Helping Future Teachers Do History: The Effectiveness of the National Archives Docsteach Program on the Historical Thinking and Perception of History of Preservice Teachers

Jeremy Alan Rinder

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HELPING FUTURE TEACHERS DO HISTORY: THE EFFECTIVENESS OF THE NATIONAL ARCHIVES DOCSTEACH PROGRAM ON THE HISTORICAL THINKING AND PERCEPTION OF HISTORY OF PRESERVICE TEACHERS

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Submitted in Partial Fulfillment of the Requirements

For the Degree of Doctor of Education in

Curriculum and Instruction

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2020

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DEDICATION

To my wife, Whitney, who has always encouraged me to follow my dreams with absolutely unwavering support. To my sons Lincoln and Sawyer, I hope you never stop short of your goals. Everything I do is for you.
ACKNOWLEDGMENTS

I have been blessed to work with many amazing individuals throughout this incredible journey. I would like to thank each of my committee members for their guidance, expertise, and feedback through each major milestone of this project. I would like to thank my committee chair, Dr. Fatih Ari, for the countless hours he spent serving as a mentor. I would also like to thank Dr. Michael Grant for going above and beyond the role of advisor and pushing me to be the best researcher possible.

Finally, I would like to thank the members of Cohort Zoolander. In particular, I would like to thank Era Roberts, Julie Kristin, Kay Sellers, and Diane Lawson. You were there every single step of the way and this truly would not have been possible without you. From the bottom of my heart, thank you.
The purpose of this action research was to evaluate the implementation of the National Archives DocsTeach program as a means of increasing the historical thinking of preservice teachers enrolled in a social studies methods course. In this study, six students enrolled in a social studies methods course at a regional southeastern university participated in a four-class long unit centered on the use of the National Archives DocsTeach program. The National Archives DocsTeach program is an immersive program that provides teachers with access to a national level repository of digitized primary sources and corresponding instructional resources (Chen, 2015; Ward, 2012). Prior to the unit, students completed a document-based question preassessment and a perception survey about history. Participants completed one activity within the National Archives DocsTeach program for four classes. During the activities, anecdotal observations focusing on the participants’ collaboration and engagement in the activities were collected. At the conclusion of the unit, participants completed another document-based question to serve as a postassessment, a perception survey about history, a perception survey about the DocsTeach program, and an exit interview. The quantitative and qualitative data were analyzed to determine that the DocsTeach program had a positive impact on the participants’ historical thinking and perceptions of history. The participants’ perception of using the National Archives DocsTeach program as an instructional resource in their future classroom was also determined to be positive.
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CHAPTER 1
INTRODUCTION

National Context

The United States’ most prominent effort in history from the educational perspective occurred in 2001 when Congress established the Teaching American History program under Title II, Part C, subpart 4 of the Elementary and Secondary Education Act (ESEA). The grant program marked an intentional effort to improve history instruction across the nation (Weinstock, Tseng, Humphrey, Gillespie, & Yee, 2011; McGlinn, 2007). More specifically, the program shifted the focus of history from content knowledge to process knowledge with an emphasis on historical thinking (Keirn & Martin, 2012). Historical thinking, as defined by Franquiz and Salinas (2011), is thinking that requires students to critically read primary sources, to inquire deeply and critique historical narratives, and to form reasonable conclusions about the past based on these corroborating sources. Similarly, the Stanford History Education Group defines historical thinking as having the skills to accurately source material, contextualize the contents of a source, look for similarities and differences with other sources, and engage in close reading of the document (Breakstone, 2016).

Despite the primary goal of improving K-12 performance in history, the Teaching American History grant was initially developed in direct response to reports of weaknesses in college students’ knowledge of American history (Weinstock, Tseng, Humphrey, Gillespie, & Yee, 2011). The National Assessment of Educational Progress
(NAEP) is the single American history assessment that is administered to students across the nation. The NAEP most recently assessed American history in the fourth, eighth, and twelfth grades in 2010. According to the 2010 results, only 12% of seniors met the proficiency mark in American history (National Assessment of Educational Progress, 2011). The NAEP defines proficiency as representing consistent academic performance and a demonstration of competency over challenging subject matter. As a result, 88% of students leaving high school were considered unable to demonstrate competency in American history. Another standardized assessment of American history for students entering into college is the Advanced Placement (AP) course. Only 52% of students who voluntarily enrolled in a United States history AP class achieved a passing score of three or higher on the final exam (The College Board, 2016).

For students at the college level, data also show significant challenges in developing historical thinking for students, particularly those enrolled in college to become future teachers (Westhoff & Polman, 2008). Barton and Levstick (2004) argue that preservice teachers need much more exposure to developing their understanding of the processes of history, and this deeper understanding is the only way to foster more significant historical thinking among their future students. Martin (2012) also argues that developing content knowledge and pedagogical content knowledge at the teacher preparation level is necessary to engage and challenge all students, current and in the future, in learning history. To reach the goal started by the Teaching American History program of developing individuals with the capacity for historical thinking, teacher education programs must prepare history teachers of all levels to develop their own historical thinking through methods that can also be applied in their future classrooms.
One method of helping preservice teachers hone their historical thinking is through the use of digitized primary sources in the classroom. Digitized primary sources are primary sources that have been scanned or photographed and preserved in collections accessible through the use of digital devices with access to the internet (National Archives and Records Administration, 2015). One of the most prominent collections of digitized primary sources is the National DocsTeach program developed by the United States National Archives and Records Administration. Tally and Goldenberg (2005) found that the use of digitized primary sources increases student engagement and develops the specific skills of historical interpretation and document analysis. Greene, Bolick, and Robertson (2010) also found that students who participated in a technology-rich environment with an emphasis on digitized primary sources show more significant growth in their historical thinking with the added benefit of developing self-regulation strategies. Scheurell and Jaeger (2016) found that students who used digitized primary sources in technology environments were able to gain a much deeper understanding of the content that extended beyond any specified curriculum. Overall, research shows that utilizing digital primary sources is an effective method of building historical thinking skills among students at all levels.

Local Context

The national struggle within the content area of history is mirrored in the performance of students enrolled in the local school district in which the study was conducted. End-of-Course (EOC) examinations are a culminating assessment given to high school students throughout South Carolina who are enrolled in specific courses, including United States history. On the United States EOC examination administered in
2016, only 48.8% of students within the school district scored an A, B, or C (South Carolina Department of Education, 2017). At the elementary and middle school levels, students take a summative assessment for each of the content areas. In 2016, the Social Studies summative assessment was given to students in fourth, fifth, sixth, and seventh grades. In the local school district for this study, 32% of students in these tested grades received a score of Not Met. Most notably, 41.5% of seventh-grade students did not demonstrate proficiency on the summative test in social studies.

Because the TPACK model promotes improving student performance through the cultivation of historical thinking in teacher preparation programs, this action research will take place at a regional southeastern university which serves as the primary provider for teachers in the local school system (Salinas, Bellows, & Liaw, 2011; Hattie, 2012; Gess-Newsome, 2015; Hashweh, 2013; van Driel, Verloop, & de Vos, 1998). The university is a four-year, coeducational school located on a 483-acre campus in the rural southeast. The campus community has over 3,400 students and 364 permanent faculty and staff members. The university offers undergraduate degrees in 35 different areas and master’s degrees in three areas. According to the U.S. News and World Report (2017), the university is ranked as the top public regional college in the South.

Statement of the Problem

Performance in history has proven to be a concern at all educational levels nationwide and within the local community of this study. Research supports that this lack of understanding can most effectively be combatted with the growth of historical thinking among students (Keirn & Martin, 2012; Atkin, 2016; Bickford III, 2013; McGlinn, 2007). This development of historical thinking must begin within teacher preparation programs
in order to facilitate a culture of process knowledge in historical education. Current preservice teachers at the university utilized in this study do not participate in methods courses that promote the development of their historical thinking.

**Purpose Statement**

The purpose of this action research will be to evaluate the implementation of the National Archives DocsTeach program as a means of increasing the historical thinking of preservice teachers enrolled in a social studies methods course at a regional southeastern university.

**Research Questions**

This action research is focused on answering the following research questions:

1. How is use of the National Archives DocsTeach program impact preservice teachers’ historical thinking?
2. How will the use of the National Archives DocsTeach program impact preservice teachers’ perception of history?
3. What are preservice teachers’ perceptions about using the National Archives DocsTeach program as an instructional resource?

**Statement of Researcher Subjectivities and Positionality**

One of my defining characteristics is the passion I have for learning. The natural connection between learning and teaching has guided me in my career as an educator. I strive to be a lifelong learner and, in turn, the best teacher that I can be. Because of my efforts, I have had the opportunities to complete multiple graduate programs and, ultimately, work towards a terminal degree. When reflecting on my goals in attaining a doctorate, I decided that I wanted the program to help me develop into the best teacher
possible. I knew that in order for a program to do just that, it would have to represent the future of the profession. This essential requirement is why I chose the Educational Technology Ed.D. program to help me reach my professional goals.

Technology, at the most basic level, represents change. From the development of barbed wire fencing in the untamed West of the 1800s to the iPhone, technology fundamentally alters the way in which we live our lives. If the goal of education is to prepare our students to become competent members of our society, then I know that we have no choice but to incorporate technology as an essential component of our classrooms. We must prepare our students to function in a future world that, in many ways, we do not even know exists.

Interestingly enough, my personal academic interests represent the very antithesis of looking to the future. I am a student of history and have always found myself enthralled with the past. This love of history is a direct reflection of an ontological viewpoint that there is a single reality but that this reality is interpreted by each individual differently (Wand & Weber, 2003). In my opinion, the beauty of the past rests in these different ways that humanity interprets the reality of what has happened. I recognize that my personal interests and academic endeavors in the field of history have a direct impact on the way that I approach and emphasize the subject. With this bias in mind, it has always been my desire to share my fascination with the past with my students and help them develop a strong understanding and fundamental appreciation of history as well.

My pragmatic worldview has guided me to a focus in research that blends the ideas of educational technology and historical analysis within the classroom. According to Morgan (2014), pragmatism acknowledges that one can develop actions born from
knowledge acquired through the most practical means, and combining technology with history is practical for a number of reasons. First, historians have turned to technology to help develop their craft. As a result, it is logical for these changes to permeate our history classrooms (Sinn, 2012). Furthermore, we must recognize that student success hinges on engagement. In a traditional content area such as history that, according to Townsend (2013), has seen a drastic decrease in interest over recent years, it is sensible to introduce technological strategies as a means of bolstering this engagement.

In terms of positionality, I believe that I am currently transitioning into more of the role of an outsider. For six years, I was a classroom social studies teacher. Although the position of a teacher can often be seen as that of someone in power, my personal philosophy of education hinges on the necessity of relationships with students. In as many ways as possible, I facilitated my classroom in a way in which we worked through our content and curricula together. I was present with students on a daily basis and was an active component of any treatments that took place.

Taking on a new position in higher education, however, means that I have moved one step further away from those instructional strategies to which I have devoted a great deal of research. It will ultimately depend on the approach that I take with preservice teachers on how much of an outside position I hold in the research. The positionality that I can definitively determine at this point is that of a teacher in comparison to students. Within this position, it will be critical to remember dynamics such as gender, race, and socioeconomic status. I am a white, middle-class male, and keeping these factors in mind will be vital as I move forward with research. Ensuring that high ethical standards are
maintained throughout will be the most proactive way of navigating through the action research from this position.

**Definition of Terms**

**Digitized primary source**

A digital primary source is a primary source that has been scanned or photographed and preserved in collections that can be accessed through the use of digital devices with access to the internet (National Archives and Records Administration, 2015).

**Document-based question**

A constructed-response assessment question in which students respond to an essay prompt by drawing on the information presented in corresponding documents (Grant, Gradwell, & Cimbricz, 2004).

**Historical thinking**

“Thinking that requires students to read primary sources critically, to inquire deeply and critique historical narratives, and form reasonable conclusions about the past based on these corroborating sources” (Franquiz & Salinas, 2011, p. 196).

**National Archives DocsTeach**

The National Archives DocsTeach program is an online database of digitized primary sources that are organized into units based on time periods and historical commonalities. Students can access these to all of the documents where they can then utilize online tools and complete online activities that are directly connected to the primary sources (Hussey, 2011).
CHAPTER 2
LITERATURE REVIEW

The purpose of this action research will be to evaluate the implementation of the National Archives DocsTeach program as a means of increasing the historical thinking of preservice teachers enrolled in a social studies methods course at a regional southeastern university. Stemming from an overall focus on examining how digitized resources impact preservice teachers’ performance in social studies, the specific guiding questions for this research are: a) how will the use of the National Archives DocsTeach program impact preservice teachers’ historical thinking, b) how will the use of the National Archives DocsTeach program impact preservice teachers’ perception of history, and c) what are preservice teachers’ perceptions about using National Archives DocsTeach program as an instructional resource?

Methodology

A systematic approach was employed to locate, research, and complete a literature review for this study. Articles were located using the EBSCOhost search provided through the Thomas Cooper Library at the University of South Carolina. Specific databases selected within this search included ERIC, Education Source, and JSTOR. Initial primary keywords used to search the databases included “digitized primary sources,” “digital primary sources,” “historical thinking,” “perception of history.” After conducting searches on these broader topics, additional specific qualifiers such as “preservice teachers” and “National Archives DocsTeach” were added. In
addition to these searches, specific searches were conducted on theoretical foundations of the study that included keywords such as “pedagogical content knowledge,” “PCK,” “technological pedagogical content knowledge,” and “TPACK.” For all searches, certain criteria were set in order to locate the highest quality of sources. These criteria included only including articles that are peer-reviewed and within the past 15 years of research. Articles were not excluded on the basis of being a qualitative or quantitative study or due to the geographical location in which they were conducted. Finally, all articles, book chapters, and dissertations were obtained lawfully, and information within the review is reported as accurately as possible.

