivists of the future, focusing only on the demands of the contemporary workplace.¹³

O'Toole stated that the workshop mentality has caused archival education to make little progress despite the growth of the profession in the past. The workshop mentality makes archivists think about their profession and discipline in an overview fashion. In the workshop model, readings might be sacrificed under the constraints of limited time.¹⁴ Cox further maintained that effective archival fieldwork should be expanded to encompass many archival tasks beyond the traditional emphasis on archival processing.¹⁵ Perhaps the emphasis on practice early in the profession's history led to a reaction. Consequently, in later years, there is much more emphasis on building a critical knowledge base for professionalism and on establishing archives as an academic discipline.¹⁶ Now, the archival profession has matured with a body of specialized knowledge. Cox maintained that the archival profession is not "just a service occupation and a subset of other disciplines," but instead that archival science has a theoretical basis for practices.¹⁷

CONNECTING THEORY TO PRACTICE

Many archival educators believe that graduate-level programs should focus on the theoretical foundations of the discipline. Anderson distinguished the terms "education" and "training." Education implies "the whole course of scholastic instruction" that provides a learner with the theories and principles that underpin professional practices. Training is limited to teaching sets of skills and procedures, often in a short period of time.¹⁸ Archival theories and principles provide critical foundation knowledge to help professionals deal with everyday practical situations,¹⁹ and learning formalized research skills helps students to perform better as professionals.²⁰ This theoretical approach to education promotes problem-solving capabilities and learning. Such capabilities and habits are especially important in our fast-changing world. The role of professional educators, therefore, should be to help students become lifelong learners with a facility for learning to work with new tools.²¹ Anderson argued that students who grasp the firm ground of theory and principles are "prepared to meet the possibilities and challenges of the real world more creatively in the longer term than those whose training is confined to meeting the needs and procedures of their employing institution."²² Indeed, a research attitude may be an important qualification for a good professional, and the profession itself should be research oriented.²³

While educators emphasize theories in graduate courses, they also teach the importance of practical experiences. Anderson articulated that structuring a work experience program into professional education courses is important because students can learn how to apply their knowledge in a real organization while gaining professional confidence. Work experience programs should

include hypothetical as well as real-life involvement on various levels (managerial roles, ethical dilemmas, processing projects, standards and systems, advocacy and outreach programs, etc.) to achieve authentic learning.²⁴

Practical learning can occur through archival internships at the end of the graduate program, after all courses are taken and students are equipped with theory.²⁵ Graduate program internships can introduce students to a workplace experience under the supervision of a professional archivist.²⁶ The most recent SAA guidelines articulate practical components as pedagogical elements for professional education.²⁷ Many schools require internship or practica credits for a master's degree; Bastian and Yakel reported that in the 76 schools/departments they surveyed, 52 offer internship/practica courses.²⁸ Many archival internship and fieldwork programs find arrangement and description the most legitimate for students' training.²⁹ However, what should constitute an internship for course credits is not consistently articulated nor professionally defined. What students practice in fieldwork, ranging from acquiring a general overview of archival operation to undertaking specific projects such as metadata input or transcribing oral histories, depends largely on individual sites.

Still, little information exists about the pedagogical connection between archival theory and practice. Some practitioners assert that graduate programs should reflect the needs of the current job market, such as EAD skills, in their curricula.³⁰ Some established archival programs still seem to focus on teaching and professional mentoring, rather than on archival knowledge and research.³¹ Even with a practical focus in curricula, Bastian and Webber argued that theory should be emphasized as much as practice.³² Cox stated that fieldwork not closely linked with theories and principles will hardly differ from apprenticeship operations of the past, "focusing on practicing not reflecting, experiencing not learning."³³ The specific requirements for a successful internship should be well structured based on articulated educational goals and students' learning outcomes. Evaluation methods should be considered.³⁴ Just working in archives does not qualify as academic learning.

Graduate programs with adequate pedagogical methods in practice require effective collaboration with practitioners. Creating constructive collaboration is not easy. Academic programs usually set the goals and expectations for fieldwork, but the profession and academia together need to discuss the standards for structure, content, and evaluation.³⁵ Anderson stated that the collaboration should aim to make the students' experiences most constructive by providing a well-grounded view of the organizational environment that introduces students to the real world of the profession.³⁶ Recently, Cox, Alcalá, and Bowler published a case study about a graduate school partnership with area archivists. The authors used an actual archival collection to provide a unique archival advocacy learning experience. They found that students began "to learn how to

communicate about archives and their value to individuals who have little idea about what goes on within archival repositories. The archival students themselves also [began] to test their own assumptions and knowledge about archives, which will assist them in becoming better advocates.”³⁷

