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Accessing Archives: Primary Sources and Inquiry-based Learning in K-12 Classrooms

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Accessing Archives:

Primary Sources and Inquiry-based Learning in K-12 Classrooms

A dissertation submitted in partial satisfaction of the

requirements for the degree of Doctor of Philosophy

in Information Studies

by

Patricia Garcia

2015

ABSTRACT OF THE DISSERTATION

Accessing Archives:

Primary Sources and Inquiry-based Learning in K-12 Classrooms

by

Patricia Garcia

Doctor of Philosophy in Information Studies

University of California, Los Angeles, 2015

Professor Anne J. Gilliland, Chair

With the widespread adoption of the Common Core State Standards, K-12 teachers are required to utilize primary sources as tools to promote inquiry-based learning. This dissertation used ethnographic methods to investigate how teachers integrate primary sources into classroom instruction by gathering qualitative data on their information practices and the forms of knowledge they draw on when finding, evaluating, and using primary sources to promote inquiry-based education.

The investigation resulted in a rich description of the information practices and forms of scholarly and professional knowledge used throughout different stages of the integration process. The first phase of the study consists of semi-structured interviews with teachers from four different school districts. The interviews were used to gather data on teachers' beliefs surrounding inquiry-based education and

experiences teaching with primary sources. The second phase of the study consists of a nine-month participant observation period at a laboratory school. The study was designed to observe daily activities and collect implicit experience-based information, including the types of tacit knowledge associated with the act of teaching with primary sources. The investigation largely focused on understanding the practices related to how teachers find, evaluate, and use primary sources.

By examining the practices of teachers who are actively teaching with primary sources, this dissertation disentangles the complex relationship between unstated educational practices, national educational standards, and the archival processes that are undertaken as part of classroom instruction, such as locating primary sources for lesson planning. The study values the experiences of teachers as a source of practical knowledge that can inform theoretical knowledge and promote intelligent practice among both teachers and archivists. Ultimately, this study is an opportunity to perform proof of concept work for the field of archival studies that can improve information services for K-12 teachers and allow information professionals to play an enhanced role in promoting collaborative efforts between schools, libraries, and archival repositories.

The dissertation of Patricia Garcia is approved.

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2015

Dedication


This dissertation is dedicated to my parents, Rita and Jesus Jose Garcia, who

performed backbreaking labor as migrant farmworkers when I was a young girl to

provide for our family. Watching you harvest cucumbers from the inside of a

sweltering pickup truck taught me the meaning of sacrifice and hard work. This

dissertation is as much the fruit of your labor as it is mine. It is the sweetest harvest.

# TABLE OF CONTENTS

**Chapter V. Stepping Out From Behind the Processing Table: Archival**

**Education and Outreach**

**Chapter VI. Valuing Professional Knowledge: Toward a Collaborative**

**Knowledge Model for Primary Source-Based Instruction**

**Chapter VII. Conclusion**

# LIST OF FIGURES

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I am grateful to the teachers who participated in this study. They met me over the summer for interviews when they should have been vacationing. They allowed me to observe their classrooms even on days when fire drills and standardized testing preparations interrupted their quest to empower a new generation of active learners. Your dedication never ceased to amaze me. I am glad teachers like you exist.

I am eternally thankful for my family. Jesse, if you had not been brave enough to be the first to leave the Rio Grande Valley for college, I am not sure I would be sitting at this desk filing a dissertation. Mel, Phillip, and Jacob, you never ceased to believe that I would one day become "Doctor Paprika." Your beliefs convinced and sustained me throughout this journey. Mom and Dad, esto es para ustedes. Sin ustedes, esto no habría sido possible. Charlie, my faithful dog, thank you for sitting beside me while I typed late into the night. You were the only one awake when I

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late night coffee runs.

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**CHAPTER I:**

**INTRODUCTION**

**Visiting Mrs. Graham: Fire Drills and Everyday Classroom Occurrences**

On May 23, 2012, I walked into the front office of an elementary school in Santa Monica, California and asked the receptionist for a visitor's badge. I anxiously stood there as she studied my face and asked, "*Whose* parent are you?" I responded, "No, no. I'm not a parent. I'm conducting a study, and I'm here to do a classroom observation in Mrs. Graham's class." She asked me to wait while she contacted Mrs. Graham to verify my story. As the issuer of visitor's badges, the receptionist controlled the entrance to the school and served on the front line of the school's daily activities. While I waited, she fielded phone calls, gave out field trip permission slips, and dispatched a security guard to deal with a parent who was illegally parked in the bus zone. Eventually, she verified my story, took my picture on a webcam, and printed out a visitor's badge with my name and face on it. She informed me Mrs. Graham couldn't escort me to her room because she was busy teaching. I'd have to find my own way. She quickly rattled off directions to Mrs. Graham's class, and I set off only remembering half of the directions she'd given me.

When I found her class, I knocked and a second grader wearing purple glasses opened the door and let me. I had made arrangements to observe Mrs. Graham teach a lesson using primary sources, defined as original textual and non-textual sources that were created during the time period under examination. Earlier in the week she had sent a lesson plan for an activity that communicated the

historical significance of the legend of the "Oak of the Golden Dream," the site of the

first documented discovery of gold in Southern California located in Placerita

Canyon State Park. Mrs. Graham had chosen to teach the legend because the

students were visiting the site on a fieldtrip two weeks later. When I walked in, the

students were sitting in groups and using manipulatives,[1] which signaled that they

were in the middle of a math lesson. I was confused because I had arranged to

observe a social studies lesson that utilized primary sources. Mrs. Graham hurriedly

walked up to me and explained that they were "behind on everything" because of a

fire drill and asked if I could stay until after lunch because the students were

scheduled to leave in ten minutes. As she finished, she noticed a student was out of

his seat and pretending to sharpen a pencil. Before I could respond, she was heading

in the direction of the wrongdoer.

As she walked away, she asked, "You know how it goes, right?" I nodded in

agreement and she knew we understood each other. When I was recruiting

participants for this research study, I disclosed my past history as a second grade

bilingual teacher. I quickly learned that my background was an advantage in

recruiting participants. Once, when I was recruiting a teacher over the phone, she

said she'd work with me because I wasn't an "out of touch" researcher with "no

classroom experience."   I didn't judge Mrs. Graham for being off the teaching

schedule she was required to post on her classroom door. I had once been the

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[1] Manipulatives are objects used to gain hands-on knowledge of a mathematical concept.
Examples include colored interlocking blocks, popsicle sticks, colored tiles, and base ten
blocks.

teacher behind schedule, scrambling to catch up, and with eyes like a hawk for students who were off task.

Unused to standing in a classroom with nothing to do, I began straightening up a pile of used transparency sheets that were sitting on a table. She noticed and said, "Feel free to clean them if you want." We laughed, but we both knew she was half-serious. I grabbed a spray bottle and wiped transparency sheets clean until she returned from dropping the students off at the cafeteria. Knowing that it was her lunch break as well, I offered to leave and come back after lunch. She insisted I stay and unexpectedly began apologizing. She said she hadn't "found much" on Placerita Canyon or the "Oak of the Golden Dream," but she had managed to find "a couple of pictures of the actual tree and Walker cabin." She also explained that the lesson would have to be short because the fire drill had "eaten up" a lot of instructional time, and the students needed to catch up and finish a previous writing assignment.

When the students returned and sat in their assigned seats on a carpet in the center of the class, Mrs. Graham explained that they would be discussing Placerita Canyon. The students immediately showed signs of excitement. Several of the students pumped their firsts. The students were excited to talk about Placerita Canyon because they were excited about their fieldtrip. The teacher began by activating prior knowledge and asking, "Who here knows about the California Gold Rush?" Many of the students enthusiastically raised their hands. She proceeded to recount the story of how in 1842 Francisco Lopez had fallen asleep by a tree, dreamt of gold, and woken up to discover gold flakes on the roots of wild onions. The students were amazed by the legend, and one student caused the class to burst out

in laughter after he pretended to pull onions from the ground. She then showed the

students a photograph of the "Oak of the Golden Dream," and a girl asked, "Wow. Is

that it? Is that the tree?" Mrs. Graham explained that it was a historic photograph of

the tree available in the photo collection of the Los Angeles Public Library. A boy in a

striped shirt bombastically announced, "I've been there. I've seen it. We took our

dog to that park." Then, the lesson was over. She never used the photograph of the

Walker cabin at Placerita Canyon.

Later, when I was transcribing my field notes, many questions came to mind.

What resources had she used to search for primary sources on Placerita Canyon?

Had she contacted an archivist or librarian? Where had she learned about the legend

she recounted to her students? Why hadn't she mentioned it was a legend? Why

hadn't she discussed the literary genre of legends as mentioned in the lesson plan?

On what date had the "historic photograph" been taken? Why had she decided not to

introduce the Walker family through the use of the Walker cabin photograph? After

observing Mrs. Graham, I was left with questions about her methods for finding,

evaluating, and using primary sources as instructional tools, and I was struck by

how different the lesson had been from what she had described in the lesson plan

she had sent to me earlier in the week. The lesson plan was couched in the

professional language of teachers. She had listed academic standards, learning

objectives, and guiding questions. Yet, the actual experience of integrating primary

sources into classroom instruction had looked very different on that day. Her plans

and instructional goals had been greatly affected by the everyday realities of the

classroom - last minute schedule changes, unavailable resources, and time constraints.

When I decided to investigate the practices of teachers who were actively finding, evaluating, and using primary sources to promote inquiry-based education, several education and archival studies researchers had discussed "best practices" and described how teachers *should* undertake the process of integrating primary sources into classroom instruction; however, the question of whether or not these ideal notions could be implemented and translated into effective educational practices by busy teachers facing the everyday realities of the classroom had not been properly addressed.

**Purpose of the Study**

Thus, the purpose of this study is to investigate *how* teachers integrate primary sources into classroom instruction by gathering qualitative data on two key aspects of the integration process. First, the study explores the information and pedagogical practices used by teachers when they find, evaluate, and use primary sources as instructional tools. Second, the study investigates the forms of scholarly and professional knowledge utilized by teachers throughout the process of integrating primary sources into classroom instruction. The aim of the study is not to place practice in opposition to theory or to disregard the existing models and theories that have been developed. Instead, the aim of the study is to undertake a systematic analysis of the literature using ethnographic data to help develop an

intelligent practice for integrating primary sources based on both "knowledge of particular facts and a grasp of generalities" (Kessels & Korthagen, 1996, p. 19).

Since a significant amount of scholarly energy has been spent on developing theories and models, this study places an emphasis on phronesis and the understanding of the process through concrete practices and context. By studying the practices of teachers throughout various steps of the process, this study hopes to reveal how experience and professional knowledge are key components of successfully integrating primary sources into classroom instruction. The consideration of classroom realities are important because unexpected occurrences such as fire drills require that teachers be "flexible, ready for surprise, prepared to see, resourceful at improvisation" (Nussbaum, 1986, p. 305).

Second, the fundamental goal of the study is to use an analysis of the data to inform archival theory and practice for the purpose of extending archival services to teachers and students. For example, part of the process of integration, the identification and gathering of primary sources by teachers, requires communication across professional boundaries and domains. Teachers must be able to clearly communicate their unique information needs, such as finding primary sources with text that corresponds to certain reading levels, and archivists must be able to translate these specific needs into effective search queries for materials that are typically organized by provenance and contain no metadata concerning reading levels.

Since both teaching and archival professions are structured by different long-standing knowledge traditions, practices, and norms, how can the needs of each

profession be translated properly in order to foster professional partnerships?  One

approach for improving communication and collaboration between two professions

is to share an understanding of the respective practices and forms of knowledge that

are used to accomplish professional tasks and goals. This study focuses on the how,

what, and why's of teaching with primary sources: How do teachers find, evaluate

and use primary sources? What practices and forms of knowledge do they utilize

throughout different stages of the integration process? Why do they utilize these

practices and forms of knowledge when integrating primary sources into classroom

instruction? Exploring these questions by gathering data on the practices and forms

of knowledge most commonly used by teachers when finding, evaluating, and using

primary sources can help reference archivists better understand the needs of

teachers, allowing for clearer communication across professional domains and

successful collaborations.

**Significance of the Study**

 While both the archival and educational fields have undertaken research on

using primary sources in the classroom, most of the research has been done on

isolated aspects of the integration process, such as access or professional

development. This research study takes a holistic approach and analyzes the

process of integration as a multi-step process that requires the participation of

multiple actors: students, teachers, and information professionals. Although the

research is designed to be sensitive to the roles of multiple actors, a greater focus

was placed on the role of teachers based on the assumption that the integration

process relies heavily on the professional commitment and actions of teachers who are ultimately responsible for acquiring and introducing primary sources into a classroom.

Furthermore, Gracy (2004) has argued that few archival studies have explored "archival processes and practices in situ – within communities of practice – rather than as idealized conceptions of archival theory" (p. 336). While Shankar (2006), Gracy (2004), and Trace (2006) have successfully demonstrated that ethnographic methods can yield rich data on archival processes and practices, such as record creation and recordkeeping practices, ethnographic methods remain under utilized in archival studies, especially when compared to the dominant method of surveying. This research study explores archival processes and practices among members of particular community of practice in the natural setting of the profession – teachers integrating primary sources in the context of formal classroom instruction.

Based on the decision to employ ethnographic methods, the study is not aimed at producing a generalizable theory of how to best integrate primary sources into a classroom; instead, the purpose of the study is to understand how *experienced* educational professionals undertake the process of integrating primary sources, and how the practices they use relate to existing theory. Ultimately, the study values the experiences of teachers as a source of practical knowledge that can inform theoretical knowledge to promote intelligent practice among both teachers and archivists.

The decision to study the instructional integration of primary sources and

their pedagogical value in promoting inquiry-based education is timely and significant because this research was conducted during a period when foundational ideas about what constitutes public education in the United States were dramatically changing. The adoption of the Common Core State Standards required teachers to reevaluate how and what they teach in their classrooms. Teachers who were implementing the Common Core State Standards were faced with developing innovative pedagogical strategies and instructional techniques for mastering content *and* critical-thinking, problem-solving, and analytical skills. Thus, textbook-teaching no longer sufficed and teachers were required to use new instructional tools, such as primary sources, to teach students analytical skills, such as how to assess multiple forms of evidence.

Similarly, while the teaching profession and general educational landscape have been undergoing major changes, the archival profession and field responsible for providing access to primary sources has been experiencing changes of its own. Technological advances and changing ideas about the role of archivists as teachers has led to the development of user-centered policies and projects. Archival institutions have increasingly promoted online access to digitized collections and performed archival outreach to K-12 teachers and students. Gilliland-Swetland (1998) describes these changes in terms of the transformation of "historical collections into digital formats" in order to expand "access to the rich cultural holdings of historical repositories through the development of digital archives and digital library projects" (p. 141). The changing landscapes of the teaching and archival professions are the contexts in which teachers and archivists are trying to

collaborate and find common ground in order to achieve the shared professional goal of promoting the use of primary sources as instructional tools in K-12 classrooms. In the next chapter, I further contextualize the changing educational and archival landscapes and the effects of these changes on teachers and archivists who are working to integrate primary sources into classroom instruction.

**CHAPTER II:**

**LITERATURE REVIEW**

**Teaching in a Changing Educational Landscape: The Adoption and Implementation of the Common Core State Standards**

In an attempt to meet the changing demands of educational standards, teachers are constantly searching for innovative teaching tools and strategies. One significant change in educational standards affecting teachers is the requirement that students learn to analyze primary sources. For example, the Common Core State Standards (CCSS), national education standards developed by the National Governors Association, for grades 11-12 require that students learn to "analyze in detail how a complex primary source is structured, including how key sentences, paragraphs, and larger portions of the text contribute to the whole." The fact that nearly every state in the country has adopted the Common Core State Standards means that teachers across the United States must learn to integrate primary sources into classroom instruction.

The pressure to meet state and national educational standards cannot be ignored by teachers in the age of accountability; with the passing of the No Child Left Behind (NCLB) Act in 2001, the Congress expanded the federal role in public education by tying federal funding to performances on standardized tests. As a result, both the fields of education and archival studies have written extensively on the topic of teaching with primary sources in K-12 classrooms in order to help teachers meet state and national standards.

Within the fields of education and archival studies, ideal standards and models for how teachers should incorporate primary sources into classroom instruction have been developed to serve as guides for teachers seeking to undertake the process of integration; these claims have covered topics ranging from how to teach with primary sources to what types of skills students should be learning when interacting with primary sources.

When taken as a whole, the currently published educational and archival studies literature has provided teachers with clear ideas on how they *should* be undertaking the process of integrating primary sources into classroom curriculum. First, teachers must understand the importance of standards-based education and be familiar with the specific standards and subject areas requiring the use of primary sources. Second, using best practices and appropriate pedagogical techniques, teachers must be able to translate the standards into criteria that will be used to search for academically appropriate primary sources. Third, once primary sources have been found, teachers should develop lessons that promote inquiry-based learning by using primary sources to promote higher-level forms of analysis and critical thinking skills. If teachers follow the standards and models correctly, students will meet the requirements of standardized tests. If students fail to learn critical thinking skills, as evidenced by how they score on document-based questions, then the teacher should receive further training and professional development.

Embedded in the process are a second group of professionals – information professionals; most often, school librarians and reference archivists. In theory,

archivists perform traditional archival reference services and provide teachers with relevant materials that can be filtered for academic appropriateness. Archivists are not expected to undertake the filtering themselves since they are not professionally trained as teachers, and teachers are not expected to navigate "the complex arrangement of archival records and the procedural difficulties associated with accessing archival materials" without the guidance of an archivist (Duff & Fox, 2007, p. 130). In this theoretical scenario, each professional clearly understands their role and is able to communicate needs and professional advice successfully.

Ultimately, within both the education and archival studies fields, developing theory has been closely linked to developing new professional practices. Education scholars have turned to traditional learning theories such as constructivism to support the idea that teaching with primary sources can promote inquiry-based learning, changing students from empty vessels ready to be filled with textbook knowledge to active participants in their own education. Similarly, archival studies scholars have turned to archival theory to determine whether or not existing theory is suitable for developing practices aimed at increasing primary source use among teachers. For instance, archival studies scholars have questioned whether the principle of provenance is an appropriate guiding principle for arranging materials that may be of interest to teachers, especially since teachers are more concerned with subject and topic areas than the provenance of materials.

**Measuring Up: Teaching to Standards**

Most prescriptive literature, which is literature aimed at providing the "correct" way to undertake one or more aspects of the integration process, begins with the assumption that teachers understand the importance of standards-based education and are familiar with the specific standards and subject areas requiring the use of primary sources. Botzem & Dobusch (2012) have defined standards as "prescriptions on how to behave" (p. 12). Timmermans & Epstein (2010) have drawn from Bowker and Star (1999) and defined standards as "agreed-upon rules" that are used to construct "uniformities across time and space" (p. 71). As Timmermans and Epstein (2010) assert, standards have a "way of sinking below the level of social visibility"; in this manner, educational standards have become part of the "taken-for-granted technical and moral" infrastructure of public education in the United States (p. 71). Thus, the assumption that teachers are well-versed in educational standards, which function as the "agreed-upon rules" for how and what to teach, is not surprising and deeply rooted in the climate of standards-based education that prevails in public schools throughout the United States.

The importance of standards-based education was solidified in 2001 when Congress passed the No Child Left Behind (NCLB) Act, an act aimed at closing "the achievement gap with accountability, flexibility, and choice, so that no child is left behind" (Public Law 107-110). In order to continue receiving federal funding, states were required to "implement statewide accountability systems covering all public schools and students." These "accountability systems" needed to be based on "challenging state standards in reading and mathematics, annual testing for all

14

students in grades 3-8, and annual statewide progress objectives ensuring that all groups of students reach proficiency within 12 years" (US Department of Education, 2001). The pressure to enact standards-based education forced states to develop assessments, or standardized tests, that would measure student performance and hold states accountable for student achievement with measurable outcomes (Department of Education, 2001; Friedman, 2006).

Without federally mandated educational standards, states were left to develop their own standards, which resulted in disparities between the standards of different states. In an attempt to bring diverse state curricula in alignment with each other, the National Governors Association (NGA) developed the Common Core State Standards Initiative (CCSSI). The aim of the initiative was to "provide a consistent, clear understanding of what students are expected to learn, so teachers and parents know what they need to do to help them" (CCSSI, 2010). As of 2013, forty-five states, the District of Columbia, four territories, and the Department of Defense Education Activity have adopted the Common Core State Standards (CCSS).

In addition to the Common Core State Standards, national professional organizations developed subject-specific standards. For example, in 2010, the National Council for the Social Studies developed and published *National Curriculum Standards for Social Studies: A Framework for Teaching, Learning, and Assessment.* As a result, teachers were left with a myriad of national, state, and professional standards to obey.

*Conquering Document-based Questions*

From 2001 forward, the success of teachers was measured through the standardized test scores of their students. Consequently, state educational boards, local school boards, administrators, and teachers began to "teach to the test" and focused on "preparing their students for the types of questions found on standardized tests" (Hendry, 2007, p. 123). One particular type of question caught the attention of archivists and teachers: document-based questions. According to the New York State Education Department (n.d), document-based questions are a type of "authentic assessment" that allow students "to interact with historical records." Students completing a document-based question are asked to "read and analyze historical records, gather information and fill in short scaffolding response questions, assimilate and synthesize information from several documents, and then respond (usually as a written essay) to an assigned task, by using information gleaned from the documents as well as their own outside information" (NYSED, n.d.).

The use of document-based questions, or DBQs, on standardized tests became commonplace and teachers found themselves having to meet standards that required the use of primary sources in order to prepare students for DBQs. According to Veccia (2004), a vast majority of states require teachers to integrate primary sources into classroom instruction in order to prepare students for DBQs and to promote critical and historical thinking skills.

| Grade | Subject | Standard |
|---|---|---|
| 2 | English Language Arts | "Describe the connection between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text." |
| 5 | English Language Arts | "Analyze in detail how a complex primary source is structured, including how key sentences, paragraphs, and larger portions of the text contribute to the whole." |
| 6-8 | English Language Arts | "Cite specific textual evidence to support analysis of primary and secondary sources." |

**Figure 1: Sample Common Core Standards Requiring Use of Primary Sources**

Prior to standardized testing, primary sources were primarily the tools of social studies teachers who dared to venture beyond the textbook. However, as evidenced by the standards above, analyzing primary sources became a necessary skill for passing standardized tests in testable subject areas, such as English language arts.

Additionally, as standardized testing became the norm, professional organizations, such as the National Council for the Social Studies (NCSS) began to rally for "untested" subject areas to become testable. Following the "if it isn't tested, it isn't taught" paradigm of education under NCLB, the NCSS understood that social studies education would become increasingly neglected in favor of testable subjects, such as math. In 2007, the reduction in instructional time devoted to social studies caused the NCSS to release a public statement blaming the "erosion of the

importance of social studies in the United States" on the implementation of NCLB.

Yet, while the NCSS criticized NCLB for attempting to measure student achievement

"solely through the administration of multiple choice and short answer

examinations", the organization officially requested "the federal government ...enact

changes to the NCLB legislation to include core social studies disciplines" (2007). In

other words, understanding the importance of standardized testing and its effects

on educational practices, the NCSS moved to include social studies in the list of

"testable" subjects. According to a study conducted by the Center for Information

and Research on Civic Learning and Engagement at Tufts (2012), twenty-one states

require statewide social studies tests.

Educational standards and standardized testing have undeniably become

central concerns for teachers in public schools. Thus, it is not surprising that

archival studies and educational literature aimed at promoting the use of primary

sources in the classroom automatically assumes that teachers are aware of and in

agreement with standards that require students to analyze primary sources.


**Locating Primary Sources in Archival Environments**

In addition to being well-versed in educational standards, the scholarly

literature asserts that teachers must be able to translate the standards into criteria

that will be used to locate academically appropriate primary sources. Primary

sources are not completely foreign to teachers. Textbooks, especially history

textbooks, have consistently included primary sources along with lessons.

Presumably, students should be able to learn how to analyze primary sources

through the lessons in textbooks. Yet, according to Rodeheaver (2009), a study of 1860 primary sources located within three textbooks revealed that 1597 (85.86%) of the sources were simply used as "page fillers," meaning that the primary sources were not followed by corresponding questions prompting students to analyze "or otherwise interact with the primary source" (p. 61). While textbooks are usually chosen by the state from a list of commercial vendors and adopted statewide, the decision to use primary sources in a classroom requires that teachers invest their own professional time and effort to locate records that could serve as effective teaching tools, mainly records that are grade-level appropriate, applicable to teaching standards, topical, and interesting enough to spark classroom discussion.

Instead of relying on textbooks, teachers have been encouraged to locate academically appropriate primary sources in order to develop standards-based lessons (Clarke & Lee, 2005; Ensminger & Fry, 2012; Morgan & Rasinski, 2012). According to Ensminger & Fry (2012), teachers have struggled with locating primary sources due to "limited access and availability of primary sources" (p.119). In response, the archival studies field has focused on developing multiple avenues for increasing access to primary sources, such as refining description practices and designing online digital collections.

*Archival Reference Services for K-12 Teachers*

Within the field of archival studies, the attention shifts from the roles and responsibilities of teachers to the roles and responsibilities of another professional involved in the process - archivists. According to Duff and Fox (2007), "reference

archivists provide the sole link between users and records" due to the "the complex arrangement of archival records and the procedural difficulties associated with accessing archival materials" (p. 130). Hence, the role of the reference archivist and the reference interview has been an important research topic for archival studies scholars.

Although the needs of teachers are unique and differ from the needs of the traditional user base, such as academic researchers and historians, the process for helping teachers access primary sources does not look very different from the traditional archival reference interview. According to O'Donnell (2000), patrons wishing to access primary sources must follow a standardized procedure that has been developed to protect the integrity of archival materials. Based on various accounts of the procedure, archival reference usually involves the following steps (Duff & Fox, 2007; Cross, 1997; Ruth, 1988; Cox, 1992; Tissing, 1984):

1. Teachers must fill out a registration form and receive an archival orientation that details the policies and procedures for using the archive.

2. Teachers should meet with an archivist and participate in an archival reference interview. During the interview, teachers should clearly communicate an information need, such as the area of research.

3.  Archivists should translate the information need into a query that can locate relevant collections and materials within a system.

4. Teachers should use professional training to choose the most academically appropriate materials among the relevant materials located by an archivist.

In most instances, deciding which materials are academically appropriate is the sole responsibility of the teachers seeking primary sources. As described in the archival studies literature, both archivists and teachers can clearly communicate across professional boundaries. Furthermore, in an ideal archival reference encounter an archivist is able to locate relevant materials and fulfill the teacher's needs.

The aforementioned archival reference model depends on a set of assumptions regarding the archival reference interview and the professionals involved in the process. First, the archival reference model described above is outdated in a world where online digital collections have created archives that are "open all night" (Ruller, 1997). Unlike the research on librarianship, archival studies scholars have traditionally been slow to consider issues surrounding reference services. A number of archival studies scholars have attempted to describe archival reference services in the twenty-first century (Davis, 2012; Cox, 2007; Duff & Johnson, 2001). Specifically, archival scholars have studied different aspects of the online archival reference experience, including virtual chat and email reference services. However, much of the scholarship still relies on the traditional archival model and attempts to transpose the model to an online context. For example, chat reference is interpreted as the online equivalent of an in-person reference interview. Therefore, the traditional archival reference model remains fundamentally unquestioned.

Second, in terms of teachers, the successful reference encounter depends on the idea that teachers actually visit archives when they are trying to locate primary

sources.  Yet, even traditional users of archives do not necessarily prefer "mediated access" to archival holdings; often, users prefer to undertake "unassisted research in digital collections" (Eamon, 2006, p. 298). In fact, Yakel (2004) argues that teachers are "not concerned about interacting with the archives or manuscript collections as a whole, nor are they explicitly interested in having the students learn about generalized research techniques in archives and manuscript collections"; instead, the educational literature reveals that "by and large" teachers are interested in "developing expertise (e.g. critical thinking skills) with pre-selected or prepared sets of largely digitized documents" (p. 62). The archival reference model assumes teachers will visit the archive ready to undertake archival research with the help of an archivist. However, as Yakel (2004) argues, neither visiting an archive nor undertaking archival research are key concerns for teachers.

Third, in terms of archivists, the archival reference model assumes that archivists are eager and willing to address the specific needs of teachers when locating primary sources. In reality, archivists do not have much experience assisting K-12 teachers and feel uncomfortable appraising primary sources for pedagogical value. Robyns (2001) explains, "Despite the fact that critical thinking skills are a fundamental component of research in primary sources, many archivists have argued that being a teacher goes beyond the mandate of archival management and that the responsibility for teaching thinking and research skills should be left to properly trained faculty" (p. 364). When archivists are concerned with pedagogy, they are mainly concerned with "training new archivists and diffusing pedagogical

resources in the archival profession itself" and not necessarily interested in training teachers to perform archival research (Eamon, 2006, p. 302).

Furthermore, even if teachers and archivists met at an archive prepared to collaborate, the model assumes that each professional would be able to clearly communicate across professional boundaries. According to Yakel and Torres (2003), inexperienced users lack the information literacy required to successfully locate primary sources in an archival environment. Teachers who have not been trained to undertake historical research often have expert domain knowledge of the subject being researched but may lack artifactual literacy and "archival intelligence" (Yakel & Torres, 2003). Archival intelligence refers to "knowledge about the environment in which the search for primary sources is being conducted, in this case, the archives" (Yakel & Torres, 2003, p. 52).