This review of literature is divided into three primary sections. The first section focuses on historical thinking and perception of history. Within this first section, literature will be presented focuses on historical thinking and perception of history overall, their impact on K-12 students, and historical thinking and perception of history for preservice teachers. The second section of the literature review focuses on the theoretical foundations of the study. More specifically, this section will focus on pedagogical content knowledge (PCK), technological pedagogical and content knowledge (TPACK), and demonstrate how improving preservice teachers’ historical thinking and perception of history through the use of technology will ultimately benefit the students once they enter the classroom. The final section of the review of literature focuses on the use of digitized primary sources to build historical thinking and improve perceptions of history and the National Archives DocsTeach program that will be implemented as the innovation of the study.
Historical Thinking and Perception of History

Historical thinking and perception of history are two fundamental components of social studies instruction. The two are also intimately connected. Historical thinking has the ability to shape one’s perception of history, yet one’s perception of history undoubtedly influences how one engages in historical thinking. Most importantly, both historical thinking and perception of history are highly valued within social studies education and, as a result, will be the dependent variables that are measured in this study. In order to provide a better understanding of historical thinking, perception of history, and their impact on social studies, literature in this section will focus on: (a) historical thinking, (b) perception of history, (c) historical thinking and perception of history at K-12 levels, and d) historical thinking and perception of history of preservice teachers.

Historical Thinking

Existing literature will be used to establish a definition of historical thinking and explore previously used tools for measuring historical thinking.

Definition of historical thinking. Historical thinking has been described in existing research as a higher-order thinking skill that specifically requires students to apply critical thinking skills to documents of history. According to taxonomies centered on the cognitive learning domain, such as Bloom’s Taxonomy or Webb’s Depth of Knowledge, historical thinking regularly requires students to reach the highest levels of thinking (Dulberg, 2005; Zevin, 2011). Within these higher cognitive levels, historical thinking finds itself firmly rooted in the constructivist theory as students must actively participate in knowledge acquisition and use this engaging learning experience to develop their knowledge about the topic (Dewey, 1929; Vygotsky, 1962; Dulberg, 2005).
According to Zevin (2011), historical thinking has three critical components: frame of reference, mystery, and controversy. To conduct historical thinking, students must have an adequate understanding of the context in which they are processing and questioning material. Historian R.G. Collingwood (1994) developed the history-mystery analogy when he compared historical thinking to the hero of a detective novel who utilizes evidence to construct an imaginary picture of how a crime was committed. Finally, in order for historical thinking to occur, there must be room for debate and discussion. There cannot be definitively right and wrong answers to the situations and questions posed. As Gerwin and Zevin (2003) conclude in their book *Teaching U.S. History as Mystery*, students must “view history as a puzzle—a set of dilemmas, a collection of conflicting viewpoints—in short, a mysterious and engaging subject” (p. 2).

Most research has concluded that the most effective way to promote historical thinking while maintaining strong student-centered learning experiences is through the use of historical documents. The Library of Congress (2018) states that using historical documents is the most direct way to provide students with unfiltered access to the record of artistic, social, scientific and political thought and achievement during a specific time period and doing so engages students, develops critical thinking skills, and facilitates the construction of knowledge. Franquiz and Salinas (2011) argue that historical thinking requires students to critically read primary sources, to inquire deeply and critique historical narratives, and to form reasonable conclusions about the past based on these corroborating sources. The Stanford History Education Group supports the use of historical documents as a cornerstone for historical thinking. This group argues that historical thinking is having the skills to source material, contextualize the contents of a
source, look for similarities and differences with other sources, and engage in close reading of a document (Breakstone, 2016). With these characteristics in mind, historical thinking will be defined in this study as critical thinking about complex historical issues through the analysis and evaluation of primary sources.

**Measuring historical thinking.** Researchers have primarily used quantitative methods to measure historical thinking in an educational setting. Two of the primary ways in which historical thinking has been measured is through the use of Historical Thinking Tests and document-based questions.

Historical Thinking Tests are multiple-choice assessments that are intended to evaluate a students’ ability to utilize historical thinking to answer a question. The effectiveness of Historical Thinking Tests, however, has been challenged. Smith (2017) used think-aloud protocols with 27 high school students to examine whether selected multiple-choice items from the National Assessment of Educational Progress (NAEP) 2010 U.S. history exam tapped the aspects of “Historical Analysis and Interpretation” that they were designed to measure. Smith found that the items did not elicit a single instance in which students engaged in the intended processes when arriving at an answer. Wineburg (2004) and VanSledright (2014) have also argued that multiple-choice assessments fail to adequately measure the historical thinking of students.

Other research supports the use of multiple-choice assessments to measure historical thinking. Smith (2018) found that multiple-choice items did, to varying degrees, elicit aspects of historical thinking and that Historical Thinking Test items elicited the intended aspects of historical thinking at higher rates than selected multiple-choice items from extant standardized tests. Seixas, Gibson, Lyons-Thomas, and Erickan
(2015) also devised a test of historical thinking that included multiple-choice items and reported that think-aloud protocols revealed that the new measure tapped the intended historical thinking processes. Because research is divided on the use of Historical Thinking Tests as an adequate measure of historical thinking, this data collection method will not be utilized in this study.

Document-based questions are another quantitative data collection method used to measure historical thinking. Document-based questions are essay questions that require students to examine, synthesize, and analyze data from primary source historical documents. Students are presented with a question and corresponding historical documents. They must then craft a response to the question using evidence they have gathered from these documents (The DBQ Project, 2018). Document-based questions can be traced back to the 1970s when they were introduced on Advanced Placement History exams developed by the College Board. The College Board (1993) states that the document-based essay questions are designed to make it possible for students from widely differing courses to demonstrate their mastery of historical interpretation and their ability to express their views and knowledge in writing. The New York State Education Department (2009) identified document-based questions as an effective means of assessing both history content and skills while incorporating higher-order thinking. Ultimately, the document-based question process requires students to blend background knowledge with historical document analysis and, as a result, can help assess a student’s ability to employ historical thinking (Dutt-Doner, Rech-Rockwell, Cook-Cottone, & Allen, 2006). According to Stovel (2000), the document-based question has not changed much in structure but has had a significant impact on history instruction since its
implementation. Because document-based questions have been a consistent form of measuring historical thinking, this tool will be used as a means of attaining quantitative data in this study.

**Perception of History**

Literature within this section will be used to establish a definition for the perception of history and establish previously used methods for measuring perception of history.

**Definition of perception of history.** Perception is a concept that has been debated among psychologists for many years (Hochberg, 1956). This debate over perception can be rooted in the epistemological theories of internalism and externalism (Demuth, 2013). Internalists posit that pieces of knowledge or their sources and principles can be found within the subject, and cognition is nothing else but discovering them or developing already existing pieces of knowledge (Chisholm 1996; Bonjour, 1985; Steup, 1999). Externalists maintain that we are all like a blank sheet of paper and that our understanding of the world is being imprinted via an external reality (Armstrong, 1973; Alston, 1988). Both schools of thought maintain that perception, in itself, is a process of acquiring and processing information (Hatfield, 2009). Ultimately, perception, as psychologists describe it is a very complex abstraction.

Perception of history takes this generally abstract process and hones it on the processes related to conceptualizing and understanding the past. Because of the metacognitive nature, educational researchers have been more adept in describing characteristics of perception of history rather than defining it within the complex philosophical parameters. For example, Harris and Hadyn (2006) conducted a study in
which the goal was to determine participants’ perception of history. In order to do so, data were collected to determine what students enjoy, do not enjoy, and what they feel is worthwhile in their history class. Ribbens, Westerhof, and Van Halen (2006) also studied perception of history by presenting participants with a series of statements concerning their attitudes towards the past. With an acknowledgment of the complex philosophical foundations of cognitive perception and taking into consideration these studies on perception of history, this study will define perception of history as a blend of interest, appreciation, and overall attitude about the past or specific events of the past.

**Measuring perception of history.** In past studies, researchers have used both qualitative and quantitative methods to measure perception of history. Perception of history has been measured using perception inventories and attitudinal surveys to gain quantitative data. For example, Halvorsen, Harris, Aponte-Martinez, and Frasier (2016) utilized a perception inventory that was developed and reviewed by an expert in history education. The inventory asked students to respond to statements on a five-point scale about how they felt when they worked on the tasks and their interest levels in the topics. In an attitudinal survey, participants were asked to indicate to what extent they agree with various assertions about the importance of the past (Ribbens, Westeroff, & Halen, 2006). To gain qualitative data on perception of history, the primary tool that has been used is student interviews. In his study, Altun (2014) utilized an interview with lower grade levels and written interview forms with higher grade levels to determine their answer to the question, “What is history in your opinion?” These interviews were then coded to determine commonalities among the perception of participants. This method of
employing a structured interview protocol and coding to obtain qualitative data will also be used in this study.

**Historical Thinking and Perception of History at K-12 Levels**

Literature within this section will be used to show the impact of historical thinking on students in K-12 and the existing perceptions of history among students in K-12 classrooms.

**Impact of historical thinking at K-12 levels.** Within the past ten years, historical thinking has become a major focus of social studies instruction within the United States and, as a result, has had an impact on student performance in K-12 classrooms. Research at the K-12 level consistently argues that historical thinking should be a focus of social studies instruction at all levels of K-12 education (Atkin, 2016; Bickford III, 2013; McGlinn, 2007). Atkin (2016) focused on the historical thinking of early childhood students and discovered that these students develop historical thinking when they are taken to historical places, introduced to historical concepts and figures with analogous connections, and are allowed to physically touch historical objects and figures. At the middle-grade levels, students should be engaged in history through relevant anecdotes and introduced to an interdisciplinary approach that is heavy in reading skills (Bickford III, 2013). Perhaps most notably, with the implementation of the Teaching American History grant, the push for historical instruction within upper middle and high school is to allow these students the opportunity to actively construct relevant meaning from complex historical concepts (McGlinn, 2007). This emphasis on historical thinking within research at all levels corroborates the argument that teachers at all levels will be responsible for developing these critical thinking skills with their students.
**Perceptions of history at the K-12 level.** Research has shown that there are various perceptions of history among students in K-12 classrooms. Overall, students largely perceive history as equivalent to the concept of time and believe it is a specialized field that, while represents being knowledgeable, is not one they may find interesting. Altun (2014) found that student perception of history does slightly change as they progress through grade levels, but regardless of the grade level, the consistently dominant perception of history is that it equates to the concept of time. Students with this perception understand history primarily within the context of identifying the time period in which events happen. Beyond concepts of time, researchers Alabas and Dilek (2009) report that students perceive those who study and analyze history to be knowledgeable. Students recognize that historians have certain advanced skills that allow them to fully comprehend events of the past and their significance. Finally, students also report lower interest and motivation in learning history, particularly in the area of United States history (Wanzek, Kent, & Stillman-Spisak, 2015).

**PCK and TPACK**

Two of the major models that support the use of digitized primary sources in social studies methods course are PCK and TPACK. Literature in this section will focus on: a) PCK theory, b) TPACK theory, and c) historical thinking and perception of history in preservice teachers.

**PCK**

The literature in this section will focus on establishing a definition of the PCK model and connecting the PCK model with student success.
**Definition of PCK.** The PCK model refers to the integration of content area expertise and skilled teaching of that particular subject. PCK was first developed by Shulman (1986), who argued that teachers who have a deep knowledge of their content, in addition to strong pedagogical skills, are more confident and effective educators. Ultimately, Shulman believed that PCK represents the marriage between pedagogy and content knowledge that is necessary for effective instruction. Some PCK researchers view it as an inventive process in which teachers develop new insights and repertoires for teaching a topic (Hashweh, 2013; McNicholl, Childs, & Burn, 2013). This study will use the definition of Magnusson, Krajcik, and Borko (1999) that PCK is “a distinct knowledge base that encompasses a teacher’s understanding of how to help students understand the specific subject matter. It includes how particular subject matter topics, problems and issues can be organized, represented, and adapted to the diverse interests and abilities of learners and presented for instruction” (p. 96).

**PCK and student success.** High-quality teachers can positively affect student achievement (Hattie, 2012). Enhancing our preservice teachers’ PCK is a proven way to produce high-quality teachers (Gess-Newsome, 2015; Hashweh, 2013; van Driel, Verloop, & de Vos, 1998). Shulman (1987) argued that intentionally implementing PCK is critical to student success by increasing a teacher’s ability to support student learning in their classrooms. According to Powell (2018), when educators are inexperienced in their content and lack PCK, they tend to revert to strategies in which they know, and many times these strategies are not effective for K-12 students. Powell (2018) concluded that deep knowledge of content is crucial to effective teaching and cannot be taken for granted. Effective teachers must develop knowledge with respect to all of the topics they
will be responsible for teaching students (Chan & Yung, 2017). The innovation of this study was chosen with the goal of helping to develop preservice teachers’ PCK so that they can provide more effective instruction for their students.

**TPACK**

The literature in this section will focus on establishing a definition of the TPACK model and connecting the TPACK model with student success.

**Definition of TPACK.** The seminal piece of the TPACK model was composed by Mishra and Koehler (2006) after five years of studying teachers at all different grade levels with design experiments to see how their classrooms operate. The authors sought to build on the PCK theory developed by Shulman (1986) and concluded that technology was the most impactful change happening in the modern classroom. As a result, Mishra and Koehler (2006) posited that technological knowledge should be added to pedagogical knowledge and content knowledge as a third area. This change resulted in the TPACK theory, which argues that all three areas of knowledge must be developed in order for a teacher to be effective in the classroom. Since this work, researchers have continued to refine the definition of the TPACK theory (Harris, 2008; Hofer & Harris, 2010) This study will use a comprehensive definition of TPACK as the blending of content, pedagogy, and technology to create meaningful and effective learning experiences (Hilton, 2016).

**TPACK and student success.** Research on TPACK shows that implementing the model with teachers is an effective way of positively impacting student success. Mishra and Koehler (2006) argued that the TPACK framework provided a foundation under which successful teaching and programs would occur. The International Society for
Technology in Education (ISTE) has supported the impact of TPACK on student success by having standards that require teachers to use their knowledge of the subject matter, teaching and learning, and technology to facilitate experiences that advance student learning (ISTE, 2017). When educators focus on using technology as a tool for enhancing the instructional processes within their classroom, students are more able to manage and construct their own learning processes (Oksuz, Ak, & Uca, 2009; Baydaş, Göktaş, & Tatar, 2013; Ottenbreit-Leftwich, Glazewski, Newby, & Ertmer, 2010). As with PCK, the innovation in this study is intentionally integrated with technology in order to improve preservice teachers’ technological knowledge in order to better serve the students who will one day be in their charge.

**Historical Thinking and Perception of History of Preservice Teachers**

Because this study will focus on historical thinking and perception of history among preservice teachers, this section will review: (a) established evidence of historical thinking of preservice teachers, (b) existing perceptions of history among preservice teachers, and (c) social studies methods courses in teacher preparation programs.