Specific curriculum models will be necessary for multiperspective education that carefully incorporates theory and practice and balances the objectives from educational programs and fieldwork. Some research projects for education models have been conducted with practitioner partners.³⁸ Bastian et al. suggested that collaboration can be used particularly effectively for archival arrangement and description practices, especially for digital content and electronic records management. They envisage that practitioner partners will provide expertise in digital practices in support of a well-developed and tested syllabus.³⁹ In addition to well-structured internships, individual advisement and nurturing by both instructors and practitioners are also important in the process of collaboration. Among many factors that contribute to a successful internship, Bastian found that students consider the repository supervisor the most influential.⁴⁰ Interestingly, she also found that among survey participants, graduates who are in the field value class preparation and an instructor’s guidance as the next two most influential factors, while current students assess the nature of a project as the next most influential factor. It seems that those who are already in the field feel that concepts learned in class are more useful for their career than the practical skills acquired from participating in particular projects.⁴¹

ARCHIVAL ARRANGEMENT AND DESCRIPTION COURSES

Archival arrangement and description has been regarded as core knowledge for the archival profession since the 1980s. However, Ericson reported that the 1990–1991 *SAA Directory of Archival Education* listed only one full-length course on this subject.⁴² It seems that archival arrangement and description had been taught more on-the-job or in workshops and only later began to be taught as a specialized course. Little information exists about how schools now teach this subject.

In contrast, some archivists have shared their experiences in effectively training graduate student assistants to process collections. Dean discussed students’ training in light of the paradigm shift triggered by Greene and Meissner’s “More Product, Less Process.”⁴³ She used practical methods such as a well-developed processing manual and weekly processing meetings.⁴⁴ Dean provided some good examples of archival processing training, but mainly focused on how archivists train their student workforce to process collections and not on how the training will contribute to the students’ learning.

To understand the general status of archival arrangement and description courses in North America, I reviewed course descriptions and course syllabi available from schools' websites, identifying a total of 55 courses with the subject of archival arrangement and description at 46 schools.⁴⁵ The courses range from basic to advanced with prerequisites. Course titles vary from school to school, including Archival Arrangement and Description, Archival Representation, Archival Description and Access, Principles and Practices of Archival Description, Archival Organization, Archival Access and Use, and Archival Access Systems. As the course titles show, the focus of courses varies from general principles and practices of arrangement and description to more systematic approaches to representation surrogates for descriptions and use.

As of May 2012, 18 syllabi and 50 course descriptions for the 55 courses are available on the Web. Sixteen syllabi (88.89%) include hands-on practices as part of the course grade. The proportion of hands-on practice varies from 10% to 90% of the total grade. These courses utilize many different types of practical assignments, from individual segments of archival description such as finding aids, MARC, and EAD, to a whole processing project. Some courses convert existing archival finding aids into different surrogates. Others use actual archival collections. In some cases, virtual collections or personal collections are used for assignments. Course descriptions also mention practical components. Of 50 available course descriptions, 40 (80%) mention practical aspects as an important component of the course. More than three-quarters of available syllabi and course descriptions clearly state that they use practical exercises, which may show a consensus on the pedagogical necessity of practice.

EDUCATIONAL BENEFITS OF PRACTICAL COMPONENTS

Hands-on practices within a curriculum can increase the quality of learning when they are well designed for student learning objectives and outcomes. Marty and Twidale discussed the value of project-based learning in museum informatics courses in two library and information science programs. Students not only learned to use specific software or information systems, but also had broader opportunities to apply practices and methods learned in class to actual problems in cultural organizations.⁴⁶

In the field of education, learning through practice has been widely researched. Practice provides different kinds of activities and interactions for learning, which can create significant value for a sustainable professional education. Billett maintained that learning is a cognitive and ongoing process that is a part of everyday conscious thinking and acting. In educational programs or practice settings, learning occurs whether it was intended or not. He argued that individuals construe and construct ideas or knowledge from their experiences,

which shape what they learn. Thus, the quality of activities and interactions has a greater influence on learning than settings do. Experiences in practical settings are likely to make important contributions to students' learning because they offer different kinds of activities and interactions than classrooms.⁴⁷ Billett pointed out, however, that learning through practice may not afford a planned learning experience because of unforeseen real-world circumstances. Also the qualities, processes, and outcomes of learning through practice are usually evaluated by the norms and practices of educational institutions. Learning through practice requires its own terms for evaluation; curriculum models and pedagogies must be developed for practice settings.⁴⁸