Without archival intelligence, teachers may struggle to identify academically appropriate materials within a larger body of archival materials that is  arranged according to the principle of provenance "as opposed to being categorized according to subject" (O'Donnell, 2000, p. 117).  Completing a topical search and returning only results that fit the topic is difficult in an archive because "archival records and personal papers…are not 'about' a set of subjects, and collections may not concern one overriding topic" (Yakel, 2004, p. 62). Therefore, locating materials that are relevant to a topic does not mean that an archivist has successfully fulfilled the needs of teachers. Teachers must still evaluate the primary sources for relevancy to the curriculum, accessibility, ease of use, and the ability to design assessment mechanisms using the materials (Eamon, 2006, p. 302).

Teachers are not trained in archival theory and practice and often are not prepared to undertake archival research. Similarly, archivists are not trained in learning theories or educational standards and are not prepared to appraise materials for pedagogical value. Without a proper understanding of the principles and practices of each profession, both parties are left without fulfilling solutions.

Fortunately, archivists have recognized the importance of understanding the specific needs of teachers in order to improve access to primary sources.  One suggestion for improving access to primary sources has been to refine description practices based on the needs of teachers. For instance, Gilliland-Swetland (1998) interviewed and observed teachers in Southern California in order to identify content needs and characteristics of digital primary sources that might interest K-12 teachers. The results of the study were used to propose a strategy for designing online archival access systems that utilized Encoded Archival Description (EAD) to enhance description with user annotation and hyperlinks to related materials. Gilliland-Swetland, Kafai, and Landis (1999) expanded on the research by conducting a case study using the UCLA Digital Portfolio Archives Project to explore issues surrounding the integration of primary scientific sources into a formal elementary school learning process.

*Archives Online: Digitizing Collections*

As the studies described above reveal, many scholars in the field of archival studies have advocated for the use of online digital collections as a possible solution to access problems. According to Eamon (2006), one longstanding problem with

24

supporting the use of primary sources in the classroom has been providing students and teachers with access to the actual archival document or artifact. Due to the valuable and fragile state of most archival items, students are not able to handle originals in a classroom; instead, teachers rely on copies or replicas. Now teachers can use online platforms, such as the Library of Congress American Memory Project, to gain access to a large number of digitized documents.

Supporters of online archival platforms are enthusiastic about the ability to link the digital objects to "their descriptive information, thus maintaining the context of documents, to the parent institution, and more specifically, to the originating fonds, collection, series and files" (Eamon, 2006, p. 305). Maintaining the context of documents, such as the relationship of one document to the rest of the documents in the originating fonds, simulates an archival environment and enables students to perform "archival research without the constraints of a few documents pre-selected by others" (Eamon, 2006, p. 306). Recognizing the potential of online platforms, archival studies scholars have been concerned with how to best design online archival systems for teachers and students (Gilliland-Swetland, 1998; Gilliland-Swetland, 2001; Davison, 2009). System design studies have been user-centered and have focused on different aspects of how teachers and students interact with digital resources. For instance, Pattuelli (2007) studied the searching habits of teachers to create domain-specific ontologies for digital collections that are designed to facilitate educational access primary sources. Overall, the enthusiasm for increasing access through online digital collections has led to digitization projects of varying scales. Examples of projects include the Online Archive of

California, which serves as a portal to over 20,000 EAD finding aids submitted by more than 200 contributing California institutions, the Library of Congress Teaching with Primary Sources Program, which provides teachers with standards-based lessons and primary source sets, and DocsTeach, which provides teachers access to thousands of primary sources selected from the National Archives.

Along with archival studies scholars, researchers in the field of education have also been supporters of increasing access to primary sources through online digital collections (Johnson, 2009; Lee, 2002; Lee & Clarke, 2003; Ruzzo, 2000; Tally & Goldenberg, 2005; Brown and Dotson, 2007). Education researchers have presented various reasons for supporting the use of digital archival collections. For one, Tally and Goldenberg (2005) contend that the "multimedia nature of most digital archives…offers students with diverse learning styles multiple pathways into thinking about historical and cultural problems" (p. 3). For example, visual learners can access historical photographs and auditory learners can utilize recorded oral histories. Additionally, educational researchers argue that digital environments allow for improved access through the use of hyperlinks, user annotations, and full-text keyword searching. In a digital environment, teachers do not necessarily have to possess "archival intelligence"; even the "novice in the archive" can locate relevant primary sources when the text of a document can be searched using full-text keyword searching (Bass, 1997).

According to the scholarly literature, teachers should be able to successfully locate primary sources using digital collections, even if they aren't trained to perform archival research. After all, mass quantities of primary sources are readily

available through user-friendly online digital collections. However, a survey

conducted by Hicks, Doolittle, and Lee (2004) determined that almost half of the

158 social studies teachers surveyed for the study only use digital collections two to

three times a month. The researchers argue that teachers are "only occasional users

of the web for the acquisition of primary sources" (p. 226). Furthermore, the

surveyed teachers indicated that they were "mostly **unfamiliar** with and therefore

had **never used** several well-developed and notable digital resource centers.

Specifically, **half to three-quarters** of teachers had never heard of, for example, the

Library of Congress' *American Memory* site…[emphasis added]" (p. 226). When

asked why they did not use digital collections more frequently, teachers most

frequently cited "a lack of time to search for web-based primary sources" (p. 228).

The second most cited reason was "that there were too many web sites to locate

suitable primary sources" (p. 228). The survey results reveal that increased access

to primary sources through online digital collections does not automatically ensure

increased use. Despite being readily available, locating primary sources still

requires time, and the massive amount of primary sources available seems to

hinder, instead of promote, the process of locating suitable primary sources.

**Thinking Like a Historian: Promoting Inquiry-based Learning**

The majority of the education research on integrating primary sources into

classroom instruction deals with evaluating whether or not primary sources are

effective educational resources. Using constructivism as a theoretical foundation,

education scholars have proposed that teachers move away from textbooks and

toward the use of primary sources as way to encourage critical thinking skills. Thus, once non-digital and digital primary sources have been located, teachers should develop lessons that promote inquiry-based learning by using primary sources to promote higher-level forms of analysis and critical thinking skills.

Inquiry-based learning is an active and engaged approach to learning that teaches students to "engage in questioning, problem solving, active investigation, and critical thinking" (Stripling, 2011, p. 5). Inquiry-based learning is associated with other constructivist learning theories mainly attributed to John Dewey, such as experiential learning, learning-by-doing, and learning in depth (Stripling, 2003). According to proponents, analyzing primary sources requires active participation and problem solving skills, both of which are foundational components of inquiry-based learning (Stripling, 2003; Doolittle & Hicks, 2003; Lee, 1998; Seixas, 2000; VanSledright, 2002; Veccia, 2004). However, inquiry-based learning can only occur if the teacher does not provide the "meaning" of the primary sources and allows students to construct their own conceptualizations and connections.

Inquiry-based learning can involve the use of multiple sets of reasoning skills. According to both archival studies and education researchers, the use of primary sources in classroom instruction can promote critical thinking skills (Gilliland-Swetland, Kafai & Landis, 1999; Pitcher, 2005; Tally & Goldenberg, 2005; VanSledright, 2002; Morgan & Rasinski, 2012). Critical thinking skills are defined as "cognitive processes that go beyond rote memorization and fact recall" (Fry, 2010, p. 15). Morgan and Rasinski (2012) argue that providing students with multiple sources of information, such as primary sources that present two different narrative

accounts of an event, fosters students' ability to "grapple with the complexity of synthesizing information" (p. 587). Thus, instead of relying on textbook interpretations of history, students are required to use the higher order thinking skills of Bloom's Taxonomy, such as analysis, synthesis, and evaluation.

In addition to critical thinking skills, proponents of using primary sources to teach claim that students learn to "think historically" (Colby, 2008; Drake &Brown, 2003; Seixas, 1998; VanSledright, 2004; Wineburg, 1999, 2001, 2010). Hendry (2007), who advocates archivist involvement in K-12 education, argues that "students should learn to observe closely the features of documentary evidence, to identify bias within the document, to analyze the primary documents based on knowledge of their context, to speculate about causes and consequences, to make personal connections, and to use evidence to support their speculations" (p. 120). In a feature article written for the Library of Congress' Teaching with Primary Sources program, Wineburg (2010) described several strategies for "thinking like a historian" when evaluating primary sources. According to Wineburg, teachers should encourage students to use strategies such as "sourcing," which requires thinking about a document's author and creation, and "corroborating," which entails identifying points of agreement and disagreement across multiple sources. Other strategies include contextualizing, reading the silences, using background knowledge, and performing close readings.

Beyond reasoning skills, proponents claim various other pedagogical benefits to teaching with primary sources. For example, Tally and Goldenberg (2005) claim that teaching with primary sources allows for a "hands-on" approach to learning

29

that encourages students to feel "more invested" in the results of an investigation because they have the opportunity to "construct meaning from primary materials, and critically examine those meanings" (p. 16).

Additionally, education researchers have proposed that primary sources can promote learning for students enrolled in special education programs (Franquiz & Salinas, 2011; Fry, 2010). For instance, Franquiz and Salinas (2011a/b) studied a group of newcomer students in a Central Texas high school who were receiving language and content instruction using primary sources. Newcomers are defined as "a special subgroup of the student population designated as English Language Learners (ELLs)" (Franquiz & Salinas, 2011a, p. 59). Newcomers may have grade-level literacy and language skills; while others "have limited or no formal literacy in their native language because of the quality of previous schooling, interrupted schooling due to wars or migration, and other circumstances" (Franquiz & Salinas, 2011a, p. 59; Suárez-Orozco & Suárez-Orozco, 2001). The study was interested in understanding how newcomers "position themselves linguistically, culturally, and critically in relation to particular historical events" and how these personal connections can assist in improving language acquisition and content mastery (Franquiz & Salinas, 2011b, p. 200). Results revealed that newcomers "learned new vocabulary related to known and unknown historical experiences" and that "use of digitized documents, document-based questions, and written responses in the form of letters or telegrams made the subject relevant and meaningful to the newcomer students and elicited their cognitive engagement and identity investment in the production of writing" (Franquiz & Salinas, 2011b, p. 206). Ultimately, the study

revealed that primary sources allow for language acquisition and content mastery simultaneously, which goes against the long-standing belief that these two areas had to be learned separately or that language acquisition had to occur before content mastery.

Researchers have partnered with experienced and dedicated teachers to demonstrate the pedagogic value of primary sources. For example, when studying English language learners and the creation of identity texts using primary sources, Franquiz & Salinas (2011 a/b) partnered with an teacher who is Spanish/English bilingual, of Mexican heritage, and who was willing to explore using primary sources in her classroom. Yet, an interesting issue to consider is what happens when you remove a team of researchers and an experienced teacher and replace them with an inexperienced teacher alone in a classroom of twenty-three students. Studies where researcher intervention was not present found that many well-meaning and committed teachers, especially pre-service or first-year teachers, were not able to promote critical and historical thinking skills. Tally & Goldenberg (2005) found that historical images were commonly used "simply as *illustrations* of established fact, rather than as data from which to reason about the past"; the use of historical images as illustrations did not promote critical thinking skills because it overlooked the "contradictory information images contain, the purposes they might have served for their creator, and the understandings that viewers might have brought to them" (Tally & Goldenberg, 2005, p. 4).

**Learning the Tools of the Trade: Access to Professional Development Opportunities**

According to archival studies and education researchers, if teachers follow the standards and models correctly, they will effectively use primary sources to promote inquiry-based learning and students will meet the requirements of standardized tests. If students fail to learn critical thinking skills, as evidenced by how they score on document-based questions, then the teacher should receive further training and professional development. The tendency to use historical images as illustrations reveals that teaching with primary sources does not naturally promote inquiry-based learning. However, in most instances, the problem can be corrected by training teachers how to "properly" teach using primary sources.

The majority of education and archival studies research has focused on establishing the pedagogical value of primary sources, and less scholarly attention has been paid to learning *how* to teach with primary sources. Many education scholars argue that the integration of primary sources into classroom instruction has been slow because teachers have not been properly trained on how to effectively use primary sources to encourage students to use higher level learning skills, such as analysis (Lee, 2000; Clarke &Lee, 2005; Seixas, 1998). In response, researchers such as Ensminger and Fry (2012) have developed a descriptive conceptual framework for teaching with primary sources; the conceptual framework provides teachers with six primary source-based instructional practices created using Bloom's Taxonomy (1956) and the revised taxonomy of cognitive processing created by Anderson and Krathwohl (2001). Furthermore, the Library of

Congress has developed a teacher training program, the Teaching with Primary Sources (TPS) program, specifically aimed at training teachers to use primary sources in the classroom. Teachers can attend workshops hosted by the Library of Congress over the summer in Washington D.C. and those unable to travel during the summer can receive ongoing and year round training from regional TPS consortium members. There are currently twenty-eight consortium members in seventeen states.

Archival studies researchers have responded similarly by outlining opportunities for archivists to perform outreach to pre-service and in-service teachers. In some cases, the researchers argue that archivists can serve as teachers themselves since they are most familiar with historical research and the scope of their collections (Hendry, 2007; Robyns, 2001). Hendry (2007), for example, presents several opportunities for archivists to become involved in training teachers to effectively use primary sources in the classroom. She suggests archivists can create workshops for pre-service teachers or continuing education for practicing teachers where teachers can learn to locate materials and familiarize themselves with archival issues, such as provenance and authenticity. Hendry even advocates that archivists visit local schools to provide onsite in-service training customized to the needs of individual schools.

Undoubtedly, training and professional development can help guide teachers who are learning to integrate primary sources into classroom instruction. However, further research should be conducted to evaluate whether or not teachers are actually seeking professional development, especially when most teachers cited a

lack of time as the main reason they do not use primary sources in the classroom

(Hicks, Doolittle, and Lee, 2004, p. 228)

**Scholarly Contributions**

Although both fields, education and archival studies, are participating in research on

integrating primary sources into classroom instruction, the research has been

separated into disciplinary silos. This study is informed by research in both fields

and uses an interdisciplinary approach that combines the expertise of experienced

teachers at a laboratory school and a researcher with training in archival theory and

practices and previous experience working as a second grade bilingual teacher.

Additionally, the majority of archival studies research has focused on

promoting the use of primary sources among undergraduates (Robyns, 2001; Duff &

Cherry, 2008; Malkmus 2007; Rockenbach, 2011; Krause, 2010a/b). Meanwhile,

education research has mainly focused on promoting use of primary sources among

junior high and high school students (Lee & Clark, 2003; Mims, 2002; Warren, 1999;

Morgan and Rasinski). According to Ruffin and Capell (2009), one common myth

surrounding the use of primary sources is that they are "irrelevant to children, who

are not able to grasp the nature of the material" (p. 26). As a result, research on how

to effectively integrate primary sources into classroom instruction in elementary

school classrooms is limited. This study expands on research conducted by Gilliland-

Swetland, Kafai, & Landis (1999) that explored the integration of primary sources

into an elementary classroom at a laboratory school.

Lastly, the research in the archival studies field has been limited to relatively brief user studies, mainly in the form of surveys, and literature reviews (Rockenbach, 2011; Malkmus, 2007; Robyns, 2001). The purpose of this study was to collect ethnographic data through participant observation and semi-structured interviews that can supplement the data gathered though previous research efforts. The overall goal was to collect the richest possible data that could provide an "intimate familiarity" with the practices that teachers use when undertaking the process of integrating primary sources into classroom instruction (Lofland & Lofland, 1995, p. 16).

**Archival Ethnography**

The methodology chosen for the study is drawn from the tradition of archival ethnography. The definition of "archival ethnography" has been used to describe two different types of research within the fields of archival studies. In one form of archival ethnography, the archive is the *subject* of ethnographic study. For instance, Ann Stoler (2001) argues that historical research is an "extractive process" that simply views "archive-as-source"; Stoler advocates that scholars move toward an ethnographic understanding of archives, or "archive-as-subject" (p. 87). Within this view of archival ethnography, archives are seen "as cultural agents of 'fact' production, of taxonomies in the making, and of state authority." Thus, archives should be understood as "the supreme technology of the late nineteenth-century imperial state" and scholars should be concerned with "what constitutes the archive" and "what form it takes" (Stoler, 2001, p. 87).

While "archive-as-subject" has been a useful critical frame for many fields, such as post-colonial studies, this study uses "archival ethnography" to describe the act of using ethnographic methods to study archival practices and processes. For the purpose of this study, archival ethnography is defined as the following:

> "Archival ethnography is a form of naturalistic inquiry which positions the
>
> researcher within an archival environment to gain the cultural perspective of
>
> those responsible for the creation, collection, care, and use of records"

(Gracy, 2004, p. 337)

According to this definition, archival ethnography may be practiced in a "variety of environments – any social space where the creation, maintenance, or use of archival records forms a locus of interest and activity" (Gracy, 2004, p. 337).

Archival ethnography draws from traditional forms of ethnography and allows for an awareness of "the tremendous variation...in research subjects and circumstances, and the challenge of studying complex social and cultural phenomena in action" (p. 8, Murchison, 2010). The process of integrating primary sources is not standardized; multiple variations of the process exist and multiple types of teachers carry out the process using differing practices. Additionally, integrating primary sources into classroom instruction is one of many professional activities undertaken during the act of teaching. The act of teaching is complex and both a heavily structured and unstructured activity. The content taught is heavily structured by state and national standards; however, the *art* of teaching is not codified – it is a tacit communal practice. Thus, teaching practices and philosophies are formed through "tacit communal agreements and professional training" (Shankar, 2006, p. 370). Considering that teachers and the classroom are a distinct culture, ethnography was used  "to illuminate locally relevant understandings and ways of operating" and for "uncovering and collecting data on tacit knowledge" and "unstated practices and norms shared among community members" (p. 12, Murchison, 2010; Gracy, 2004, p. 336).

Archival ethnography, as defined by Gracy, expands the types of data that can be collected on archival practices and processes.  The emphasis on practices

requires that the study focus on "real-life human behavior" in order "to gain a unique understanding of the context and thought that informs such behavior" (p. 13, Murchison, 2010). Thus, archival ethnography is suitable for a study of the practices that teachers employ when undertaking the process of integrating primary sources into classroom instruction because it allows for archival processes to be understood "in direct relationship to the communities of individuals who generate, accumulate, and preserve documentary evidence" (Gracy, 2004, p. 335). In this case, archival ethnography was used to understand unstated norms and practices *in relationship* to archival processes undertaken as part of classroom instruction, such as locating primary sources for lesson planning.

**Broad Areas of Research Interest**

The study was not designed to test predetermined hypotheses. Propositions were "grounded" in the data collected throughout the study and were "developed and tested in interaction with them, rather than being prior ideas that are simply tested against the data" (Glaser & Strauss, 1967;Maxwell, p. 77, 2013). In the place of hypotheses, the research was guided by a broad set of research interests that deal with K-12 teachers and the use of primary sources in the classroom. In particular, the research was guided by interest in the following research areas:

- **Information practices** related to finding and evaluating primary sources in online and offline contexts
- **Pedagogical practices** related to using primary sources as instructional

tools

- **Forms of knowledge** utilized when finding, evaluating, and using primary

   sources to teach

**Research Design**

The study design is composed of two qualitative investigations. The first

phase of the study was a nine-month semistructured interview period with ten

teachers from six schools in four different school districts. The interviews were used

to gather qualitative data on the process of integrating primary sources into

classroom instruction. Teachers were asked to describe their information and

pedagogical practices when finding, evaluating, and using primary sources as

instructional tools.

The second phase of the study was a nine-month participant observation

period with teachers in their classrooms. The participants included one main

participant who is a second grade teacher and two other occasional participants

who are a fourth grade teacher and school librarian; the study was designed to

observe daily activities and collect experience-based information on the forms of

implicit and explicit pedagogical practices and archival processes associated with

the act of teaching with primary sources. In addition to classroom observation

notes, data was collected from lesson plans, weekly interviews, student work, and

teacher planning periods.

Data gathered from both phases of the research study was analyzed using the

qualitative research software NVivo and an ongoing and iterative coding process

best understood as "an inductive and emergent process in which the analyst is the central agent" (Lofland & Lofland, 1995, p. 181).

# Research Design

| Part I.<br>Semistructured Interviews | Part II.<br>Participant Observations |
|---|---|
| • 9 Month Period<br><br>• 10 Teachers<br><br>• 4 School Districts<br><br>• 15 Hours of Interviews | • 9 Month Period<br><br>• 2 Teachers, 1 School Librarian<br><br>• 1 Laboratory School<br><br>• 118 Hours of Participant Observation |

**Figure 2: Summary of Research Design**

**Phase I: Semistructured Interviews**

Semi-structured interviews were conducted with ten teachers using an interview instrument with open-ended questions such as, "How would you describe a primary source?"[2] The interviews were audio recorded with permission and transcribed with researcher memos composed from field notes. The semi-structured interviews were conducted using the following protocols (Morse, 2012):

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[2] See appendix I for semistructured interview instrument.

1. Question topics were predetermined; however, questions were not closed or overly structured.

2. Interviews took the form of a guided conversation, and participants were encouraged to respond freely to open-ended questions.

3. Planned and unplanned probing questions were asked when a participant's response elicited follow up questions.

The interviews were used to gather data on how teachers undertake the process of integrating primary sources into classroom instruction through an analysis of their information and pedagogical practices when finding, evaluating, and using primary sources to teach. Conversing with the teachers about their information and pedagogical practices allowed for interpretive accounts to be "grounded in the language of the people studied" (Maxwell, p. 289, 1992). However, realizing that teachers can hold knowledge of their practices that are not clearly known or articulated, the questions were also answered using supplemental data gathered during observations. Ultimately, I adhered to the idea that "any valid account or explanation of a social situation must respect the perspectives of the actors in that situation, although it need not be centered on that perspective" (Maxwell, 1992, p. 290).

*Sampling Criteria & Strategy*

Participants were recruited based on three different criteria. First, participants needed to have experience using primary sources or a willingness to begin using primary sources to teach. Second, participants with different years of teaching

experience were sought. Third, participants were recruited from different schools and school districts. The purpose of recruiting participants with different years of teaching experience and from different schools and schools districts was to acquire a diverse range of data on the beliefs and motivations of teachers who use or are considering using primary sources to teach.

Participants were recruited through snowball sampling using initial contacts from a private education foundation that funds teacher mentoring programs. The initial contacts included a school librarian and teacher who served as co-instructors for a UCLA course I completed on the use of primary sources in K-12 education. They provided me with a list of six teachers who participated in the Teacher with Primary Sources summer workshop developed by the Library of Congress. The six teachers were contacted via email and agreed to participate in the study. During interviews with each of these six teachers, I asked if they could recommend other colleagues who fit the participant criteria. Using this method, I recruited four additional teachers.

*Participants' Teaching Experience*

Although I sought teachers who were new to teaching with primary sources, the majority (80%) of the participants represented "experienced" teachers. As previously defined in the key terms, the adjective "experienced" is used to describe teachers who have over five years experience integrating primary sources into classroom instruction and who have taught for over ten years. However, the adjective "experienced" is not used to qualify the teachers' quality of instruction

using primary sources; it only refers to the fact that they have multiple years experience integrating primary sources into K-12 classrooms.

The high percentage of experienced teachers who participated in this study resulted from different factors. First, my initial contacts supplied names of teachers they knew through previous professional development opportunities focusing of primary sources. They had either received training at the Library of Congress or attended primary source workshops in Southern California. Second, in addition to being connected through primary source workshops, my initial contacts and the teachers they recommended were all associated with a private education foundation that funds teacher mentoring programs. They served as mentor teachers or fellows in the program and were selected by a screening committee based on their accomplishments and openness to professional growth. Third, the teachers who helped me recruit the additional four teachers recommended colleagues who they had either mentored or worked closely with to develop primary source lessons.

Thus, when interpretive claims are made about the information and pedagogical practices of these teachers, it is important to remember that I am not making general claims about *all* teachers; the study does not aim to produce a generalizable theory of how to best integrate primary sources into a classroom. The purpose of the study is to understand the pragmatic realities of a classroom environment and the teaching profession by gathering practice-based qualitative data on how a set of experienced teachers approach integrating primary sources into classroom instruction. This study was developed with the belief that

understanding teachers' practices in finding, evaluating, and using primary sources

can improve and inform archival outreach services to teachers and students.

*Participant Profiles*

While the teachers were similarly experienced, they had diverse backgrounds and

career trajectories. Participants were assigned pseudonyms and their diverse

backgrounds are briefly described below.

**Eric** has 20 years of experience teaching first and second grade in Los Angeles and

Orange County. He spent 12 years teaching in Orange County, 2 years mentoring

teachers through a private education foundation, and has spent 6 years teaching at a

laboratory school.  In addition to being interviewed, he served as the main

participant in the observational study and a larger description of his background

can be found in the participation observation section.

**Jennifer** has 26 years of experience teaching kindergarten and sixth grade in Los

Angeles County. She spent 15 years teaching kindergarten at one school and then

transferred to a different school where she began teaching sixth grade because the

principal felt she would "be best in sixth grade"; she explains,  "I think he was right

too because I love sixth grade" (Interview #2, 1:48 mark). Other than working as a

secretary during college, she has continually worked as a teacher and "knew from

the time [she] was a kid that [she] wanted to be a teacher" (Interview #2, 00:16

mark). She has earned a Master of Arts in Reading Education and works at a school

where the student body is 92.1% Latino and where 93.1% of the students qualify for subsidized lunch.

**Julie** has 37 years of experience working as a school librarian in Los Angeles County. She has a Master of Library and Information Science and is actively involved the school's research on integrating primary sources into classroom curriculum. She leads professional development workshops on teaching with primary sources for teachers from Southern California. She works at a tuition-based laboratory school where the tuition for the 2014-2015 school year was $11, 342 for 4-year olds and $17,014 for 5-12 year olds. She works at a laboratory school where the student body is 36% Caucasian and 20% Latino. Since the school does not receive federal funding, the students, regardless of family income, do not qualify for subsidized lunch.

**Crystal** has 21 years of experience teaching fourth grade in Orange County. Of all the participants, she has switched schools the most; she has worked in four different schools and three different school districts. Aside from waitressing in college, she has continually worked as a teacher. She has earned a Master of Arts in Curriculum and Instruction. She describes having experienced multiple "pedagogy shifts" because she has "around a long time, " and jokingly described her "years of teaching during No Child Left Behind as 13 years of…fun." She feels favorably about the adoption of the Common Core State Standards and stated being ready to "move beyond the bubble tests of No Child Left Behind" (Interview #4, 22:18 mark).  She

works at a school where the student body is 56% Caucasian and where only 9% of the students qualify for subsidized lunch.

**Deborah** has 15 years of experience teaching fourth and fifth grade in Los Angles County. She laughed as she described her career choice, "I was a history major. I told myself I would never be a teacher. Who wants to go through that kind of torture?" (Interview #5, 00:31 mark). Before becoming a teacher, she worked in the air freight forwarding business and eventually began teaching after working as a substitute teacher for two years. She described feeling surprised by how working as a substitute teacher made her feel "motivated to get up, to go to work, to go do something"; eventually, she decided to pursue an emergency teaching credential to be able to teach full-time (Interview #5, 00:45 mark). She has been working on attaining a master's degree for many years and describes her slow progress as a "little personal issue" (Interview #5, 4:36 mark). She works at a school where the student body is 54% Latino and where 61% of the students qualify for subsidized lunch.

**Lisa** has 17 years of experience teaching second grade in Los Angeles County. She has worked at the same school for all 17 years. However, at the time of the interview, she was working as a teaching mentor for a private education foundation. The foundation "bought out" her teaching contract with the school district and hired her to mentor teachers for two years. She has earned a Master of Arts in Administration. As part of her mentor position, she travels to different school

campuses to meet with teachers and attends professional development workshops in order to "bring back the knowledge" to her fellows. When working as a classroom teacher, she works at a school where the student body is 96% Latino and where 54% of the students qualify for subsidized lunch.

**Justin** has 9 years of teaching experience in Los Angeles County and Buenos Aires, Argentina. At the time of the interview, he taught music at an elementary school. However, before becoming an elementary music teacher, he worked in junior high and high school environments. He taught English literature and philosophy in Argentina and East Los Angeles. He studied music at the California Institute of the Arts and a branch of the Berklee College of Music in Buenos Aires. While coordinating a music program for a non-profit community center, he met a teacher from a laboratory school who recruited him to join their faculty. He works at a laboratory school where the student body is 36% Caucasian and 20% Latino. Since the school is tuition-based and does not receive federal funding, the students, regardless of family income, do not qualify for subsidized lunch.

**Pamela** has 16 years of experience teaching sixth and eighth grade in Los Angeles County. She describes herself as a "higher achiever type of person" who "comes from a family of teachers" (Interview #8, 00:40 mark). She earned a Master of Arts in Education and a National Board Certification in Early Adolescent Social Studies. She received her education degree from Stanford University and stated that she has "always used [primary sources] to teach because [she] was trained that way by [her]

teacher training program, being that she was at Stanford" (Interview #8, 14:10 mark). Her reference to Stanford was in regards to their well-known history education program that developed the "Reading Like a History Curriculum" that has been adopted by the Los Angeles Unified School District. She works at a school where the student body is 77% Latino and where 74% of the students qualify for subsidized lunch.