**Historical thinking of preservice teachers.** There is little research that focuses specifically on the level of historical thinking displayed by preservice teachers enrolled in teacher education programs (Buchanan, 2015). However, there is research to show that preservice and beginning teachers have experienced an increase in their own historical thinking only after participating in training that is designed to model these complex skills (Murray, 2013, Buchanan, 2015, Salinas, Bellows, & Liaw, 2011). For example, Buchanan (2015) completed a study and found that students’ initial combined Likert-like scale responses about historical thinking skills represented a relatively high mean score of
4.1 (out of 5), yet their open-ended responses about historical thinking suggested they did not have a deep, working knowledge of historical thinking when the study began. After participating in activities that focused on historical thinking, however, students showed a significant increase in their working knowledge of historical thinking. In a different case study of three beginning teachers, all three scored significantly higher on post-test assessments of historical thinking after participating in professional development sponsored by the Teach American History grant specifically geared at increasing historical thinking skills and implementing them in the classroom (Murray, 2013).

Salinas, Bellows, and Liaw (2011) determined that preservice teachers who participated in a methods course with a specific focus on historical thinking had a much stronger understanding and increased confidence in utilizing these complex skills once they entered their own classrooms.

There is also research that demonstrates a lack of willingness by new teachers to engage in historical thinking. For example, in a case study of three first-year teachers, only one of the participants tracked by the researchers demonstrated historical thinking skills within their social studies instruction with any regularity (Cochran, 2010).

Additionally, Cowgill and Waring (2017) found a lack of historical thinking by teachers and argued that these findings should be used to improve teacher professional development programs. The authors suggest that teacher education programs should help preservice teachers develop the skills needed to not only engage in historical evaluation themselves but also develop skills that will allow them to instruct students to do the same.

**Perception of history among preservice teachers.** Overall, there is a need for an increase in measurable research on the perception of history for preservice teachers (Dinc
Despite this need for additional studies, there is some research focused on general education preservice teachers’ perception of history. This research argues that general education preservice teachers view history as simply a collection of facts and also feel inadequate to teach the subject area effectively (Ohn, 2013; Speicher, 2017). In a study of elementary preservice teachers’ perception of history, it was determined through an initial survey that a statistically significant amount of the participants perceived history as a collection of facts rather than an exercise interpretation and explanation (Ohn, 2013). Preservice teachers felt inadequately prepared to teach social studies, particularly when it comes to the complex areas of social justice (Speicher, 2017).

Preservice teachers majoring in early childhood and elementary education had relatively negative perceptions of history, while preservice teachers majoring in secondary social studies have proven to have more positive perceptions of history (Akbaba, 2013; Doppen, 2008). Research shows that social studies preservice teachers have an overall positive perception of historical analysis and high self-efficacy when it comes to teaching content (Akbaba, 2013). Social studies preservice teachers are strong advocates of history and emphasize that students must learn to become critical thinkers who are exposed to different perspectives (Doppen, 2008).

**Implementing PCK into social studies methods courses.** In terms of social studies, it is critical that we implement the PCK model into social studies methods courses. There are four components of PCK that are relevant to teaching history: representing history, transforming history, attending to students’ ideas about history, and framing history (Monte-Sano & Budano, 2013). Teacher preparation programs can
implement these four components of PCK in their social studies methods courses to positively impact preservice teachers. Powell (2018) argues that immersing preservice teachers in courses that require professors to demonstrate skills themselves would offer prospective teachers the opportunity to think about teaching methods, subject matter content, and context in ways that are simply too rare. First-year teachers’ ability to implement historical thinking practices is determined by their understanding of the discipline, knowledge of how to implement historical thinking strategies, vision and beliefs about teaching history, available resources, and their dispositions (Cochran, 2010). In other words, if we are hoping to teach K-12 students how to employ critical thinking skills when studying the past, we can first work to build the historical thinking of our preservice teachers. Similarly, if we want our K-12 students to have the positive perception of history that supports academic success in the area, teacher educators must intentionally strive to build a positive perception among our preservice teachers in their social studies methods courses. Research shows that this is especially important for early childhood and elementary education majors because of their overall negative perception of history (Ohn, 2013; Speicher, 2017). As Shulman himself noted, PCK is what separates the historian from the history teacher (1987). As a result, one of the goals of this study will be to show that implementing PCK specific strategies in methods courses will ultimately benefit K-12 students.

**Implementing TPACK into social studies methods courses.** As teachers move into the future, it will become increasingly important that we develop a technological understanding of preservice teachers in our social studies courses. Technology helps facilitate the acquisition of social studies skills and content in ways that may not be found
in the traditional classroom (Martorella, 1997). It has become the common recommendation among researchers that teachers should be trained, especially during their preservice education, about information technologies, technology integration, and teaching and learning with technology (Martinovic & Zhang, 2012; Tondeur, Van Braak, Sang, Voogt, Fisser, & Ottenbreit-Leftwich, 2012). Byker (2014) specifically states that preparing future teachers to connect social studies content and skills with technology necessitates the integration of technology into teacher preparation methods courses. Mason, Bersen, Diem, Hicks, Lee, and Dralle (2000) corroborate the need for technological application in social studies methods courses as they argue that one of the most important roles of social studies methods course instructors is to model appropriate use of technology in the social studies classroom and facilitate opportunities for students to practice using technology as an integral component of their own social studies lessons.

It will be a goal of this study to emphasize digital integration within the innovation to increase the technological knowledge and overall effectiveness of preservice teachers within social studies.

**National Archives DocsTeach**

The National Archives DocsTeach program will serve as the innovation of this study and will act as the repository for digitized primary sources and corresponding activities. This section will serve to: (a) define primary sources and digitized primary sources, (b) examine the impact of digitized primary sources on historical thinking, (c) examine the impact of digitized primary sources on perception of history, (d) evaluate the National Archives DocsTeach program as a digital repository, and (e) analyze how the
National Archives DocsTeach program supports the PCK and TPACK theories in social studies methods courses.

**Digitized Primary Sources**

Existing literature will be used to establish a definition of primary sources and digital primary sources. Studies will then be presented that show the impact of digitized primary sources on historical thinking and perceptions of history.

**Definition of primary sources.** Primary sources are original records that are produced by individuals who participated in and witnessed specific time periods. These documents include original records of the political, economic, artistic, scientific, social, and intellectual thoughts and achievements of specific historical periods and are produced by the people who participated in and witnessed the past (National Archives and Records Administration, 2018). Primary sources offer a variety of points of view and perspectives of events, issues, people, and places. Primary sources are the raw materials of history — original documents and objects which were created at the time under study (Library of Congress, 2018). For this study, the University of Illinois (2006) definition of primary sources will be used. Under this definition, a primary source is a first-hand account of an event, practice, or condition and was created by an eyewitness or first recorder at or around the time that they occurred.

**Definition of digitized primary sources.** In order to support the TPACK theory, this study focuses on the use of digitized primary sources as opposed to regular primary sources as a means of incorporating meaningful technology. A digitized primary source is a historical document that has been stored electronically and can be accessed from various locations. According to Lazinger (2001), digitized primary sources are historical
documents that have been stored electronically. Digital primary sources are located in historical archives of visual and textual documents that have become searchable from various locations (Tally & Goldenberg, 2005). Digital preservation is becoming increasingly important as we move into a more technological age, and, as a result, primary sources can be accessed now more easily than ever (Lazinger, 2001; Mauch & Tarman, 2016). Within this study, digitized primary sources will be defined as primary sources that have been stored electronically and can be searched for and accessed from various locations.

**Impact of digitized primary sources on historical thinking.** There is research that exists showing digitized primary sources have a specific impact on historical thinking. More specifically, this research shows that digitized primary sources have helped shift historical thinking to a more accessible and measurable skill for students. Bolick (2016) argues that the creation of digital archives has shifted the ability to conduct meaningful historical research from historians to students of history. Lee (2002) concluded that, as the digital repositories increase, teachers will have the opportunity to utilize them and increase the overall quality of their instruction in history. In terms of quantitative data, computer-based tools led to growth from pre-test to post-test on an assessment that specifically measured historical thinking (Greene, Bolick, & Robertson, 2010). Lee and Molebash (2004) found that students who used digitized primary sources were more likely to retain contextualized knowledge within various concepts in history. Similarly, students who used digital primary sources relayed a stronger sense of confidence in their ability to construct historical meaning (Talley & Goldenberg, 2005).
Overall, this body of research supports an innovation that focuses on using digitized primary sources as a means of increasing historical thinking among preservice teachers.

**Impact of digitized primary sources on perception of history.** In addition to the research on historical thinking, research shows digitized primary sources can have an impact on perception of history. Overall, research has shown that access to digitized primary sources increases engagement in history by making the study of history more relevant and impactful to students. Diem (2002) argues that implementing technology into social studies allows students to have greater access to materials and experiences that may not have been available to them before. Talley and Goldenberg (2005) found that students who used digitized primary sources were much more engaged in their history classes. Manfra and Coven (2011) posit that the use of digitized primary sources across all historical fields can make historical concepts more relevant to students. These authors also argue that digitized primary sources can eliminate the misconception that history must be taught through the traditional means of a lecture. Finally, Lee and Molebash (2004) found that students who used digitized primary sources developed residual learning effects related to reflective thinking about the impact of historical events. The existing literature also supports the use of digitized primary sources as a means of impacting the perception of history among preservice teachers.

**DocsTeach**

The literature in this section will provide an overview of the National Archives DocsTeach program. The research will then be presented to develop a connection between the DocsTeach program and the PKC and TPACK models.
Overview of DocsTeach. The National Archives and Records Administration has one of the largest collections of digitized primary sources in the world. In addition to the collection of electronic documents, the program also includes corresponding instructional resources. The National Archives DocsTeach program is an immersive program that provides individuals with access to a national level repository of digitized primary sources and corresponding instructional resources (Chen, 2015; Ward, 2012). The National Archives DocsTeach program is one of the richest examples of a national-level institution’s repository that can be paired with pedagogical materials to strengthen preparation (Chen, 2015). Since it was launched in 2010, DocsTeach has grown to offer an online learning community where teachers can collaborate, create portfolios, and post successful classroom activities. Even without registering or engaging in the collaboration, a teacher can use the DocsTeach site as a valuable resource for teaching with primary documents (Ward, 2012). The National Archives and Records Administration’s DocsTeach program has been proven to be a quality repository of primary sources that can be effectively used in an educational setting. It is because of this that it has been chosen to serve as the innovation in this study.

DocsTeach, PCK, and TPACK. The use of the National Archives DocsTeach program supports research that shows that implementing technology in social studies methods courses supports the PCK and TPACK theories. As noted before, the use of technology is a key way of implementing PCK in social studies preparation courses (Shriner, Clark, Nail, Schlee & Libler, 2010; Friedman, 2006; Lee & Molebash, 2004). Implementing the use of digital history into preservice and in-service teacher programs helps enhance the quality of social studies instruction implemented by the participants
(Lee & Molebash, 2004). Teachers have statistically significant improvement in their self-reported levels of confidence and competence when workshops are geared towards the use of technology in the social studies classroom (Shriner, Clark, Nail, Schlee & Libler, 2010). Teachers with high levels of technology training and access to proper equipment are much more likely to use digitized primary sources in a manner that incorporates historical thinking (Friedman, 2006).

The use of digitized primary sources is a key way of implementing PCK and TPACK in social studies preparation courses (Salinas, Bellows, & Liaw, 2011; Fehn & Koeppen, 2012; Monte-Sano and Budano, 2013). Many preservice teachers are enthusiastic about using primary sources but do not feel that they could use the sources as often as they had expected given the realities and norms of their field placements. Having access to these sources in a digital way helps eliminate some of these constricting realities (Fehn & Koeppen 2012; Monte-Sano & Budano, 2013). Preservice teachers who participate in a methods course that emphasized the use of digitized primary sources for increasing historical thinking have a good understanding of how to use digital repositories and how they can support critical historical thinking of their students. These preservice teachers also display the ability to utilize digitized primary sources within their own instructional decision-making and lesson planning (Salinas, Bellows, & Liaw, 2011). Ultimately, the National Archives and Records Administration’s DocsTeach program will serve to strengthen a social studies methods course by intentionally supporting the development of PCK and TPACK to impact historical thinking and perception of history among elementary and early childhood preservice teachers.
Summary

This literature review has provided an overview of research that exists concerning a) historical thinking and perception of history, b) PCK, TPACK, and preservice teachers’ historical thinking and perception of history, and c) the National Archives DocsTeach program as a provider of digitized primary sources in social studies methods courses.

Historical thinking refers to the ability to critically read and analyze historical documents (Dulberg, 2005; Zevin, 2011; Franquiz & Salinas, 2011; Breakstone, 2016). Perception of history is the blend of interests, appreciation, and overall attitude about the past (Ribbens, Westeroff, & Halen, 2006; Harris, 2006). Research conducted on historical thinking and perception of history has used both qualitative and quantitative methods. Historical thinking has been primarily measured through the quantitative use of HTT and DBQs (Smith, 2018; Dutt-Doner, Rech-Rockwell, Cook-Cottone, & Allen, 2006). Perception of history has been measured with qualitative methods such as interviews and anecdotal observations and quantitative methods such as perception inventories and attitudinal surveys (Halvorsen, Harris, Aponte, & Frasier, 2016; Ribbens, Westeroff, & Halen, 2006; Altun, 2014).

Both historical thinking and perception of history have had an impact at the K-12 level. There is little research that measures historical thinking among preservice teachers; however, there is research to show that preservice teachers and beginning teachers demonstrate a lack of willingness to engage in historical thinking and have benefitted from professional development models historical thinking (Atkin, 2016; Bickford, 2013; McGlinn, 2007). There is also a need for additional measurable research on the
perception of history for preservice teachers; however, the current consensus is that preservice teachers in general education majors have a more negative perception of history than those who are specializing in social studies (Altun, 2014; Alabas & Dilek, 2009; Wanzek, Kent, & Stillman-Spisak, 2015).

There are two theoretical perspectives that connect historical thinking and perception of history between K-12 students and preservice teachers in teacher preparation programs. The PCK theory supports the idea that intentionally teaching historical thinking skills to preservice teachers will ultimately benefit the K-12 students they serve (Shulman, 1986; Powell, 2018). The TPACK theory argues for the use of technological innovation to teach these skills and, as a result, the use of digitized archive repositories as a means of building historical thinking among preservice teachers (Hilton, 2016; Koehler, Mishra, & Cain, 2013; Byker, 2014). These two theories ultimately support the argument for using activities that focus on the use of digitized primary sources in social studies methods courses in teacher preparation programs.