Learning in the classroom is often grounded in abstract knowledge and motivated by an emphasis on process, while learning at work is motivated by actual process and outcomes of work experiences that are highly applied and contextual.⁴⁹ The distinction between these two types of learning can pose a difficulty for students trying to integrate different modes and experiences.⁵⁰ Often this integration of knowledge occurs in an ad hoc manner, but it can be achieved by establishing it as an explicit learning objective for the collaborative education.⁵¹ Educators and practitioners should work together to develop clear, workplace-based pedagogies for the integration of knowledge.⁵²

Field experiences are often undertaken to prepare students for entry-level positions or to ease the transition into vocation. Criticisms usually focus on the fact that out-of-class learning is short on academic qualifications, that is, it lacks educational learning objectives and outcomes.⁵³ Implementing successful collaborative education based on carefully planned curricula and pedagogical processes brings various advantages to students' learning: students show more positive attitudes toward study, greater motivation, active engagement in class, enhanced self-confidence, and increased initiative, and, consequently, they learn better. Employers enjoy the benefits of collaboration, including enthusiastic student workers, productive interactions with educational institutions, and opportunities to screen potential new employees.⁵⁴

Through the integration of theoretical and practical learning, future archivists not only learn to cope with technical, practical, and procedural challenges, they also develop the inquisitive and speculative mindset to deal with various aspects of archival reality in the fast-changing environment.⁵⁵ As many archival scholars maintain, the archival profession of the future will need the right balance of what archivists know and how archivists think.⁵⁶ Eastwood stated, "The role of education is to form the mind to the ways of thinking and awareness that will allow the learner to adapt to new circumstances and to consider what is being done in ways that are productive for the self-growth of the skill at doing the work."⁵⁷ Cook also insisted that archival education should ensure that theory and practice harmonize in the curriculum and that archival educators

discuss various possibilities and potentials for their wide and diversified archival education programs.⁵⁸

Research Methodology

I examined one course at the University at Albany (SUNY), IST 666—Current Problems in the Information Science: Archival Representation. I explored whether the practical project offered as part of this archival arrangement and description course contributed to students' learning and whether the collaboration between educators and archivists promotes planned learning as well as the interests of the archival institution.

IST 666—Archival Representation has been offered since spring 2009. It is a trial course using a generic course number (IST 666) which was added to the curriculum by a new faculty member in the department. As such, it is not required for archives track students. The course is designed to introduce the history, theory, and practice of the representation of archival collections. Students review theories and principles for archival arrangement and description, and examine different types of surrogates for archival collections, including various descriptions and descriptive standards as well as Web representations of archival metadata. In seeking effective methods to connect principles and practices, this course takes a project-based learning approach with a semester-long project to process an archival collection. This approach is not intended to fulfill the internship requirements of the university's archival program, but simply to provide another learning experiences around the topic of archival arrangement and description. Two nearby archives supply collections. Completing the project entails developing a processing plan for one of the collections, arranging and describing the collection, writing a finding aid for the collection, creating a MARC and an EAD record using the *DACS* descriptive standard, presenting the collection on the Web, and, finally, writing a brief assessment paper (3–5 pages) describing the nature of records in the collection, the problems and challenges faced during processing, how these problems are addressed, and other issues encountered during the project. To make certain that theories and principles for archival arrangement and description connect with the processing practices in the project, assignments are aligned with each week's classroom topic. Thus, students read existing literature on theories and principles, and discuss the implications of recent research studies in class before they work on a specific assignment. In addition to the processing project, the course requires a final term paper. Students write literature review papers on any topic that interests them regarding archival arrangement and description.

I collected three sets of data from students and archivists. First, the course evaluation comments were collected for three years (2009–2011). This evaluation

was designed to assess the course contents, quality of instructor's teaching, teaching resources and techniques, and so on. Thus, the student comments do not only pertain to the specific purpose of this study (the hands-on practices) but rather evaluate the overall course. Also, course evaluations are done at the end of the semester, which may not provide enough time or opportunity for students to think about the usefulness of this specific aspect of the course. Thus, I sent an additional survey to students asking about their perceptions and specific experiences with the project. During the three-year period, a total of 27 students took this course, and 15 students participated in the survey. Since I surveyed the same pool of students, survey responses may overlap to a certain extent with the comments on the course evaluations. In addition to the students' responses, I interviewed three archivists from the two collaborating archives. To both archivists and students, I posed questions regarding initial expectations and intent, experiences during the project, examples of successful and unsuccessful aspects of the project, benefits, and areas needing improvement (see the appendix for the questions).

Findings and Discussion

BENEFITS OF PRACTICAL EXPERIENCE: STUDENTS' VIEWS

University at Albany's archival curriculum includes a for-credit internship that is required for a master's degree. In addition to that requirement, students appreciated the opportunity this course gave them to process a collection. The majority of students said they took this course to gain practical experience; the hands-on project was the most attractive aspect. Some students specifically mentioned benefits of particular segments of the project, such as the creation of archival metadata: "I wanted to take a course that applied to a real world setting, i.e. processing a collection, making a MARC and EAD record, and finally displaying my work in a website."