**Sarah** has 13 years of experience teaching third and fourth grade in Los Angeles County. Before becoming a teacher she "did a million things," including working as a research assistant in the area of gerontology, an artist who created large-scale fabric structures, a freelance graphic designer, and fundraiser for large arts organizations (Interview #9, 3:35 mark). She describes herself as a person who is "smitten with history" and she was part of a group of teachers who were awarded a grant to study the instructional use of primary sources (Interview #9, 8:03 mark). She works at a laboratory school where the student body is 36% Caucasian and 20% Latino. Since the school is tuition-based and does not receive federal funding, the students, regardless of family income, do not qualify for subsidized lunch.

**Elizabeth** has 11 years of experience teaching fourth and fifth grade in Los Angeles County. She describes becoming a teacher "by accident" after she attended a career fair as part of her job as a career counselor at a community college. While she was learning about the required credentials from a principal, he offered to "hire her on the spot" (Interview #10, 3:12 mark). When her school laptop ran out of hard drive

space, she invested in a personal laptop that would serve as her "house for all the pictures [she] has found" that she plans to use in primary source lessons" (Interview #10, 20:27 mark). She works at a school where the student body is 77% Latino and where 74% of the students qualify for subsidized lunch.

*Conducting Interviews*

Nine of the teachers chose their classrooms as the interview location. One of the teachers felt uncomfortable discussing her school and colleagues on campus and asked me to meet her at a coffee shop. When I visited schools, I arrived early to explore the campuses and their environments, including the libraries, cafeterias, and playgrounds. I noted student work displays, school rules and regulations, student and teacher interactions in the hallways, and any other indicators of school climate. However, even when wearing a visitor's badge, school security officers are weary of strangers walking through the hallways taking notes. Therefore, the environmental scan of campuses were brief, approximately 30 minutes in length. Since the research approval from Los Angeles Unified School District requires that researchers do not "burden" the district or its resources (which includes teachers), I did not schedule the interviews during school hours or planning periods. The interviews were conducted after school and ranged in length from 45 minutes to 1:15 minutes.

**Phase II: Participant Observation**

According to Murchison (2010), participant observation can be used to open "avenues to important types of information hard to obtain or access" (p. 41). For the purposes of this study, participant observation is defined as "the process in which an investigator establishes and sustains a many-sided and relatively long-term relationship with a human association in its natural setting for the purpose of developing a scientific understanding of that association" (Lofland & Lofland, 1995, p. 18). Participant observation was used to obtain implicit experience-based information unique to the education profession and the context of teaching with primary sources, including tacit knowledge associated with the act of teaching, accounts of daily activities, and norms of classroom culture through the development of a relationship with multiple teachers and a school librarian at a laboratory school.

In order to better understand the tacit knowledge and practices used by teachers when integrating primary sources into the classroom, the observational study occurred in the classrooms of teachers who are actively integrating primary sources into classroom instruction. The data gathered was used analyze how teachers use explicit and implicit forms of professional knowledge gained through years of teaching experience to make decisions regarding the most effective ways to incorporate primary sources.

*Site Selection*

According to Schatzman and Strauss (1973), the primary objective when locating a site for ethnographic research is to locate a site that contains people and social activities that are pertinent to the research interest. Thus, I chose a site based on the following criteria:

1. The site must be an educational setting.

2. The site must include teachers who have experience using primary sources in the classroom.

3. The site must be within close geographic proximity in order to allow for frequent visits.

4. The teachers at the site should find pedagogical value in teaching with primary sources. However, the idea of "value" can be different for each teacher.

5. The teachers at the site must be actively teaching with primary sources.

Based on these criteria, the participant observation research was conducted at a laboratory school, with the exception of semi-structured interviews that occurred with teachers at six different schools during the first part of the study.

Furthermore, along with the above criteria, the site proved to be ideal due to the role and mission of the laboratory school. The goals of the laboratory school are to stimulate innovative research, encourage the exchange of ideas among education scholars and practitioners, and perform outreach to public schools nationally and internationally.

During my time observing teachers at the laboratory school, I repeatedly

witnessed teacher's reference the mission when discussing pedagogical and

professional decisions. When I asked one to teacher to describe the school mission,

he skillfully replied:

> The purpose of the Lab School is threefold. One of the primary
>
> purposes is to provide an education to 450 elementary students a
>
> year. Another purpose of the Lab School is to demonstrate pedagogy
>
> in action and do outreach to share best teaching practices with other
>
> teachers. In some ways, [the purpose] is to cause an impact in the
>
> national and international discourse on education, especially
>
> education of youth. Finally, the purpose of the Lab School is to develop
>
> innovative ways to teach and innovative ways to practice pedagogy.
>
> Also to do research, which is in line with the mandate to innovate
>
> (Interview #7, 4:21 mark).

In order to support the mission of facilitating innovative research, the school houses

a research center that serves as the clearinghouse for research projects on the

school campus. Thus, the laboratory school was specifically chosen for the teachers'

willingness to participate in research studies and the school's existing infrastructure

for supporting research on campus.

*School Profile*[3]

***Students***

The school enrolls approximately 450 students, ages 4-12.  According to 2009-2010

statistics, student ethnicities break down into the following percentages.

| | |
|---|---|
| Caucasian | 36% |
| Latino | 20% |
| Latino-Caucasian | 12% |
| Asian | 9% |
| Other | 8% |
| African American | 7% |
| Asian-Caucasian | 5% |
| African American-Caucasian | 3% |

**Figure 3: Breakdown of Student Ethnicities**

***Levels***

The school is composed of a mixture of multi-age and single-age classrooms, which

are identified by levels.

| | |
|---|---|
| Early Childhood I Level | Ages 4-5 |

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[3] The school profile is based on the 2009-2010 annual report. I could not find a publicly

available annual report for the 2012-2013 school year.

| | |
|---|---|
| Early Childhood Level II | Ages 5-6 |
| Primary Level | Ages 6-8 |
| Intermediate | Ages 8-10 |
| Upper I | Ages 10-11 |
| Upper II | Ages 11-12 |

**Figure 4: Classroom Levels & Corresponding Age Groups**

### *Learning in Two Languages Program*

The school runs a dual language program aimed at providing educational support for Spanish-speaking students with limited English language skills. Bilingual teachers provide instruction in English and Spanish, which allows English-speaking students the opportunity to become proficient in Spanish as well.

*Sampling Criteria & Strategy*

The teachers were chosen based on their extensive experience using primary sources in the classroom and their participation in developing and implementing Primary Sources Institutes, which are professional development workshops on using primary sources to teach in K-12 classrooms. Experience using primary sources in K-4 classrooms was the main criteria used when choosing participants due to the belief that "particulars only become familiar with experience, with a long process of perceiving, assessing situations, judging, choosing courses of action, and being confronted with their consequences" (Kessels & Korthagen, 1996, p. 20). Thus,

since the majority of the literature assumes an experienced teacher, the chosen group of teachers can provide rich and extensive data for exploring how theoretical claims relate to the pragmatic realities of integrating primary sources into classroom instruction.

Choosing teachers based on particular characteristics is a form of purposive sampling. According to O'Reilly (2012), purposive sampling is used to "access people, times, settings, or situations that are representative of a given criteria" (p. 44). In this case, the purpose of choosing teachers from a laboratory school was to have access to a set of experienced teachers working in an educational research environment and actively integrating primary sources into classroom instruction.

*Soliciting Participants*

In January 2012, I enrolled in a course titled "Using Primary Sources in K-12 Education" co-taught by Professor Anne Gilliland of the Information Studies department and three employees of a laboratory school. During the course, I attended a workshop where these employees demonstrated different teaching practices for using primary sources in the classroom. After the course finished, I remained in contact with the employees and consulted with them for advice on my dissertation project. After I received research approval from the campus institutional review board, I contacted one of my previous teacher contacts from the laboratory school and asked him to serve as the main research participant for the observational study. He agreed and we met twice the summer before the classroom observations study began. We were in good shape to begin the study when I

received word that he had been recruited to become the principal at a charter school. Unfortunately, his new change in position meant he would no longer be teaching and would instead be performing administrative duties.

Since the study was scheduled to begin in a month, I scrambled to find a new participant. The original teacher recommended two teachers who best matched the participant criteria from the laboratory school and I solicited their yearlong participation via email during the summer before the 2013-2014 school year. Of the two teachers, one responded within a week and politely declined to participate due to new professional commitments for the upcoming school year. The other teacher, Eric, did not respond. Since teachers have summers "off" and I had sent the email to Eric's professional email address, I decided to wait and see if I would hear from him closer to the beginning of the school year.

Although I had not successfully recruited a teacher to observe, I decided to submit a research application to the in-house research center that reviews research proposals.  When I received approval for the study and explained my past attempts to recruit participants, the in-house research center offered to help me recruit Eric who had still not responded to my email. Within a week, Eric responded and agreed to meet with me to discuss my study. When we met, he explained he already had two researchers scheduled to begin studies in his classroom during the upcoming school year. One of the scheduled studies was going to introduce three researchers with recording equipment into the classroom and he explained that he could not accept another "invasive" study. I assured him I would not have large recording

equipment or research assistants.  He hesitantly agreed to participate in the study as long as it "did not interfere with student learning or require too much time."

*Participant Profile*

Eric has 20 years of experience teaching as a first and second grade teacher. He comes from a family of teachers, including his mother and grandmother, and he described feeling "honored to be carrying on the noble tradition of teachers in [his] family."  He holds multiple degrees, credentials, and certificates, including a Master of Arts in Teaching with a specialization in reading, a multiple subject teaching credential, and an emergent literacy certificate. He currently serves as a "demonstration" teacher, which means he is expected to collaborate with teachers, engage in research, and share best practices with members of the education community.

Previously, he earned a release from teaching full time when a private education foundation hired him to serve as a "mentor" teacher for fellows in their teaching program. He was chosen based on evidence of his excellent classroom management skills and innovative teaching, especially in the area of using primary sources to promote inquiry-based education. He has actively sought out professional development opportunities on teaching with primary sources and has attended the Teaching with Primary Sources training at the Library of Congress and the Book Arts Project at the Morgan Library in New York. He has successfully applied for several grants to support his research interests in using primary sources and manuscripts to teach, including a grant that exposed his students to primary

sources at seven institutions such as the William Andrews Clark Memorial Library and the Getty Center.

In addition to Eric, Julie and Sarah, whose backgrounds were previously described in the seminstructured interview section, occasionally participated in the study. Eric was my main participant and his classroom was my main observation site.

*Conducting Fieldwork*

The participant observation period lasted nine months. During that period, I held "researcher" status and was given an electronic access ID card that allowed me to freely enter and exit the secured campus. While wearing the badge, I was free to wander around the school's common areas, such as the playground, library, and hallways. At the beginning of the school year, I visited the campus two to three times a week. However, during the last two months of the study, Eric had other researchers conducting studies in his classroom, and I began to visit once a week. I conducted observations in the classroom during the writing, social studies, and science instructional periods.

As the school year progressed, I began to form relationships with other teachers on campus, including Julie, Sarah, and Justin. After receiving approval from the members of the Inquiry Committee, I began attending meetings and participating in the development of primary source workshops. The fieldwork was primarily conducted using the following activities drawn from Gracy's (2004) description of the participation observation process:

| Activity | Action |
|---|---|
| Entry into the setting and familiarization with people involved in it | • Explored classroom and took note of physical and social aspects.<br><br>• Explored school in order to understand the place of the classroom in the larger institution; took note of physical and social aspects. |
| Participation in the daily routines of the setting | • Participated (as approved by teacher) during *c*lassroom transitions, non-academic time (lunch, recess), morning meeting, instructional time |
| Development of relations with people in the setting | • Conducted interviews with participants and divulged background and aim of study<br><br>• Introduced myself to non-participants, such as other teachers, support staff, administrators, counselors, librarians |
| Observation of all events and interactions | • Performed general observation; spent entire days with teachers and students to get a feel for a complete "school day"<br><br>• Performed targeted observation; observed blocks of the school day where primary sources are used and took |

| | extensive and varied notes. |
| | • Attended "Primary Source Institutes" and participated when teachers deemed appropriate. |

**Figure 2: Participant Observation Activities**

After the school year ended, I did not renew my study application with the in-house research center and I decided to conclude the study. Since both my university and laboratory school research approvals have terminated, I have had limited contact with the research participants. I have not been in contact with Sarah and Justin, but Eric and Julie remain in contact via email. We share new primary source-related resources as we encounter them. Since the study ended, Julie has contacted me once to ask if I would participate in a "Primary Source Institute." Unfortunately, I was out of town during the workshop.

**Chapter IV:**

**Finding, Evaluating, and Using Primary Sources in K-12 Classrooms**


While most teachers have conducted research in a library throughout the

course of their own educational training, few have visited an archive or consulted

with a reference archivist for help locating primary sources. Since conducting

research in an archive has not been a common professional activity for teachers, the

information practices they use when seeking, evaluating, and using primary sources

in archival and classroom environments have been under-investigated and largely

unaddressed. This chapter uses interview and participant observation data to

construct a rich description of the information practices that teachers use during

different steps of the integration process. The chapter is organized by the activities

of information seeking, evaluation, and use; however, the organization does not

imply a linear process, and I do not assert that teachers progress from one activity

to the next without returning to past activities. Instead, the chapter will identify

information practices throughout the entire process and reveal how teachers

undergo an iterative process of seeking, evaluating, and using information.


**A Note on Terminology**

The use of the term "information practices" to describe how teachers seek,

evaluate, and use information is an intentional terminological choice. According to

Bates (2010), "information behavior" is the "currently preferred term" used to

describe "the many ways in which human beings interact with information, in

particular, the ways in which people seek and utilize information" (p. 2381).

However, while the term "information behavior" adequately describes how

individual actors interact with information using cognitive and affective faculties, I

decided to use a term that better accounted for the contextual elements that

influence teachers' practices when interacting with information.

Drawing from Lave & Wenger's (1991) concept of "communities of practice,"

information studies scholars have presented "information practices" as an

alternative term that describe interactions with information that are embedded in

the work and social practices of a community of practitioners (Talja & Hansen,

2005; Tuominen, Talja, and Savolainen, 2005; Savolainen, 2007). As individuals,

teachers do interact with information using their personal cognitive and affective

faculties; however, I use the term "information practices" as a way to acknowledge

that when teachers are seeking, evaluating, and using primary sources for

professional purposes, they are acting as a member of a community of practice and

are heavily influenced by a "shared repertoire" of domain knowledge, professional

objectives, common language, and information-sharing techniques (Wenger, 2000,

p. 229).

**Information Behavior Research**

As Case (2007) asserts, information behavior research[4] has shifted away from

studying interactions with formal information systems toward a user-centered

---

[4] I use the term "information behavior research" as an umbrella term that encompasses the
many types of research studies that have focused on understanding how individuals and

approach that "focuses on how individuals encounter and make sense of their environment" (p.4). The individuals studied have largely belonged to groups of people that are united by a common profession or objective. For example, existing information behavior research has covered the following professions and topics:

- Information-seeking behaviors of **academic researchers**, including humanities, physical and social science researchers (Duff & Johnson, 2002; Bates, Wilde & Siegfried, 1993; Broadbent, 1986; Ellis, Cox & Hall, 1993)

- Information needs of **physicians** (Gorman, 1995)

- Information sources used by **lawyers** (Wilkinson, 2001)

- Information needs of **police offers** (Baker, 2004)

In terms of teachers, Diekema and Olsen (2014) have conducted important research on the "personal information management practices" of primary and secondary teachers. Their work has been influential in developing an understanding of how teachers manage digital and physical information in personal collections. Tanni (2012) studied how "teacher trainees" in Finland acquire information from various "information channels" when lesson planning. Summers, Matheson, and Conry (1983) studied the effect of personal, professional, and psychological attributes on the use of information sources by teachers.

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groups seek, evaluate, and use information. These studies include "user studies" and those that analyze "information-seeking behaviors," "information gathering," "information practices," "information searching," and "sensemaking." I acknowledge that there are theoretical and methodological differences between these types of studies; however, for the sake of brevity, I will use the term "information behavior research" to cover these various forms of research.

While all of these studies have contributed to understanding the information behaviors of teachers, they differ from this study in focus, scope, and method. For example, Diekema and Olsen's broad overview of teachers' information management practices focused on a general understanding of how teachers manage information in their personal workspaces. By studying teachers who are integrating primary sources into classroom instruction, this study focuses on a specific context and purpose for seeking, evaluating, and using information. In contrast to Diekema and Olsen's broad study, the study conducted by Tanni was limited in scope since he focused on information acquisition in relation to one professional task – lesson planning. This study focuses on teachers' information behaviors across a multitude of professional responsibilities related to the process of integrating primary sources into classroom instruction, including how teachers lesson plan, search for primary sources, use secondary sources, share resources, and teach with primary sources. Finally, Summers, Matheson, and Conry used a questionnaire to obtain their data on the effect of personal, professional, and psychological attributes on information. Since the aim of the study was to capture qualitative data on the practices of teachers integrating primary sources in their work environment, I chose to conduct in-person semistructured interviews and participant observation sessions with teachers in their classrooms in order to obtain implicit and explicit forms of data. Yet, when compared to the entire breadth of information behavior research, the research detailed above represents the small sample of scholarly attention paid to the information behaviors of teachers. Bates (2010) explains, "the education profession, despite the importance of information seeking for teachers, seems,

mysteriously, to have drawn very little attention" (p. 2382). This study contributes to the scholarly literature on the information practices of teachers by focusing on a timely and important topic – the adoption of the Common Core State Standards and its effect on how teachers seek, evaluate, and use historical information (in the form of primary sources) to promote inquiry-based pedagogy. As several researchers have argued, teachers are increasingly incorporating digital materials and accessing information through online resources (Mardis, ElBasri, Norton, & Newsum, 2012; Diekema & Olsen, 2014). Thus, the study aimed to be holistic by 1) examining the information practices of teachers who were interacting with information in online and offline contexts, and 2) collecting data throughout the multiple stages of integrating primary sources into classroom instruction, including the planning, search, evaluation, and use stages. The use of ethnographic methods allowed me to be "near" the teachers as they bookmarked online archives, flipped through binders of printed materials, and shared copies of primary sources with other teachers.

As Bates (1999) explains, when information studies researchers study people and groups, they do not study them in general; they search for the "red thread of information" in their lives "with the purpose of understanding information creation, seeking, and use" (p. 1048). When studying the information landscape of teachers, the red thread of information comes in many forms. Diekema and Olsen (2014) identify three main types of information that teachers encounter on the job: information used for teaching, student information and administrative information. For the purposes of this study, I focused on primary sources as information objects

used for teaching. The physical form of the primary sources includes digital representations, facsimiles, and originals.

However, it is very difficult to study the three main types of information in isolation because teachers often consult multiple forms of information when making instructional decisions. For example, when teachers evaluate the literacy level of a letter, they often consult student information such as academic records. Thus, while the study focused on primary sources as information objects used for teaching, the description of the teachers' information practices is situated within a larger "information universe" that includes other forms of teaching, student and administrative information, including secondary sources, lesson plans, academic records, and content standards.

## Section I. Identifying Information Needs

Since most teachers were not required to integrate primary sources into classroom instruction before the adoption of the Common Core State Standards, many of the teachers I interviewed first realized they had limited knowledge of how to seek, evaluate, and use primary sources when they began implementing the new standards. Jennifer stated first learning about the requirement to use primary sources while "glancing" at the standards for the first time, "I glanced at the sixth grade Common Core State Standards, and I went, 'Oh somebody's going to struggle.' It's going to require teachers to be comfortable with primary sources that aren't used to [them]" (Interview #2, 15:43 mark). Later in the interview, she elaborated on how she was going to struggle to teach with primary sources "when the Common

Core hits in '14 and '15" because she was going to "have kids in front of [her] who have never seen a primary source before" and who aren't "exposed to [that] type of teaching and learning" (Interview #2, 34:11 mark). Her remarks identify knowledge gaps regarding primary sources as instructional tools on both the part of teachers and students; the adoption of the Common Core State Standards revealed that teachers weren't "used to" utilizing primary sources to promote inquiry-based education and that students hadn't been "exposed" to lessons that expected them to use the analytical skills needed to learn with primary sources.

The adoption of the Common Core State Standards created a "knowledge gap" for teachers who were not familiar with using primary sources to teach and prompted them to search for multiple types of information, including professional information (relevant academic standards), pedagogical information (techniques for teaching with primary sources), archival information (primary sources), and logistical information (locations and procedures for acquiring primary sources). Thus, the adoption of the Common Core State Standards resulted in new "information needs" that required teachers to consult various formal and informal sources of information. The requirement to search for answers on how to find, evaluate, and use primary sources is categorized as an "information need" because the search for information was "instrumental" and "involve[d] reaching a desired goal" – the goal of integrating primary sources into classroom instruction as necessitated by the adoption of the Common Core State Standards (Case, 2007, p. 68).

As a group, the teachers I interviewed and observed demonstrated varying "depths" of a knowledge gap. Three (30%) of the teachers stated they had been using primary sources in the classroom before the adoption of the Common Core State Standards. One of them, a music teacher, graciously allowed me to interview him during his lunch hour. We spent the first twenty minutes of the interview covering his diverse life experiences. He has earned degrees in English, philosophy, and music. He has studied music in Buenos Aires and CalArts, worked in charter schools in Lincoln Heights, and gets excited about teaching courses on "epistemology" with titles like "The Theory of Knowledge." When I asked him how he felt about the requirement to teach with primary sources, he coolly responded, "I've been using them for years without knowing that it was some special thing" (Interview #7, 29:02 mark). He recounted being described by another teacher as someone who is "really into using primary sources" but claimed that he "didn't know that that's what [he] was doing" and wasn't aware that "there was this whole push to be using these primary sources" (Interview #7, 31:02 mark). I had in fact decided to interview him because another teacher on his campus had identified him as someone who creatively used primary sources to teach, and after modeling a single music lesson that incorporated audio recordings of original songs, facsimiles of engravings, and 192 verses of Yankee Doodle, I too was convinced that he was "really into using primary sources." However, as he explained, he was skilled at teaching with primary sources, but he was unaware of the actual wording and requirements of the Common Core State Standards and wasn't as familiar with the language to describe his use of primary sources in pedagogical terms.

Since all of the teachers had social science and humanities backgrounds, one could expect they have a general understanding of the different types of primary sources and their use in historical research. Four (40%) of the teachers had been history majors as undergraduates. A third grade teacher who majored in Chinese history described her love for history, "I personally, am super into history. I absolutely am smitten with history, and I'm always interested in knowing the back story, the history, the underpinnings, the influences that precede" (Interview #9, 8:03 mark). Due to the participants' academic backgrounds, there was a general consensus regarding the pedagogical value of primary sources and an excitement about using them to teach history. A fourth grade teacher described using primary sources to change how students view history as a subject:

> Students need to be more engaged with history and primary sources,
> and how I learned it was, you open your textbook, and you read a
> chapter...but I don't think it's engaging enough...that's part of the
> reason why students come in not liking history...they get this bad
> perception or bad vibe about history. I think part of my job is to
> change that. And to make history engaging and make it come alive,
> one of the ways you do that is through something like primary
> sources...(Interview #10, 3:21 mark).

Several of the teachers used similar language; they described "making history come alive" through primary sources. Thus, the majority of the teachers I interviewed were enthusiastic about using primary sources to teach and they cited their own personal interest in history as a motivating factor. Yet, although these teachers had

previous experiences learning with primary sources as undergraduate students, few of them had experience *teaching* with primary sources in K-12 classrooms.

In addition to a shared enthusiasm for "making history come alive," the majority of the teachers had received some form of professional development, either generally on the Common Core State Standards or specifically on using primary sources to teach. One of the teachers received targeted training in using primary sources to teach through her teacher preparation program at the Stanford Graduate School of Education, which is well-known for their "Reading Like a Historian" curriculum and notable faculty members like Sam Wineburg who champion the use of primary sources in K-12 classrooms. Another teacher stated her teacher preparation program only focused on "reading and math" and learning the corresponding academic standards; she further claimed that the majority of "teacher prep-programs do not talk about [primary sources]" (Interview #10, 26:20 mark). Regardless of whether their teacher preparation program generally focused on academic standards or specifically on teaching with primary sources, most of the teachers did not have extensive experience actually incorporating primary sources into classroom instruction.

The most experienced was a second grade teacher who could recite academic standards that explicitly called for the use of primary sources by memory and could synthesize multiple sets of standards (Common Core State Standards, Next Generation Science Standards, and the Partnership for 21st Century Learning "Four C's") into lesson plans that utilized primary sources throughout an entire unit. In addition to being extremely knowledgeable on academic standards, he had been

designated as a "mentor teacher" by a private education foundation for his evidence of "gifted teaching," including his engaging and effective use of primary sources to teach about social justice and historical change. He represented the "ideal" user of primary sources in K-12 classrooms, and I chose to observe him use primary sources in his classroom for an academic school year (nine months).

Due to their varying degrees of knowledge and experience, the teachers' information needs regarding teaching with primary sources differed. Since music education is not covered by the current Common Core State Standards, the music teacher was not familiar with the language and professional expectations of the newly adopted academic standards; he expressed needing information on the academic standards in order to ensure he was "on the same page" with the classroom teachers who were participating in the school-wide adoption of the standards. His information needs were related to learning about the academic standards in order to align his existing methods for teaching with primary sources with the new requirements. As for the majority of the teachers who had personal experiences analyzing primary sources as undergraduate students, they had the most diverse information needs. They expressed needing the following forms of information:

- Observation-based information gathered from demonstration lessons where experienced teachers model how to use primary sources in the classroom.

- Pedagogical information on the "best practices" for teaching with primary sources gathered from informal (mainly other teachers) and formal (mainly published articles) sources of information.

- Experience-based information gathered from experimenting with incorporating primary sources into classroom instruction, which was described as "learning how to make primary sources work with my students"

The most experienced teacher served as a mentor for a private education foundation and led professional development workshops called "Primary Source Institutes." When leading these workshops, he provided demonstration lessons, discussed "best practices" for teaching with primary sources, and guided teachers as they developed a lesson plan using primary sources for their own classrooms. He served as a "mentor" teacher who imparted information on multiple aspects of integrating primary sources into classroom instruction. Thus, his information needs centered on building upon his existing expertise by acquiring the most current research on pedagogical strategies and locating new resources that provide access to primary sources.

**Section II. Finding Primary Sources: Information Seeking Activities**

Regardless of the varying information needs, each of the participants partook in information seeking activities. Information seeking is defined as a "conscious effort to acquire information in response to a need or gap in knowledge" (Case, 2007, p. 5).

As Zerbinos (1990) explains, information seeking occurs "when a person recognizes a gap in their knowledge that may motivate that person to acquire new information" (p. 922). After identifying gaps in their own knowledge of integrating primary sources into classroom instruction, the teachers were motivated to acquire new information on how to best find, evaluate, and use primary sources to promote inquiry-based education as dictated by the Common Core State Standards.

*Planning*

Central to the definition of information seeking is the idea that the effort to acquire information is conscious, intentional, and goal-oriented. In many cases, the first intentional efforts to acquire information began with a planning session. During the interview I asked, "What steps do you take when locating primary sources?" I expected the teachers to respond by discussing search techniques, but many of the teachers began by describing their planning periods. When developing the interview question, I had not considered that teachers have planning periods that are built into their daily or weekly routines, and I had not accounted for the important role these planning periods play in providing teachers with designated opportunities to discuss instructional and pedagogical matters with a group of teachers. Having worked as a teacher myself, I was surprised by this oversight and realized the importance of maintaining the "teacher perspective" throughout the study in order to avoid a decontextualized analysis of information practices. Eric described planning with other teachers as an opportunity to discuss "the topic" they are teaching with the goal of "mak[ing] lists of the learning experiences" they will use in

73

the classroom (Interview #1, 32:07). In general, the teachers described planning periods as opportunities to identify academic standards, develop learning objectives, plan teaching activities, and select appropriate assessment techniques.

While planning periods were used for the same general purpose, there was a variation in the frequency and nature of the meetings. At one extreme, a teacher reported having only one hour per week to plan and having to plan alone because her planning period did not overlap with the other teachers in her grade level. At the other end, a teacher reported having one hour of common planning time per day with the teachers in his grade level, totaling five times more planning time than the first teacher. In addition to lesson planning with other teachers, this teacher also worked in a school with "curricular committees," which are groups of teachers who specialize in curricular areas. He described how his school had developed a committee dedicated to teaching with primary sources that was later "fold[ed] over into the inquiry committee" after they realized they "use primary sources as a way to investigate or to gain knowledge" (Interview #1, 26:27 mark).

Before they combined the primary sources and inquiry committees, members of the primary source committee wrote a grant to conduct primary source research. A participant in the grant described the purpose in the following way, "We wrote a grant to really study primary sources, to get some reading on the theory of using primary sources in the classroom. Nobody has time to read those books, unless they're a researcher like you." Another teacher at the same school described relying "on other people who have been involved in primary source stuff, long before [she] came on the scene" to acquire primary sources and corresponding

74

lessons (Interview #9, 7:24 mark). Ultimately, the primary source and inquiry curricular committees provided teachers with an opportunity to gain expertise in teaching with primary sources and produced a group of skilled teachers who continue to share their knowledge with other teachers on and off their campus.