In addition to the theoretical foundation of PCK and TPACK, there is current research that exhibits a positive impact that digitized primary sources can have on historical thinking and perception of history (Bolick, 2016; Greene, Bolick, & Robertson, 2010; Lee, 2002; Lee & Molebash, 2004; Talley & Goldenberg, 2005). Digitized primary sources have helped make the development of historical thinking more accessible and measurable. These repositories have also increased positive engagement in history overall (Diem, 2000; Lee & Molebash, 2004; Talley & Goldenberg, 2005; Manfra & Coven, 2011).
The National Archives DocsTeach program is a nationally supported collection of digital primary sources. In addition to the vast collection of electronic documents, the program includes corresponding resources that are specifically designed to be used in the educational setting. As a result, the DocsTeach program is a viable choice for providing instruction on using digitized primary sources with social studies methods courses (Chen, 2015; Ward, 2010).
CHAPTER 3

METHOD

The purpose of this research was to evaluate the implementation of the National Archives DocsTeach program as a means of increasing historical thinking for preservice teachers at a regional southeastern university. This specific purpose was appropriately met through the use of action research. The research occurred within a social studies methods course within the teacher education program at a regional southeastern university. The use of a specific program, National Archives DocsTeach, was at the center of the research, and data were collected before and after preservice teachers were exposed to the use of digitized primary sources in the program. The findings of the research will specifically impact the preservice teachers enrolled in the teacher education program at a regional southeastern university. Because of this specificity in purpose, methods, and scope, action research was the most appropriate means of carrying out the study.

Research Design

Action research is a form of participatory research. Mills (2014) defines participatory action research as systematic inquiry conducted by an educator to gather information about and subsequently improve the ways that their particular educational setting operates, how they teach, and how well their students learn. When conducting action research, educators must define a relevant problem and develop a practical means of solving it. After carrying out this course of action, researchers then evaluate the results.
and uses these findings to make real changes in their personal sphere of influence. Action research may be most accurately summed up in the conclusion that action research is a “practice-changing practice” (Kemmis, 2009, p. 179)

The fundamental characteristic of action research is that the researcher is a participant in the specific setting in which the research takes place. Furthermore, the findings of the research can be used to bring about change within this particular environment. These characteristics lead to a number of benefits and advantages of using action research. Herbert (2005) argues that the primary benefit of using action research is that it allows participants to become empowered. Action research gives professionals within their specific field the opportunity to own the discourse rather than rely on the work of unfamiliar outsiders. Kemmis, McTaggart, & Nixon (2014) argue that it is this inside position that provides the ultimate advantage of action research educators can utilize their position and conduct quality research for themselves.

This action research employed a mixed-methods approach in which qualitative and quantitative data is combined in a triangulation design to provide the most conclusive findings (Mertler, 2016). Quantitative data were collected through the use of document-based questions. Preservice teachers enrolled in the social studies methods course were given a document-based question prior to the use of the National Archives DocsTeach program that was scored using a holistic rubric. The students were then given a second document-based question after experiencing the digital program. This second essay was scored using the same rubric. Qualitative data were collected through anecdotal observations collected as students work with the DocsTeach program within the class. Additionally, the preservice teachers who participated in the study were given a survey to
measure their perception of history both before and after engaging with the National Archives DocsTeach program. Semi-structured individual interviews were also conducted with the preservice teachers to gather additional qualitative data. Finally, a survey was administered at the end of the study to measure the preservice teachers’ perception of the National Archives DocsTeach program overall. Triangulating this data allowed the researcher to combine the strengths of each form of data which leads to greater credibility to the extent that both forms of data yield similar results (Mertler, 2017).

**Setting and Participants**

This action research took place within a science and social studies methods course. The course focused on identifying and applying best practices in these content areas at the early childhood and elementary level. The course was housed at a local elementary school due to limited classroom space on campus. This elementary school is a Title I elementary school within the local school district. The school currently acts as a professional development school (PDS) that works in conjunction with the School of Education at the university to facilitate professional practicum and student teaching experiences for preservice teachers. The research took place within one of the classrooms at the elementary school, and preservice teachers were asked to provide their own technology for accessing the online resources of the research.

The participants of this study were six preservice teachers enrolled in EDED 436: Social Studies and Science in Early Childhood Education. Full profiles of each participant are provided in Chapter Four of the study. The course in which the study took place focuses on the development of social studies and science curriculum, introduces
students to the basic content that they will be teaching, and emphasizes research-based instructional strategies that can be used to teach this content. The preservice teachers had already been accepted into the School of Education teacher preparation program and were in the first semester of their senior year. The participants were primarily early childhood education majors or elementary education majors seeking to add on early childhood certification. The action research took place within the requirements of the course; however, participants had the opportunity to have any of their data excluded from use within the study.

**Innovation**

Previous research supports the argument that the use of digitized primary sources is an effective method of facilitating historical thinking. Tally and Goldenberg (2005) concluded that digitized primary sources help develop the specific skills of historical interpretation through document analysis. Green, Bolick, and Robertson (2010) also posited that, when utilized within a technology-rich environment, digitized primary sources can enhance students’ historical thinking. Aligned with the context of this study, the use of accessible digitized history archives can impact how preservice social studies teachers conduct historical inquiry. Therefore, in this study, the researcher used the National Archives DocsTeach program, an online database created by the United States National Archives and Records Administration that houses thousands of digitized primary sources. All of the documents within the database are sorted and organized both chronologically and topically. In addition to providing access to the primary sources, each digitized primary source also has accompanying activities that have been developed by the National Archives Educational Team. These activities include the use of overlays,
highlighting, hyperlinks, and other digital tools for developing a deeper understanding of the document and its relevance. The tools are designed to focus on specific higher-level cognitive skills within the scope of historical thinking (Hussey, 2011). The DocsTeach program also allows teachers to manipulate the activities that correlate to certain digitized primary sources so that they can build custom lessons that match their particular needs. In addition to access through an internet browser, the program also has an accompanying application that can be used with mobile electronic devices. The program is free for educators.

The innovation was implemented over a four-week period during which participants engaged in one activity per week. The researcher implemented a predictable structure to ensure consistency by beginning the class with a short introductory overview of the content to be discussed that day as well as the specific grade levels to which the content applied. Next, the researcher facilitated a discussion of the skill that is connected to the content. The researcher also emphasized how this skill was utilized by the particular DocsTeach activity. After this discussion, the participants were then given time to work on and completed the DocsTeach activity on their own personal device. After participants completed the activity, the researcher finished by allowing the participants to discuss the content and DocsTeach activity as a large group. An overview of this predictable structure can be found in Table 3.1
Table 3.1 *Predictable Structure of Implementing the Innovation in Each Class*

<table>
<thead>
<tr>
<th>Activity</th>
<th>Time Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discussion of content and appropriate grade levels for that content</td>
<td>15-20 minutes</td>
</tr>
<tr>
<td>Introduction and discussion of specific historical thinking skill</td>
<td>15-20 minutes</td>
</tr>
<tr>
<td>Walkthrough of National Archives DocsTeach Activity</td>
<td>3-5 minutes</td>
</tr>
<tr>
<td>Preservice teachers’ independent work time on the National Archives DocsTeach Activity</td>
<td>15-20 minutes</td>
</tr>
<tr>
<td>Debriefing of content and National Archives DocsTeach Activity</td>
<td>15-20 minutes</td>
</tr>
</tbody>
</table>

Within this framework, participants in the study engaged in four activities included in the National Archives DocsTeach program. During the first week, students completed an activity entitled “Examining Where Rosa Parks Sat.” In this activity, participants were presented with a diagram from the Civil Rights Movement that shows the bus Rosa Parks was seated on. All identifying information has been blacked out of the diagram. The participants then had to look at the diagram and analyze it to try and determine which key person and key event the diagram represents. A screenshot of this activity can be found in Appendix C.

The second activity was entitled “Suffragist – Susan B. Anthony.” In this activity, a highlighting tool was used on a document from the Women’s Suffrage Movement. To begin, participants were asked to view the document in its entirety. Next, using this highlighter tool featured within the DocsTeach program, participants had the opportunity to focus in on particular parts of the document. They then used these individual components of the entire document to answer a series of questions about Susan B.
Anthony and other suffragists during the Women’s Rights Movement. A screenshot of this activity can be found in Appendix C.

The third activity was “Martin Luther King and the Fight for Civil Rights.” In this activity, participants used a zoom feature to analyze a photograph from one of Martin Luther King’s marches. At first, the participants were given a zoomed in version of a photograph and asked to identify the key details. They were then allowed to zoom out to see the entire photograph and asked to analyze new evidence in comparison to their previous thoughts. After doing so, the participants were given the freedom to use the zoom tool to focus on any specific parts of the photograph that they found interesting. The participants focused on the body language and visual cues from the photograph to answer a number of questions focused on motivation during the event. A screenshot of this activity can be found in Appendix C.

The final activity the participants completed was entitled “The Constitution at Work.” In this activity, the participants looked at a number of primary sources concerning the establishment of the government in America. While looking at these documents, the participants had full access to all of the tools within the DocsTeach program. The participants were then asked to use the language in those documents and connect them with some of the fundamental components of the American Constitution. After completing the matching activity, the students reflected on ways in which the Constitution is evident in the everyday lives of American citizens. A screenshot of this activity can be found in Appendix C.

Together, these four activities provided participants with the opportunity to use various primary source materials, such as diagrams, photographs, and original
documents. They used these various primary sources to complete activities and answer questions to practice the use of higher cognitive skills that are critical to historical thinking.

**Data Collection Methods**

Over the course of the research, the researcher used four methods for collecting data in the effort to determine how the use of digitized primary sources impacts preservice teachers enrolled in a social studies methods course. These four methods of data collection include preassessment and postassessment, anecdotal observations, surveys, and interviews. Each of the sources of data is directly connected to the three research questions that are guiding this study. The first research question includes a qualitative and quantitative source of data in order to triangulate findings through a mixed-methods approach. The second and third research questions include multiple sources of qualitative data. This association between data sources and research questions can be found in Table 3.2.

**Table 3.2 Data Source Alignment**

<table>
<thead>
<tr>
<th>Research Questions</th>
<th>Sources of Data</th>
<th>Qualitative</th>
<th>Quantitative</th>
</tr>
</thead>
<tbody>
<tr>
<td>How will the use of the National Archives DocsTeach program impact preservice teachers’ historical thinking?</td>
<td>Observations Interview</td>
<td>Preassessment and Postassessment</td>
<td></td>
</tr>
<tr>
<td>How will the use of the National Archives DocsTeach program impact preservice teachers’ perception of history?</td>
<td>Observations Surveys Interview</td>
<td></td>
<td></td>
</tr>
<tr>
<td>What are preservice teachers’ perceptions about using the National Archives DocsTeach program as an instructional resource?</td>
<td>Observations Survey Interview</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Preassessment and postassessment**

Preassessment and postassessment data were collected to determine the impact of the National Archives Docs Teach program on the historical thinking of the participants in the study. The preassessment and postassessment were document-based questions (See Appendix A). A document-based question is a constructed-response assessment question in which students respond to an essay prompt by drawing on information presented in corresponding documents (Grant, Gradwell, & Cimbricz, 2004). To ensure content validity, the document-based questions came from The DBQ Project, a nationally recognized company that focuses on creating and providing professional development on document-based questions. These document-based questions have also been determined to be comparable in their alignment to the objectives of the assessment.

The document-based questions were graded using The DBQ Project holistic rubric ranging from one to four (See Appendix B). In order to protect the internal validity of the data, the assessments were evaluated by the researcher and an outside scorer who has been trained on the rubric. The same scorers also blindly graded both the preassessment and postassessment to maintain consistency. All assessments were anonymous during the scoring process. Interrater reliability was determined by percentage of agreement (Stemler & Tsai, 2008). This data were compiled into a spreadsheet that aligns participants’ preassessment scores and postassessment scores and analyzed using descriptive statistics.

Participants were made aware of their scores at the conclusion of the study. Merkt, Werner, and Wagner (2017) determined that historical thinking skills are directly related to document-based questions. Grant, Gradwell, and Cimbriz (2004) also posit that
document-based questions are an authentic means of assessing historical thinking and understanding. This research supports the use of the document-based question in the form of a preassessment and postassessment as a data collection method.

**Observations**

According to Grbich (2012), observations add a sense of realism to data collection, and it is this epistemological belief in realism that supports the use of observations as a means of collecting data. Taking advantage of the emic position, the researcher observed the preservice teachers as they participated in the National Archives DocsTeach activities (Mertler, 2009). The field notes followed an observational protocol established by Mertler, 2017 (Appendix D). The field notes were divided into two columns with the left containing observed data and the right column containing the observer’s comments. Observations were primarily focused on participant engagement with the program, collaboration that occurred among participants, and discussions that took place between participants as they work through the program. The comments allowed for any assertions, further questions, and immediate analysis of any observable behaviors. Once these field notes were collected, the data were organized based on each activity within the unit. They were then transcribed into a spreadsheet to be used for analysis. This process improved the overall quality of data collection and interpretation while facilitating the potential development of new research questions or hypotheses (Dewalt & DeWalt, 2002).

**Interviews**

Engaging in face-to-face interviews allowed the opportunity to take advantage of an established rapport, further observe participants’ reactions and demeanor, and gave a
chance for the data to speak for itself (Griffee, 2005). Each of the participants of the study was asked to complete a short semi-structured interview as a method of collecting qualitative data (See Appendix G). The interview consisted of eleven questions that centered on the participant’s historical thinking, perception of history, and experience with the DocsTeach program. Prior to the interview, participants were asked for consent. Each interview was recorded through the use of a digital recording device. Interviews were transcribed verbatim for qualitative analysis. Participants were provided a copy of their interview transcription at the conclusion of the study. The use of the interview was appropriate and helpful in answering the research question because answers were inductively analyzed to determine any patterns among participant responses (Miles & Huberman, 1994).

**Surveys**

According to Davino and Fabbris (2013), surveys are an effective means of gathering information that can ultimately help lead one to make informed decisions. In this study, perception surveys were used as a data collection method. Participants were asked to complete a paper-and-pencil survey centered on their perception of history prior to the innovation and after the innovation (See Appendix E). In addition to gathering demographic information on the participants, the perception survey consisted of six open-ended questions about the participants’ perception of history. Participants were given an identification number to ensure their anonymity and that responses remain aligned between the first and second surveys.

An additional survey consisting of six open-ended questions was given at the end of the study. This paper-and-pencil survey focused on the participants’ perception of the
National Archives DocsTeach Program overall (Appendix F). Participants used the same identification number to ensure anonymity and alignment between both of the surveys used in the study.