Students identified several specific benefits of hands-on projects, including the opportunity to experience how theoretical knowledge can be applied in handling a collection. They also mentioned how aligning their theoretical reading assignments with the tasks of practical processing on-site helped them recognize how to connect theory to practice. The course schedule correlates topics and required assignments so that students read about a certain topic in class and then submit an assignment that is closely related to that topic the following week. One student mentioned that "completing the assignments so closely to the theoretical reading helped to meld the processes together." This method seems to work well with students because they know where to look for further

information and become more engaged in the class because of an assignment's impending deadline.

Some students mentioned as a benefit getting to know the professional world and testing the water before actually entering: "Assignments were challenging and let me realize how the whole process of describing and arranging a collection works"; "If you don't enjoy this, you will not enjoy archival work." They also noted how the course made them feel prepared for employment: "I've also found the skills I learned in this class have been very helpful to me in my search for employment." Students also appreciated the opportunity to create a professional relationship through the collaboration.

BENEFITS OF PRACTICAL EXPERIENCE: ARCHIVISTS' VIEWS

In the same vein, the archivists mentioned practical motivations for the collaboration, especially the opportunity to process more collections in whole or in part. Not only do students help to process their backlogs, but as graduate students, they have more advanced knowledge than typical work-study students.

However, while students mentioned the chance to gain "practical experience" foremost among other motivations, archivists noted broader and more conceptual motivations first. Archivists mentioned that they viewed the collaboration as a way to give back to the profession as well as to serve the university's general educational mission. Archivists took this opportunity to perform professional duties beyond the pragmatics of reducing backlogs:

It's a way to grow our profession. (Interview 1)

I know that having experience as graduate students ourselves, and in practical environments you know the benefits it [has] for future archivists. (Interview 2)

Just the general belief that I have that if you work at a university, you're always educating students in some general fashion. (Interview 3)

More specifically, they recalled their own experiences as graduate students and the value of hands-on projects to them and wanted to offer those opportunities to students. The archivists talked about how they supervised students sympathetically during the actual processing tasks knowing the challenges the students faced.

Archivists believed all students gained something from the experience, big or small, practical or theoretical. One archivist mentioned that

They all get some level of learning and understanding about what it's like to work day to day. And the practical side, because it is a profession, and you learn a lot about processing when you're actually processing. It's hard to read

about processing. So in that end, even the students who weren't as interested as others, I think they all got something out of it. (Interview 3)

Even when a student did not complete processing a collection, the archival institution benefited from the project. Any quality student work is useful, especially in the age of MPLP. One archivist mentioned that student work on a collection helps with the first crucial step—getting started:

A lot of the material just takes a dedicated person for some time. . . . They really had to poke in and do some research. That wasn't just something you could look into on an afternoon. It took a lot of inquiry, and talking with the donors, you know the initial steps that you would do. That was really beneficial to us. (Interview 3)

Archivists agreed that the collaboration is a good way to build professional relationships with future archivists or to audition students for future employment. Students often return to the archives for summer internships or are actually hired as processing staff. Archivists also said they can offer to serve as references for students' job applications.

Archivists said they found the collaboration with students provided an opportunity to evaluate their own work procedures, a benefit I did not anticipate as I designed the study. Working with students helped the archivists determine how to adapt new processes and standards more easily, more logically, and more efficiently. One of the archives wished to streamline its new procedures for creating MARC and EAD records. The collaboration provided a way to test the process:

I thought . . . we would have students hand us a file just like they would hand us an html file. We might add some descriptive elements, but the formatting would stay the same. What we learned through the process of working with your students is that we weren't going to be able to do that with EAD. And working with students was going to be easier through what we now do. The end . . . product [is] in Excel spreadsheets, and they create the finding aid through that, and that's something that we just finalized a draft on last summer. So whatever the students create will then be input into this Excel spreadsheet, then that spits out the EAD finding aid. (Interview 3)

CHALLENGES OF THE PRACTICAL EXPERIENCE: STUDENTS' VIEWS

Although the collaboration offered benefits to students and archivists, both parties faced challenges as well. The foremost challenges for students were the workload and increased time commitment. Many students said the workload was greater than they expected. Some could not complete all the processing within the semester, perhaps because some collections were larger than

others and/or some students did not work as fast as other students. In some cases, students returned to the archives to complete the processing after the semester ended.