Unsurprisingly, the teacher with one hour a week to plan was struggling to integrate primary sources into classroom instruction. Since she did not plan with other teachers, she did not benefit from the sharing of resources; she felt she was "reinventing the wheel" each time she tried to plan a lesson that used primary sources. She also did not have an entire committee devoted to exploring how primary sources could promote inquiry-based learning in the classroom; instead of receiving support from other teachers at her school, she relied on online resources, such as the Library of Congress' Teaching with Primary Sources website, for lesson plans and teaching strategies. Due to her lack of professional support and lack of resources, she tended to use the lesson plans developed by the Library of Congress with little modification. She also reported being less inclined to teach with primary sources if she could not find a "primary source set," which are pre-selected and downloadable sets of primary sources on particular historical topics and figures like Abraham Lincoln.  The difference in resources and support between the two examples and their effects on using primary sources to promote inquiry-based learning could not be clearer.

*Searching Context: Online and Unmediated*

When asked to describe their favorite resources for primary sources, 100%
of the teachers listed online resources that provide access to digitized archival
materials. As Pamela stated, "When I'm trying to locate a primary source, I use the
Internet, of course" (Interview #8, 31:52 mark). With the exception of two teachers,
they did not follow up with offline examples of resources unless I prompted them by
asking, "Other than resources online, do you locate primary sources from people or
places in your school or local community?" Only 30% of the teachers reported using
offline resources. Their responses were not surprising considering that teachers are
increasingly accessing teaching materials online through paid subscriptions, such as
the curriculum subscriptions offered by the Teachers' Curriculum Institute. Since
100% of the teachers mainly consulted online resources, they conducted
unmediated searches and did not contact a reference archivist with subject
expertise and knowledge of the collections' strengths. As novice users of primary
sources and archives, teachers who access materials online through unmediated
searches run the risk of unknowingly using unreliable materials or reaching
incorrect conclusions about decontextualized materials. As Diekema and Olsen
(2014) assert, "This shift to digital, and possibly highly dispersed materials, makes
search skills and information management skills even more important" (p. 2262).

The importance of information literacy skills when searching in online
environments is especially important because 70% of the teachers reported
primarily using Google to search for primary sources. When asked to list their
favorite resources for finding primary sources, the teachers listed several reputable

online access portals and institutions, such as the Online Archive of California, Calisphere, the J. Paul Getty Museum, the Library of Congress, and the Huntington Library. However, when asked to describe the process of searching for primary sources, they listed Google as their starting point, as shown by the following exchange:

**Researcher**: What steps do you take when locating primary sources?

**Teacher:** You mean, if I'm going to teach about the Gold Rush and I want to look for primary sources, what do I do?

**Researcher:** Yes, describe your process. How do you start? Where do you look? What steps do you take?

**Teacher:** Okay, the first thing I do is I go to the Internet and I type in "primary sources," exactly like that.

**Researcher:** Where on the Internet do you type the phrase "primary sources"?

**Teacher:** In Google. I type in "primary sources, Gold Rush," and I see what comes up...often, it will take you to Calisphere, Library of Congress, or UC Berkeley. Then I'll research if they have teacher packets, teacher lessons, or [primary sources] they recommend... (Interview #4, 13:47-14:20 mark)

Thus, although teachers are aware of dedicated archival collection portals, they did not navigate to them directly. They relied on Google search results and then filtered the results based on institutional reputation. As Eric explained, "I usually Google search and then sift through and look for a reputable source" (Interview #1, 29:17). However, two teachers nervously admitted that they do not always assess the

reliability of the website hosting images when they use Google's image search function to quickly find primary sources. When teachers use Google's image search function, they completely bypass the user interfaces of online archival collection portals and corresponding metadata, meaning they often download highly decontextualized representations of archival materials.

Early in the interview process I began to notice that teachers were citing major search engines like Google as their main gateway to primary sources, and I decided to ask follow-up questions regarding why they chose to search on Google before navigating to the online archival collection portals. The teachers interviewed unanimously cited two major reasons: time and ease of use. Elizabeth attended a Library of Congress workshop on teaching with primary sources and described returning to her school, a newly formed STEM (Science, Technology, Engineering and Math) academy, and trying to "sell" other teachers on the idea of integrating primary sources into math and science lessons. After finishing a demonstration lesson, she was prepared to discuss the pedagogical benefits of using primary sources in the classroom, but instead she received questions about the time it took to create the lesson or "prep time." She was reluctant to admit that it had taken "a lot of time to prep, a lot of ink, and a lot of paper, all materials and resources which [they] were strapped for" (Interview #10, 1:09 mark). She admitted, "To be honest with you, a lot of my time was given to searching for materials and researching the photos, and I tried really hard to avoid saying that when I was doing the demonstration activity" (Interview #10, 1:09 mark). In the end, many of the teachers left the room feeling that teaching with primary sources was "great" but

difficult to undertake due to the time commitment necessary to conduct in-depth research on dedicated online archival collection portals.

By many accounts, this teacher had used "best practices" to develop an engaging lesson using primary sources. Instead of only conducting unmediated searches, she had consulted an archivist at the Huntington Library via email. Instead of relying on Google, she had searched dedicated online archival collection portals even though she had struggled to navigate their "clunky" interfaces. Instead of using a prepared lesson plan, she had developed her own lesson plan that was tailored to the needs and interests of her students.  Despite colored ink being a scarce resource at her school, she printed out color copies of the primary sources for students to use in group exercises. Yet, while everyone in the room agreed the lesson was "effective," the teachers decided the time and resource commitment stood in the way of feasibly and consistently using primary sources to teach.

This particular teacher's experience was not uncommon. After enthusiastically returning from a primary source workshop in Washington, D.C., several of the teachers described experiencing a rude awakening when trying to implement what they had learned in their classrooms and schools. Another teacher who attended the same workshop described it as a valuable experience but admitted to encountering "big issues" when returning to her classroom. She remembered "printing like crazy" at the workshop and collaborating with a group of excited teachers whose sole responsibility for the summer workshop was to create lesson plans using primary sources. However, once she returned to her classroom "the issues of color printers, ink, money, and time" became real obstacles (Interview

79

#4, 23:42 mark). Unable to devote the necessary resources and time, both teachers turned to Google and primary source sets with accompanying lesson plans. Thus, teachers do not fail to consult archivists or choose to rely on Google for access to decontextualized primary sources because they lack training or are unskilled teachers; they most often do so out of necessity. They believe in the pedagogical value of primary sources but are constrained by a lack of time and resources.

*Information Sources: Favoring the Informal*

When teachers use Google as their main gateway to primary sources, they access formal and informal information sources. Google search results lead them to both the websites of formal sources like the Getty's professionally described collection of primary sources and informal sources like a history buff's personal website on World War II with primary sources of unknown provenance. According to Case (2007), the "prototypical formal source" is printed and "may also be exemplified by the words of an acknowledged expert on a subject"; while informal sources "tend to be friends, colleagues, and family, but…could encompass what we learn from popular culture as well: TV programs, songs on the radio, Internet mailing lists discussion…" (p. 13). By this definition, teachers tended to rely on informal sources of information, mainly colleagues and collaboratively edited and user-submitted online resources like Wikipedia.

Duff and Johnson (2002) assert that "studies of archival users have revealed a preference for informal channels to information sources in archives," such as the tendency of archival users to consult "informal sources of information over formally

produced guides" like finding aids (p. 476). When asked to describe the resources they consult when searching for primary sources, not a single teacher mentioned archival finding aids or pathfinders. Along with using Google to access formal and informal online sources, many of the teachers described contacting other teachers. When starting a lesson on a new topic, Elizabeth emails her colleagues before beginning an online search. She explains below,

> "I shoot an email out to people I know, and I let them know what I'm teaching. I ask 'Do you have anything from that era or something that I can use that would be considered a primary source?' They're well-seasoned teachers so they've collected a lot through their own experiences and their family heirlooms" (Interview #10, 19:29 mark).

According to the same teacher, she prefers to use primary sources gathered from other teachers because they are "teacher-approved," meaning they have been assessed by a teacher, deemed to have pedagogical value, and have been used in a classroom lesson.

As well as requesting primary sources from colleagues, the teachers interviewed also turned to fellow teachers for information on the act of teaching with primary sources. For instance, they asked their colleagues for lesson plans and advice on effective instructional techniques. They compared experiences teaching the same lesson and discussed what did and didn't work with students. One commonly used method for acquiring information on teaching with primary sources was classroom observation. A teacher who participated in a primary source committee at her school stated that classroom observations were key in developing

"tested" and "effective" lesson plans that could be shared with other teachers at the

school. She described the her participation in classroom observation in the

following way:

> We did observations in each other's classrooms and it was
>
> phenomenal. We did an observation and then we had a meeting to
>
> debrief. It was a group that built a lot of trust with each other, and so
>
> people were very honest about what they saw. They were also
>
> positively critical and very reflective, so [classroom observations]
>
> were extremely beneficial through the course of the year (Interview
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> #9, 12:29 mark)

Based on descriptions of classroom observations, the teachers' participated in an

information exchange that was mutually beneficial for the observer and observed.

The teachers observing gathered information on the use primary sources as

instructional tools, and the teachers being observed received documented feedback

on the effectiveness of their lessons through classroom observation instruments,

which are forms used to evaluate teachers on various aspects of a lesson such as the

clarity of learning objectives and the variety of instructional activities.

When further considering Case's (2007) description of a formal source as an

"acknowledged expert on a subject," it is important to note that the teachers sought

other "well-seasoned" teachers as sources of information. In other words, they most

often turned to "master" and "mentor" teachers when seeking information on how

to teach with primary sources. They also conferred with information professionals

on campus like school librarians and media specialists. Although the master

teachers did not engage in scholarly publishing on the subject of teaching with primary sources, they were highly experienced and possessed in-depth, first-hand knowledge of integrating primary sources into classroom instruction. Whether or not teachers who are chosen as mentor teachers by professional organizations and administrators are "acknowledged experts" or not depends on who is doing the acknowledging.  Perhaps, new criteria are needed to determine what constitutes an "expert" in a profession that relies heavily on acquiring knowledge from practice.

*Information Practices*

As Bates (2010) explains, information searching is an activity within the larger process of information seeking that involves the "*act of searching itself"* and includes searching tactics and techniques*.* After interviewing teachers about their search process and observing two teachers integrate primary sources into their classroom, I identified several recurring information practices, including specific search techniques.

*Searching for Primary Sources on the California Rancho Period*

The teachers who participated in this study did not begin searching using focused questions that were developed after a period of researching a topic. Instead, they began with broad topics, performed cursory keyword searches using their existing background knowledge, and adjusted the scope of their topics and lessons in response to the search results.  In order to illustrate the information practices

used during initial searches, I will describe an informative encounter between two teachers who were lesson planning and searching for primary sources.

During the second week of observing a classroom, I joined two teachers as they lesson planned after school. One of the teachers brought a "quick reference" guide to the Common Core State Standards and opened it up to the English language arts standards for third grade. The other teacher consulted their "year-long plan" which is an overview of the topics and standards they will teach each week for an entire year. "Looks like next week we're teaching about information texts," said the teacher holding the "year-long plan." The other teacher flipped through the standards and read standard "CCSS.ELA-LITERACY.R1.3.7" aloud, "Use information gained from illustrations (e.g. maps, photographs) and the words in a text to demonstrate understanding of the text." Although the Common Core State Standards were new to the teachers, one of them said, "Oh, maps. Okay, they want us to teach them how to read maps. We'll do a California rancho period lesson." Then she turned to me and said, "Since you're here, maybe this is a good time to search for some new maps. Maybe you can help us find interesting ones. I'm tired of the ones I've always used." Being a native Texan who has never taken a course on California history, I had no idea what they meant by "California rancho period," but I was gaining their trust and quickly agreed.

We moved over to the computer station in the classroom and one teacher typed "California rancho period maps" into a Google search box.  The results on the first page were articles on the historical background of the period. The top result was a Wikipedia article titled "Ranchos of California." The teachers quickly

recognized they needed to refine their search. "Add the words 'primary sources' to the search," one of them recommended. The teacher at the keyboard typed in the new search terms and within seconds said, "Yes, yes, yes. THIS is what we need." She paused, turned to me, and asked, "Right?" Hoping not to interfere in the search process, I simply nodded in agreement.

After using the refined search terms, the top result was a collection of primary sources hosted on the Calisphere website titled "Californio Society, 1830s-1880s." As the teachers browsed through the digitized primary sources, they learned that there were two types of maps available – diseños and surveyor maps. The Calisphere website contextualized the primary sources by providing a brief historical description of the time period and descriptive information about the collection. The description of the digitized maps explained the difference between diseños and surveyor maps: Diseños are hand-drawn maps created by Californios, Spanish Californian families, to document the boundaries of land holdings; Surveyor maps are official maps created by professionals and used for legal purposes. After the US-Mexican War in 1848, diseños were deemed to be imprecise representations of land holdings and Californios were required to provide surveyor maps as proof of land ownership. After learning about the two different types of maps and their changing role as evidence of land ownership, the teachers decided they would use the maps to practice comparing and contrasting two sources of information. They chose four digitized maps from the collection and decided to search Google again using precise search terms, like "California rancho diseños." Thus, as the teachers gained more background knowledge, they narrowed their lesson from a general

lesson on how to read a map to a lesson that required higher-level thinking skills, such as compare and contrast, and facilitated a critical discussion on westward expansion.

Throughout the nine months observing teachers integrate primary sources into classroom instruction, I continued to witness teachers use similar information practices, with variations resulting from factors like experience level and depth of background knowledge. While not a complete description of the wide-range of information practices I witnessed teachers use, the most common information practices used by teachers when searching for primary sources are described below.

**During initial searches, the teachers relied on preexisting knowledge to develop broad search terms.**

Most of the teachers I interviewed and observed did not use secondary sources to research topics before conducting initial searches for primary sources. They used what they already knew about a topic to develop broad search terms like "California rancho period." Thus, the effectiveness of initial searches was dependent on the depth of a teacher's preexisting knowledge. Those that had previously taught a topic were able to begin with more precise search terms.

**When their pre-existing knowledge was insufficient, they relied on informal secondary sources like Wikipedia for background and contextual knowledge.**

If initial searches did not return desired materials, teachers turned to secondary sources for contextual information. However, they did not check a book out at the library or download a peer-reviewed journal article; they turned to informal sources of information like Wikipedia[5]. When describing searching for materials on the Japanese-American internment at *Manzanar,* Pamela said, "Well, I didn't know anything about that history…but I went to Wikipedia, and they cited other sources source, and I drilled back. So, once in a great while I'll go there, just because I know they cite stuff really well" (Interview #9, 41:02 mark).

**As their background knowledge increased, the teachers refined their search terms and were better able to filter through search results.**

Teachers who had superficial knowledge of a topic described feeling overwhelmed by search results because they hard time assessing the relevance of primary sources. Deborah recounted feeling annoyed after a search "pulled up million things and not one thing was what [she] was looking for"; her frustrating search experiences led her to recognize that she had to "focus in on what [she] really was looking for" by researching the topic and developing "very specific" search terms (Interview #5, 28:18). As teachers learned more about a particular topic, they narrowed their searches according to specific criteria. For example, when the teachers I observed learned about the specific types of maps used during the

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[5] Wikipedia is considered an informal source because contributors do not need to demonstrate expertise to post. Anyone can edit and contribute to Wikipedia. Although there are quality controls, like community moderation, corrections do not occur until after contributions have been published and mistakes have been identified.

California rancho period, they began to search by type (diseño or surveyor map) and they quickly filtered out results that did not fit those two types.

**Although teachers had the ability to use finding aids and subject headings to search for primary sources, they preferred to conduct keyword searches.**
Most of the online archival portals created by information institutions provided multiple access points to digitized primary sources, included linked subject headings and finding aids. Nonetheless, teachers routinely hunted for a search box and preferred to use natural language key word searches, even though linked subject headings could quickly lead them to a group similarly classified records. A common search technique used by teachers was appending the phrase "primary sources" to the end of a topic like "Chumash Indians primary sources."

**In addition to key word searching, teachers chose to browse through digital collections as a way to become familiar with available resources.**
In their study of historians using primary sources, Duff and Johnson (2002) found that historians experience a sense of anxiety when they begin research in a new archival environment and need "to become familiar with an archive before they [can] start to use it"(p. 481). Whereas many historians "orient" themselves to new archives by closely examining finding aids, the teachers became familiar with new online archival portals by browsing through available resources. Ellis (1989) describes browsing as semi-directed or semi-focused searches in areas of potential interest. For example, although the most commonly used resource, the Library of

Congress Digital Collections portal, contained a link to a finding aid on the homepage, the teachers preferred browsing through the "Featured Digital Collections." Their browsing patterns were not as directed and narrow as their keyword searches, but they were not aimlessly scanning; they chose collections based on preliminary ideas of what they might be interested in teaching about. As Sarah explained, "I spend a lot of time becoming familiar with what collections are available… there's no substitute for just surfing and looking around" (Interview #9, 40:18 mark).

**After browsing through resources, the teachers tended to not to stray from the online archival portals they were most familiar with and felt comfortable using.**

The teachers did not exhibit knowledge of a wide-range of resources, offline or online. They tended to return to the same 2-3 online sources of digitized materials. After observing a teacher give up on finding primary sources on the Angels Flight railway, I asked her why she didn't try another resource. She responded, "I have received an overload of links and websites recommendations, but I pretty much go to the ones I'm familiar with because it took me a long time to understand them. I use them because now I know how it's organized or disorganized. I have an idea how to maneuver through them" (Interview #10, 23:06 mark). In other words, she gave up searching because learning to "maneuver" an unknown resource is labor intensive and requires more time than she can devote.

89

**Teachers adjusted the design of a lesson based on search results.**

As previously explained, the teachers used academic standards to develop lesson plans. Since the Common Core State Standards focus on mastering skills and do not dictate what content should taught, the teachers have flexibility on which topics they will choose to teach. As previously explained, the teachers often began searching with broad search terms related to areas of possible interest. For example, the two teachers who were planning a lesson on how to read maps as informational texts began searching for "maps" and explained to me that they were going to teach students about general map characteristics, such as cardinal directions and scale, and that they would "probably" use maps from the California rancho period. After the search results from Calisphere returned information on two types of maps, the teachers decided to add new non-map related skills to their lessons like teaching students to compare and contrast.

**Teachers' expertise grew as they continued to undertake the process of searching for primary sources.**

As the teachers became familiar with resources, they gained confidence in their abilities to efficiently search the content of online archival environments. When I asked Sarah about her search process, she described being "better at it now than [she] was when [she] started all this stuff a year ago." She stated that all her previous searches had resulted in a "little cache of digital libraries" whose collections she was familiar with. She described knowing where the digital collections "shine and have deficits" (Interview #9, 40:18 mark).

**Teachers who had little experience searching for primary sources experienced "information overload."**

Teachers struggled to effectively find individual primary sources when pre-selected digitized sets failed to provide them with relevant materials. Jennifer described feeling overwhelmed by search results when she used general search terms. She said, "If you type in 'primary sources' into Google, you know what will happen? It will be awful and you won't know where to go from there" (Interview #2, 12:17 mark). As Yakel and Torres (2003) explain, "asking the right question is the key to both effective and efficient use of the archives" (p. 59). Unfortunately, teachers who were inexperienced at searching for primary sources online lacked the language to properly search for materials and they conducted searches that resulted in an overwhelming amount of information. Although most of the teachers relied on Google, not all teachers were prepared or willing to "sift through" the large list of search results that a general Google keyword search produces.

**Section III. Evaluating Primary Sources: Decision Making and Relevance**

As Donohew and Tipton (1973) maintain, the process of searching for information is "intertwined with decision making" (p. 251). When teachers set out to search for primary sources, they make decisions about the characteristics of the information they are searching for. Decisions are "typically characterized as choices made from among alternatives " (Case, 2007, p. 86). A teacher who is planning to use primary sources in a lesson will make decisions about the curricular area, topic, type, format, and accessibility of the primary sources. For example, a teacher who

has chosen to teach a math lesson using primary sources may decide to teach about inflation using grocery store receipts and supermarket advertisements that are digitized and accessible online. Thus, when teachers begin searching for primary sources, they have evaluative criteria that are chosen according to various aspects of their situation and context, such as instructional goals, available resources, and student interest.

*The Role of Relevance in Evaluation*

While searching for information, teachers are concurrently making evaluative judgments about the relevance of the information in relation to their information needs. Drawing from Schamber, Eisenberg, and Nilan (1990), relevance is defined as a dynamic and subjective cognitive concept that describes "how users perceive information relative to their information need situations" (p. 770). The process of determining relevance is considered a subjective process because it "involves all of the knowledge and perceptions that the user brings to the information problem situation" (Barry & Schamber, 1998, p. 219). When teachers are evaluating primary sources, they draw from previous professional knowledge of their classrooms and students and their own personal perceptions and preferences. For example, when observing Jennifer search for primary sources on the California Gold Rush online, I watched her scroll past several topically relevant materials. According to Schamber, et al (1990), "the clearest and most widely accepted definition of relevance has been one of topicality, or the 'best match' principle" (p. 758). While it was important that the search results were topically relevant, Jennifer

seemed to have other criteria for selecting materials. When I asked her why she had scrolled past primary sources, she stated she was tired of lessons that only had "male views and perspectives" and wanted her students to learn about the role of women in the California Gold Rush. She had not mentioned this relevance criterion before, and I would not have understood her evaluative judgments if she had not verbalized her perceptions on the importance of incorporating women's views in the history of the California Gold Rush. Thus, studying how teachers evaluate primary sources and determine relevance requires consideration of subjective judgments *and* topicality. As Cuadra and Katter (1967) explain, "Relevance is not likely to be a very useful concept so long as it is constructed and used only as a relation between strings of written words and independent of the judging process" (p. 23).

*Measures of Utility*

**Pedagogical Value**

In addition to personal preferences, teachers often selected primary sources based on their perceived utility. Cooper (1973) defines "utility" as a "cover term for whatever the user finds to be of value about the system output...its usefulness" (p. 89). In the context of classrooms, primary sources are valued as instructional tools, and as such, they are evaluated on their utility in facilitating the mastery of knowledge and skills. Since the teachers I observed were employed by schools who are implementing the Common Core State Standards, the knowledge and skills students are expected to learn were prescribed by academic standards. As Diekema

93

& Olsen (2012) explain, "Educational standards prescribe the curriculum that needs to be taught and as such also prescribe certain relevance decisions during resource selection" (p. 4). Thus, the teachers began searches for primary sources using specific standards as evaluative criteria, and primary sources were selected based on whether they could serve as effective pedagogical tools for communicating or modeling a specific skill. Determining if a primary source could serve as an effective pedagogical tool included assessing its academic appropriateness, meaning teachers had to consider the academic aptitude of their students to ensure they could comprehend the content presented by the primary source.

During an interview with Deborah, I was prompting her to explain how she decides when to use primary sources in lessons. "I'll just show you," she said. She walked over to her desk and picked up a neon pink binder. As she walked back over she explained, "I have my plans for the month organized in this binder. I know what standards I'm teaching next week, but I have decided what materials I will use." I asked, "Are you going to check if the standards ask you to use primary sources?" She laughed and responded, "The standards don't have to *tell* me to use primary sources. I use them because they're helpful. I use them because I like to and because they make teaching more interesting." I was impressed by how she asserted her autonomy. Yes, she adhered to the standards, but they didn't stifle her personal preferences or dictate how she approached teaching.

She opened the binder and read aloud, "Describe the relationship between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text, using language that pertains to time, sequence, and

94

cause/effect."[6] While I was still deciphering the standard, she said, "I have to teach about sequence and cause and effect. I can use anything I want." After listing possible topics, she said, "Oh! I know! I saw 'Chinatown'[7] with my husband last weekend, and I remember thinking I should talk to the students about the drought in California. I could talk about Owens Valley before and after water was diverted to Los Angeles." As a total coincidence, I had been working alongside archivists at the UCLA Special Collections Library who had developed the Los Angeles Aqueduct Digital Platform, a newly launched digital platform that provides access to digitized primary sources on the history of the aqueduct and its historical, social, and environmental impact. For the next thirty minutes, I shared the features of the platform and she chose primary sources that could illustrate the environmental impact of the aqueduct on Owens Valley. When we were finished, she laughed and said, "I wish you were always around." By becoming involved in her lesson planning, I had not maintained a "critical distance," but I left with a better understanding of how teachers balance professional expectations and personal preferences when evaluating and selecting primary sources.

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[6] I later looked up the standard and identified it as "CCSS.ELA-LITERACY.RI.3.3." Deciphering strand designations is a learned skill. This particular strand designation is translated as "Common Core State Standard. English Language Arts-Literacy. Reading, Informational Text. Grade 3. Standard 3."

[7] The 1974 film directed by Roman Polanski on the controversial securing of water rights in Owens Valley and subsequent construction of the Los Angeles Aqueduct.

*Quality*

Along with evaluating the utility of primary sources based on their pedagogical value, the teachers expressed preferring "quality over quantity." Recognizing that "quality" is a highly subjective concept, I asked those who described evaluating primary sources based on "how good" or "rich" they were to elaborate on how they determined "quality." Sarah described "quality" primary sources as those that were "reliable" and were accessed through trusted repositories such as the Library of Congress and the Huntington Library. She explained, "When I search, I do what everyone would do and just search on the Internet. However, I have to stop and think, 'Okay, wait. Is this primary source reliable?' I always think, 'Is my librarian going to be upset if I use this?'" (Interview #9, 29:52 mark). Elizabeth described the quality in terms of "legitimacy"; she stated, "I try to go to sites where the photos are legitimate and I can somehow validate their story or get information on where they came from" (Interview #10, 16:05 mark).

In another instance, "quality" was associated with the idea of engagement. Crystal described "good" primary sources as those that were "engaging" and motivated students to "be more interested in history" and "appreciate museums and the things they preserve" (Interview #4, 7:58 mark). Determining whether or not a primary source is "engaging" required teacher to use their tacit understanding of their classroom and students interests. Diekema & Olsen (2012) describe the practice of making relevance judgments for students as "relevance by proxy" (p. 6).

*Versatility*

A similarly subjective adjective used to describe and evaluate primary sources was "versatile." Julie described versatility as the ability to "adapt a primary sources for multiple uses"; when I asked her to elaborate on what she meant by "adapt," she explained that a "versatile" primary source was one that could be interpreted in multiple ways. She identified diaries as "versatile" primary sources because you could interpret them as examples of personal writing and you could use their content as evidence of a historical perspective (Interview #3, 11:02 mark).

Eric defined versatility as the ability to use a primary source to teach multiple subject areas. He said, "I try to find ones that are versatile and I can use more than one way. I try to integrate my curricular areas. So if I find a primary source, I think, "Can I use this for reading? Can I use this for writing? Can I use this for social studies or science?" I try to spend time finding primary sources that will allow me to overlap my curriculum" (Interview #1, 31:26 mark).

When recounting how they evaluate primary sources, teachers described a subjective judgment process where relevancy was closely tied to ideas of perceived utility. The "utility" of a primary source was determined by other personal interpretations of pedagogical value, quality, and versatility that were drawn from the teachers' individual preferences and professional knowledge of their students' interests.

**Section IV. Managing Primary Sources: Information Organization**

On November 2013, I received an email from Lisa asking for advice on managing primary sources using Viewshare, which is a free platform maintained by the Library of Congress that is used for importing, managing, and sharing digitized primary sources. Lisa and I had met a month earlier at a professional development workshop on teaching with primary sources where I had presented on Viewshare and other tools for managing and sharing digital collections. I was excited and surprised to hear from Lisa because I had not yet recovered from how the teachers' eyes had glazed over as I discussed how to ingest collections using "CSV, JSON, and XML MODS files." I agreed to meet Lisa at her school, and in preparation I asked her to gather the primary sources she wanted to manage and organize.

When I arrived, I found Lisa sitting at a table with a laptop and binders. She explained that her primary sources were "everywhere." She showed me folders of digitized primary sources organized by topic on her computer. She opened her internet browser and used bookmarks to navigate to her favorite online archival environments. She opened up binders with printed copies of primary sources that were mainly acquired at professional development workshops. Then, when I thought she was finished, she walked over to a large plastic blue tub that was filled with artifacts and replicas, such as a quilt and woven basket. "That's everything," she said. It was apparent her collection of primary sources was dispersed and in varying formats.

Her email had requested assistance with Viewshare, and I had prepared to help her ingest her digital materials onto a platform. Unsure of how to proceed, I

explained, "Wow. You have physical and digital materials. I'm not sure I know how to help you organize the physical materials. Since it's your classroom and your space, I would imagine you have personal preferences and would know best what to do with the materials." She seemed disappointed with my response. I asked, "Why did you decide you wanted to organize things differently?" She responded by describing an experience from earlier in the week:

> "I picked up the Cahuilla Indians teaching trunk from the Autry. This was the first teaching trunk I have ever checked out, and I was amazed by how well it was organized. It was all there, in that one trunk. Lesson plans, artifacts, handouts. I thought 'Wouldn't it be ideal if every teacher could establish their own sort of teaching trunk.' If every teacher starts to develop their own trunk of primary sources, then it's just a matter of pulling out the trunk and making it available. Any time you find something new, just add it and it's there. It would make teaching a lot easier and planning a lot quicker" (Interview #6, 08:53 mark.)