**Data Analysis**

The two primary methods of data analysis for this study will be the use of descriptive statistics for quantitative data collected and inductive analysis for qualitative data collected. Table 3.3 shows each of the research questions with these sources of data and the procedures that will be used to analyze each.

**Table 3.3 Research Questions, Sources of Data, and Analysis Procedures**

<table>
<thead>
<tr>
<th>Research Questions</th>
<th>Sources of Data</th>
<th>Analysis Procedures</th>
</tr>
</thead>
</table>
| How will the use of the National Archives DocsTeach program impact preservice teachers’ historical thinking? | • Preassessment and Postassessment  
• Observations  
• Interview | • Descriptive statistics  
• Observation Protocol  
• Inductive Coding  
• Transcription  
• Inductive Coding |
| How will the use of the National Archives DocsTeach program impact preservice teachers’ perception of history? | • Survey  
• Interview | • Inductive Coding  
• Transcription  
• Inductive Coding |
| How do preservice teachers perceive the National Archives DocsTeach program as an instructional resource? | • Survey  
• Interview | • Inductive Coding  
• Transcription  
• Inductive Coding |
For the first research question, descriptive statistics were used the preassessment and postassessment data while inductive coding was used for observation and interview data. For the second research question, inductive coding of qualitative data gathered from the Perception of History Survey and interviews was used. For the third research question, inductive coding of the qualitative data gathered from the Perception of the National Archives DocsTeach Program Survey and interviews was used. Detailed descriptions of quantitative and qualitative analyses are provided in Chapter Four.

**Procedures and Timeline**

The procedures for this study were divided into five stages: student preparation, initial data collection, innovation, final data collection, and analysis. The time frame for each stage is outlined in Table 3.4.

**Table 3.4 Stages, Expectations, and Time Frame of the Study**

<table>
<thead>
<tr>
<th>Stage</th>
<th>Expectations</th>
<th>Time Frame</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage 1: Study Preparation</td>
<td>• Finalize participant list</td>
<td>One week</td>
</tr>
<tr>
<td></td>
<td>• Notify outside scorers for document-based question essays</td>
<td></td>
</tr>
<tr>
<td>Stage 2: Initial Data Collection</td>
<td>• Assign participants the initial document-based question to complete</td>
<td>One week</td>
</tr>
<tr>
<td></td>
<td>• Assign participants the Perception of History Survey</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Complete document-based question Preassessment</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Complete initial Perception of History Survey</td>
<td></td>
</tr>
</tbody>
</table>
- Have document-based question essays scored.
- Compile Perception of History Survey data

Stage 3: Innovation

- Implement weekly lessons that utilize the National Archives DocsTeach Program and Resources
- Complete weekly activities that utilize the National Archives DocsTeach Program and Resources

Stage 4: Final Data Collection

- Assign second document-based question to complete
- Assign participants the Perception of History Survey
- Assign participants the Perception of the National Archives DocsTeach Program Survey
- Complete document-based question post assessment
- Complete final Perception of History Survey
- Complete Perception of the National Archives DocsTeach Program Survey
- Conduct formal interview of participants
- Participate in interview with researcher

One week
Five weeks
One week
Stage 5: Data Analysis

- Calculate descriptive statistics of document-based question preassessment and postassessment
- Conduct an analysis of Perception of History Survey responses
- Transcribe interviews
- Code interviews
- Code observations
- Conduct an analysis of Perception of the National Archives DocsTeach Program Survey
- Member Checking
- Compile Audit trail
- Participate in member checking.

Stage 1: Study Preparation

Preparation for this study began in the Spring of 2018. Participants were identified as early childhood and elementary education majors enrolled in EDEC 436: Science and Social Studies Methods for Early Childhood Education. Full profiles of these participants are in Chapter Four. Once the roster for the course was finalized, the researcher obtained consent from the preservice teachers to participate in the study. Additionally, the researcher identified and notified an outside scorer for the document-based questions used in the study.
Stage 2: Initial Data Collection

After completing the necessary preparation, the researcher began the initial data collection for the study. The researcher had participants complete a document-based question, selected from The DBQ Project, to ensure content validity, for preassessment quantitative data. The researcher also had participants complete the Perception of History Survey. During this stage, the document-based question was assessed by the researcher and outside scorers to ensure interrater reliability. Responses to the Perception of History Survey were also compiled.

Stage 3: Innovation

Stage Three of the study consisted of implementing the National Archives DocsTeach program. Over four weeks during the course, the researcher provided opportunities for the participants to complete activities that utilize the various resources available in the National Archives DocsTeach Program.

Stage 4: Final Data Collection

After the completion of the innovation, the researcher began final data collection. Participants were given a second document-based question, again chosen from The DBQ Project, to ensure content validity, to complete as a post assessment. Participants were also given the Perception of History Survey. Additionally, participants were given a Perception of the National Archives DocsTeach Program survey. The researcher also scheduled and conducted a semi-structured interview with each of the participants.

Stage 5: Analysis

The final stage of the study consisted of data analysis. During this analysis, the researcher calculated descriptive statistics from the document-based question scores. The
researcher also transcribed and inductively coded the observational data, Perception of History Surveys, interviews, and Perception of the National Archives DocsTeach Program Survey. The researcher compiled and finalized an audit trail of all data collected. The researcher then shared the findings of the study with participants to allow for member checking.

**Rigor and Trustworthiness**

**Triangulation**

Triangulation is the process of using multiple sources of data to verify the consistency of findings within research (Mertler, 2015). Triangulation of data allows for a comprehensive understanding of findings and strengthens a study by combining methods (Patton, 2002). In this study, methodological triangulation occurred through the use of quantitative and qualitative data collection methods. Methodological triangulation also occurred through the use of quantitative data collection methods (pre and postassessment) and two different forms of qualitative data collection methods (observations, surveys, and interviews). This use of multiple levels of triangulation throughout the study serves as a strong strategy for improving the validity and reliability of the research overall (Mathison, 1988).

**Member Checking**

Member checking is a form of participant validation in which research findings are shared with those who participated in the interview for evaluation of accuracy (Birt, Scott, Cavers, Campbell, & Walter 2016). Member checking occurred after the analysis of interviews, observations, and surveys. Participants were asked whether the themes developed from coding are representative of their thoughts (Creswell, 2000). Participants
were also provided with a finished copy of the results section of the study to review and provide feedback. This process of member checking embedded throughout the study helped to ensure that the findings of the study are accurate.

**Peer Debriefing**

Peer debriefing adds to the rigor and trustworthiness by involving an external source who will question methods, analysis, and interpretation of the research to help clarify and move the research process forward (Mertler, 2016). Debriefing sessions between the researcher and someone in a superior position allows the researcher to further develop interpretations and identify flaws in the process (Shenton, 2004). Peer debriefing occurred regularly with colleagues at the university throughout the study. Furthermore, peer debriefing occurred throughout the study with the researcher’s dissertation committee and chair at the University of South Carolina. This collaboration with others served to make sure that the research process and analysis were of the highest quality.

**Audit Trail**

An audit trail is when the researcher intentionally makes notes during all phases of the data collection process. This reflective commentary may also be used to record the researcher’s initial impressions of each data collection session, patterns appearing to emerge in the data collected, and theories generated (Shenton, 2004). Ultimately, these notes provide evidence of the thought processes and analyses and can serve as corroboration for the various decisions made during the review process. The researcher kept a journal throughout the study. This allowed the researcher to track changes to the research process, organize thoughts and ideas, formulate questions, and document the
process of the study. This journal also contained all of the data collected with brief explanations of how this data will be used. An example of data collected and kept within the audit trail can be seen in Figure 3.1. This process served to support the research and findings with concrete evidence of how the researcher navigated through the study in its entirety.

<table>
<thead>
<tr>
<th>How do you define history?</th>
<th>Stephanie</th>
<th>Pre</th>
<th>Post</th>
<th>Amber</th>
<th>Pre</th>
<th>Post</th>
</tr>
</thead>
<tbody>
<tr>
<td>Things that happened in the past that have influence over our world and life today.</td>
<td>History is past events that influence our lives now. It is continuous and there is always more to add and learn about history.</td>
<td>History is information about the people, culture, and events of the past.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| What effect, if any, do you believe history plays in society? | History plays a role in society and how people think. Lately it feels like we are taking steps back. | History effects our lives now and how we perceive different situations. | History, or at least the knowledge of history, allows civilizations to collect data on behaviors and the consequences of past actions. It also allows us to see how civilization has developed over time. | History teaches us where we came from and patterns of where we might go. It also teaches us about things we don’t want to repeat. |

*Figure 3.1* Example of data transcribed and kept within the audit trail.

**Plan for Sharing and Communicating Findings**

The findings of this research were and will be shared with numerous stakeholders at varying levels of involvement. First and foremost, the results of the findings were shared with the students who participate in the study. This sharing of results occurred throughout the study through the forms of feedback on assessments and within the member checking process. The findings were also shared with colleagues within the School of Education at the University of South Carolina through departmental meetings.
These colleagues helped strengthen the peer review process and were invited to provide questioning, feedback, and analysis of the process and findings of the study. Because the study is peripherally aligned with K-12 student performance, findings will be shared with administrators of the local school district through a scheduled meeting with the district leadership team. This information will be shared through a professional presentation. Finally, all findings were shared with my dissertation committee in the effort to ensure that the study maintains the highest standards of quality. Throughout all communication, participant identities will be protected. Individual identification will be avoided when possible and, when not possible; students will be assigned representative numbers.
CHAPTER 4
FINDINGS AND INTERPRETATIONS

The purpose of this action research was to evaluate the implementation of the National Archives DocsTeach program as a means of increasing the historical thinking of preservice teachers enrolled in a social studies methods course at a regional southeastern university. Findings of this study will provide insight into the impact that the National Archives DocsTeach program has on the historical thinking and perception of history among preservice teachers who wish to teach at the early childhood and elementary level. This chapter presents findings from both quantitative measures (document-based question preassessment and postassessment) and qualitative measures (Perceptions of History Surveys and Perception of National Archives DocsTeach Program Survey). Data collection was guided by three research questions:

1. How will the use of the National Archives DocsTeach program impact preservice teachers’ historical thinking?

2. How will the use of the National Archives DocsTeach program impact preservice teachers’ perception of history?

3. How do preservice teachers perceive the National Archives DocsTeach program as an instructional resource?

Part one of this chapter reports the quantitative results and findings obtained from the document-based question preassessment and postassessment. Part two of this chapter
identifies and explains two common themes that emerged from the qualitative data sources.

**Part One: Quantitative Data**

**Document-Based Questions**

At the beginning of the semester, participants in the study completed a document-based question. This essay-based assessment is an effective means of measuring historical thinking (Chen, 2015). The preassessment document-based question was centered on the question “What Caused the Dust Bowl?” After completing four activities centered on the use of the National Archives DocsTeach Program, the students then completed a second document-based question that focused on the question “Should the United States Drill for Oil in the Alaskan Wilderness.” Both the preassessment and postassessment essays were scored using the research-based holistic rubric created by the DBQ project. Furthermore, two scorers evaluated both the preassessment and postassessment. The first scorer was the researcher and the second scorer was an expert in the field of social studies education.

**Interrater reliability.** In order to determine interrater reliability, differences in scoring was compared across possible scores given for each participant. Scores for each participant are recorded in Table 4.1. Out of the eight scores between the preassessment and postassessment, seven of the scores between the two scorers were identical. This result equates to 87.5% of the given scores as being identical. The other score was different by one point. As a result, 100% of the scores between the two individuals evaluating the preassessment and postassessment essays of the participants were within one point of another. According to Stemler and Tsai (2008), this percentage of agreement
is above 70% and is, as a result, considered acceptable in terms of interrater reliability. Because interrater reliability was established between the scorers, the data collected by the researcher, or Scorer 1, will be used for statistical analysis.

Table 4.1 *Document-based Question Scores*

<table>
<thead>
<tr>
<th></th>
<th>Preassessment</th>
<th>Postassessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stephanie</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Amber</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Elizabeth</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Teresa</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Jessica</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Whitney</td>
<td>1</td>
<td>3</td>
</tr>
</tbody>
</table>

**Descriptive statistics.** Descriptive statistics for the document-based question preassessment and postassessment data are recorded in Table 4.2. The preassessment scores ranged from a 1 to a 3. The mean of the preassessment scores was 1.5, with a standard deviation of 0.84. The median of the preassessment was 1. Postassessment scores ranged from a 2 to a 4. The mean of the postassessment was 2.83, with a standard deviation of 0.75. The median of the postassessment was 3.

Table 4.2 *Descriptive Statistics of Document-based Questions*

<table>
<thead>
<tr>
<th></th>
<th>Preassessment $M$</th>
<th>Preassessment $SD$</th>
<th>Preassessment $Mdn$</th>
<th>Postassessment $M$</th>
<th>Postassessment $SD$</th>
<th>Postassessment $Mdn$</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Scores</strong></td>
<td>1.5</td>
<td>0.84</td>
<td>1</td>
<td>2.83</td>
<td>0.75</td>
<td>3</td>
</tr>
</tbody>
</table>

**Part Two: Qualitative Data**

I used interviews and surveys to obtain qualitative data for this study to provide a more in-depth view of the participant’s historical thinking, perception of history, and perception of the National Archives DocsTeach program as an instructional resource. The
following sections will provide an overview of each instrument, the process utilized for qualitative data analysis, provide a detailed profile of the participants, and a discussion of the major themes that emerged from the data analysis.

**Qualitative Data Sources**

The following section will provide an overview of the two primary methods of collective qualitative data for this study: a) anecdotal observations, b) interviews, and c) surveys. A description of the tool, as well as the amount of data collected from each, is provided.

**Anecdotal Observations.** As the participants completed each of the four National Archives DocsTeach Program activities, the researcher conducted anecdotal observations. For these observations, the researcher used the observational protocol (See Appendix D) to take notes on the participants’ overall experience with the program. Overall, notes were taken for each participant during each of the activities in which they participated. These notes were used to build profiles of the participants given below. An example of these anecdotal observations can be seen in Figure 4.1
Interviews. Participants of the study participated in a semi-structured interview at the conclusion of the study (See Appendix G). This interview was comprised of nine questions centered on each of the major research questions that guided the study. All six participants participated in the post-study interview.