Some students mentioned that the amount of work, such as rehousing folders and physically processing papers, overwhelmed them at first, but that they found the job less challenging once they learned how things were done. In any case, most students appreciated the practical opportunity, noting that the extra time and effort were worthwhile. Students mentioned some specific assignments, such as creating an EAD record or a MARC record, as particularly challenging—not surprising since they had never created actual hand-coded descriptive metadata from scratch. The course presents adequate levels of intellectual challenge to encourage students to learn more actively and complete the process with a greater sense of achievement.

CHALLENGES OF THE PRACTICAL EXPERIENCE: ARCHIVISTS' VIEWS

Archivists encountered the same challenges, mentioning that the large amount of time spent with students intensifies their workloads, especially in the early weeks of the project:

I think it actually took more time than we had thought, so that's definitely a major concern that you're going to have to spend, especially at peaks and valley points when there's assignments due, or when there's a break, we've found that students were coming in and doing a lot of work then. So I think that's one of the things [to make] apparent to students that time management is really a critical skill to either learn or implement with this class. (Interview 3)

I think that we kn[e]w coming in that it is time consuming, especially at the beginning, so you have to prepare blocks of time that the students especially getting started need extra handholding in some cases. . . . That's always, I guess, a minor frustration that you wish everyone would be able to be independent at the beginning. (Interview 2)

Both parties stated that more planning should be done in terms of the size of collections, the number of students in each archives, and scheduling of students' work time within the archives. One archivist suggested that structuring time for the project, such as specific office hours when archivists are available to students, would make the process much more efficient. Archivists agreed that about five students per semester in each archives would be optimal, an arrangement that would ensure adequate supervision of each student. Archivists suggested that the instructor assign more time for some specific topics with which students struggled. Students also wanted assignment due dates to be more

dispersed throughout the semester. Both archivists and students mentioned that additional time should be spent on the topic of EAD.

Students' efforts and struggles seem to pay off well at the archives. Archivists said they utilized students' work as much as possible, even given the range of quality in the final products (arranged collections, rehoused materials, descriptions, etc.). They expected from the beginning that some students would do great work, while others would do the minimum required. Some excellent work the archivists used in its entirety; from other work, such as student research on collections and finding aids, they took only parts. One archivist noted that physical processing usually requires less modification; however, the EAD files needed the most tweaks and fixes. Another archivist commented that she accepted all the students' work, including EAD and MARC, for future use even though her institution does not yet use such systems.

Not surprisingly, archivists tried to help students create products that met institutional standards. The most efficient method was working closely with the students and collections. When they gave students more feedback, they found the end products of better quality. The benefits of working closely took some time to learn. The year after the first collaboration, archivists prepared more adequate collections and scheduled blocks of time for students. Also, supplying students a sample of the institution's finding aids helped to ensure a constant level of work quality.

We've started that in the second and third years, looking at the collections more closely, so instead of the students' finding things and me not knowing about them, I would go through a collection more, in more detail. Just to look for things that they would find to see if they found things that I found. And if they didn't, I said, "Well we need to handle this issue or we need to not separate these files because their provenance put them in a specific series." So that's something that I changed also. (Interview 3)

All in all, the archivists considered collaboration a positive experience, and the time they spent productive.

LEARNING FOR SUSTAINABLE PROFESSIONAL KNOWLEDGE

The collaboration provided students with a valuable opportunity to learn professional practices and sample actual work in preparation for their first jobs. This was the students' first processing project and their first chance to put into practice what they learned in class. In addition, students acquired specific skills and techniques through the hands-on projects, thus improving their competency. One student commented that "I knew this course would enable me to become more familiar with XML and EAD, important skills to know for success in the profession."

The final products students produced, such as finding aids of various formats and a Web presentation of the whole project, clearly presented their skills and what they learned. Archivists believed that students could include their course project work in their CVs or portfolios for potential employers to review. When a student-created finding aid becomes available on the Web, it represents the student's professional work. Associating students' names with online finding aids enables them to take professional responsibility and receive credit for their accomplishments:

I do try to speak to them to say "look, you know, if you don't put your effort into this, you're the one who loses out because everyone else is going to come in and have a finished product that they can put on their resume. Because the finding aid will bear their name. If you don't finish, you're not going to have a professional experience, so you lose out. I mean we lose out too in the archives." (Interview 2)

The feeling of achievement students get from the project can be one of the most important elements of learning and an emotional motivator. Students enthusiastically shared their feelings, successes, and achievements. Completing required assignments or overcoming a challenge increased their emotional engagement with the project. They described specific successful moments: completing a step, such as finishing a difficult assignment; concluding a whole project; or presenting a project to the class along with a Web page they created. This sense of achievement often remains with the students beyond the conclusion of the course.