I agreed with her, and I understood that managing and organizing materials is key to facilitating instructional use and future reuse. However, I still did not know how to combine a physical and digital trunk. I suggested digitizing the printed primary sources in the binder to which she replied, "No. It's easier to make copies when they are printed out." I suggested printing out the digitized primary sources and organizing them in the binders to which she replied, "That won't work. I like to project those on the SMART board and

99

have the students analyze them by writing over them on the board." Her responses revealed what I had originally suspected – that developing an effective organizational scheme, one that allows you to quickly find and reuse materials, is a personal endeavor best undertaken by the user of the information according to their personal preferences and knowledge of how the materials are used.

Still, I wanted to help. As she was placing the binders back on a shelf, the computer back on her desk, and the tub back into a closet, I remembered an experience from conducting research in the Nettie Lee Benson Latin American Collection at the University of Texas at Austin. As a master's student in the English department, I was searching for primary source materials in the personal archive of an author, and I was learning to use a finding aid for the first time. I noticed that author's correspondence was organized in boxes that were nonsequential. When I brought it to the archivist's attention, she patiently explained the difference between intellectual and physical order. The series listed in the finding aid represented the intellectual order of the materials. The box numbers and location listed in the finding aid represented the physical order of the materials. Thus, although Lisa couldn't physically keep all the primary sources together in one location, she could intellectually arrange them in a "finding aid" that would allow her to access her personal archive of primary source materials more efficiently and effectively.

I explained the idea to Lisa, and we worked together to draft an organizational scheme. She decided to intellectually arrange the materials into topical series and then list the primary source materials and their locations.

| Series: Cahuilla Indians | |
|---|---|
| Location | Primary Source |
| Blue Tub | Woven Basket |
| Blue Tub | Arrowheads |
| Computer – My Documents → Primary Sources →Cahuilla Indians Folder<br><br>Pink Binder #1 | Digital Photograph of Hut in Agua Caliente<br><br>Additional Printed Copy of Photograph |
| Computer – My Documents → Primary Sources → Cahuilla Indians Folder | Postcard of Cahuilla Indian Trading Post |

**Figure 6: "Finding Aid" for Personal Collection of Primary Sources**

Although the end result was more of an inventory than a finding aid, the tool helped her organize her primary sources in a way that allowed her to have a snapshot of her collection. The "finding aid" had room for improvement, and we discussed adding additional information such as the location and description of lesson plans and the source of the materials; however, I do not know if she ever changed or added elements. She later emailed me to tell me she had shared her "finding aid" with other teachers at her school who had used it to request copies of materials from her collection.

Working with Lisa to develop a tool for organizing her personal primary source collection revealed the importance of information management in the daily professional lives of teachers. When Lisa wished for a "teaching chest," she was asking for a way to organize her materials that would facilitate the keeping, finding, using, and sharing of primary sources. As Diekema and Olsen (2014) maintain, teachers organize and manage information for the "purpose of immediate use or possible future use and reuse" (p. 2266). Throughout the study, I observed teachers implementing organizational schemes for the purpose of facilitating the use and reuse of primary sources for themselves and other teachers.

When I began observing Eric, he already had established methods for organizing primary sources and managing related information such as lesson plans. Unlike Lisa whose main concern was keeping track of the content and location of her primary source collection, Eric wanted to document the pedagogical context in which primary sources were used. He used a "bibliographic organizer" that captured information about the lesson *and* the primary sources. He had been introduced to

the organizational tool at a professional development workshop on teaching with primary sources, and he had modified the template to fit his needs.



**Figure 7: Bibliographic Organizer for Teaching with Primary Sources.**

**[Photo taken from school under observation]**

Eric's bibliographic organizer listed the lesson title, grade level, subject, primary source title, location, source, and pedagogical use. The bibliographic organizer was stored alongside other forms of teaching documentation, such as self-reflection forms, lesson plans, and samples of student work. He described the form as a "step" he had taken to "quickly be able to pull things" and "stop [himself] from endlessly searching" for new primary sources (Interview #1, 30:25 mark).

Similar to Lisa, Eric used the organizer as a way to keep track of the contents of his primary source collection. Further elaborating on the utility of his organizational scheme, Eric described how he avoids spending too much time searching by consulting his bibliographic organizer:

> "I could keep searching and searching trying to find new things. By looking at the bibliographic organizer, I can say, "Oh, I already have six? I'm good. I don't need anymore." It gives me a stopping point. Without knowing what you have, stopping is really hard because you could just spend all this time searching for this one or that one and thinking, "Oh, I could use this and this and this," but sometimes you just have to stop and just pick something and go" (Interview #1, 31:07 mark).

While Eric and Lisa successfully utilized formalized organizational schemes to use and share primary sources, many of the other participants expressed anxiety about the time and effort it took to search for new and existing primary sources. For example, Jennifer did not use an organizational scheme and reported feeling overwhelmed by trying to remember where she had stored copies of primary sources. She stated she often felt it was "easier to just search again" than to try and go through the "piles of papers" on her desk (Interview #2, 23:04 mark). Similarly, Sarah explained, "The biggest challenge for me when using primary sources is time. They require so much time – time to find them, time to plan with them" (Interview #9, 19:39 mark).

Eric agreed that teaching with primary sources was time consuming. He said he often found himself asking, "Do I have the time to find primary sources? Would it be easier to find a book to read?" (Interview #1, 30:20 mark). However, instead of forgoing the use of primary sources, he decided to implement an organizational scheme that admittedly required "more of a time investment upfront" but allowed him to reuse and share his primary sources and corresponding lesson plans with other teachers at professional development workshops hosted at a laboratory school.

It is important to note that Eric works at a laboratory school where he is encouraged to invest his time developing and experimenting with new pedagogical strategies. Unlike Jennifer who receives an hour per week to plan, Eric receives an hour per day to plan. He has received grants from private and public institutions to explore the process of integrating primary sources into classroom instruction. He is surrounded by colleagues who serve on inquiry committees and who are also using primary sources to teach. He is in an undeniably privileged position. Yet, what his experiences do reveal is that when teachers are given the right support and access to resources, they are better suited to take on challenging teaching responsibilities. In Eric's case specifically, I was able to gather data on which differences make a difference when undertaking the process of integrating primary sources into classroom instruction. Eric's participation in professional development opportunities, collaboration with colleagues who worked to modify the bibliographic organizer, and access to paid planning periods were integral to his development of an organizational scheme and overall management of his primary

105

source collection. Although most teachers do not have access to similar resources, the organization and management of primary sources remain as important aspects of efficiently integrating primary sources into classroom instruction and enabling the sharing of personal primary source collections.

## Section V. Using Primary Sources: Instructional Practices

Regardless of whether or not teachers had an organizational scheme in place, all of the teachers I interviewed and observed conveyed the belief that primary sources have pedagogical value. Since the teachers were using primary sources to teach the knowledge and skills outlined by the Common Core State Standards, most (70%)[8] of them were interested in using primary sources to promote inquiry-based learning. They made statements like "Primary sources generate thinking, inquiry, and discovery," and "When you use primary sources to teach it's 100% about inquiry, analyzing, reading, and responding" (Interview #10, 12:57 mark; Interview #4, 22:18 mark).

As previously defined, inquiry-based learning is an active and engaged approach to learning that teaches students to "engage in questioning, problem solving, active investigation, and critical thinking" (Stripling, 2011, p. 5). When I asked Justin how he defined critical thinking skills, he responded, "Do you know

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[8] 30% of the teachers did not mention promoting inquiry or critical thinking as a reason for using primary sources. Their answers were of the "they make teaching and learning more interesting" variety. However, their answers did not indicate disagreement with the belief that primary sources could be used to promote inquiry-based learning.

about the Bloom's taxonomy? The highest level of the Bloom's taxonomy defines what critical thinking skills are. When you're trying to have students practice critical thinking skills, you should be asking questions that require higher-level thinking" (Interview #8, 19:36 mark). Bloom's (1956) *Taxonomy of Educational Objectives* is a seminal text in the field of education that classifies reasoning skills used by learners into six cognitive levels of complexity. Several of the teachers referenced the taxonomy when discussing lesson planning and learning objectives. Ensminger and Fry (2012) have adapted Bloom's Taxonomy to create the Primary Source-Based Instructional Practices (PSBIP) framework, a descriptive conceptual framework that provides "teachers with a means of recognizing and describing instructional activities that use primary sources" (p. 118); however, none of the teachers were familiar with the framework and relied on the original Bloom's Taxonomy for developing learning objectives and instructional activities that required the use of higher order thinking skills, such as analysis, synthesis, and evaluation.

*Limited Instructional Uses of Primary Sources*

**Subject Area**

While the teachers shared the common objective of using primary sources to promote inquiry-based learning, they were not always prepared to achieve the goal of facilitating critical thinking and problem solving across all subject areas. The teachers predominantly used primary sources when teaching social studies. When I asked Crystal to describe when she uses primary sources to teach, she responded in the following way:

"Obviously I'm using them during history lessons. When I'm teaching

about the [California] Gold Rush, I use them daily. There's so many

available. When I'm teaching my Native American unit, not so much.

As I get into early explorers, I can find things about Cortés and

Cabrillo very easily, but I don't have a lot on Drake. I use them to

punctuate the value of history and to teach that history is important.

There are reasons why we preserve things" (Interview #4, 4:48

mark).

Most of the teachers responded similarly. They identified "history" or "social

studies" as the subject areas that were the most natural fit for teaching with primary

sources. When I suggested to Jennifer that she might consider teaching math using

primary sources, she said, "I *could* use them to teach math. I'm sure there are ways

to do that. I just either... If there is... I'll just take your word for it. I just don't have

time to look for it or figure out how" (Interview #2). Aside from the natural fit of

using historical sources to teach about history, the use of focus on using primary

sources during social studies lessons stems from the types of professional

development opportunities available for teachers interested in teaching with

primary sources.

Due to the limited number of professional development opportunities

available on teaching with primary sources, most of the teachers I interviewed and

observed attended the same primary source workshops where they learned to use

the "Reading Like a Historian" curriculum developed by Sam Wineburg and the

Stanford History Education Group. The "Reading Like a Historian" curriculum is

widely cited in research on teaching with primary sources and has been promoted by the Library of Congress Teaching with Primary Sources (TPS) program, the largest professional development program focusing on training teachers to use digitized primary sources as instructional tools. The TPS program has 28 consortium members across the United States and claims to have reached teachers in 43 states and the District of Columbia.

Furthermore, according to the Los Angeles Times (2014), the "Reading Like a Historian" curriculum was adopted by the Los Angeles Unified School District who signed a $140,000, 18-month contract with the Stanford History Education Group for teacher training and lesson planning. As a result, teachers were familiar with the language of the curriculum. For example, when I asked Sarah why she used primary sources during social studies, she responded, "[Primary sources] help students **think like a historian** [emphasis added]. We want them to understand how a lot of people made a positive difference in this state. We want kids to have a connection with the history of California." (Interview #9, 27:05 mark). After researching, I could not find an equivalent investment by a school district, public institution, or private foundation that stressed the use of primary sources to teach a subject other than social studies. Jennifer was not prepared to use primary sources to teach math because the training she had received had been narrowly focused on using primary sources to teach social studies.

***Instructional Time***

In 2007, President Bush passed the America Creating Opportunities to Meaningfully Promote Excellence in Technology, Education, and Science Act, also known as the America COMPETES Act. The purpose of the Act was "to improve the competitiveness of the United States"[9] in the global market by promoting the academic disciplines of science, technology, engineering and mathematics (STEM) in primary, secondary, and postsecondary education. In 2011, President Obama reauthorized the Act and signed into law the America COMPETES Reauthorization Act of 2010. As a result, federal and state educational policymakers have focused on developing and improving STEM curriculum to the detriment of humanities education. Unsurprisingly, the instructional time devoted to social studies and English language arts has increasingly diminished. Considering that teachers mainly use primary sources to teach social studies, the integration of primary sources has been slow and a low priority for many.

Most of the teachers (70%) reported teaching social studies once or twice a week. When I asked them to describe a typical lesson using primary sources, they described short lessons that could be completed in 45 minutes or less. Sarah said she enjoyed teaching with primary sources but could not use them too often because analyzing a primary source "just takes a lot of time" and requires that you "stop the rest of curriculum" in order to allow "8 to 10 year olds to come up with something coherent like a Venn diagram" (Interview #9, 22:22 mark). Although Sarah was not able to use primary sources often, she described using primary

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[9] H.R. 2272 as enacted in Public Law 110-69.

sources to introduce new units, "I always try to introduce the unit with photographs that I can find or some maps. For example, when teaching *Farewell to Manzanar*[10], I start with showing them photographs of the internment camps" (Interview #2, 21:45 mark). Along with Sarah, many of the other teachers described using primary sources as "attention getters" at the beginning of a lesson; few of them described using the same primary source or a different primary source at another point in the lesson. When the teachers did use primary sources, the teachers tended to devote a limited amount of instructional time to using and analyzing primary sources.

***Primary Source Types***

When I asked teachers to provide a definition for the phrase "primary source," the majority (80%) of the teachers demonstrated knowledge of various primary source types. Justin described primary sources as "first hand accounts" with a "format that is multi-faceted"; he elaborated, "It's a photograph. It's a map. It could be a diary. It could be a recording of a speech. It could be an object. If you're studying science, you could go down to the creek right now and find primary sources" (Interview #7, 28:52 mark). Yet, despite demonstrating knowledge of various primary source types, the teachers did not use a wide-range of formats during lessons. By far, the primary source type most commonly used were photographs. 100% of the teachers discussed using photographs to teach. As Justin explained, many teachers "get

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[10] The 1973 memoir authored by Jeanne Wakatsuki Houston and James D. Houston which describes the experiences of Jeanne Wakatsuki and her family during their imprisonment at the Manzanar Japanese American internment camp.

caught up in the idea that it's just a photograph or a map" (Interview #7, 28:02 mark).

The main reason teachers used photographs was because they were the most available type of primary source online. Since finding and evaluating primary sources is a time-consuming task, the teachers tended to choose the primary sources that were most available in digitized format. Lisa expressed wanting to use "audio recordings of music and oral histories way more," but she ended up using photographs because they are "just that much more available" (Interview #6, 8:53 mark). Likewise, Elizabeth wanted to use "diaries and audio recordings with interviews," but she would "always end up go[ing] to the Library of Congress website because they'll definitely have a million photos" (Interview #10, 21:17 mark). After surveying several online archival environments, I also found that photographs were the most commonly available type of primary source. For example, when I searched Calisphere for primary sources on Cesar Chavez, the search returned 1,628 images and 84 texts. When I specifically searched for oral histories, I mainly found transcribed versions of interviews and found it difficult to locate audio recordings. Having worked on digitization projects, I was not surprised by the results. Like teachers, archivists deal with time constraints and limited resources. Digitizing sound and moving images can be a costly endeavor that requires legacy equipment. Thus, teachers' use of primary sources in the classroom is greatly influenced by archival digitization trends and the types of materials archivists are able to make available online.

As a result of these limitations, the teachers were not always effective in promoting critical thinking and problem solving skills. The lack of training opportunities for learning to use primary sources across multiple subject areas coupled with limited instructional time and limited access to a variety of primary source types resulted in lessons that lingered in the lower levels of the Bloom's Taxonomy, such as knowledge and comprehension. The teachers used primary sources as illustrations that communicate facts instead of historical evidence that requires interpretation. Ensminger and Fry (2012) describe illustration as the "use of a primary source simply as an exemplar related to the factual information being communicated to the student" (p. 123). While using primary sources to illustrate facts may initially engage students and allow them to comprehend a concept, this instructional practice ultimately does not require that students use higher-level thinking skills, such as interpreting and analyzing evidence, and it does not promote inquiry-based learning.

**Instructional Scaffolding**

However, while the teachers shared common limitations when using primary sources, there were certainly notable examples of teachers using primary sources to support student learning.  For instance, in spite of time and resource constraints, teachers successfully used primary sources as tools for instructional scaffolding. Instructional scaffolding has been defined in many ways; Wood, Burner, and Ross (1976) defined scaffolding as the "process that enables a child or novice to solve a problem, carry out a task or achieve a goal which would be beyond his unassisted

113

efforts" (p. 90). Additionally, Graves, Watts, and Graves (1994) defined scaffolding as a "temporary supportive structure that teachers create to assist a student or a group of students to accomplish a task that they could not complete alone" (p. 44).

*Scaffolding Language Acquisition and Content Mastery with Primary Sources*

Several of the teachers used primary sources to scaffold academic concepts and vocabulary in order to assist struggling students. Pamela described using original photographs to visually scaffold new vocabulary with English language learners who have the "double challenge of learning English and [academic] content" (Franquiz & Salinas, 2011, p. 198). For example, when teaching about the concepts of "change and continuity," Pamela used historical photographs of Venice to show how the seaside community had changed and remained the same over the past 20 years. She purposely chose Venice because the school is located in the neighborhood and the students live in the surrounding area. Using a landscape that the students were familiar with and primary sources that illustrated historical change and continuity gave students "concrete ways to incorporate classroom content into their lives [and] communities" (Hackman, 2005, p. 105).  For English language learners, the historical photographs anchored the concepts of continuity and change in the lives of students and allowed them to understand the abstract concepts through their previous knowledge of the community.  Pamela described the process of using primary sources to connect abstract concepts to students' lives as "building relevancy into history"; she stated that the "value of primary sources

are their ability to connect the past with the present by bringing history to life and

making parallels evident" (Interview #8, 16:24 mark).


*Using Primary Sources to Differentiate Instruction*

Using primary sources to scaffold language acquisition and content mastery

extended beyond the instruction of English language learners. Most of the teachers

used their knowledge of the students' interests and academic levels to differentiate

instruction using primary sources.  Differentiated instruction is a teaching

philosophy that "emphasizes attention to variance in students' readiness levels,

interests, and learning profiles" and encourages teachers to find methods that are

responsive to differences among students (Tomlinson, 2005, p. 262). Eric described

supporting different learning styles by incorporating a variety of primary source

types into lessons. He explained, "Primary sources are a great way of reaching many

different learners. When you use realia or an object, you're reaching the kinesthetic

and the tactile learners. When you use a song or audio recording, you're reaching

auditory learners. When you use maps and photographs, you're reaching the visual

learners" (Interview #1, 27:22 mark).


*Beyond History: Using Primary Sources to Promoting Inquiry-Based Learning in*
*Science Education*

After describing the commonalities among the teachers' instructional uses of

primary sources, I will end this chapter with the description of a lesson that serves

as an example of innovative teaching and one that further solidified my belief that

primary sources can be used as more than "support" tools in social studies curriculum. When my study was coming to a close, Eric stated that he was going to begin a new unit that "expanded the usual idea of what people consider to be a primary source." I had previously observed Eric use primary sources to teach about Jackie Robinson, Leonardo da Vinci, Keith Haring, Jane Goodall, and Jacques Cousteau. Eric had used the lives of these historical figures to teach about larger societal issues, such as racial segregation and scientific exploration. Thus, I became accustomed to observing him use primary sources to teach about historical figures and their contributions to society. After missing the first lesson, I entered the classroom and asked a student who was organizing loupes in a basket, "Who are we learning about now?" He smiled and responded, "The creek."

As Eric set up the projector and SMART Board, the students excitedly took their seats on a carpet. Eric began, "We have been learning about ecosystems, and today we are going to begin learning about an ecosystem that is right outside our door." The students whispered guesses to each other. "Maybe it's the butterfly garden," one girl suggested to her neighbor. Eric continued, "We are going to study the creek that runs through our school and explore how it has changed over time. Since we are studying ecosystems, the creek will be our primary source. Remember a primary source is anything that was created at the time under study. If we are studying the current state of our creek and its ecosystem, then the creek can be our primary source. We will think and act like scientists. " In a nod to my presence, he added, "And because we love historical documents and Ms. Garcia is here to learn from us,

116

we will also be analyzing how other scientists have studied our creek." After hearing

Eric describe the unit, I was just as excited as the students.

The remainder of the lesson was spent having students "think like scientists."

Instead of deciding how they would study the creek, Eric asked the students to
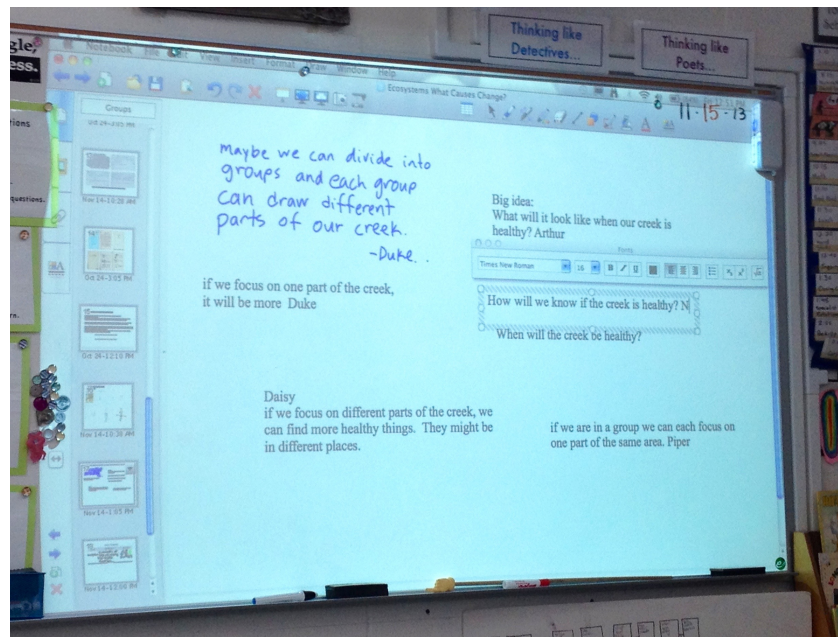
brainstorm and develop methods for collecting data.



**Figure 8: Student Brainstorming**

**[Photo taken from school under observation]**

The students who had ideas walked over to the laptop being projected on a SMART

Board and offered suggestions for how to collect data and provided research

questions. One student wrote, "How will we know if the creek is healthy?" Another

added, "If we focus on different parts of the creek, we can find more healthy things.

They might be in different places." Inquiry-based learning involves active

participation in the learning process and the development of problem-solving skills.

By presenting the students with a research problem (how to study the creek's ecosystem) and allowing them to develop research questions and methods for investigating the creek, Eric was promoting inquiry-based learning.

During the next lesson in the unit, Eric explained, "We are not the first scientists to study our creek. Dr. Loye Holmes Miller was an ornithologist who studied the birds that were part of the creek's ecosystem." He then modeled "wondering" as a form of question building, "I wonder if the birds he studied still live by the creek. I wonder how we could figure that out. I wonder what type of data would help us answer that question." Instead of providing answers, he suggested consulting "primary sources about Dr. Miller's research process" to develop ideas on how to best study the living and nonliving parts of the creek's ecosystem. He projected digitized pages from Dr. Miller's (1974) work titled "Birds of the Campus."[11]

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[11] *Birds of the Campus: University of California, Los Angeles*. Text by Loye Miller, illustrations by Robert C. Stebbins.  Los Angeles: University of California Press, 1947.
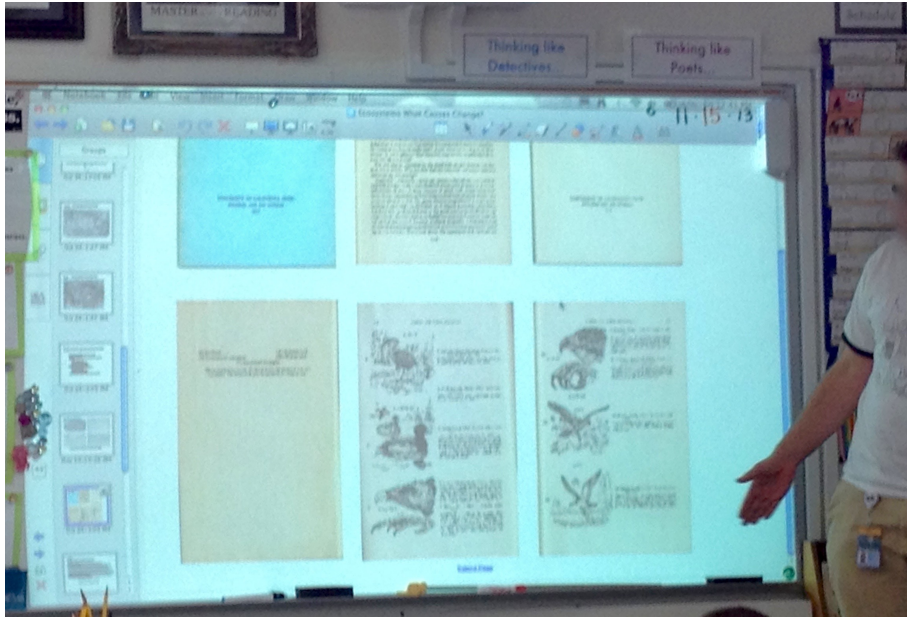
**Figure 9: Teacher Analyzing "Birds of the Campus" by Dr. Loye Holmes Miller**

**[Photo taken from school under observation]**

After the lesson, I asked Eric why he had decided to use Dr. Miller's work, he responded, "Well, I think children learn by looking at things. If you're teaching somebody how to write a letter, you show them the letter format and then you have them practice writing their own letter. You model it in front of them. You could also use a primary source and show what a letter looks like and identify the parts. It's about modeling" (Interview #1, 26:02 mark). In other words, he was using Dr. Miller's annotated list of birds on the UCLA campus to model scientific illustration and the practice of observational notetaking.

For the next lesson, the students visited the creek and incorporated what they learned from Dr. Miller's work into their own practice of scientific observation and notetaking. Before walking over to the creek, Eric explained that scientists use

119

tools to collect data. He informed the students that their "scientific tools" would include a clipboard with paper and a pencil for notetaking and a shared iPad for taking photographs of "pertinent data."
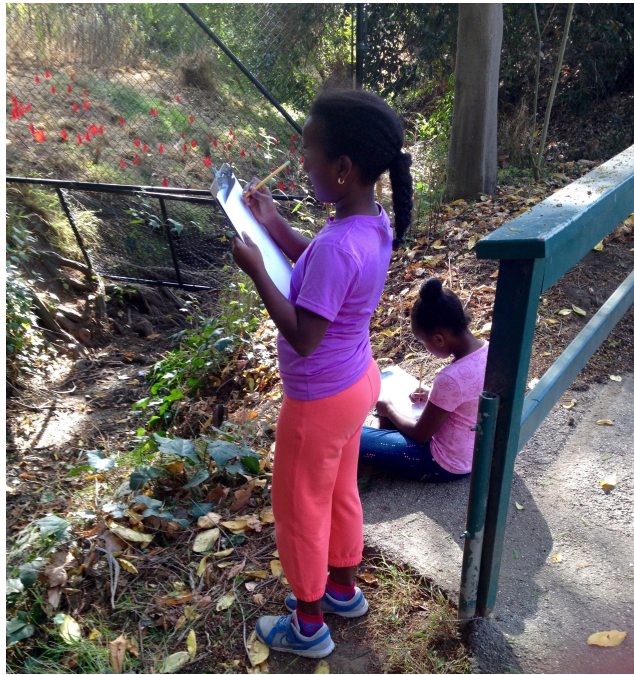


Figure 10: Students Practicing Scientific Notetaking.

[Photo taken from school under observation]

After collecting data, the students were asked to create a field guide to the creek's living features that was modeled after Dr. Miller's work on the birds of the UCLA campus. In order to prepare, the students further analyzed the work's structure and content. Copies of the work were printed and the students made notes on how information was presented. For example, one student analyzed the cover, highlighted the words "University of California Press," and noted that the

information signaled that the work was a "book." Along with identifying the genre of the work, he noted that the title included the publication date. He said to me, "It's important to have the date. That way you know if the information is old or new." I nodded in agreement.
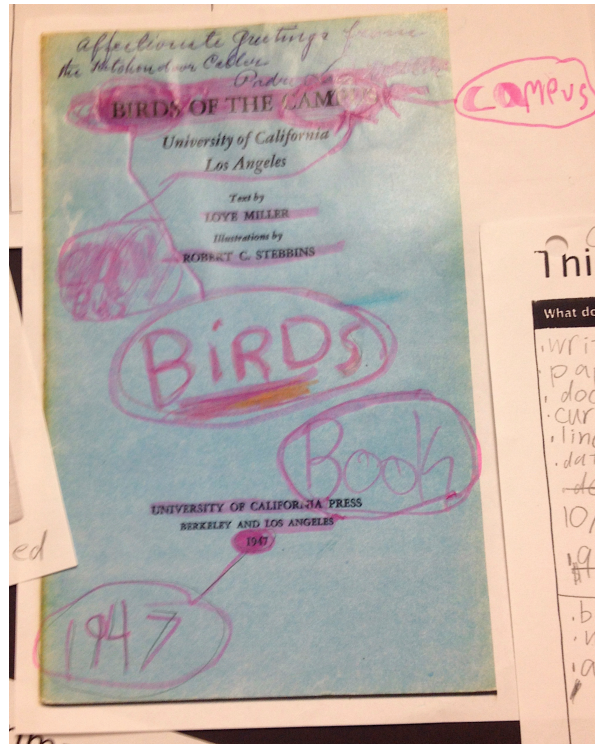


**Figure 11: Student Analysis of *Birds of the Campus* Cover**

**[Photo taken from school under observation]**

In addition to birds, the students decided the field guide would include plants. They took pictures of plant life by the creek and collected specimens such as fallen tree leaves and branches. Before they began illustrating the specimens, Eric modeled the difference between scientific illustration and "doodling." He explained the

importance of observation and "looking closely" in order to provide an "accurate representation" of the specimen. He reinforced his previous lesson on scientific tools by explaining how the students would be using a magnifying glass to "zoom in" on details. Throughout the lesson, he continued to reinforce the concept of using "nature as a primary source" when studying environmental change.