Surveys. In addition to the post-study interview, participants were completed three surveys over the study. Participants were given a Perception of History Survey (See Appendix E) at the beginning of the study and an identical survey was given to students at the end of the study in order to allow the participants to share their thoughts and feelings about history. Finally, a survey was given at the end of the study to allow students to share their thoughts on the use of the National Archives DocsTeach Program as a tool they could use in their future classroom (See Appendix F).
Analysis of Qualitative Data

The process used for analyzing the qualitative data was inductive coding. All of the interview recordings were initially uploaded to Temi, a service that converts audio files into text. These transcripts were checked to ensure accuracy in the transcription process. Once the transcriptions were complete and accurate, they were uploaded into the qualitative analysis software Delve. Within Delve, the researcher began the first cycle of coding. Using a sentence by sentence unit of measure, the researcher utilized the In Vivo method. According to Saldaña (2016), the In Vivo method focuses on utilizing the participants’ own words to establish codes. The In Vivo method was utilized for first cycle coding because it allowed the researcher to keep the data rooted in the participants’ own experiences. An example of the first cycle of In Vivo coding within the Delve qualitative analysis software is illustrated in Figure 4.2.
Figure 4.2 Example of the first cycle In Vivo coding within the Delve qualitative analysis software

Observational and survey data were transcribed from the original artifacts into a word processing program. An example of this transcription can be seen in Figure 4.3. Once transcribed, these documents were printed out. The researcher then engaged in In Vivo coding on this observation and survey data. These codes were placed into a spreadsheet. Once all of the initial codes were compiled into the spreadsheet for the observational and survey data, the first cycle codes from the interview data were also exported to this spreadsheet. This allowed the researcher to have all of the first cycle codes from the data in a single digital location.
<table>
<thead>
<tr>
<th>1. What are your thoughts regarding the National Archives DocsTeach Program overall?</th>
<th>Stephanie</th>
<th>Amber</th>
<th>Elizabeth</th>
<th>Teresa</th>
<th>Jessica</th>
<th>Whitney</th>
</tr>
</thead>
<tbody>
<tr>
<td>I liked using the program. I thought it was interesting to see the documents.</td>
<td>I feel that the DocsTeach program overall is useful and helpful.</td>
<td>I think this program enhanced our critical thinking skills.</td>
<td>I really enjoyed doing the National Archives DocsTeach program. It really made me want to think back to when I learned these things in my history class.</td>
<td>My thoughts regarding the National Archives DocsTeach Program is that it can be used to view important events in the classroom with early childhood.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| 2. Did you feel as though the DocsTeach program was easy to use? | Yes | Yes | Yes | Yes | Yes, I do believe the DocsTeach program was easy to use. | I did feel as though the DocsTeach program was easy to use. |

| 3. What did you like most about the DocsTeach program? | Using it to see things I would not get to see in any other way. | I enjoyed making predictions about what we were looking at and then seeing the real answer or what was really going on. | I enjoyed the MLK Jr. activity the most and being able to make predictions before seeing the full picture. | I enjoyed the Martin Luther King activity because it made us think before we were able to actually see what the picture was. | What I like the most is the easy navigation. |

| 4. What did you like least about the DocsTeach program? | There wasn’t anything I disliked about the DocsTeach program. | I didn’t really dislike anything. | There were not any assignments that I disliked about the DocsTeach program. | Nothing, I thought it was unique. | There was nothing I did not like about the program. |

| 5. Which feature within the DocsTeach program do you believe is most effective? Why? | Zoom for sure. It allows you to see the documents up close. | Being able to zoom in on the document. I have trouble seeing details and this really helped. | The most effective feature was being able to zoom in on the document. | I think being able to see the whole picture helped the most because it enabled us to see what they were pertaining to | The feature that is most effective is the zoom in and out buttons. This allows you to see the whole document. |

| | 61 |
Once the initial codes were established, it was determined that there were 137 distinct codes from the interviews, 74 original codes from the survey data, and 51 original codes from the observational data. A summary of the quantity of qualitative data can be seen in Table 4.3.
Table 4.3 *Quantity of Qualitative Data by Source*

<table>
<thead>
<tr>
<th>Qualitative data source</th>
<th>Number</th>
<th>Codes created</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interview transcripts</td>
<td>6 interviews</td>
<td>137</td>
</tr>
<tr>
<td>Survey</td>
<td>18 surveys</td>
<td>74</td>
</tr>
<tr>
<td>Observations</td>
<td>24 observations</td>
<td>51</td>
</tr>
</tbody>
</table>

After establishing these initial codes, the researcher then engaged in second cycle coding in an effort to reorganize and reanalyze the data in a way that linked seemingly unrelated items logically and begin to form categories (Saldaña, 2016). For this cycle, the researcher primarily used a combination of process coding and emotion coding for the second cycle of coding. Process coding, or action coding, is used to connotate action within the data (Charmaz, 2002). Process coding was used primarily in cases where the data indicated action by the participants as they interacted with the innovation. For example, the process code *utilizing key features within the program such as zoom* was developed from initial codes such as *the zoom feature was helpful* and *the most effective feature was the zoom in and out buttons*. Emotion coding labels the emotions that are experienced by the participant (Saldaña, 2016; Goleman, 1995). Emotion coding was used in instances where the participants reflected on their experiences with the innovation and the content area. For example, the emotion code *expressing an overall satisfaction with the program* was developed from initial codes such as *there was nothing I did not like about the program* and *I did not dislike anything*. The codes were cut and pasted into groups within a separate spreadsheet in order to complete this second cycle. An example of this second cycle coding can be seen in Figure 4.4.
| I would not be able to use it for kindergarten |
| With second it would easier than kindergarten |
| Depends on age |
| If I taught second or third grade, I would be able to |
| Definitely for older grades |
| It depends on the grade level |
| It would be harder for second graders |
| Depends on what grade level I had |
| Hard to do with Kindergarten |
| I would incorporate it in older grades |
| It would depend on the grade |
| Using the DocsTeach program would depend on the grade level taught |
| I would have never known about this tool prior to this course |
| I did not dislike anything |
| There were not any assignments that I disliked about the DocsTeach program |
| There was nothing I did not like about the program |
| There wasn’t anything I did not like |
| Expressing an overall satisfaction with the DocsTeach program |
| The zoom feature was most effective |
| The zoom feature was helpful |
| The most effective feature was being able to zoom |
| Being able to toggle pictures helped |
| I really liked the zoom in feature for the Constitution and other documents |
| The most effective feature was the zoom in and out buttons |
| Utilizing the key features within the program such as zoom |
| History is the study of past events and cultures |
| History is the study of events and things in the past |
| It is important events that took place in the past |
| It is the study of events that has happened in the past |
| Important events that have occurred in the past |
| History is the study of information about the past |
| It can teach you how to make predictions |
| This program enhanced our critical thinking skills |
| It made us think before we were able to actually see the picture |
| It made me have to think |
| It makes you really think hard about different parts of history rather than multiple-choice questions |
| Participating in active thinking using the documents |

**Figure 4.4** Example of the process of concept and emotional coding applied to initial In Vivo codes.

For the third cycle of coding, pattern coding was used to group the data into major categories. According to Saldaña (2016), pattern coding is a way of grouping summaries into a smaller number of related categories. In addition to pattern coding, limited attribute coding was used to determine the time period in which the data was presented within the study to help add specificity to categories. For example, the limited attribute code
negative perceptions at the beginning of the study was developed from codes such as history was not engaging and I do not like history that were additionally indicated to be from data provided at the beginning of the study. Again, these codes were cut and pasted into these categories within a second spreadsheet. An example of utilizing pattern coding to determine categories can be seen in Figure 4.5. In all, six major categories emerged from this coding process.

<table>
<thead>
<tr>
<th>History was not engaging</th>
<th>Negative perceptions at the beginning of the study</th>
</tr>
</thead>
<tbody>
<tr>
<td>History was not enjoyable</td>
<td></td>
</tr>
<tr>
<td>I do not like history</td>
<td></td>
</tr>
<tr>
<td>History is boring</td>
<td></td>
</tr>
<tr>
<td>Studying history and using the program would be beneficial for students</td>
<td>Positive perceptions at the end of the study</td>
</tr>
<tr>
<td>Students would like to use the program</td>
<td></td>
</tr>
<tr>
<td>I would like to use the program in my classroom</td>
<td></td>
</tr>
<tr>
<td>Using the program would depend on the grade level taught</td>
<td></td>
</tr>
<tr>
<td>Using the program was hands on and interesting</td>
<td>Active participation throughout the study</td>
</tr>
<tr>
<td>The program was easy to use</td>
<td></td>
</tr>
<tr>
<td>Expressing an overall satisfaction with the DocsTeach program</td>
<td></td>
</tr>
<tr>
<td>Studying my own interests</td>
<td>Considering perspectives by recognizing contexts and expressing opinions</td>
</tr>
<tr>
<td>Considering myself and others</td>
<td></td>
</tr>
<tr>
<td>Using features with documents</td>
<td>Analysis of documents using close reading and features</td>
</tr>
<tr>
<td>Actually thinking when reading documents</td>
<td></td>
</tr>
<tr>
<td>History has an impact on our society</td>
<td>Assessing relevance by the impact on the individual and society</td>
</tr>
<tr>
<td>History plays a role in my life</td>
<td></td>
</tr>
</tbody>
</table>

Figure 4.5 Example of utilizing pattern coding to develop categories.

The six categories were then further analyzed to determine commonalities and reflect interrelationships (Creswell, 2013). This process involved evaluating and summarizing each of the major categories. These codes were then manipulated in
multiple variations in order to determine the most connected grouping. Two major themes, *engagement* and *critical thinking*, emerged and were consistently present through multiple groupings of the categories. The researcher then used discretion to determine which categories best supported each of these themes. The final relationship of categories within each theme is presented in Figure 4.6.

| Negative perceptions at the beginning of the study | Engagement |
| Positive perceptions at the end of the study |  |
| Active participation throughout the study |  |
| Analysis of documents using close reading and features | Critical Thinking |
| Considering perspectives by recognizing contexts and expressing opinions |  |
| Assessing relevance by the impact on the individual and society |  |

*Figure 4.6 Emerging themes through the inductive coding process.*

**Profiles of the Participants**

The following section will provide a description of each of the preservice teachers that participated in this study. For each participant, the researcher will provide a general description, insight into their historical thinking and perception of history prior to the study, and describe their experiences with the National Archives DocsTeach program.

**Stephanie.** Stephanie was a 21-year-old female majoring in Early Childhood Education with the intent to add on Elementary Education certification. Stephanie mentioned that she had wanted to be a teacher since she was a little girl and grew up playing school with her toys.
Stephanie exhibited low confidence in her experience in history. This lack of confidence often presented itself as a negative perception of history in the study. When asked if she had been successful in history courses in the past, she emphatically stated, “absolutely not. History is not my thing.” When asked to further describe her experiences with history and social studies in the past and why she did not feel like she was successful, she simply responded that even though she knew it was important, “she did not like to learn it.” This negative perception of history was mirrored in an unwillingness to engage in historical thinking at the beginning of the study. Stephanie stated she was “not even a little” interested in studying history.

Stephanie often used jokes to hide her discomfort while engaging in historical thinking. For example, when discussing how history impacted her daily life, she responded, “Not much on my everyday life. Take that back, I’m allowed to show my ankles and not owned by a man.” When asked to define historical thinking, Stephanie responded, “No matter what answer I give, I know it’s going to be wrong.”

Stephanie participated in each of the National Archives DocsTeach activities in the study. In the first activity, in which students were given a diagram of the bus in which Rosa Parks sat without identifying information and were asked to used clues to determine what the diagram represented, Stephanie was the first to work through the document. Within a minute, Stephanie said, “It is a boat. It is the Titanic.” When another participant offered that they believed it was too small to be the Titanic, Stephanie dismissed them by saying, “Well, that’s what I think it is, and that is what I am going with.”

In the second activity, Stephanie decided to share her laptop computer with another participant in the study. This positively impacted her engagement as the other
participant showed her how to utilize the tools of the program such as the zoom and highlighting feature.

In the third activity, which focused on a photograph from the Civil Rights movement, Stephanie spent much more time analyzing the document and using the tools. Stephanie noted later that she believed that “zoom was the most helpful tool for sure. It let you see the documents up close.” She also stated that this Civil Rights document analysis was her favorite among the DocsTeach program activities.

In the final activity that centered on reading and understanding the Constitution, Stephanie again utilized the features such as the zoom to study the document. Stephanie was one of two participants to correctly answer all of the guiding questions in the activity.

Stephanie’s perception of history over the course of the study did not appear to change drastically. At the end of the study, Stephanie said that she was “Somewhat [interested] in the aspect of seeing how things grow and progress and monuments. But not actively interested.” She also stated that while she “knew history was important to understand,” it was “at the bottom of her list of subjects that she enjoyed.”

Stephanie’s ability to engage in historical thinking did seem to undergo growth over the study. She said that using the National Archives DocsTeach program allowed her the opportunity to “see things in a different way” and that she “actually had to think about things” and form her “own opinion about them.” Stephanie also stated that she would be very likely to use the National Archives DocsTeach program in her future classroom because “it would be a lot more fun than memorizing a book.”
Amber. Amber was a 22-year-old female who was attaining certification in both Early Childhood Education and Elementary Education. Amber was one of a number of students who moved to the university from out of state. Upon graduation, she indicated she had intentions of returning back home to begin her teaching career.

Amber was very involved in each class and demonstrated a great deal of confidence in the area of history. When asked if she had been successful in history courses prior to the study, she emphatically responded, “oh yeah!” Amber also specifically noted that she was comfortable with document-based questions “because I have done those before, so I already had that.” In terms of her perception of history, Amber had the most positive thoughts and feelings towards the content area entering the study. Amber stated that she did believe that “history plays an important part in [her] life.” Amber also said, “I feel interested and engaged in history when I am looking into things for my own interests…. and when I had the right teacher.” Despite this overall positive perception, Amber did express that she did not think history was as important as other subjects.

Amber also seemed to possess a solid foundation of historical thinking skills. As mentioned before, Amber had completed document-based questions in past history courses and said that doing so helped her realize “history is more than memorizing a bunch of names and dates.” Prior to participating in the activities in this study, Amber also gave an in-depth definition of history’s role in society stating, “History, or at least the knowledge of history, allows civilizations to collect data on behaviors and the consequences of past actions. It also allows us to see how civilization has developed over time.”
Amber was an active participant in each of the National Archives DocsTeach program activities used throughout the study. Whenever the participants were given the freedom to conduct analysis on the documents on their own, Amber often vocalized her opinions first and was quick to help others around her utilize the tools and features of the program.