Definitely the day we presented our websites. A lot of time and effort went into the finding aid. The website was tangible proof of what I had accomplished and I enjoyed sharing my experience with the class. (Student survey)

Students also reported feeling personal satisfaction when they helped other students:

[It was satisfying] when I could help my fellow classmates understand the EAD finding aid by showing them [that] my code executed during my XML class. (Student survey)

Through practical experiences in an actual setting and exchanging different opinions on best methods and practices, students gained professional confidence about archival processing.

Archives were an important venue for student learning in this collaboration. Accordingly, archivists were expected to serve as site instructors during the process. Archivists did not hesitate to act in teaching roles, attempting to implement more effective learning. Archivists tried to offer collections that

would be a good fit for students' learning. Sometimes they tailored approaches to individual students and offered one-on-one training:

I don't know what the students are going to ask me to milk my knowledge, so I have to be prepared. And it takes a lot of energy, but once they're here, I'm fine. (Interview 1)

I like working with students, so I always find overall it's a very pleasant experience for me. I know it's also a time-consuming experience, realistically, but my feeling is if you come to our department, and you expect to be trained, you should be able to get one-on-one time with me and have a fully-fledged experience in a practical environment and learning how, as a department, we handle processing. (Interview 2)

The archival site instructors cared as much about student learning as they did about benefits for their archives. They did not force students to follow institutional procedures for certain processing tasks (using templates or established forms), even though they knew it would be an easier way to incorporate students' work into their institutional systems. They respected the learning process of students. During a class assignment for creating an EAD record with hand-coding of XML, archivists followed the instructional goals and did not ask students to adhere to a tool that they already used for EAD. One archivist mentioned that

I have a template with an Excel spreadsheet that using a mail merge can be encoded very quickly [for an EAD file]. So even our undergraduate work study students just have to type in the spreadsheet, and if they have the columns correct and the dates correct, it's perfect. But I know students in 666 really need to learn more about the encoding aspect of it. So frequently that's where I think if only you could use the template it would be perfect, but you don't learn as much in that respect. I do understand. (Interview 2)

Archivists expected the quality of students' work to be evaluated based on the course standards, even though there was no clear agreement between archivists and the instructor in the initial phase of the collaboration. Thus the archivists planned on simply accepting students' work, leaving the evaluation to the instructor. This general circumstance may have resulted in more emphasis on student learning and less focus on completing the archival processing to institutional standards. In a few cases, therefore, students could pass the course even though they did not finish the processing.

Be realistic with students in terms of what they have to accomplish and what you need to accomplish for your processing goals. The students and the course is the most important. If they don't do enough processing as you see fit, but it's enough for the class and they get a B, then that's fine too. (Interview 3)

Archivists felt satisfaction as they watched students develop into professionals who understood the real process of archival arrangement and description, became more independent in their work, and achieved a true sense of the profession. One archivist said, "I feel really good when you've taught someone something that they suddenly, they can make their own decision about what works and what doesn't" (Interview 2).

Archivists often expanded their teaching role beyond the immediate demands of students. They took advantage of this opportunity to share their professional knowledge and attitudes with future colleagues. Archivists treated the students as professionals, acknowledging that they came from a graduate program and had more advanced knowledge of the field than the usual work-study students. Archivists shared their thoughts with students on various issues related to professional responsibility, accountability, and ethics:

I want them to also behave ethically and morally in what they do. . . . If you see something that has privacy restrictions, you have to be ethical about it. You can't reveal it because it might embarrass your institution. . . . And that's the point of what we do, so sort of then ingraining that to students is definitely part of the process. (Interview 3)

I don't know that it would necessarily fall under an archival description, but for the general program, [there should be] more emphasis on ethics. It's a lost art, it's you know so well how vitally important ethics are to our profession and it's one of my passions. So I always bring that in when I'm talking to the students because I don't know what they've gotten or where they've gotten it or if they've gotten it. And so I always want to bring that component in somewhere along the way to what they're working on. (Interview 1)

The hands-on projects at the archives thus provided students with the opportunity to ponder their profession and to think as professionals.

It also is important to consider evaluation criteria for the students' practical assignments. As noted by education researchers and archival educators, evaluating students' fieldwork by only one set of criteria (either the university's or the host institution's) is less ideal. For a successful collaboration, instructor and archivists must work together to create the project's own evaluation system that includes archivists' input on students' performance. In this way, the quality of students' final products will be assessed academically as well as professionally. This will be of greater benefit to students as this may be the first and perhaps only chance for them to receive quality feedback from both experienced professionals and academic faculty. Two kinds of learning (academic as well as practical) can be meaningfully integrated when the entire experience is well designed from planning to evaluation.