**Figure 12: Student Practicing Scientific Illustration**

**[Photo taken from school under observation]**

After students became familiar with the concept of scientific illustration and observation, Eric introduced the practices of revision and critique as "scholarly skills." As the students moved on to illustrating birds, they were partnered with classmates and expected to practice receiving and giving critique. Additionally, the

students were expected to demonstrate an understanding of critique and the synthesis of multiple perspectives by revising their illustrations based on their classmates' suggestions. Each student revised their bird illustrations based on student critiques a minimum of four times.
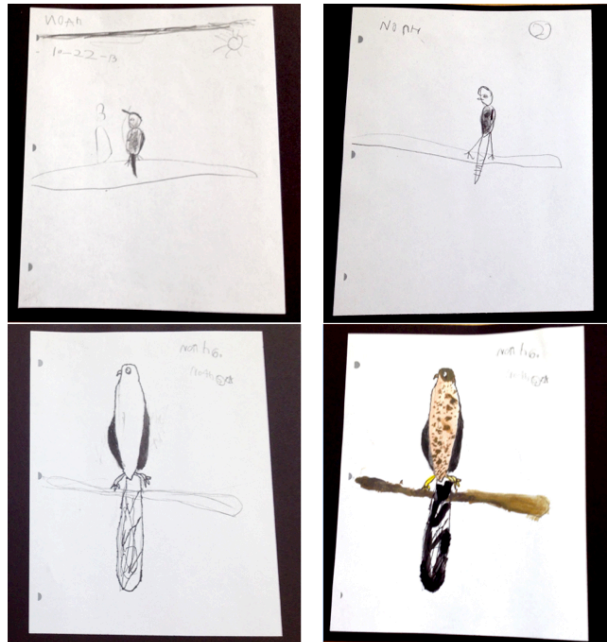


Figure 13: Student Revisions of Bird Illustrations

[Photo taken from school under observation]

The lesson lasted several weeks but Eric did not "stop the rest of curriculum." The unit was created with lessons that encompassed multiple subject areas, including writing, social studies, art, reading, and science. For example, in a single unit, the students 1) used their reading and research skills to consult secondary sources for information on birds, 2) practiced their writing skills and synthesized information by creating a description of a bird using information from secondary sources and

their own observations, 3) learned about ecosystems and the impact of human activity on the environment, and 4) practiced the scholarly skills of critique and revision. Unlike the limited use of primary sources to teach short social studies lessons, Eric created a unit that taught students to problem solve and assess multiple forms of information and evidence. Furthermore, the lesson situated primary sources as essential and fully integrated instruments of learning that can promote inquiry-based learning in STEM fields, such as science and math.

**Conclusion**

I did not describe Eric's lesson in an attempt to define the "right" way to integrate primary sources into classroom instruction. As I have repeatedly mentioned, Eric has access to resources that most teachers do not, including a daily planning period and a partner teacher who shares the teaching and classroom management duties. Furthermore, since he does not teach at a publicly funded school, he has the freedom to use the Common Core State Standards "only when they makes sense for the curriculum and learning objectives." Therefore, the lesson described above is an exception and not the norm; however, the lesson does illustrate the ability to use primary sources as instructional tools that promote inquiry-based education.

After observing and interviewing teachers undertake the process of integrating primary sources into classroom instruction, it became apparent that the process of finding, evaluating, and use primary sources is not standardized or objective; the process of integrating primary sources is contextual and influenced by

124

subjective considerations, such as teachers' experiences and preferences. The purpose of studying how teachers find, evaluate, and use primary sources was to construct a rich description of the information practices that teachers use during different steps of the integration process in order to improve archival practice and outreach. For instance, better understanding how teachers search for primary sources can help information professionals improve educational metadata standards. Considering that the teachers mainly used Google to search for primary sources, archivists could focus on creating or adopting an educational metadata vocabulary that is compatible with the Schema.org metadata framework used by major search engines.

Additionally, knowledge of the evaluative criteria that teachers use when assessing the relevancy of primary sources can influence how archivists prioritize and select primary sources for digitization projects. As Gilliland-Swetland (1998) explains, when selecting and prioritizing primary sources for "inclusion in a digital access system," archivists need to consider "the cultural, informational, educational, even legal implications" (p. 143). One implication that was revealed was that teachers' use of primary sources in the classroom is greatly influenced by archival digitization trends and the types of materials archivists are able to make available online.

As Duff and Johnson (2002) explain, "Designing intuitive systems that meet the researchers' needs requires a thorough understanding of the information-seeking behavior of archival users" (p. 472). In this case, if archivists plan to the meet the needs of teachers by improving outreach services and increasing access to

primary sources through online archival environments, then they should

understand how teachers find, evaluate, and use primary sources.

**Chapter 5: Stepping Out From Behind the Processing Table: Archival**

**Education and Outreach**

**Introduction**

In October 2013, I was invited to participate in a two-day professional development

workshop for teachers who were interested in using primary sources as

instructional tools in their classroom. The professional development workshop was

designed by two experienced teachers who had participated in the Teaching with

Primary Sources Program developed by the Library of Congress. Unsure of the role I

would play, I walked into a classroom at 8:00 am on a Thursday morning and found

eighteen teachers chatting about their schools, students, and love of coffee.

The course began with introductions; along with descriptions of their schools and

classrooms, many of the teachers ended their introduction by shyly admitting that

they did not know much about primary sources but were eager to learn. One teacher

proudly proclaimed that she had woken up at 4:30 am to drive from Orange County

to Los Angeles "*just*" to make the workshop. Her enthusiasm resonated with the rest

of the participants because the workshop was not mandatory and everyone who

was present had chosen to attend and seemed excited to learn about using primary

sources in the classroom.

Since I had not participated in the development of the course and was in the

early stages of forming a relationship with the teachers leading the workshop, I

primarily spent the day observing the lessons on "high-impact" teaching strategies

for teaching with primary sources. Everyone involved spoke about primary sources

using educational jargon. The participants asked about how primary sources could be used to teach "anchor standards," and how they could be incorporated into "formative assessments"; the leaders discussed using primary sources to "access the higher levels of the Bloom's taxonomy." While they admittedly didn't know much about primary sources, they were pedagogical experts – skilled in the art and craft of teaching.

Before breaking for lunch, the leaders explained that the teachers would have the rest of the afternoon to "tinker" with primary sources and develop a lesson plan using primary sources from the Library of Congress digital collections. The leaders also announced that I, the mysterious woman sitting at the back of the room taking notes, was "an expert" on primary sources and would be present to help them navigate the Library of Congress digital collections. Finally, my role had been revealed, and I was happy to help.

After returning from lunch, the teachers worked together to choose group topics. Although they were not limited to any particular subject, each of the groups chose a social studies topic, including the California Gold Rush, Alta California Spanish missions, and the 1906 San Francisco Earthquake. I hovered around the groups nervously waiting for an opportunity to share my "expertise," and my opportunity arrived when I overheard one of the teachers ask, "Where are the California Gold Rush pictures? They only cover the Alaska Gold Rush!" Since the teachers had only been introduced to the Library of Congress digital collections, I recognized an opportunity to share California-specific resources. "I know where to look!" I exclaimed as I eagerly navigated them to the Online Archive of California, a

portal to the collections of over 200 libraries, museums, and archives throughout California. Using my archival reference skills, I learned they were interested in "letters written during the Gold Rush by women" that were "appropriate for fourth grade readers." I was able to assist them in narrowing their search to collections of correspondence that had been transcribed since "fourth graders can't really read cursive nowadays." I loaded the finding aid for the Bancroft Library's "California Gold Rush Letters, 1848-1859" collection and proudly walked away to scribble participant observation notes in my journal. I returned to the table expecting to find a group of teachers enthusiastically selecting primary sources; however, I encountered a group that was much more frustrated than when I had originally intervened. One of the teachers, a fourth grade teacher from Compton, informed me that "all of the links on the website were broken"; she demonstrated the problem by clicking on an item listed in the finding aid. I realized she was clicking on the description of item and not an actual hyperlink (even though to her credit it looked *a lot* like a hyperlink due to colored font). "Oh, that isn't a link. This isn't a digitized collection. This is just a finding aid," I responded.

**Collection Title:** Finding Aid to the California Gold Rush Letters, 1848-1859

**Collection Number:** BANC MSS C-B 547

**Get Items:** ✖ No online items

🔖 Contact UC Berkeley::Bancroft Library

Listed as non-digitized collection

Container List
Part I

Box 1, item 1    Isaac R. Copeland to his uncle. Jan. 28, [1849], Gulf of Mexico.

Box 1, item 2    John M. Millikin to John Leavett. Aug. 31, [18]52, Sacramento, [California]

Box 1, item 3    George W. Browning to his father. May 24, [18]51, Sacramento Valley, [California].
Physical Description: (Photocopy)

Box 1, item 4    G. W. Barker to his wife and daughter. Dec. 23, 1850?, Chagres.
Physical Description: (Photocopy)

Box 1, item 5    William Warner, 1820-1905, to his mother. Sept. 23, 1853, Nevada City, [California].
Physical Description: (Transcript)

Item description resembling a hyperlink

**Figure 14: Finding Aid for Bancroft Library Collection of Gold Rush Correspondence**

She stared at me blankly, and I continued, "You know, it's just a description of what's available and how it's organized. It's not the actual digitized materials. Just a listing of the physical items." There was laughter over the confusion, and someone asked, "Well, *how* do you get the letter then?" I launched into an explanation about copyright, written requests for materials, and the non-circulating nature of archival materials. Everyone decided it was better to return to the Library of Congress digital collections and "try again or maybe change the topic."

Although I walked away feeling like my "Archives 101" crash course had failed, I also excitedly scribbled in my field notes, "The finding aid was foreign. Most had never seen one before. How are they supposed to find primary sources when the nuts and bolts of archives haven't been explained?" Through the brief encounter,

I had identified a major roadblock in the process of teaching with primary sources in K-12 classrooms. Although teachers possessed pedagogical expertise, they did not have the knowledge and skills needed to effectively navigate archival environments. This section investigates the role of "archival intelligence" in effectively locating, evaluating, and using primary sources to teach and proposes an archival education model for K-12 teachers that expands the existing "model of researcher expertise" developed by Yakel and Torres (2003). First, this chapter analyzes how the existing model applies to teachers as a user group and describes differences among scholarly and professional users of archives. Second, the chapter expands the "model of researcher expertise" by introducing the role of professional knowledge in effectively integrating primary sources into K-12 instruction. The expanded collaborative knowledge model for primary source-based instruction stresses the importance of three facets of professional knowledge associated with the act of teaching - expertise in pedagogical strategies, professional practices, and tacit understandings of classroom environments.

**Archival Education**

The adoption of the Common Core State Standards and the development of the Framework for 21st Century Learning indicates a major shift in approaches to teaching and learning. Whereas teachers may have once relied on textbooks and secondary sources to deliver content to students, they are now tasked with the responsibility of training students to master critical reasoning and problem solving skills. The shift from focusing on mastering content knowledge to mastering skills

has created an opportunity for archivists to support teachers in using primary sources to teach students critical-thinking skills, such as the ability to synthesize information across multiple sources and use documentary evidence to support claims. As a result, many archival studies scholars (Robyns, 2001; Pugh, 2005; Krause, M.G., 2010b) have advocated for archivists to step out from behind the processing table to help teachers promote student learning with primary source collections.

In response, several archival repositories, especially those in postsecondary academic settings, have developed outreach programs for reaching students and teachers. For example, in the article "Archives, Undergraduates, and Inquiry-Based Learning: Case Studies from Yale University Library," Rockenbach (2011) presents "aggressive outreach techniques" for reaching faculty members, such as "mining course catalogs and syllabi" in order to "identify courses that have content related to primary sources housed in [their] special collections and archives" (p. 302). As the focus of the article demonstrates archival outreach efforts have mainly occurred in college and university settings with undergraduates and faculty members. Much of the research on the pedagogical benefits of primary sources has focused on promoting the use of primary sources among undergraduates (Robyns, 2001; Duff & Cherry, 2008; Malkmus 2007; Krause, 2010a/b). Consequently, the focus on undergraduates as a user group has led archivists and researchers to concentrate their outreach efforts on university professors and instructional librarians at academic libraries. In addition to searching course catalogs for opportunities to use primary sources, archivists may also present on the scope of their collections at

academic department meetings and notify faculty members of new relevant accessions (Carini, 2009).

However, while outreach to K-12 teachers has received less scholarly and professional attention, a survey of 61 libraries belonging to the Association of Research Libraries (ARL) determined that 52 percent of the special collections libraries surveyed "actively do outreach to K-12 students and teachers" (Visser, p. 315, 2006). The form of outreach varied and included mailings, workshops for teachers, competitions, informational websites, in-school presentations, and collaborations on specific projects. Yet, despite a willingness to collaborate with K-12 teachers, the librarians and archivists surveyed seemed less confident about working with younger students. They cited issues "around behavior, the handling of materials, and access to controversial or adult materials" as concerns (Visser, p. 316, 2006).

Furthermore, in both university and K-12 settings, the outreach efforts have focused on using primary sources to teach history. For instance, Morris, Mykytiuk, and Weiner (2014) interviewed history department faculty about archival research competencies for undergraduate students for the purpose of developing a list of research skills that could be incorporated into course designs. Similarly, much of the literature on using primary sources in K-12 classrooms has focused on historical research skills, which are often referred to as "historical thinking" (Wineburg, 2001). The skills include sourcing, contextualizing, reading closely, using background knowledge, reading the silences, and corroborating (Wineburg, 2010). When researchers and archivists are not outlining historical research skills, they are

often reporting on the implementation of these skills through descriptive accounts

of projects or cases; for example, Hudson (2011), an archival assistant at the Benson

Latin American Collection at the University of Texas at Austin, described her

experience using the Gloria Anzaldúa Papers to develop lesson plans and

presentations for fourth graders. Interestingly, Hudson's experience lesson planning

led her to ask the type of questions about the roles of teachers and archivists in the

integration of primary sources in K-12 instruction that motivated this study. She

asked, "Who takes primary responsibility for lesson planning?" and "What sort of

training will be offered to support archivists and teachers?" (p. 33, 2011). These

questions reflect an understanding that the collaborations between archivists and

teachers requires negotiating and refining professional responsibilities.

The varied nature of the outreach efforts identified by the survey and the

disciplinary focus on history points to a lack of standardization and innovation in

teaching about archives during outreach efforts. Thus, although archivists have

risen to the challenge of serving K-12 teachers, the field has not established a model

for archival education that addresses the unique needs of K-12 teachers who are

consulting archives for profession-related purposes and who are seeking materials

to teach across multiple subjects, including math, science, and English language arts.

More generally, it can be argued that the field as a whole lacks a formalized model

for archival education; as Yakel (2004) explains, "While archivists mention

providing archival researcher education, the content of that education is not

presented in great detail" (p. 61). The lack of a formalized archival education model

has prompted researchers to identify the skills and knowledge needed to

successfully and efficiently use an archive. A survey of the archival education

literature identifies two main approaches to archival education: archival orientation

and archival literacy.

*Archival Orientation*

Visiting an archival repository for the first time can be daunting. Unlike

visiting a library, you cannot simply walk up to a shelf and pull down boxes of

primary sources. In order to protect original records with enduring value, archival

repositories have policies and procedures for conducting research that must be

communicated to users. Most archives offer users a brief orientation session that

explains the policies and procedures for conducting research. Duff and Cherry

(2008) describe common forms of orientation sessions as short one-to-one

orientation interactions that occur with reference archivists during registration,

tours of repositories with discussions of policies and procedures, information

sessions that go over the holdings of specific archives to familiarize researchers

with the available materials (Duff & Cherry, 2008, p. 501-502). Due to time

constraints, the most common orientation session is a short interaction that occurs

during registration when users are applying for a researcher card.  For instance, one

of the largest and most important archives in the United States, the National

Archives in Washington, D.C., requires that new researchers view a 15-20 minute

PowerPoint orientation on their specific policies and procedures. Most of the

sessions occur with an archivist who will typically explain the general guidelines

(e.g. no folders or pens allowed in the reading room), electronic equipment

guidelines (e.g. no camera flash allowed), and procedures for the safe handling of records (e.g. gloves must be worn when handling photographs).

*Archival Literacy*

Archival orientation sessions are useful for understanding the *rules* of researching in a specific archival environment. However, the archival orientation approach has been characterized as "how to do your current project in *this* [emphasis added] archive" and has been criticized for being too site-specific (Yakel, 2004, p. 63). In response, archival and education scholars have advocated for an information literacy approach for understanding primary sources and archival environments (Carini, 2009; Yakel, 2004; Ensminger & Fry, 2012; Gilliland-Swetland, Kafai, & Landis, 1999). The concept of "information literacy" gained prominence when the American Library Association, in response to the emergence of the "Information Age," issued a report urging libraries to reconceptualize library instruction from an orientation-based approach that focused on familiarizing patrons with resources to a literacy-based approach that taught patrons how to find, evaluate, and use information effectively to problem solve (1989). The report boldly stated, "Information literacy is a survival skill in the Information Age" (ALA, 1989, "Opportunities to Develop Information Literacy," para. 1).

Recognizing the importance of archival literacy, archival scholars began discussing a wider-set of skills needed to find, evaluate, and use primary sources successfully. For example, when considering the use of primary sources in elementary school classrooms, Gilliland-Swetland, Kafai, and Landis (1999) defined

136

archival literacy as both the ability to understand the role of records in society and

the capacity to apply evidence and information-seeking skills when working with

primary sources; these skills included the "ability to consider individual documents

in the context of record aggregates, make sense out of unsynthesized or unredacted

material, consider the circumstances of the document's creation (i.e., asking *who,*

*what, when, why, where*, and *how*), analyze the document's form and nature,

determine whether it is an original and which version, and understand its chain of

custody" (p. 92). Thus, archival studies scholars began advocating for the

replacement of "one-shot archival orientation" sessions with a "broader and deeper

curriculum" that stressed information literacy for primary sources (Yakel, 2003, p.

77).


**Scholarly Knowledge Model and Researcher Expertise: Navigating Archival**

**Environments**

In their article "AI: Archival Intelligence and User Expertise," Yakel and Torres

(2003) addressed the need to develop an information literacy model for working

with primary sources. The researchers interviewed twenty-eight "expert users" of

archives and primary sources in order to develop a "model of researcher expertise"

(p. 51).
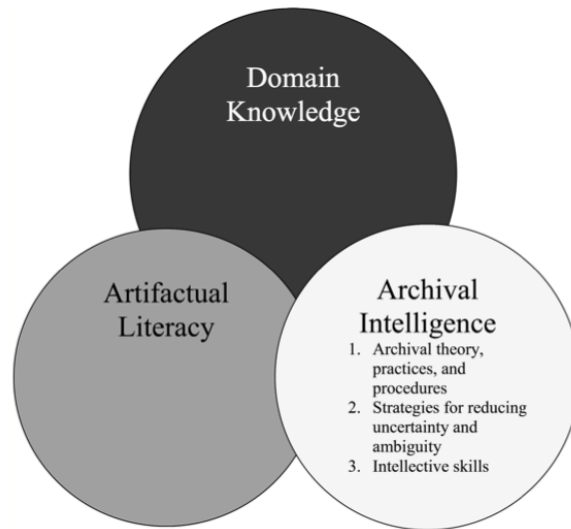
Through an analysis of the interview data, Yakel and Torres determined that there are "three distinct forms of knowledge required to work effectively with primary sources" (p. 51). These three distinct forms of knowledge are described as domain knowledge, artifactual literacy, and archival intelligence. The remainder of this section will describe the existing "model of researcher expertise," analyze how the model applies to teachers as a user group, and describe key differences among scholarly and professional users of archives.

Choosing a "model of researcher expertise" seems like a strange choice for studying the knowledge and skills needed by teachers to effectively use primary sources to teach in K-12 classrooms. First, the model was developed using data from "expert users" whose main scholarly pursuits require the use of primary sources. With few exceptions, teachers are "novice" users of archives and primary sources. Describing teachers as "novice" users does not imply a sense of deficiency. Teachers

138

are novice users because primary sources are one of *many* tools used to perform their job. Thus, visiting an archive and searching for primary sources is not a common experience. Second, researchers become experts in consulting archives because their scholarly pursuits motivate them to uncover a diamond in the rough. Users who research for a living, such as academics, pore over finding aids and boxes hoping to find new primary source materials. Teachers do not research for a living; they teach and have very limited resources to devote to finding primary sources that will work in the classroom. Instead of a scholarly goal, teachers consult archives as part of their professional activities and bring a different set of expertise and skills to the mix, which will be discussed later. Thus, teachers differ from "expert users" both in terms of their level of experience and purpose for consulting archives.

Despite the differences, the model was applied and expanded because it represents an *ideal* user. The model describes the combination of knowledge and skills required to successfully navigate an archive and use primary sources. These are skills that are very much needed by teachers who not only effectively but also efficiently have to find, evaluate, and use primary sources for classroom purposes. Applying the model to a group of teachers identified areas of growth where archivists could provide extra support, such as providing "archival intelligence" training sessions. Furthermore, applying the model to teachers also identified areas of expertise that were not covered by the existing model but were necessary for using primary sources to teach. Teachers have the dual task of learning to find, evaluate and use primary sources and teaching K-12 students to do the same. Using primary sources to impart content knowledge and teach analytical skills requires

additional expertise and skills that are characterized later in this chapter as "professional knowledge."

*Domain Knowledge*

The first form of knowledge outlined by Yakel and Torres (2003) is domain knowledge. The authors describe domain knowledge as "subject knowledge" and "an understanding of the topic being researched" (p. 52) Most of the users interviewed by Yakel and Torres "were pursuing academic research projects in different fields of the social sciences" and possessed subject expertise within those fields (p. 62). The ten teachers I interviewed possessed academic degrees in the humanities and social sciences. However, their academic degrees were limited to the undergraduate level, and they did not necessarily possess "subject expertise" on a topic within their undergraduate majors.

| Undergraduate Majors | Number of Interviewees With Major* |
|---|:---:|
| History | 4 |
| English | 2 |
| Psychology | 2 |
| Political Theory | 1 |
| Music | 1 |
| Philosophy | 1 |
| American Studies | 1 |

Since 80% were elementary school teachers and required to teach multiple subjects, they did not have the instructional or planning time to specialize in a subject area. Jennifer explained, *"*Nothing's ever easy for teachers, but when you're only teaching history, it's easier to do your standards and use primary sources. But then when you're teaching multiple subjects, you're getting pulled, "I gotta do health today 'cause I have to turn in this paper, and I have to do this, I have to do that" (Interview #2, 04:52 mark).

Also, unlike academic researchers, they did not have the luxury of choosing topics based on their personal interests because their school requires them to follow the California Department of Education content standards. These content standards are specific about the topics that must be covered in each subject area. For instance, a fourth grade social science standard states that teachers should cover "the economic, social, and political life in California from the establishment of the Bear Flag Republic through the Mexican-American War, the Gold Rush, and the granting of statehood" (California Content Standard 4.3). As a result of the broad topics, the teachers did not conduct highly focused research in archival environments; instead, they searched online archival collections for materials relating to general social studies topics and historical figures using keywords like the "ranchos of Alta California" and "William Mulholland."

Yet, it is important to note the teachers' lack of expertise in a particular subject does not signal incompetence. As previously explained, teachers visit

141

archives for the professional purpose of locating primary sources that can be used as instructional tools across multiple subjects. What the teachers lacked in subject knowledge, they made up with expertise in the professional domain of teaching. Of the teachers interviewed, more than half (60%) possessed a master's degree in the field education.

| Master's Degrees | Number of Interviewees With Degree |
| --- | --- |
| Curriculum and Instruction | 2 |
| Administration | 1 |
| Reading Education | 1 |
| School Librarianship | 1 |
| General Education | 1 |

**Figure 17: Advanced Degrees Earned by Interviewees**

They were experts at evaluating materials for teaching potential. They were experts at assessing the reading level of correspondence in order to decide whether or not their students would be capable of reading the materials. They possessed a different type of expertise that was necessary for successfully undertaking professional endeavors – an expertise in the domain of curriculum development and instruction. Hence, the role of domain knowledge in effectively finding, evaluating, and using primary sources differs when the user does not consult an archive for scholarly

pursuits. In the case of teachers, extensive domain knowledge was less emphasized

than the ability to combine a general understanding of a topic with professional

knowledge, such as the skill of selecting grade-appropriate materials.

*Artifactual Literacy*

The second form of knowledge outlined by Yakel and Torres (2003) is artifactual

literacy. The authors describe artifactual literacy as "the ability to interpret records

and assess their value as evidence" (Yakel and Torres, p. 52). Expertise in

interpreting and analyzing primary sources is a skill that has become increasingly

important with the adoption of the Common Core State Standards. Previously,

academic standards heavily stressed mastering content. With the adoption of the

new standards, the focus has shifted to mastering analytical skills that will help

students succeed in information-rich environments. For example, a standard in

English language arts for 11th and 12th graders reads, "Integrate information from

diverse sources, both primary and secondary, into a coherent understanding of an

idea or event, noting discrepancies among sources." The standard does not specify

content, like specific texts or events. In the place of content, the standard lists skills

like integrating information and recognizing discrepancies.

The ability to interpret records and assess their evidential value requires an

understanding of record form and context.  As Gilliland-Swetland, Kafai, and Landis

(1999) explain, interpreting a record requires asking questions about "who, what,

when, why, where, and how" a record came into existence (p. 92). Therefore, an

interpretation of a primary source could begin by asking, "*What* am I looking at?"

Interpreting the formal qualities and structure of a primary source necessitates an understanding of the "nature and syntax of a variety of document types and sources including written, printed, visual, and financial" (Carini, 2009, p. 48). During the interviews, each teacher was asked to describe a typical lesson using primary sources. In response, Pamela offered to model a lesson on Manifest Destiny using a facsimile of the 1872 painting titled *American Progress* by John Gast:

> Well, we start with a question and we talk about which groups do you
> see in this painting. We just say, "What do you see?" They should
> notice Native Americans in the background…the miners going there to
> find gold. The…I don't know, whatever else they see (Interview #8,
> 4:09 mark).

Asking students to identify "what they see" was the most common type of question asked by teachers when having students interpret a primary source. Questions about visual identifications were the most common because 100% of the teachers mentioned using pictures and other visual resources like maps to teach lessons. Although teachers frequently ask students to describe what they saw, they are referring to the content or what is being represented in the visual resource (e.g. Native Americans). Students were rarely asked to identify the formal qualities of records, such as the text structure of printed materials, or the identification of the type of record, such as a facsimile of a painting.

In addition to interpreting formal qualities, teachers and students should analyze the contextual information of primary sources by asking questions like, "Where did this primary source originate? Who created it? Why did they create it?

When did they create it?" In archival terms, contextual information about a primary sources is described by the term "provenance," which includes information about the "context of their creation" and "their original purpose and function" (Hensen, 1993, p. 67). The archival principle of provenance prompts teachers and students to investigate the creation of a primary source and practice the information literacy skill of evaluating sources. Instead of merely accepting the primary source as a factual representation of the past, the archival principle of provenance encourages teachers and students to think critically about *whose* past is being represented.

Identifying the contextual elements of primary sources allows users to assess their value as evidence by ensuring that the record is reliable and authentic. Reliability refers to a records ability to stand for the "facts to which it attests" and thus refers to the "truth-value" of a "record as a statement of facts" (MacNeil, 2000, p. 39). Assessing the reliability of a primary source requires considering the creator of the record and their purpose and procedures for creating the record. Teachers are familiar with the practice of evaluating the "truth-value" of sources by considering the authority of the creator. When evaluating a primary source, only 20% stated they consider the reliability of the record:

> I always start with a Library of Congress...that to me is my most
> reputable source...I usually Google search and then sift through and
> look for a reputable source...I'm not using Wikipedia... So if I'm
> looking up Keith Haring, I'm gonna go to the Brooklyn Museum
> because I know that that's gonna have better authenticated sources.

I'm not gonna use a 12th grader's science report or art report, which

is what a lot of stuff is up there (Interview #1, 29:17 mark).

As the quote above demonstrates, the teacher who spoke the most about

evaluating the reliability of primary sources spoke in terms of the reputation

of the institution providing access to the record and valued "reputable"

institutions. Thus the reliability of a source was tied to the reputation of the

current custodian of the primary source (e.g. Brooklyn Museum) and not

necessarily to the trustworthiness of the original creator.