In the first activity of the program, Amber offered suggestions of details for other students to consider as they looked at the diagram of the Rosa Parks bus. She asked the other students if they “noticed the door” and “what do you guys think that ‘X’ is there for?” All of this collaboration with peers was initiated on her own and resulted in active discussions by her peers.

In the second activity, Amber began a conversation about the primary source when she noticed white males within the march. She later noted, “It was interesting to see that there were some white people there because I didn't really think that was a thing at the time.” This began a strong discussion about the complexities of race and support during the Civil Rights Movement and the impact that these perspectives have on the lives of individuals today.

At the conclusion of the third activity, Amber indicated that she was interested in women’s suffrage and would like to spend more time looking into the topic. She also said that it was a topic that she was excited to potentially share with her students in her future classroom.

In the final activity, Amber did not engage in discussions with her peers but showed diligence in studying the Constitution. Amber was also one of two participants to answer all of the corresponding questions correctly.
Overall, Amber’s perception of history seemed to remain relatively positive. She again emphasized the importance of “seeking out answers to the questions that interest [her]” and the importance of realizing that analyzing history is “more than just names and dates.” Amber also qualified her thinking in terms of the importance of history by stating, “I think history is important to learn because we need to know where we came from. I do feel that reading and math are more important though.”

In terms of historical thinking, Amber’s critical thinking appeared to be strengthened over the course of the DocsTeach activities. Amber stated this herself, saying that the activities “made me look more closely at the document itself and the details and the document and look for who wrote it and what kind of biases they might have. And that sort of thing made me use more historical thinking, you might say.” Amber also indicated that she would be very likely to use the program in her future classroom. She said that the program “gets students more interested in history” and that she would like to “think about more simplified ways that it could be used in early childhood classrooms” as well.

Elizabeth. Elizabeth was a 22-year-old Early Childhood Education major from the immediate area surrounding the university used for this study. Elizabeth stated that she knew from an early age that she would attend the university to become a teacher because that is what her mother had done as well. Of the participants, Elizabeth demonstrated the shyest demeanor.

Elizabeth demonstrated a negative perception of history at the beginning of the study. She stated, “I do not really enjoy learning about history” and that “it was never really fun for me, so it never interested me.” More than simply expressing disinterest,
Elizabeth exhibited went as far as to say, “I believe that history has more of an effect on society today than it should. A lot of people dwell on things that happened in the past instead of trying to better the future.”

In terms of historical thinking, Elizabeth did not show strong confidence in her ability to analyze history prior to the study. Elizabeth stated that she had not been successful in previous history courses and could only answer “I don’t know,” when asked why. When asked about her ability to conduct historical analysis prior to the study, Elizabeth responded, “I'm not good at history. It just hasn't, has never interested me, so I've never really been able to pay attention and do good on it.” It is also worth noting that Elizabeth demonstrated a great deal of anxiety when participating in the interview and surveys. During the interview, she often paused when asked a question and had to be prompted through reclarification of the question. When completing the surveys in the study, she often asked for additional guidance in answering the open-ended response questions.

Elizabeth did complete all of the National Archives DocsTeach program activities over the course of the study. Her lack of confidence and unwillingness to truly engage in historical analysis was evident in these activities, however.

During the first activity, Elizabeth appeared to simply look at the screen. She did not actively engage in conversations. When one of the other participants volunteered that they believed the diagram was the Titanic, Elizabeth said, “that’s what I was thinking, too.” She did not openly discuss any details that helped her reach this conclusion.

During the Martin Luther King, Jr. activity, Elizabeth forgot to bring her laptop computer and, as a result, ended up working with another participant who shared their
device with her. This collaboration led to higher engagement as Elizabeth showed her partner how to utilize the various tools and features of the National Archives DocsTeach program. She did not, however, become actively engaged in the resulting discussion about the Civil Rights Movement and its connection to today.

Elizabeth returned to her initial behavior for the third and final activities. She completed the corresponding questions for each activity but not discuss her thoughts with others.

Overall, Elizabeth’s perception of history did not appear to change throughout her participation in the study. At the conclusion, Elizabeth again stated that she “does not believe that history has an effect on [her] everyday life.” She reiterated that “history is [her] least favorite subject” and “is not as important as the other subjects.”

There were signs, however, that Elizabeth experienced growth in her historical thinking. When asked how the National Archives DocsTeach program helped her in analyzing historical documents, Elizabeth said, “I think that it helped because it didn't show you like the big picture at first, so it didn't just tell you the answer like it made you think about it and kind of figure out like what you think's going on before you actually know what's going on.” She also mentioned that there were times in which she had to “use prior knowledge to figure out what was going on.”

Finally, Elizabeth did express a desire to use the National Archives DocsTeach program in the future. Elizabeth said, “I believe [the National Archives DocsTeach program] can impact my future students’ historical thinking by teaching them how to make predictions and grabbing their interests” and that she was “very likely” to use it in her classroom one day.
**Teresa.** Teresa was a 22-year-old Early Childhood Education major. Teresa was one of the participants from the area immediately surrounding the university used for this study. Teresa was a cheerful participant in the study and also mentioned that she had known that she wanted to be a kindergarten teacher ever since she was a little girl.

Teresa often expressed a lack of confidence in her content knowledge. She seemed to have particularly negative thoughts and feelings about history at the beginning of the study. Teresa explicitly said, “history is my least favorite subject.” She also mentioned that she intentionally does not “engage in history or politics” when asked if she felt like she was interested in history.

Teresa did not give much insight into her historical thinking skills at the beginning of the study. When asked a question about how her success in history and historical analysis in the past, Teresa simply stated that she did not feel she was successful in past courses. Her reasoning for being unsuccessful in history in the past was because “no one ever made it fun” and that she “thought history was just the way that it is.” Teresa also focused heavily on one idea when answering questions that concerned historical analysis. For example, when asked about history’s impact on her everyday life and society, Teresa answered, “I believe history helped us become the free country that we get to live in today” and “we are free to practice whatever we believe.”

Teresa participated in three out of the four National Archives DocsTeach program activities. She missed the fourth activity due to an illness.

In the first activity, Teresa displayed a great deal of enthusiasm when examining the Rosa Parks diagram. She was one of the first participants to discover the tools, such as the highlighter feature, and showed her peers how to use them.
During the second activity, Teresa discovered the ability to zoom out on the entire picture before others as well. By doing so, she sparked conversations about aspects in the larger picture, such as body language and signs, that other students were not yet aware of. She talked about this activity specifically at the end of the study when she said, “I enjoyed the Martin Luther King activity because it made us think before we were able to actually see what the picture was.”

Teresa, again, was a contributor in the discussions that resulted after analyzing the Susan B. Anthony documents in the third activity.

Her enthusiasm and active engagement in these three activities appeared to have an impact on Teresa’s perception of history. At the end of the study, Teresa said, “I think [history] is just as important as the other subjects.” Rather than view a lack of content knowledge as a weakness, Teresa specifically said, “I enjoyed seeing how much I knew and did not know.”

In terms of historical thinking, Teresa was much clearer in the impact of the National Archives DocsTeach program on her ability to analyze history and primary sources. Teresa said, “Being able to do the DocsTeach program, I think it helped me to realize that you can be able to express your own beliefs about things.” She went on to add, “DocsTeach gave me the opportunity to use my critical thinking skills to be able to express my beliefs on different topics that you have given us.”

Finally, Teresa expressed interest in using the program in her future classroom. She stated that she will use the National Archives DocsTeach program “because it allows students to think on their own.”
**Jessica.** Jessica was a 22-year-old Early Childhood Education major. She was a commuter student who lived in a community near the university used for the study. Jessica was a highly thoughtful student who exhibited a strong desire to become an effective educator. When discussing her course work throughout the program, Jessica always placed it in the context of helping her grow in order to become the best teacher that she could be.

At the beginning of this study, Jessica seemed to have a negative perception of history but did not wish to come across as pessimistic. In the effort to be honest but avoid negativity, her responses early on translated into neutral statements about her perception of history. Jessica said, “I do and don’t feel engaged or interested in history,” when asked whether she was interested in history. Jessica also said that she “knew history was important, but I didn't really enjoy learning it because I had been in previous classes with like coaches that teach history. So, it wasn't that exciting for me.”

Jessica also demonstrated some characteristics of having engaged in historical thinking. She noted that “history plays an effect in society today” and provided a specific example by saying that “racism is still affecting everyone daily and it shouldn’t.” When asked about how history impacts her daily life, however, Jessica said, “History does not affect my everyday life because I know things have happened in the past and we have to move on from that.”

Jessica participated in all four of the National Archives DocsTeach program activities over the course of the study. For each of the activities, Jessica took the longest time to work through the document analysis. She said at the end of the study that she often viewed each of the documents “three or four times to try and understand them.”
In the first DocsTeach activity, Jessica engaged with a number of other participants. She verbalized the details of the diagram that she noticed out loud and asked others about the things that she saw.

During the second activity, which centered on Martin Luther King, Jr. and the Civil Rights Movement, Jessica particularly engaged in discussions with her peers. Jessica mentioned that she would be worried about teaching the Civil Rights Movement in her classroom because she “would not want to make anyone uncomfortable.” She relayed an anecdote in which she had a very young student in one of her practicum placements make distasteful comments about racial relationships in the class. This comment led to further discussion among the participants about the importance of historical topics and how they are presented within the classroom at the elementary level.

Again, during the third activity about women’s suffrage, Jessica spent a great deal of time studying the documents. Jessica shared with other participants an activity she had seen in the classroom in which a teacher conducted votes with and without girls being allowed to vote and discussed the reactions of the students.

In the final activity, Jessica was very concerned with getting all of the answers that corresponded with the Constitution activity correct. When she was initially told that she had a couple of the answers wrong, she went back and spent time correcting the answers even after the other participants had moved on.

After participating in the activities, Jessica offered evidence that she had developed a more positive perception of history. She said, “I really enjoyed doing the National Archives DocsTeach program. It really made me have to think.” She also stated that she does “feel engaged in history when it is over something that interests me” and
that she does “believe learning about our history compared to learning other subjects is very important.” She did concede, however, that there were other subjects that she enjoyed more than history.

In terms of her historical thinking, Jessica noted that the National Archives DocsTeach program “made us think more in-depth about the subject and we had those, um, sources to help us go off of our like, Oh, our own opinions as well.” She further noted that the program “didn't make us give like a one-word answer, like it really made us go into depth thinking.” Despite stating that she did not feel like history impacted her daily life prior to the study, when asked again at the end of the study Jessica explicitly stated, “I believe that history plays a huge role in my everyday life. Knowing things that have happened in the past makes me view life as a whole differently.”

Finally, Jessica did indicate a strong desire to use the program in her future classroom. She said, “the DocsTeach program can impact the future of students’ historical thinking because it makes you really think hard about different parts of history… I would like to use it in my future classroom.”

**Whitney.** Whitney was a 23-year-old Early Childhood Education major who also added on Elementary certification. Whitney was a commuter student who lived on her own off-campus. Whitney demonstrated a great deal of initiative and reflection upon entering the course and study.

Concerning her perception of history, Whitney seemed to have mixed emotions. For example, when asked how she felt about history prior to the study, Whitney said, “Honestly, I didn't really care much about it, but I was excited to do it because I knew that we were going to be learning how to teach it to kids.” When asked if she felt engaged
or interested in the subject prior to the study, Whitney responded, “I sometimes feel engaged in history. It depends on the subject.”

In terms of historical thinking, it was very clear that Whitney had engaged in analysis of historical events and thought critically about their impact. In particular, this reflection occurred as Whitney considered her personal identity. Whitney stated, “history plays in society is positive and negative. Knowing and understanding past events allows us to view current events in different ways.” She went on to add, “the effect history plays in my everyday life is how others view me as being biracial. Because of past events, some people think I should choose being either African American or Caucasian. Not both.” Whitney also indicated that she had been successful in previous history courses. She stated that she was very successful in high school but “not so much” in college “because of all of the writing.”

Whitney participated in all four of the National Archives DocsTeach program activities within this study.

In the first activity, Whitney had a difficult time engaging in the activity because the only device that she had with her was her smartphone. While the activity and features of the DocsTeach program worked on her phone, she had a more difficult time analyzing the diagram than others who were using laptop computers. Whitney did engage in discussion with others as she worked on looking at the Rosa Parks diagram.

Whitney was particularly involved and reflective during the second activity using the picture of a march led by Martin Luther King, Jr. during the Civil Rights Movement. She pointed out many key details in the picture and spent a great deal of time looking back and forth between the zoomed in and zoomed out versions. Whitney had a
particularly strong reaction when one of the participants mentioned that they would be hesitant to talk about something like the Civil Rights Movement in their classroom. Whitney talked about this interaction later when she said, “I know someone made a comment the other day about teaching about the Civil Rights Movement, and she didn't feel comfortable doing it. And I'm like, because of the black kids in the class? But I was like, ‘think about the white kids in the class that should still know and learn about me.’ She's like, ‘Oh yeah, I didn't think of that. Yeah, definitely.’”

Whitney continued this involvement with her peers into the third activity about women’s suffrage. She discussed details in the document with her peers and engaged in talking about how the topic could be taught in an elementary classroom.

Whitney also practiced reflection in the fourth DocsTeach activity. As students were analyzing and discussing the document, she asked if she could go outside in order to focus better. Upon returning, Whitney said that it was “the first time I have ever actually read the Constitution.”

At the conclusion of the study, Whitney appeared to have a more positive perception of history. She stated, “I feel engaged or interested in history when it’s something I can relate to or understand” and “I do find different events to be interesting.” She also added, “I think it is very important to learn history. Knowing important events and how they impacted society is good to know.”

Whitney’s strong analysis of documents was also indicative of utilizing historical thinking in the study. Whitney tended to take a more reflective approach and focus on the impact of various historical contexts to her life. She said, “The effect history plays in society is how people respond and treat one another whenever events happen today” and
further added, “The effect history plays in my everyday life is how individuals may have a “perception” of me due to race or ethnicity.” Whitney also said that she believed the initial activity about Rosa Parks was the most helpful in developing her historical thinking because it taught her how to “take the little amount of details of something and put them all together in the end.”

Finally, Whitney did indicate that she would like to use the National Archives DocsTeach program in her classroom in the future. She said, “it depends on grade level, but I think they would really like it. But having them to think about it rather than just yes, no. Or answer questions on a piece of paper.” She also explicitly answered, “I am very likely to use this in my future classroom!” when asked if she saw herself using the program in the future.