The collaboration provides students with a valuable opportunity to experience professional practices. As Eames and Coll argued, learning through

practice offers the opportunity to integrate two kinds of learning: theoretical foundational concepts and applied knowledge.⁵⁹ Practical experience offers various personal benefits, such as boosting self-confidence and increasing initiative, as well as career benefits, such as learning about the profession and gaining job experience. Each student faces unique challenges and situations because each processes his or her own collection. This translates into academic benefits and increased motivation for students to participate in class discussions because they want additional chances to discuss their collections and related problems. This offers students potential solutions to apply to their own collections.

Many students mentioned their feelings of achievement, which can be a lifelong driving force for enjoying learning. Experiences like actually arranging the collection, seeing the neatly organized result, creating a variety of surrogate records, aggregating all of the output on a website, and troubleshooting and overcoming challenges promote self-confidence in professional work. Boud and Miller stated that “the affective experience of learners is probably the most powerful determinant of learning of all kinds. . . . Feelings and emotions provide the best guides we have as to where we need to devote our attention.”⁶⁰ Experiencing positive emotions during professional work may be the most important learning experience for students.

RELATIONSHIP OF PRACTICAL COMPONENT TO OTHER CLASS ACTIVITIES

As important as the practical component was, it was not the entire course, which also included other components such as class readings, discussion participation, and a final literature review paper. Students might be tempted to consider the hands-on project the most important element of the course and might not accord the same weight to the other components. Consequently, some students complained that the final literature review paper added unnecessarily to their workload. One student even suggested eliminating this assignment and instead expanding the short project assessment paper that they had to write at the end of the processing project. A few mentioned that the amount of reading was excessive given their project work.

To create an effective learning process for professional education, we should begin with the premise that the practical component is used to promote better learning, not just to provide tangible evidence of students' technical skills or to offer practical solutions for archives. The instructor should be careful not to let the practical components override the general objectives of the course. By providing empirical practice, the hands-on project is a valuable part of the course contents; however, it should remain within the boundaries of course objectives and expected learning outcomes. The course does not exist to do the project; rather, the project exists to fulfill the objectives of the course. Focusing solely on

practice will only promote the old workshop mentality that archival education is to train students for entry-level positions rather than to educate students in sustaining professional knowledge. Even though students complained about the work, the final literature review paper and reading assignments added, I have not changed the overall structure incorporating academic and practical components into the course. However, I now spend more time at the beginning of the semester explaining the reasons for both components.

SUGGESTIONS FOR IMPROVEMENT

There is always room to improve. The first and foremost piece of advice both students and archivists offered is the need for better planning. Planning ahead to use collections of roughly similar quality and quantity would make the hands-on project experiences easier and more efficient for archivists and students. Students would not feel their workload was unfair, and archivists would feel less intense when advising and assisting students.

Respondents also mentioned close communication as important. Students said that responsive archivists and instructors were necessary for them to complete projects successfully. Most especially, students found the archivists' practical advice extremely important in each step of processing. Student evaluations of the archivists' guidance varied by individual student: some mentioned that supervising archivists helped them greatly "beyond the call of duty," while others working for the same archives said that they did not get enough guidance. Establishing clear expectations regarding communication and advising would reduce inefficient scheduling and enhance useful guidance for students.

As much as students wanted archivists to make themselves available constantly and to communicate closely with them, archivists wanted to communicate in a more efficient and predictable way. Archivists would like students to plan their schedules and availability better. Since archivists supervise multiple students at the same time, scheduling and time management are major challenges for them. Archivists would like to establish an efficient system for giving advice at the beginning of the project. They also noted that they wanted students to commit at least minimal time and effort:

We're only open 9–5 because of our staffing situation, so I know that presents a challenge to some students who don't necessarily have the luxury of time, and to spend a lot of time. But I myself was a graduate student who had a similar practical experience in Washington, D.C. I was working part time, taking classes full time, and I still managed to get to the archives to work on my projects, and that I know I was able to do it, so I do expect others to be able to do that as well. . . . A minimum commitment, you know, you're still going

to come in at least once a week. I think that is at a minimum, which is great.
(Interview 2)

Archivists and students discussed classroom factors that could be modified. Students appreciated that class readings were aligned with the stages of their projects; they could immediately connect what they learned and discussed in class to actual processing tasks in the archives. However, putting theory into practice does not occur seamlessly, and sometimes reading about theories may not easily provide practical solutions for students' challenges. Students hoped to have more practical exercises in class. They said reviewing exercises or practical examples together in class would help them:

It's great that we were given lots of handouts of MARC and EAD records, but it would have been even better if we could have done a few examples as a group. For EAD, we could have gone to the computer lab and worked on a small example. (Student survey)

If EAD is going to remain part of the class, I would suggest that after having students read the background articles on EAD, instead of using class time to discuss the issues in depth, apply the readings to an in-class activity that shows how EAD is applied. (Student survey)

Students and archivists made some specific suggestions, including requiring prerequisite courses to introduce archives and XML. Because this was a trial course, no prerequisites were required. Because some students lacked basic knowledge of archives and technology, it was challenging for them to complete assignments requiring very specific professional skills. By preparing students with fundamental knowledge prior to entering this course, class time could be more effectively used for teaching advanced knowledge and applications.