Furthermore, the teacher described favoring "authenticated sources," which

in archival terms means a record that was "preserved in official custody" and is "free

from suspicion of having been tampered with" (Jenkinson, 1922, p. 12-13). The act

of "tampering" or altering a primary source is not always done with malicious

intent. For example, somewhere along the chain of custody a record may have

become lost or damaged during transfer from institution to another. As previously

mentioned, 100% of the teachers interviewed relied on access to digitized primary

sources through online archives. Consequently, the most relevant examples of

alteration and loss of authenticity for teachers are those that result from accidents

in digitization processes. For instance, a letter may be altered from its original

version and rendered incomplete if an archivist accidentally misses a page during

the digitization process. Yet, although they rely heavily on digitized primary sources,

none of the teachers expressed a concern about the possibility of records becoming

altered through the creation of digital representations. In fact, only two of the

teachers, acknowledged that they were working with surrogates or digital

146

representations of originals. Elizabeth stated, "Sometimes I'll get an actual primary source and sometimes I get a model of it" (Interview #10, 16:05 mark). Another teacher provided a more nuanced understanding of the difference between a facsimile and an original:

> I'm using a facsimile of a primary source. In our purposes, we don't tell the kids this isn't a true primary source. When I show a picture of the Wright Flyer taking us for his flight, it's a facsimile...it is a representation of the original photograph or a map, it's not the real picture. It's a facsimile (Interview #1, 21:06 mark).

Possessing the ability to interpret primary sources by analyzing the record form and context is essential to assessing their value as evidence. A greater understanding of the unique characteristics of record types and their corresponding contextual information provides teachers with a strong foundation to build lessons upon. Once a primary source has been deemed reliable and authentic, then teachers can design lessons that foster critical thinking skills by asking deeper questions about the nature of the record and the evidence it provides. For example, an teacher can model the process of evaluation, the highest cognitive level of the Bloom's taxonomy, by questioning the neutrality of a primary source based on knowledge of its creator.

As the data presented reveals, the majority of the teachers struggled to think critically about the formal qualities and contextual information of the primary sources they used to teach. However, an important factor to consider is the level of experience teachers have with interpreting and evaluating primary sources as

evidence. Before the Common Core State Standards were adopted, teachers were

not encouraged to stray from the state adopted textbooks. Eric describes the

overreliance on textbooks and the difficulty with changing established educational

practices:

> Well a lot of teachers were trained with textbooks and Open Court[12]
>
> and things like that, where they were told this is the progression of
>
> how you teach it, and here is the books you use, and these are the
>
> questions you ask, and now it's more open ended, so it's hard for them
>
> [to switch to teaching with primary sources] (Interview #1, 20:31
>
> mark)

The comment identifies an area where teachers need further support from

archivists who can provide outreach in the form of training workshops and

professional development opportunities that focus on the skills necessary for

interpreting and assessing primary sources. Teachers need to master these

skills themselves before they can be expected to effectively teach with

primary sources.


*Archival Intelligence*

According to Yakel and Torres (2003), inexperienced users who have not

been trained to undertake historical research may lack "archival intelligence" and

may struggle to successfully find, evaluate, and use primary sources in an archival

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[12] Open Court Reading is a reading instruction program published by Science Research
Associates/McGraw-Hill Education and adopted by California in 2002 as the core English
language arts series.

environment. As previously defined, archival intelligence refers to "knowledge about the environment in which the search for primary sources is being conducted, in this case, the archives" (Yakel & Torres, 2003, p. 52). Understanding an archival environment would include having knowledge of "archival principles, practices, and institutions, such as the reasons underlying archival rules and procedures, how to develop search strategies to explore research questions, and an understanding of the relationship between primary sources and their surrogates" (Yakel & Torres, 2003, p. 52).

When assessing the teachers' "archival intelligence," I began by asking a basic question, "How would you define a primary source?" Below is a sample of the responses to the question:

A primary source is an original document, or creative work, or artifact (Interview #1, 20:59 mark).

It's an actual document or article or artifact, or something that is current to the time it was created. For example, like the Constitution or a statue from Ancient Greece, or a letter, or a diary… it's something that was created in the time period (Interview #2, 05:34 mark)

An original account or representation of a historical event, or it can be even a contemporary event. Basically, not removed from the original source. (Interview #7, 28:52 mark).

A source written in, or not necessarily written, a source from the time period or person that you are studying or that you're researching (Interview #8, mark 03:18).

I use the Library of Congress definition, which is…anything that was produced by somebody who witnessed, first-hand, a historical event, and it can be anything, from a diary, to a photograph, to a drawing, to a song…to a play, anything that was written that was based on first-hand experience with a historical event (Interview #9, mark 06:12).

In general, the definitions they provided were similar. The teachers interviewed commonly described primary sources as original documents or artifacts created during the time period under investigation. The answers also revealed that the teachers were aware of the different types of primary sources (photograph, map, journal, etc.) available. However, only 20% of the interviewees mentioned the use of contemporary primary sources when studying a current event or process. Most of the interviewees viewed primary sources as "historical" documentation of past societies, such as "Ancient Greece."

The definition provided closely mirrors the definition offered by the Library of Congress (2011c), which describes primary sources as "original documents and objects which were created at the time under study." The similarities in responses are not a coincidence. As discussed in the participant selection section, these teachers were chosen through initial

150

contacts from a private education foundation. Therefore, the teachers

interviewed represent a highly motivated group of teachers who have

invested, albeit to different degrees, resources in learning to effectively use

primary sources to teach. Each of the participants had either attended the

"Teaching with Primary Sources" summer workshop at the Library of

Congress or had been trained by someone who had participated. In an

attempt to create a definitional baseline, the teachers who received the

training had been taught to define primary sources using the Library of

Congress definition. Their responses demonstrate the success of the

"Teaching with Primary Sources" program's efforts. Each of the teachers was

able to articulate a definition for primary sources, even if they struggled to

see them as more than representations of the past.

As the focus shifted from primary sources as objects to a larger

discussion on archival principles, practices, and institutions, the teachers

began to provide less confident and articulate responses, signaling a lack of

"archival intelligence." As the opening vignette reveals, teachers are not

familiar with archival representation and organization, such as finding aids

and container lists. Since teachers mainly access digitized primary sources

through portals like the Library of Congress Memory Project, they receive

decontextualized item-level results. As part of the interview, I asked teachers

to show me their "favorite resource" for primary sources. Two teachers who

work at the same school showed me a copy of *History Alive!*, a social studies

teaching textbook published by the Teachers' Curriculum Institute that

provides teachers with facsimiles of primary sources and interactive lessons. These two teachers were the only interviewees who owned a copy of *History Alive!,* but the textbook was mentioned by other interviewees as a resource on their wish list. The reason behind the "wish list" status of the textbook is the $350 average price for a **single** teacher subscription and corresponding materials.

The rest of teachers (80%) navigated to an online archival portal and demonstrated searching for primary sources. Due to the association with the "Teaching with Primary Sources" program, many of the teachers navigated to the Library of Congress "Digital Collections" portal.  Again, the teachers' familiarity with the Library of Congress resource demonstrates the success of the program's goal of making teachers aware of available resources. On the other hand, the responses also exhibited the teachers' reluctance to stray from the resources they are already know and use. Although the Library of Congress "Digital Collections" portal provides access to finding aids, 100% of the teachers interviewed demonstrated searching for primary sources either by using the text box to conduct keyword searches or by browsing through the "Featured Digital Collections." Not a single teacher accessed the available finding aids listed under "More Resources" on the same page.
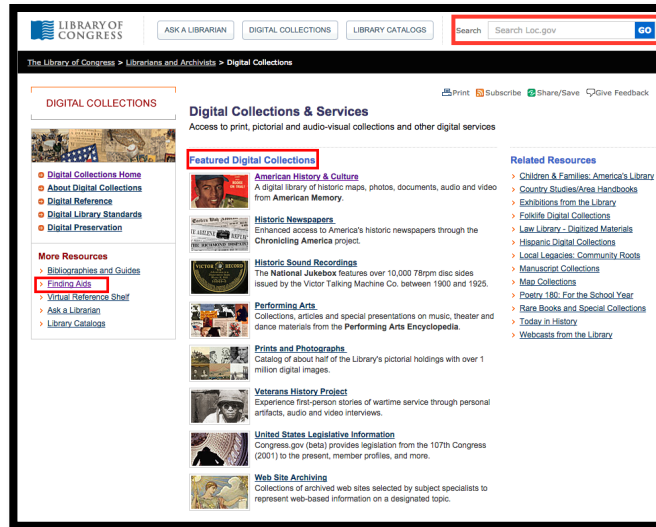
**Figure 18: Library of Congress "Digital Collections" Portal**

As a result, teachers usually work with decontextualized archival items and rarely view the entire collection represented as a whole through a finding aid. Without accessing the finding aid and viewing the intellectual arrangement, teachers do not have an understanding of the relationship between the selected primary source and the other materials in the same fonds. Teaching with decontextualized primary sources risks presenting students with incorrect interpretations and representations of archival materials, especially when dealing with the records of historical figures who often held evolving views on issues. A prime example is Martin Luther King Jr.'s evolving views on nonviolence. He did not begin his civil rights activism as a practioner of nonviolence; yet, some of the most common primary sources used when teaching about the civil rights movement are pieces of correspondence where Martin Luther King Jr. discusses the principles of nonviolence. The correspondence is inarguably moving and makes a lasting

impression on students; however, it presents a narrow view of Martin Luther

King Jr.'s organizing tactics and the multiple activist strategies used

throughout the civil rights movement.

Considering the dependence on preselected primary source sets like

*History Alive!* and digitized primary sources, it is unsurprising that few

teachers visit archival institutions and are aware of the policies and practices

of archives.  One teacher described contacting an archive for a high-

resolution facsimile of a photograph she had found online; she was shocked

to learn that what she thought was a standard sized photograph was actually

a large print that would cost $5.00 per square foot to be duplicated. Even

after justifying the expense, she decided not to order the facsimile because

the duplication services department informed her it would take up to four

weeks to process the request which was after the scheduled lesson.

Along with being unaware of duplication costs and processing time, some of the

teachers interviewed were surprised to learn about the non-circulating nature of

archival materials and the need to apply for a researcher badge when accessing

primary sources.

Yet, despite the restrictive policies of archival institutions, three teachers did

have experience visiting an archive or museum with archival materials. During the

process of renting a "Community Stories Kit"[13] from the Autry National Center,

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[13] Community Stories Kits are chests filled with lesson plans and replicas for teaching
specific historical topics. For instance, the gold rush kit contains excerpts from "Dame
Shirley's" (Louise Amelia Knapp Smith Clappe) letters and model of a gold panning kit.

Crystal described forming a relationship with an archivist when the museum

teacher could not answer his questions about primary sources documenting the role

of woman in Chumash communities. When she finally visited the museum, she made

an appointment with the archivist she had been conversing with over email and was

surprised when she presented her with primary sources related to the Chumash.

She had not been aware that the archivist had been conducting an archival reference

interview when she had asked questions about the lessons she planned to teach and

the types of materials her students might be interested in. She described the

encounter in the following way:

> So I know what I want. I think that's the big thing because before I
>
> didn't know what I wanted, and so it became... I think I needed some
>
> archiver [*sic*] to become more of an investigator for me, like "Hey, you
>
> want this, this, this?" And then I'll say, "Yes, this." And then it went
>
> deeper, it's like "Okay, there's more." I've gone to actually... This year, I
>
> went to the Fowler Museum and I met somebody there, which is really
>
> cool (Interview #4, 30:42 mark).

Her description of the meeting reveals both the need for archivists to support

teachers who are searching for primary sources and the effects of that support on

teachers who have experienced a fruitful reference encounter. Her positive

experience with one archivist motivated her and made her feel comfortable enough

to visit another institution and seek help. Instead of feeling overwhelmed by

archival policies and practices, the teacher walked away with a sense that

collaborating with archivists could be "really cool."

It is not lost on me that this teacher's experience was ideal – the archivist was eager to help and the teacher was able to successfully communicate his needs. Her story is not the norm. After all, 70% of the teachers stated that they had never visited a physical archive. Their encounters with archival materials occur in an online context or through the use of pre-selected primary source sets. Subsequently, most of the teachers I interviewed didn't have experience searching in physical archives.  As Yakel (2004) explains, "instructors are not concerned about interacting with the archives or manuscripts collections as a whole" and therefore they do not learn "generalized research techniques" for working with archival collections (p. 62). They had never used a finding aid to call up boxes from different series and subseries. They had never thumbed through folders or held a photograph with a white glove.

**Chapter VI:**

**Valuing Professional Knowledge: Toward a Collaborative Knowledge Model**

**for Primary Source-Based Instruction**

When I began this research, I planned to analyze the interview and participant observation data using the "model of researcher expertise" developed by Yakel and Torres (2003) in order to identify "problem areas" relating to domain knowledge, artifactual literacy, and archival intelligence. Evidence of a "problem" was conceived as an instance where teachers failed to make use of one of the three forms of knowledge outlined by the model when consulting an archive. The goal was to apply the Yakel and Torres model, identify the problem areas, and develop suggestions for archival education that would address the needs of the teachers.

The application of the "model of researcher expertise" did uncover several differences in the way that teachers approach archival research; however, instead of viewing the teachers' limitations in conducting archival research simply as "problems," I began to recognize how the established notions of "researcher expertise" represented by the model failed to adequately describe professional users who do not conduct research for scholarly purposes and who usually do not consult physical archives or archivists. While collecting data, I repeatedly witnessed teachers use their knowledge of pedagogical strategies, professional practices, and classroom environments to make decisions about the integration of primary sources into classroom instruction. Thus, the main limitation of applying the Yakel and Torres model to teachers was that it was not developed to describe professional

users and therefore only described the forms of knowledge needed to navigate an archive for scholarly purposes. In response, I propose a collaborative knowledge model for primary source-based instruction that stresses the importance of teacher expertise and focuses on three key facets of professional knowledge: pedagogical strategies, professional practices, and tacit understandings of classroom environments.

By introducing the role of professional knowledge, the collaborative knowledge model builds upon the Yakel and Torres model of "researcher expertise" and creates a new knowledge base that better describes the various forms of knowledge needed by teachers who are integrating primary sources into classroom instruction. For the purpose of this study, a model is defined as an "explicit interpretation of one's understanding of a situation, or merely of one's ideas about that situation" and a "description of entities and the relationships between them" (Wilson, 1984, p. 8). The collaborative knowledge model I am proposing represents a descriptive interpretation of the multiple forms of scholarly and professional knowledge necessary for integrating primary sources into classroom instruction.

Additionally, as the definition provided explains, a model is an *interpretation* of *one's* understanding of a situation; thus, I do not present the collaborative knowledge model as the *only* way to describe the forms of knowledge needed to find, evaluate, use primary sources in K-12 classrooms.  The proposed model is an interpretation of the process grounded in the study's data and an analysis of the knowledge practices and professional values of the teachers I studied.

Furthermore, the collaborative knowledge model for primary source-based instruction does not only represent researcher expertise; it is simultaneously a model that describes the expertise needed by teachers who play the roles of "teacher as researcher" and "researcher as teacher." Since integrating primary sources requires that teachers find, evaluate, and teach with primary sources, the model brings together the knowledge you need to successfully navigate an archival environment and the knowledge you need to productively teach with primary sources, resulting in a new knowledge model that describes the full range of expertise needed by teachers who are attempting to integrate primary sources into classroom instruction.

Unlike previous user studies that focus on historians and genealogists (Morris, Mykytiuk, & Weiner, 2014; Tucker, 2006; Yakel & Torres, 2007), the collaborative knowledge model I propose focuses on professional users consulting archives for non-scholarly activities – K-12 teachers consulting archives for the purpose of integrating primary sources into classroom instruction. Additionally, a considerable amount of the previous archival studies research on the use of primary sources in classrooms has been limited to descriptive accounts of how particular archives have dealt with the issue of archival outreach to K-12 students; Carini (2009) describes these descriptive accounts as this is 'how we do it in our shop' style of article(s)" (p. 45). My research diversifies the scholarly research on archival users by using a model building approach to study professional users and the non-scholarly use of archival materials.

Additionally, although the collaborative knowledge model builds upon the Yakel and Torres model, it also departs from their model in two significant ways. First, the proposed knowledge model places professional knowledge at the center (instead of scholarly knowledge) and describes its main role in guiding teachers through the process of integrating primary sources into classroom instruction. Second, while Yakel and Torres identified "three distinct forms of knowledge required to work effectively with primary sources," they did not describe possible relationships between each form of knowledge (p. 52). The proposed knowledge model positions scholarly and professional knowledge in a collaborative relationship and contends that the forms of knowledge create two types of expertise – researcher and teacher – that are interdependent and necessary for integrating primary sources into classroom instruction.

**Defining Professional Knowledge**

Professional knowledge is defined as the "body of knowledge and skills which is needed in order to function successfully in a particular profession" (Tamir, p. 263, 1991). Professional knowledge is a form of general knowledge that relates to those working in a vocation that requires specialized educational training, including architects, accountants, nurses, and lawyers. The collaborative knowledge model recognizes that many types of professionals consult archives for non-scholarly purposes and contends that professional knowledge heavily structures their research activities. Although professionals rely on forms of scholarly knowledge to navigate archival environments, they are ultimately conducting research through

the lens of a professional. Professional knowledge serves as a frame of reference that greatly affects how professionals find, evaluate, and use primary sources.

For instance, when an architect navigates an archival environment, she is doing so with a professional endeavor in mind. She must be able to evaluate a primary source using well-recognized techniques, but her evaluation will be colored by the professional goal of finding evidence that answers a professional question or fulfills a professional need. Thus, when designing the collaborative knowledge model, I illustrated the importance of professional knowledge by placing it at the center of the model and by making it larger in size.
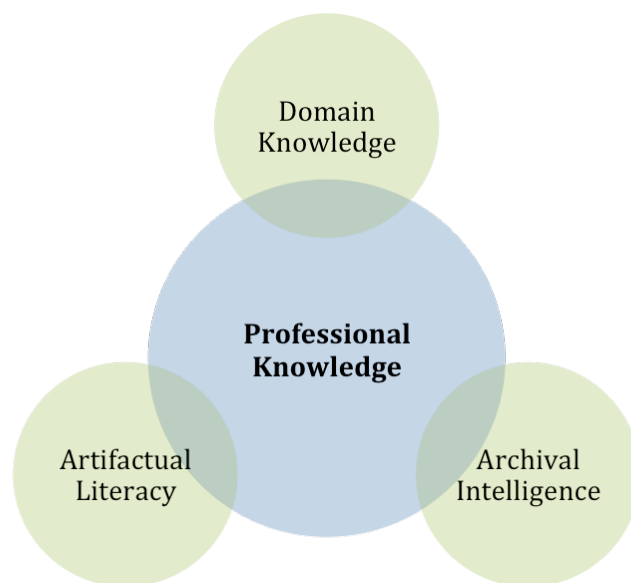


**Figure 19: Collaborative Knowledge Model for Professionals**

The popularity of accountability measures has extended beyond standardized student testing to the professionalization of teachers. In order to ensure that skilled teachers are placed in classrooms, teachers must enroll in an accredited teacher education program and earn a professional certification. Professional teacher

certifications imply that there exists a "knowledge base for teaching" which represents "a codified or codifiable aggregation of knowledge, skill, and understanding…" that can be mastered and demonstrated (Shulman, 1987, p. 4). There has been much scholarly debate about which particular knowledge and skills create a competent[14] practitioner (Dewey, 1938; Shulman, 1987; Snell & Swanson, 2000; Darling-Hammond, 2000). As an example of the multifarious nature of professional knowledge, Shulman (1987) created a list of knowledge and skills needed to be a successful teacher; these forms of knowledge include content knowledge, general pedagogical knowledge, curriculum knowledge, pedagogical content knowledge, knowledge of learners, knowledge of educational contexts, knowledge of educational ends, purposes, and values (p. 8).

**Collaborative Knowledge Model for Primary Source-Based Instruction**

While there are many interpretations of what being a "competent" teacher entails, it is widely agreed upon that being a successful educational practitioner requires multiple forms of knowledge, some of which can be taught and others that must be acquired through experience. Since the research centers on teachers, I have chosen three facets of professional knowledge that are unique to teachers:

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[14] The adjective "competent" is used in literature from the field of education to describe teachers who master professional teaching competencies or skills in a particular grade level or subject area. For an example, see the California Department of Education's "California Early Childhood Educator Competencies": http://www.cde.ca.gov/sp/cd/re/documents/ececompetencies2011.pdf

pedagogical strategies, professional practices, and tacit understandings of classroom environments.
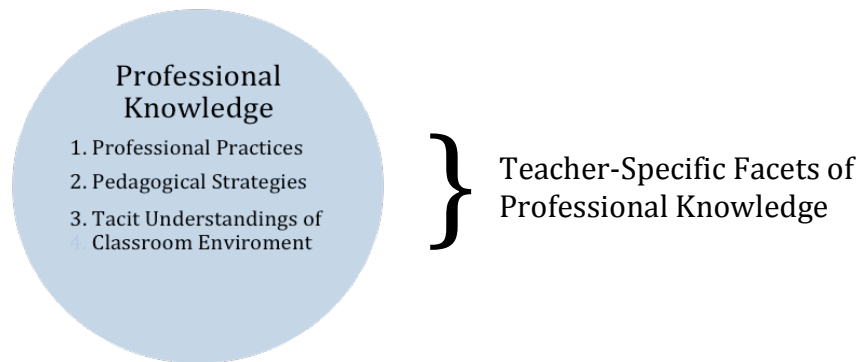


**Figure 20: Professional Knowledge Associated with Teaching Occupation**

However, the purpose of the expanded collaborative knowledge model is not to create a general "model of teacher expertise" and it does not represent the expertise needed to be a competent teacher in all contexts. Instead, the model represents the expertise needed to be a competent teacher when undertaking the specific professional endeavor of successfully integrating primary sources into classroom instruction. Thus, although professional knowledge is a form of general knowledge that is used by various professionals who consult archives, this chapter focuses on the specific facets of professional knowledge that are relevant to teachers and specifically those who are finding relevant primary sources, evaluating them for evidence, using them to teach, and assessing their impact on student engagement and learning.
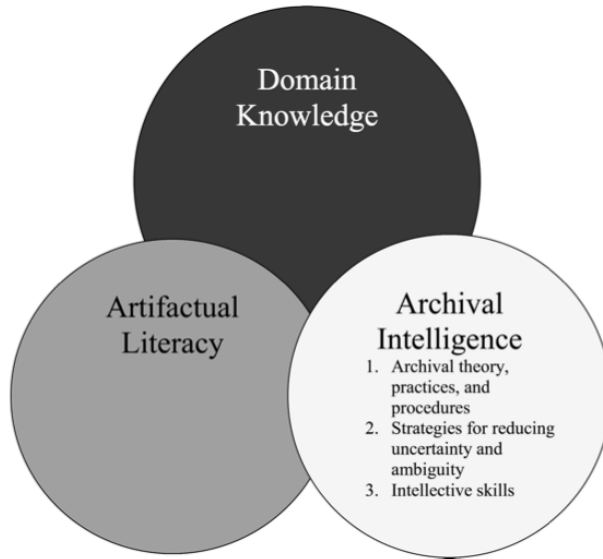
**Figure 21: Model of Researcher Expertise**
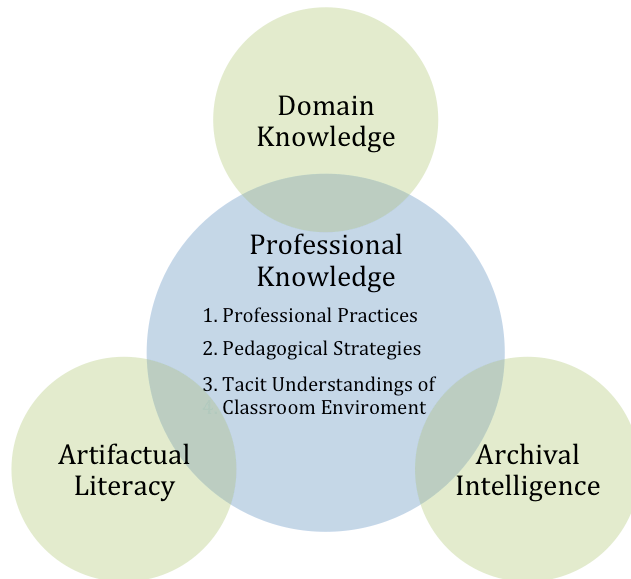


**Figure 22: Collaborative Knowledge Model for Primary Source-Based Instruction**

164

**Facets of Professional Teaching Knowledge**

*Professional Practices*

The first facet of professional knowledge is an understanding of the standard policies and procedures for "how things are done" in the teaching profession. A relevant question dealing with professional practices is "*What* am I *required* to teach?" Thus, knowledge of professional practices includes being well-versed in the academic standards governing what teachers should teach, such as the Common Core State Standards. Understanding "how things are done" occurs through a familiarity with explicitly stated and implicitly understood professional practices.

An example of explicitly stated professional practices are outlined in the California Department of Education's "Standards for the Teaching Profession" which details the professional roles and responsibilities for teachers who teach in public school classrooms. Standardized professional practices, especially academic standards, are omnipresent in classrooms and the practice of teaching with primary sources is no exception. Jennifer, who has twenty-six years of experience, has watched standards come and go described the pervasiveness of academic standards and their effect on teaching with primary sources:

> The Library of Congress put together all these great lesson plans, but
> now somebody has to start looking at lesson plans that are more
> supportive of the Common Core...the standards are so important...a
> lot of teachers complain, "Oh the standards, the standards, standards."
> Yes, every time you teach your lesson...somebody walks in and they

wanna know what standard are you teaching. There really is that

focus on standards. They're here to stay. So now, what can we do to

support those standards that are gonna require teachers to look at

primary sources? First I need to know what are primary sources?

How are they different from secondary sources? And then the next

thing is where can I find these sources that are gonna support my

curriculum? My grade level? And then, how do I do this? (Interview

#2, 32:53 mark)

The quote reveals that although teachers are aware that Common Core State

Standards "are here to stay," they do not necessarily feel well-prepared to

implement them. The teacher expresses needing further training in the

fundamentals of teaching with primary sources, such as understanding the

differences between secondary and primary sources and knowing where to

find primary sources.

Other professional practices are not are not explicitly stated in the form of

standards and implicitly understood. For instance, the sharing of lesson plans and

instructional materials between experienced and inexperienced teachers is a

common practice but it is rarely mandated or explicitly stated by administrators.

The practice stems for the tradition of pairing new and inexperienced teachers with

"master" or "mentor" teachers who provide guidance.  Knowledge of professional

practices is important when teaching with primary sources because teachers need

to be familiar with the academic standards that require the use of primary sources

and the particular skills they are responsible for teaching.

*Pedagogical Strategies*

The second facet of professional knowledge is an understanding of effective pedagogical strategies for teaching with primary sources. After learning *what* should be taught using primary sources, teachers ought to ask, "*How* do I teach with primary sources?" When teaching with primary sources, teachers should consider the pedagogical strategies that would best promote artifactual literacy and other analytical skills. For instance, since primary sources require interpretation, a teacher may demonstrate how to assess a primary source for evidence by "thinking out loud" and modeling the types of questions a student could ask, such as "I wonder if I can identify the date and creator of this primary source using textual evidence from the source itself?" Eric described his consideration of pedagogical strategies and use of modeling:

I think children learn by looking at things, right? If you're teaching somebody how to write a letter, you show them the letter format and you write a letter, you model it in front of them. Also you could use a primary source and show what a letter looks like and identify the parts. So it's the use of modeling but with an actual letter – an actual primary source (Interview #1, 26:02 mark).

Of the three facets of professional knowledge discussed in this chapter, the development of pedagogical strategies has received the most scholarly attention. Educational researchers have recognized that moving away from secondary sources and teaching with primary sources requires a set of analytical and pedagogical

167

strategies that teachers may not be familiar with. As a result, educational researchers have developed "frameworks" and "best practices" for teaching with primary sources. For example, Ensminger and Fry (2012) developed the conceptual framework for Primary Source-Based Instructional Practices (PSBIP) that includes six instructional practices: illustration, association, utilization, examination, incorporation, and interpretation. The PSBIP framework is grounded in Bloom's (1956) theory of cognitive domains and Anderson and Krathwohl's (2001) revised taxonomy of cognitive processing. Regardless of the specific instructional practices used, teachers should possess the ability to select the pedagogical strategies that would best allow them to use and adapt primary sources as instructional tools.

*Knowledge of Classroom Environments*

The third facet of professional knowledge is an understanding of the "*situation* in which [teachers] must teach" which includes a "knowledge of the actual classroom, school, and community in terms of its ethos, demands, and constraints" (Maynard & Furlong, 1995, p. 14). Knowledge of the classroom environment is a form of situational and contextual knowledge that is acquired through experiences working in a specific environment and community. Understanding the "situation in which [they] must teach" includes being aware of the different elements that contribute to the formation of a classroom environment, such as the students, instructional schedule, and physical layout. Understanding a classroom environment or being able to "read a classroom" is a form of tacit knowledge that is further developed with experiences, and the tacit nature meant that the teachers did not

discuss or verbalize what they implicitly knew in the interviews. As Shulman (1987) explains, "Practioners simply know a great deal that they have never even tried to articulate" (p. 12).

Even without articulation, the teachers' knowledge of what would work in their classrooms was evident throughout my observations. They exhibited knowledge of students that surpassed their documented academic records. For example, when planning a small group activity that would require students to use primary sources, mainly facsimiles of historical photographs, to represent the lives of important figures, a teacher grouped students based on their documented academic record (struggling students paired with high-achieving students) and other experience-based knowledge he had of the students' interests, behaviors, and relationships. He didn't group two male students together because they had experienced a conflict in the library. He grouped two students together to study Georgia O'Keeffe because he knew they were "artistic." By the end, the teacher had students grouped by factors that were apparent to him but not to someone who had did not have contextual knowledge of the classroom. After watching the second grade students work together, it was apparent that his groupings had resulted in successful collages using facsimiles of historical photographs and other realia.