I absolutely believe that intro to archives and manuscripts class needs to be a prerequisite for archival representation. It would eliminate the need for some of the more basic readings and would better ensure that students are prepared for the hands-on project. (Student survey)

With the requirement to produce an EAD finding aid, many were confused about how to create such an aid. Having the pre-requisite of the XML class would be an improvement to incoming students. (Student survey)

Students also mentioned that this course should be required for the archives track curriculum. One student even recommended that the course contents could also be useful for general library track students who are interested in technical services.

Archivists suggested asking more institutions to participate in this collaboration, thinking that if more archives were involved, the number of students could be distributed evenly, with fewer in each archives. More participating

archives would benefit students, too, because they would be able to experience more varied collections and share diverse experiences in class. Archivists noted that they would recommend the collaboration to other archival institutions:

That's what I would just say, to reach out more, to publicize it more. If other archives that you're reaching out to, that have not had students, want to speak to those of us who have, I think that's another good way to say "yeah, this is what you do, this is how I handle my relationship with [the instructor], this is what we do ahead of time, this is what we do during, and this is what we do after." I would be perfectly willing to do that as well. (Interview 1)

Conclusion

Learning through practice can be an effective pedagogical method for advancing professional education. This method can provide an opportunity for students to apply theory to practice in real-life experiences. A well-planned and -managed project in both venues can create the best synergy for professional education. We should aim to integrate two different kinds of learning (academic and practical) to enhance the quality of archival education.

This study identified several critical elements necessary for this integration. A collaboration needs to be carefully planned and designed before it is implemented. Carefully selected collections and effectively designed project procedures will lessen the workload for both archivists and students. Scheduling students' visits and structuring an advising system in the archives will benefit both parties, as archivists will know when and how students will work, and students can plan their time and commit themselves to their projects. Close communication among students, archivists, and instructors is an essential element for successful collaboration. When archivists and instructors closely check student progress, students will not feel lost. Archivists will know how students' assignments are evaluated, and will see student development from draft to final versions. Instructors will learn how students perform in the archives and how much time and effort they put forth.

From this research, I learned that students as well as archivists valued highly the projects provided by the collaboration during this course. The hands-on archival processing is the major attraction for students. Even though many students felt challenged by the project (especially the workload, varying sizes of collections, and associated assignments), they appreciated the opportunity and felt it worthwhile. They said they would recommend this course to other students because of the project experience it offers.

Appendix

Student Survey Questions

1. Why did you take this course? (Concentration requirement, general interest, interesting topic, just need an elective, syllabus looks interesting, schedule conflicts, etc.)
2. What were the important factors for you to decide to take this course, if not required for track requirement?
3. What did you expect to learn from this course? After taking the course, do you feel the course contents met your expectation? If so, what were the most useful aspects of this course? If not, what are the things you feel that should be covered or improved in the course?
4. How was the size and workload of the project collection assigned to you? How much effort did you have to put on the collection in addition to the class workload (reading and other assignments)?
5. When was the time you recall that you felt most successful and achieved while doing this project?
6. What were the major barriers of doing this archival processing project (intellectually and physically)? When did you feel most frustrated doing this project?
7. How effectively were the course contents (readings, lecture, class discussions) utilized for the archival processing project?
8. What are the things about the hands-on project that can be improved from the archives' part?
9. What are the things that can be improved from the instructional part (in class activities)?
10. Additional Comments?

Archivist Interview Questions

1. Why did you decide on offering your collections for course projects? Major motivations?
2. How was the experience with students about your collections? How do you evaluate the experience about this collaboration in general?
3. How has the students' work been utilized in your collections? How do you evaluate the quality of students' products?
4. When did you feel that your decision to offer collections for student's course projects was paid off? When was the time you recall that you feel that working with students in order to process the collection (or any aspects of contribution to the archives) is worth your time and efforts?

5. When did you suspect about your decision for collaboration? When was the time you recall that things are not going well?
6. What are the things that can be improved with the students while advising them for their work?
7. What are the things that can be improved with the instructor and the course activities?
8. Additional Comments?

NOTES

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