Ultimately, teachers used their knowledge of the classroom environment to make moment-by-moment decisions about their teaching that significantly affected what and how the students learned using primary sources.

## Knowledge Relationships

The description of the three facets of professional knowledge that are unique to teachers - pedagogical strategies, professional practices, and tacit understandings of classroom environments - adds specificity to the general concept of "professional knowledge" and contextualizes how professional knowledge shapes the decisions of teachers who are integrating primary sources into classroom instruction. In addition to representing and describing the importance of professional knowledge, the proposed knowledge model positions scholarly and professional knowledge in a collaborative relationship and contends that the forms of knowledge create two

types of expertise – researcher and teacher – that are interdependent and necessary for integrating primary sources into classroom instruction.

*Collaborative Relationship*

Although the proposed knowledge model places professional knowledge at the center, the forms of scholarly and professional knowledge overlap in order to illustrate that each form of knowledge does not work in isolation. Scholarly and professional forms of knowledge interact in a collaborative relationship and create a blended way of knowing and understanding the process of integrating primary sources into classroom instruction. The particular intersections of professional and scholarly knowledge create new types of knowledge that are unique to the contexts and professions under study.

Professional
Knowledge

1. Pedagogigcal Strategies
2. Professional Practices
3. Tacit Understandings of
   Classroom Enviroment

Artifactual
Literacy
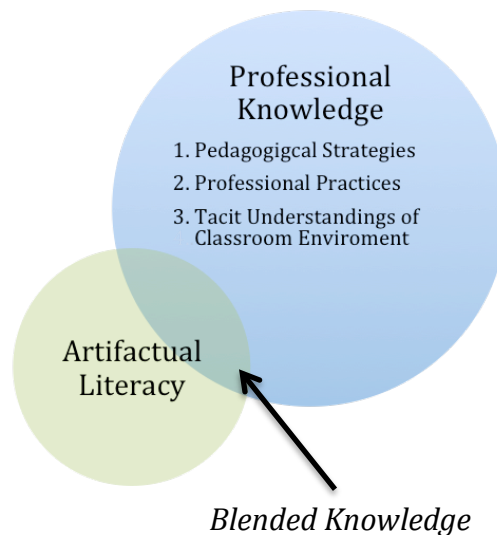
*Blended Knowledge*

**Figure 24: Knowledge Intersections**

171

For example, when teachers combine their scholarly knowledge of artifactual

literacy with their professional knowledge of pedagogical strategies, they develop a

blended way of understanding the process of evaluating primary sources. They are

concurrently evaluating a primary source based on its evidential *and* pedagogical

value. As teachers undergo the process of interpreting primary sources and

assessing their value as evidence, they are considering whether or not the primary

sources offer the opportunity to model the interpretive process and whether the

evidence provided by the primary source sufficiently addresses an academic topic in

a way that can be grasped and learned by students.
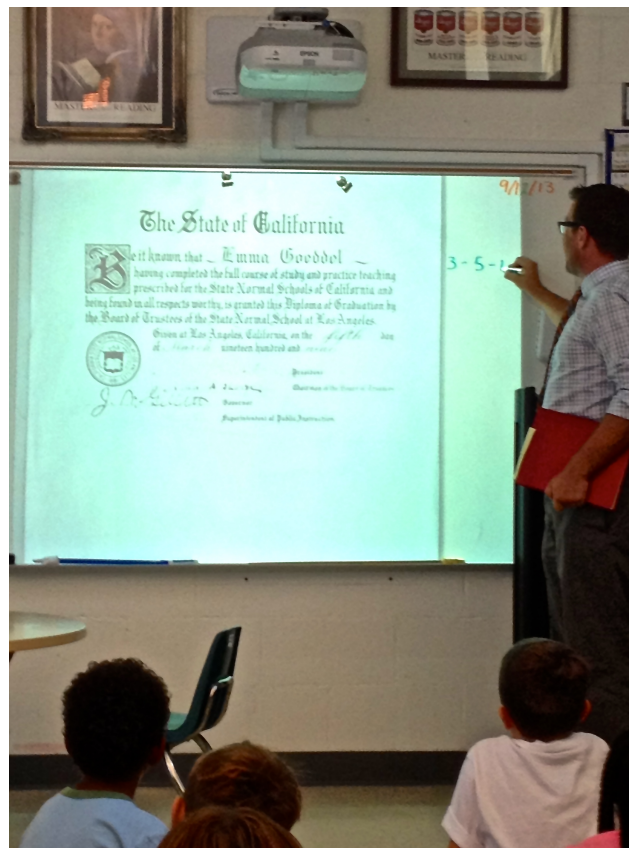


**Figure 25: Teacher modeling how to interpret a primary source.**

**[Photo taken from school under observation].**

In the lesson portrayed above, the teacher searched for a primary source that could serve as a representation of a diploma to teach students about the formal qualities of official documents. When assessing primary sources, he used his own artifactual literacy skills to search for specific formal qualities common to official documents, including emblems that authenticate documents (seals), signatures, and dates. Moreover, once he found a diploma with the desired artifactual qualities, he also assessed whether or not the seal was prominent enough to be used as an exemplar in a lesson and whether or not the diploma clearly stated the name of a university or college that the students recognized in order to help them comprehend that a diploma is an official document that certifies an academic degree.

In this case, the teacher chose a diploma that belonged to his grandmother who graduated from the California State Normal School and used additional pedagogical strategies such having the students make personal connections with the diploma based on their prior knowledge of the teacher's grandmother (she comes up frequently in lessons) and the history of the educational institution (the California State Normal School eventually became UCLA). Once he engaged the students with personal connections, he modeled how to interpret official documents and assess their authenticity. For instance, in the photograph above, he is modeling how to identify the creation date of a primary source. Since the students were second and third graders, he also used the lesson as an opportunity to discuss how dates can vary in format (e.g. March 10, 1942 versus 1942-03-10). Therefore, the teacher combined the ability to assess a primary source for evidence with the ability

173

to assess its pedagogical value in order to carefully select a primary source that could be used to teach a variety of skills and content.

*Interdependent Relationship*

When scholarly and professional forms of knowledge are combined they bring together two types of expertise – research and teacher. The relationship between researcher and teacher expertise is described as interdependent because the absence of one results in an inadequate model for effectively finding, evaluating, and using primary sources to teach. A person with only researcher expertise would be capable of finding primary sources in an archive, but they would not possess the professional knowledge needed to develop suitable lesson plans. Similarly, a person with only teacher expertise would be capable of choosing engaging pedagogical strategies for teaching with primary sources, but they would lack the ability to navigate an archival environment when searching for primary sources to incorporate. Thus, in addition to describing a collaborative knowledge base, the proposed model asserts that researcher and teacher expertise are interdependent and that teachers rely on both forms of expertise when integrating primary sources into classroom instruction.
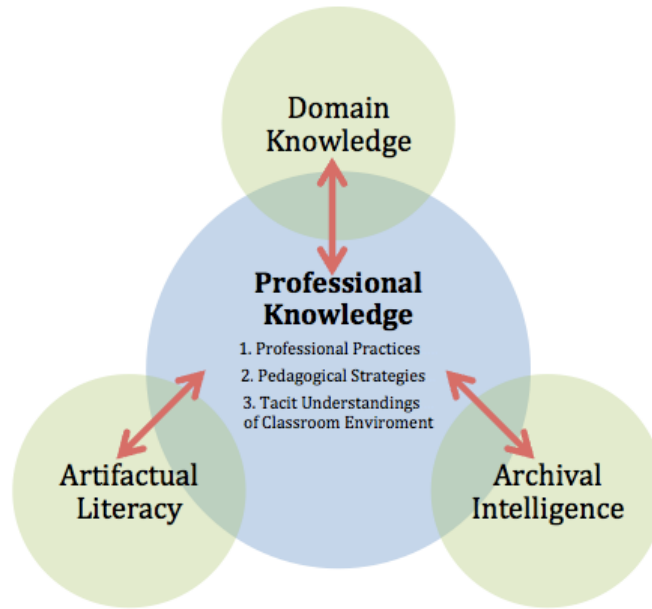
**Figure 26: Professional and Scholarly Knowledge Interdependence**

During my observation of an "Inquiry Committee" meeting, I watched six teachers discuss the process of integrating primary sources into classroom instruction through a group exercise. The meeting began with one teacher asking, "What do we need to know if we want to use primary sources to promote inquiry-based learning in our classroom?" Her focus on what they need to "know" indicated an understanding of the importance of different forms of knowledge in approaching the professional situation. After some discussion, the teachers settled on four main questions:

1. Why should we use them?

2. What do I need?

3. Where do I get them?

4. How do I use them?

Each of the four questions was written on a large piece of yellow chart paper and stuck on the wall. Instead of beginning a unified group discussion, the teachers decided to contribute their responses to the questions by walking around the room and stopping at the questions they felt they could answer.

**Figure 27: Inquiry Meeting Responses**

**[Photo taken from school under observation]**

For thirty minutes, I observed six teachers fill out responses to the questions on yellow chart paper using colored markers. They bumped into each other. They excitedly shouted out suggestions to others across the room. They contributed new answers and added to existing ones. One teacher walked over to the question "How do I use them?" and wrote, "We introduce a study or concept, build background knowledge and common experience." She then switched to the question "What do I need?" and suggested to her colleague who was holding the only marker, "Lets write 'knowledge of standards.'" He agreed and added specific examples to their response. He wrote, "Knowledge of standards (Common Core, Next Generation Science Standards)." Finally, she walked over to the question "Where do I get them from?" and added the names of online archival portals ("Calisphere") and suggested that teachers "verify source for veracity." First, she used her knowledge of pedagogical strategies and professional practices to suggest using primary sources to build background knowledge. Next, she and her colleague used their knowledge of professional practices to suggest using primary sources according to the Common Core State Standards. Lastly, she used her knowledge of archival environments and artifactual literacy to suggest specific online archival environments and remind teachers to "verify source[s] for veracity."  As she jumped from one piece of yellow chart paper to the next, she effortlessly switched between her knowledge of teaching and researching.

177

The teacher's use of both teaching and researching expertise was

necessitated by the nature of the questions they chose to ask about the process of

integrating primary sources into classroom instruction. When deciding on the

important things to "know" regarding the integration of primary sources, they

collaboratively chose to ask questions that required both scholarly and professional

forms of knowledge. Their question choices supports the claim that researcher and

teacher expertise are interdependent because teachers rely on both forms of

expertise when integrating primary sources into classroom instruction.

**Conclusion**

By proposing a knowledge model that positions scholarly and professional

knowledge in a collaborative and interdependent relationship, I aim to describe the

full range of expertise needed by teachers who are attempting to integrate primary

sources into classroom instruction. The collaborative knowledge model supports a

holistic approach to archival education that doesn't compartmentalize scholarly and

professional knowledge and skills. In the past, archival education and professional

development models have treated these forms of knowledge as independent and

unrelated. Archival education models such as the archival orientation approach

have focused solely on archival practices and policies. Professional development

models such as primary source institutes have focused primarily on pedagogical

aspects ("best practices") of integrating primary sources into classroom instruction.

Focusing on one form of knowledge has resulted in ineffective attempts to find,

evaluate, and use primary sources in K-12 classrooms. Teachers who attend an

archival orientation will learn to find primary sources but they may not be familiar

with appropriate analytical and pedagogical methods for teaching with primary

sources. Likewise, teachers who attend primary source institutes will learn relevant

pedagogical strategies but they may leave not knowing how to find and evaluate

primary sources in archival environments. Thus, the proposed collaborative

knowledge model stresses the importance of bringing scholarly and professional

knowledge into communication in order to create a holistic approach for integrating

primary sources into classroom instruction that draws from researcher and teacher

expertise.

**Chapter VII:**

**Conclusion**

**Research Summary**

The purpose of the study was to collect qualitative data on the practices teachers employ when finding, evaluating, and using primary sources to promote inquiry-based learning in elementary school classrooms. The study led me into six different schools and four school districts across Southern California where I interviewed and observed teachers who were struggling and succeeding at implementing the Common Core State Standards and experimenting with new pedagogical approaches using primary sources. Conducting research in classrooms during a period when teachers were implementing new educational standards and dealing with widespread changes in professional expectations allowed me to situate the use of primary sources within a larger educational context - a context where primary sources are used as instructional tools alongside hotly debated and emerging instructional technologies, including interactive and commercialized technologies that provide access to digitized primary sources and online archival environments such as iPads, SMART Boards, and Chromebooks. During the eighteen-month study, a few district-wide technology adoptions fizzled, but the use of primary sources as instructional tools remained constant.

I began studying the practices of teachers integrating primary sources through semistructured interviews in classrooms. I wandered through school campuses and interviewed teachers with the aim of collecting qualitative data

"grounded in the language" of teachers that described the methods and practices used when finding, evaluating, and using primary sources to teach (Maxwell, p. 289, 1992). Although the interviews were scheduled to last an hour, they often lasted longer because the teachers generously offered to introduce me to colleagues and proudly showed me examples of student work products and lesson plans. While listening to teachers describe their information practices, it became apparent that they undergo an iterative process of seeking, evaluating, and using information that is affected by internal and external factors, such as personal preferences and standards-based curriculum.

In addition to interviewing teachers, I positioned myself at a laboratory school for nine months and observed teachers who were actively integrating primary sources into classroom instruction. I began with two contacts at the laboratory school, a librarian and a second grade teacher. As the school year progressed, my contacts grew, and I found myself being invited to curricular planning meetings, professional development workshops, and student musical performances.

As my access to the school and staff increased, the analysis of Eric's professional practices and pedagogical decisions shifted from interpretations of individualized actions to contextualized understandings of how school-wide strategies and initiatives translate in the classroom. After accompanying Eric to curricular planning meetings, I began to understand the larger picture - he was one of several teachers on the campus who were experimenting with integrating primary sources into classroom instruction, and they were each contributing to the

development of professional knowledge on the pedagogical value of primary sources. Since these teachers served as demonstration teachers at a laboratory school, they were invested in developing strategies for teaching with primary sources that could have an impact beyond their own classrooms. I observed and participated in sharing their professional knowledge and experiences through the development of Primary Source Institutes, professional development workshops for teachers who were learning the basics of teaching with primary sources.

While participating in Primary Source Institutes, I observed the teachers demonstrate their professional knowledge and expertise when sharing information on how to find, evaluate, and use primary sources. Previous archival studies research has focused on archival literacy skills and training teachers to be researchers in archival environments without considering how professional knowledge and responsibilities affect the way teachers approach archival research. Professional knowledge serves as a frame of reference that guides how teachers approach finding and evaluating primary sources in an archive. In order to better describes the various forms of knowledge needed by teachers who are integrating primary sources into classroom instruction, I propose a collaborative knowledge model for primary source-based instruction that builds upon the Yakel and Torres model of "researcher expertise" by illustrating how scholarly and professional forms of knowledge interact in a collaborative relationship that creates a blended way of knowing and understanding the process of integrating primary sources into classroom instruction.
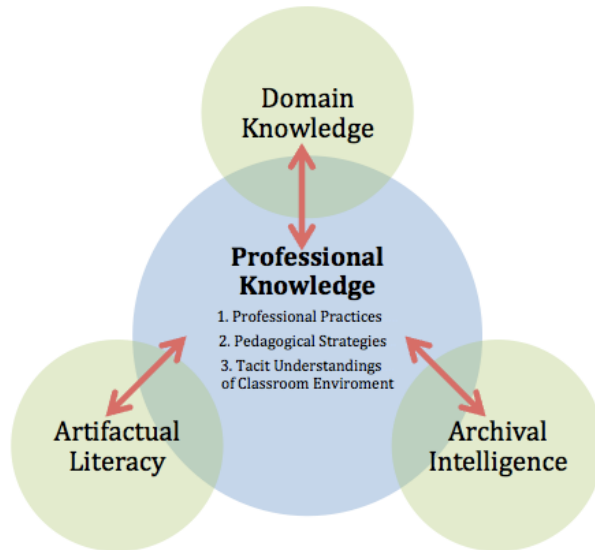
182

**Figure 28: Collaborative Knowledge Model for Primary Source-Based Instruction**

The risk in using a model to describe knowledge is the decontextualization of knowledge formation and knowledge practices because a model offers a simplified representation of a complex process or concept. The proposed collaborative knowledge does not aim to represent all possible facets of scholarly and professional knowledge, but it does represent an interpretation of the knowledge practices of a particular group of experienced teachers and the translation of these knowledge practices into a descriptive and illustrative format. In this case, the purpose of simplifying the complex and highly subjective knowledge practices of teachers was to create a starting point for discussing the role of professional knowledge in the process of integrating primary sources.

Additionally, by identifying forms of scholarly and professional knowledge, I have defined a "knowledge base" for primary source-based instruction. Often, research that defines what teachers *should* know is used for the purpose of

183

supporting policy initiatives, such as the development of national certification

standards, performance assessments, and teacher competency standards. The

proposed knowledge model does not represent an objective or general

interpretation of scholarly and professional knowledge.

On the contrary, the model is situated and particular in many different ways.

The model was developed by a researcher with a teaching background for the

specific purpose of furthering discussion on how to approach archival education and

outreach to K-12 teachers. It was developed using data from a set of experienced

teachers who have attended professional development workshops on teaching with

primary sources and who were actively integrating primary sources into classroom

instruction; they were not novices. Additionally, due to their geographic proximity,

the teachers all received the same or similar versions of the professional

development workshops, which resulted in uniform information and knowledge

practices such as relying on the Library of Congress definition of primary sources

and not necessarily exploring alternative definitions. Thus, while I hope the

collaborative knowledge model is useful for teachers, archivists, and other

stakeholders who are working to integrate primary sources into classroom

instruction, it certainly does not represent a general or universal representation of

what teachers *should* know.

Ultimately, interviewing and observing teachers who were finding,

evaluating, and using primary sources as part of their daily professional activities

allowed me to investigate the complex relationship between implicit and explicit

professional practices, national education standards, and the archival and

184

information processes associated with using primary sources to promote inquiry-based education. The investigation resulted in a rich description of the information practices used throughout different stages of the integration process and a collaborative knowledge model that presents a descriptive interpretation of the multiple forms of scholarly and professional knowledge necessary for integrating primary sources into classroom instruction.

**Primary Source Integration Process: The Bridging of Information Practices and Knowledge Forms**

When combined, these findings result in a holistic model of the process of integrating primary sources that involves drawing from professional and scholarly forms of knowledge to identify information needs that must be met in order to achieve the goal of integrating primary sources into classroom instruction as necessitated by the adoption of the Common Core State Standards. After identifying information needs, teachers often begin information seeking activities that include planning lessons, searching for primary sources, and evaluating the relevancy of search results. These information seeking activities may or may not occur in a linear process. For example, the activities of searching and evaluating frequently occur concurrently, and it is not uncommon for a teacher to return to planning and revising a lesson after unsuccessfully finding relevant primary sources. After finding relevant primary sources, teachers will use them to teach students the specific knowledge and skills outlined in academic standards and curriculum. Again, after selecting and using primary sources in a lesson, teachers frequently return to

previous information seeking activities depending on the results of the lesson, including whether the use of the primary sources facilitated student engagement and learning. As teachers continue to undergo the process of integrating primary sources, they gain scholarly and professional expertise in how to find, evaluate, and use primary sources to teach
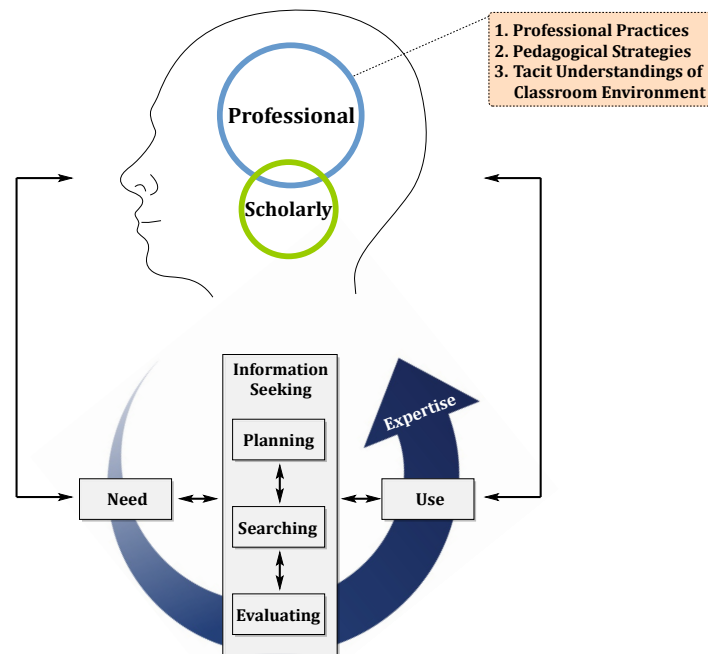


**Figure 29: Primary Source Integration Process**

While the proposed model for holistically describing the process of integrating primary sources doesn't represent the only way to understand the process, the interpretation I propose is grounded in qualitative data drawn from the classrooms of teachers who were actively undertaking the process.

**A Foot in Both Camps: Reflection on Positionality**

As Bourgois (2010) explains, "in order to collect 'accurate data,' ethnographers violate the canons of positivist research; [they] become intimately involved with the people [they] study" (p. 13). Maintaining a critical distance from the teachers and their attempts to integrate primary sources became increasingly difficult as the study progressed. As a researcher familiar with archival resources, I often found myself sitting side-by-side with a teacher and offering advice as they searched for primary sources in online archival environments. As a former teacher, I found myself working with teachers to develop instructional techniques and properly paced lessons using primary sources. As I grew closer to the teachers and became invested in the outcomes of particular lessons, I became increasingly aware that my research was not conducted in an "autonomous realm" that was "insulated" from the "biography of the researcher" (Hammersley & Atkinson, 2007, p. 15). Thus, I feel it necessary to practice reflexivity and discuss my position as a researcher with previous experience working as a teacher.

On the level of methodology, I set out to study the phenomena of teaching with primary sources in action. I aimed to develop relationships with teachers and to position myself in a classroom where I could study the process of integrating primary sources "in situ – within communities of practice – rather than as idealized conceptions of archival theory" (Gracy, 2004, p. 336). Many researchers who enter communities and study the lives of others have to deal with their position as an outsider trying to gain access to the intimate details of others' experiences. I was not entirely an outsider to the community I studied, and I was not a "neutral vessel" for

187

collecting qualitative data on the practices of teachers (Hammersley & Atkinson, 2007, p. 15). As a researcher with previous teaching experience, I began this research with a foot in both camps. My background as a second grade teacher granted me insider status and increased access to participants because I was fluent in the language of teachers. I could discuss the downsides of copy limits, district observations, and "teaching to the test."

Yet, I was also no longer a teacher; I was a researcher, and my new title has a lot of baggage in teaching circles. I was vulnerable to the accusations of being an "out of touch researcher." Nevertheless, I am conscious of the possibility that aspects of this study could have been influenced by my position as a researcher who used to be a teacher. For instance, when interviewing teachers, we often shared teaching experiences. Interviews would typically begin in a formal manner, but as interviewees and I bonded over teaching experiences, they would frequently transition into a colloquial conversation. Our shared experiences allowed teachers to let their guard down and they spoke more candidly about the realities of integrating primary sources into classroom instruction. However, eventually signs of my position as researcher would creep back in and teachers would revert back to "putting their best foot forward." For example, when I checked on my recording device, teachers were reminded that they were being recorded and it would change the tone of our conversation. They were reminded that I was a researcher and they spoke less confidently about their beliefs and practices, possibly out of fear of being judged and assessed.

On the level of epistemology, I had to balance making the familiar strange and making the strange familiar. As I was analyzing data, I had to be open to surprise and careful of not unknowingly allowing my experiences as a teacher or researcher to bias my interpretation of the data. I purposely use the word "unknowingly" because I do not believe knowledge claims are developed through a process of "disengagement" or that they are derived from "everywhere and so nowhere" (Haraway, 1988, p. 590). Instead of denying the influence of my own subjective position and background, I drew from my experiences as a teacher to recognize findings in the data that may have gone unnoticed by someone without classroom experience. Although it is hard to determine the extent to which my background as a former teacher affected the outcomes of the study, I recognize that my experiences granted me access to the practices of teachers in a way that would not have been possible had I not once been the person in the front of the room trying to keep the interest of a group of eight-year-olds.

**Directions for Future Research**

When I began this research I chose to focus on teachers because I believed (and continue to believe) that the integration process relies heavily on the professional commitment and actions of teachers who are ultimately responsible for finding, evaluating, and using primary sources in a classroom. However, a discussion of the process of integrating primary sources into classroom instruction would benefit greatly from the perspective of archivists and information professionals who provide reference services and perform archival outreach to K-12 teachers (as well

189

as those who do not). Throughout the study, I tried to remain focused on teachers

and their practices, but along the way I met archivists who were involved in K-12

archival outreach projects. I conducted interviews with three archivists working in

Brooklyn, New York, but analysis of those interviews fell outside the scope of the

dissertation and will be the focus of future works. Indeed, one direction for future

research would be to flip the coin and study the practices of archivists and

information professionals who are attempting to make primary source materials

accessible to K-12 students and teachers.

A second direction for future research involves focusing on

developing forms of assessment for measuring the impact of using primary sources

as instructional tools. Educational assessment is a massive area that was not

addressed in this dissertation but that nonetheless is an important part of the

process. In the age of accountability, the importance of measurable outcomes cannot

be ignored and further research on methods for assessing the impact of the

instructional use of primary sources on student engagement and learning should be

conducted.

Although I briefly discussed the role of standards in structuring the process

of integrating primary sources, a third direction for future research involves

studying the sociological significance of standard-setting and standardization in the

fields of archival studies and education. Drawing on the work of Timmermans and

Epstein (2010) [15], a future study would employ established sociology of standards

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[15] Other important contributors to the scholarly discussion on the sociological significance of standards include Bowker & Star 1999; Brunsson & Jacobsson 2000;  Lampland & Star 2009)

concepts and lines of questioning to explore the historical context of standard

creation and the effects of standardization on the teaching and archival professions.

The purpose of the study would be to analyze how professional standards and

expectations facilitate and inhibit collaboration between teachers and archivists

who are working together to promote the use of primary sources in K-12

classrooms.

The purpose of this dissertation was not to develop a normative description

of how teachers *should* find, evaluate, and use primary sources in classrooms. As the

discussion of the scholarly literature demonstrates, plenty of other researchers have

taken on that challenge. The purpose of the dissertation was to investigate *how*

teachers integrate primary sources into classroom instruction by gathering

qualitative data on two key aspects of the process: the practices used throughout

different stages of the integration process and the forms of knowledge necessary to

accomplish the process. The investigation of how teachers find, evaluate, and use

primary sources revealed limited approaches and methods for promoting inquiry-

based education. The teachers who participated in this study rarely ventured away

from using photographs to teach short social studies lessons. Undoubtedly, there is

room for personal, professional, and institutional growth.

However, instead of viewing the areas of growth from a perspective of deficit,

this study listened to and observed teachers who are integrating primary sources in

order to better understand what they bring to the table. The study found that

teachers possess scholarly and professional forms of knowledge that interact in a

collaborative relationship and create a blended way of knowing and understanding

191

the process of integrating primary sources into classroom instruction. By describing

the information practices and forms of knowledge involved in the integration

process, I hope to arm archivists and other information professionals with

information that will improve archival education and outreach to the K-12 teachers

who are moving beyond the textbook and spending their planning periods searching

for primary sources that will engage students and enhance learning.

# APPENDIX I

## Semi-structured Research Instrument

**Background Questions**

1. How many years of teaching experience do you have?

2. What types of academic degrees do you hold? For instance, do you hold any advanced degrees, such as a master's degree in education?

3. Do you have experience teaching multiple grade levels?

4. Have you taught at multiple schools or school districts?

5. Have you always worked as a teacher or have you had other careers?

**Beliefs and Motivations**

1. How would you define "primary source materials"?

2. Are there materials that do not fit into your definition?

3. Do you believe that primary sources can be used as teaching tools?

4. If so, have you ever used primary sources to teach?

**If response is yes:**

1. How long have you been using primary sources to teach?

193

2. How often have you used primary sources to teach?

3. Why did you decide to use primary sources as teaching tools?

4. How do you decide when to use primary sources as teaching tools?

5. Were there certain teaching practices that were most effective when using primary sources?

6. Are there certain subjects that you prefer to teach using primary sources? Why?

7. Are there certain subjects that you prefer NOT to teach using primary sources? Why?

8. What steps do you take when locating primary sources?

9. Are there specific resources that you use? What do you find most useful about these resources?

10. Are there certain resources that you DO NOT find useful?

11. Have you ever visited an archive for the purpose of locating primary sources?

12. If you could describe your ideal tool for teaching with primary sources, how would you describe it?

**If response is no:**

1. Are you interested in using primary sources as teaching tools?

2. What are some reasons for not having used primary sources as teaching tools?

3.  How could you envision using primary sources as teaching tools in the classroom?

4. Would you be more interested in using primary sources as teaching  tools if you received professional development or other types of  assistance?

5. What types of assistance would you be most interested in receiving?

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