**Presentation of the Findings**

The following section will present the findings of the qualitative data that was collected throughout the study as a result of the inductive coding process. When necessary, participants will be referred to using the pseudonyms assigned to them. All data were also transcribed and will be presented verbatim in order to ensure authenticity.

The two themes that emerged as a result of the coding analysis are shown in Table 4.4. The preservice teachers’ historical thinking, perception of history, and perception of the National Archives DocsTeach program were reflected in their (a) *Critical thinking* and (b) *Engagement*. Each of these themes is explained in detail below.
Table 4.4 Primary Themes that Emerged from Qualitative Data

<table>
<thead>
<tr>
<th>Themes</th>
<th>Categories</th>
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<tr>
<td>1. Critical Thinking</td>
<td>• Analysis of documents using close reading and features&lt;br&gt;• Considering perspectives by recognizing contexts and expressing opinions&lt;br&gt;• Assessing relevance by the impact on the individual and society</td>
</tr>
<tr>
<td>2. Engagement</td>
<td>• Negative perceptions at the beginning of the study&lt;br&gt;• Positive perceptions at the end of the study&lt;br&gt;• Active participation throughout the study</td>
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The first major theme that emerged from the qualitative data analysis was that of critical thinking. The following section will define critical thinking in this study as well as identify the categories of document analysis, considering perspectives, and assessing relevance. Furthermore, each of these categories will be further refined by subcategories.

**Critical Thinking**

According to existing research, there is a strong connection between historical thinking and critical thinking. Historical thinking regularly requires students to reach the highest levels of critical thinking (Dulberg, 2005; Zevin, 2011). Furthermore, the ample consensus is that the development of historical thinking is cultivating habits of the mind that promote critical thinking in addition to empathy and synthesis (Wineburg, 2001). In this study, historical thinking was defined as critical thinking about complex historical
issues through the analysis and evaluation of primary sources. Throughout the qualitative data, participants demonstrated the ability to engage in and recognize their own critical thinking in three distinct areas: a) document analysis, considering perspectives, and c) assessing relevance.

**Document analysis.** One of the key components of critical thinking within the context of historical thinking is the ability to analyze primary sources (Franquiz & Salinas, 2011). Each of the four activities completed using the National Archives DocsTeach Program gave the participants the opportunity to interact with a digitized primary source. In two of the activities, participants were given part of the primary source to make predictions about the historical context and importance. After doing so, they were given the full document to explore and able to conduct a comparative analysis of their inferences before and after. In the other two activities, students were given the freedom to explore the document in its entirety and utilize their understanding of it to answer open-ended questions. Ultimately, in all of the activities, students completed a form of document analysis. According to the qualitative data, the participants’ analysis of the primary sources was centered around the idea of close reading to gain a better understanding.

**Close reading.** Close reading of primary sources is an important aspect of document analysis that allows for critical thinking (Karabalut, 2012). Close reading of primary sources involves asking oneself guiding questions and making predictions in order to gain a greater understanding of the ideas being presented (O’Mara, 2011). Within the post-study interviews, participants recalled going through this process of close
reading as they interacted with the primary sources. Amber described the way in which the National Archives DocsTeach program encouraged her to engage in close reading:

Amber: It made me look more closely at the document and the specific details of the document.

Often times, while engaging in the National Archives DocsTeach activities, the participants would revisit their original thinking and conduct a reflective comparison of their thoughts. Stephanie describes the process of engaging in reflective thinking as she compared an abbreviated form of a primary source with the full document:

Stephanie: I guess that you can see the way that you are thinking about something as you read it and it might be one way. But when you see the bigger picture, you can proceed to think about it another way.

Elizabeth and Jessica also echoed the idea of engaging in deeper thinking after comparing an abbreviated version of a source with the full picture:

Elizabeth: It didn’t just tell you the answer, like, it made you think about it and kind of figure out, like, what you think's going on before you actually know what's going on.

Jessica: Like, it really made us go into depth thinking about what, like for example, the Martin Luther King Jr. activity. Um, we didn't know what like the full picture, so we had to really go back and think about what happened.

Whitney also commented on the importance of thinking about documents closely, indicating the process of being wrong about her evaluation of a source at first and adjusting her understanding:

Whitney: Probably the Rosa Parks one. Because it really didn't give us that much information at first. And then afterwards, it has like the name and all that stuff. I remember it looked like a little boat at the
beginning. But then you got the whole picture of what it actually was.

Teresa discussed the process of analyzing the document for key details through close reading:

Teresa: It made me look more into the information to pick out important details as to what the question was asking.

The participants of the study also referred to examining the primary sources in detail in various responses on the surveys given at the end of the study. Amber and Elizabeth discussed the idea of making predictions as she studied the sources:

Amber: I enjoyed making predictions about what we were looking at and then seeing the real answer or what was really going on.

Elizabeth: I enjoyed the MLK Jr. activity the most and being able to make predictions before seeing the full picture.

Teresa discussed the process of in-depth thinking that occurred while engaging in close reading of the primary sources in her description of the Martin Luther King, Jr. activity:

Teresa: I enjoyed the Martin Luther King activity because it made us have to really think.

Overall, the process of close reading, as defined by research as asking oneself guiding questions, making predictions, and engaging in in-depth thinking about a primary source while one reads it, was evident throughout the qualitative data (O’Mara, 2011). This process of close reading was a critical component of the critical thinking that occurred as participants worked through the four activities of the study. Utilizing these strategies of close reading directly supports the development of historical thinking as defined in literature.
**Considering perspectives.** A second tenet of critical thinking as it relates to historical thinking is the ability of an individual to consider various perspectives when analyzing history. It is critical for one to understand that history is complex and multifaceted and by providing them with opportunities to piece together the past from various sources revealing diverse perspectives (VanSledright 2009). In order to engage in true critical thinking about the past, one must realize that certain historical agents or groups had particular perspectives on their world and being able to see how that perspective would actually have affected actions in different situations (Lee & Ashby, 2001). The qualitative data collected during the study indicated that the participants demonstrated the ability to consider perspectives through a) recognizing various contexts and b) expressing their own opinions and beliefs.

**Recognizing contexts.** In their study, Wilson and Wineburg (2001) determined that effective historical analysis occurred when individuals analyze documents for multiple purposes, such as noting points of view, bias, and thinking about why different accounts surrounding the primary source may vary. One of the key components of each of the activities completed in the National Archives DocsTeach program was giving students the opportunity to assess various contexts whenever working with the documents. Participants reflected on their ability to do so within the post-study interviews. Stephanie provided insight into realizing different contexts when given the two forms of the Martin Luther King picture:

Stephanie: The first picture was a different perspective…. I had to really think about both sides.

Amber also considered a different context when analyzing the Martin Luther King document:
Amber: It was interesting to see white people in the photograph because I had never really considered that they were there and a part of it too.

Jessica commented on trying to place herself in the time period of the Martin Luther King and Susan B. Anthony documents in order to gain a stronger understanding of their context:

Jessica: We had to really go back and think about what it was like during that time period.

The participants also discussed recognizing the various contexts of the primary sources in the Perception of History Survey that they took after the study. Stephanie commented on the value of studying history in terms of impacting the perception of contexts:

Stephanie: History effects the way in which we perceive different situations.

Amber discussed the impact of figuring in culture and its relationship to understanding when examining the past:

Amber: History has the ability to teach us about culture and we can use that to help define ourselves.

A final interesting explanation of context was given by Stephanie when asked about her thoughts on the National Archives DocsTeach Program overall in the Perception of the National Archives DocsTeach Program Survey:

Stephanie: It really felt like we as close to the real thing as we could possibly get.

This acknowledgment of understanding the value of experiencing the primary sources in as real as a way possible further explores the idea of contextualization. This idea of comparing the value of handling documents in real life versus their digitized version and how this could impact one’s understanding is worthy of further research and discussion.
**Expressing opinions.** Bickford III (2010) argues that one of the most valuable ways of having individuals, such as students, engage in historical thinking is by allowing them the opportunity to express their own opinions. Moreover, Bickford III posits that this is particularly important whenever individuals are studying historical situations that could be deemed controversial in various contexts. One of the primary goals of the National Archives DocsTeach program activities was to encourage the preservice teachers to express their opinions on various topics and their corresponding impact. Some of the participants of the student chose to reflect on the importance of expressing their opinions in the post-study interviews. Teresa was especially reflective of the importance of expressing her opinions and beliefs throughout the study:

Teresa: I think it gave me the opportunity to use my critical thinking skills to be able to express my beliefs on different topics that you have given us…. So, I think this gave us the opportunity to express their beliefs…. And being able to do the DocsTeach program, I think it helped me to realize that you can be able to express your own beliefs about things…. thought history was more of like this is the way it is, but you're, you're actually able to, like I said, express your beliefs and you might not agree with what they did.

Jessica also reflected on the importance of expressing one’s opinions in the post-study interview:

Jessica: Because again, it made us think more in-depth about the subject and we had those, um, sources to help us go off of our like, Oh, our own opinions as well…. We were able to like from our own opinions with those sources…. But that way you actually have to think about things and have your own opinion about them.
When individuals take advantage of the opportunity to formulate opinions and express beliefs about a historical topic, it is indicative of considering various perspectives in their analysis (Standards in Historical Thinking, 1995). Based on the qualitative data, participants in this study were able to demonstrate the capacity to justify opinions and beliefs based on the understanding of the complex perspectives of any historical situation. This process is a key indicator of building critical thinking skills that define historical thinking.

**Assessing relevance.** One of the fundamental aspects of historical thinking is determining the relevance of any aspect of the past. Trombino and Bol (2012) define this process of assessing relevance as constructing meaning of the past by evaluating its impact on today. As participants completed each of the National Archives DocsTeach activities, the researcher encouraged each preservice teacher to engage in assessing the relevance of the historical situation or event by considering its impact on today. The qualitative data collected at the end of the study shows that the participants strongly relied on the idea of assessing relevance by focusing on a) the impact on themselves as an individual and b) the impact on society.

**Impact on the individual.** The most direct way of assessing the relevance of a historical topic is by analyzing the impact that the event has on one’s own life. Johansen (2014) posits that this sort of impact assessment is critical because it facilitates an understanding of common experiences across timeless patterns. Tally and Goldberg (2005) also mark this process as important because it allows individuals to engage with real people and authentic problems. In the Perception of History Survey given at the beginning of the study, the participants were asked what role they believed history played
in their everyday lives. Participants did not indicate a strong belief that had an impact on them as an individual:

Elizabeth: I don’t believe that history has much of an effect on my everyday life.

Jessica: History does not affect my everyday life because I know things have happened in the past and we have to move on from that.

In the post-study Perception of History Survey, however, the participants provided a great deal of evidence that shows they spent time within their work in the National Archives DocsTeach program evaluating the impact of the historical events on their own lives. When, again, asked what role they believed history played in their own lives, most participants answered that it did impact their lives:

Stephanie: History plays a role in my life somewhat. Especially when it comes to women’s rights. I wouldn’t be able to drive or be an individual but there are still ongoing issues that affect me now.

Amber: History has the ability to teach us about culture and we can use that to help define ourselves.

Jessica: I believe that history plays a huge role in my everyday life. Knowing things that have happened in the past makes me view life as a whole differently.

The most powerful data of the impact of historical analysis on the individual came from Whitney. In her post-study interview, Whitney recounted an occurrence during one of the National Archives DocsTeach activities that strongly influenced her understanding of how critically thinking about history impacts her as an individual:

Whitney: I know [Student’s Name] made a comment the other day about teaching about the Civil Rights Movement and she didn't feel comfortable doing it.
And I'm like, because of the black kids in the class. But I was like, think about the white kids in the class that should still know, learn about me. She's like, “Oh yeah, I didn't think of that.”

In her post-study Perception of History Survey, Whitney added:

Whitney: History impacts me in my everyday life because individuals may have a “perception” of me due to race/ethnicity.

Although most participants noted that they believed history had an impact on them as an individual, it is worth noting that not all of the participants had the same experience. Elizabeth, for example, did not indicate a belief that history impacted her as an individual:

Elizabeth: I do not believe that history has an effect on my everyday life.

Overall, the post-study qualitative data would indicate that most participants engaged in an impact assessment of the way that history and historical thinking impact their individual lives. This represents a shift from the qualitative data collected at the beginning of the study and would support an assertion that this reflective practice was a critical component of assessing the relevance of the National Archives DocsTeach activities.

**Impact on society.** Like evaluating the impact that a historical event has on one’s individual life, a similarly important process within critical thinking is assessing the impact that the event has on society as well. Ogunniyi (2012) comments on this process for practicing historians as paramount because the interaction between society and the past is mutual and continuous. If practicing historians are keenly aware of gauging the impact of history on current society, historical thinking should mirror such thinking as it
seeks to promote outside individuals to use the techniques of the professionals as much as possible (Breakstone, 2016). When given the Perception of History Survey at the beginning of the study, the participants seemed to acknowledge that history played a role in society:

Stephanie: History plays a role in society and how people think. Lately it feels like we are taking steps back.

Teresa: I believe history helped us become the free country that we get to live in today.

Though acknowledging that history played a role in society, it is worth noting that many of the participants did so with negative connotations at the beginning of the study:

Amber: History, or at least the knowledge of history, allows civilizations to collect data on behaviors and the consequences of past actions. It also allows us to see how civilization has developed over time.

Elizabeth: I believe that history has more of an effect on society today than it should. A lot of people dwell on things that happened in the past instead of trying to better the future.

Jessica: I do believe history plays an effect in society today. Racism is still affecting everyone daily and it shouldn’t.

Whitney: The effect history plays in society is positive and negative. Knowing and understanding past events allows us to view current events in different ways.

The participants’ responses to how history impacts society became more clearly defined when participants were asked the same question in the post-study Perception of History Survey:

Stephanie: History effects our lives now.
Amber: History teaches us where we came from and patterns of where we might go. It also teaches us about things we don’t want to repeat.

Teresa: I believe that history plays a huge effect in society because it teaches us how to avoid bad things from happening again. I think history reminds us of how far our society has come.

Jessica: History plays a huge effect in society because it teaches us what has happened in the past to make us learn from these events.

Whitney: The effect history plays in society is how people respond and treat one another whenever events happen today.

In addition to their answer to this question, the participants’ consideration of the impact of history on society was also evident in their post-study definitions of history:

Stephanie: History is events that happened in the past that influence our lives today.

Amber: History is looking at why things happened and their relevance to today.

Whitney: I define history as important events that have occurred in the past and the meaning behind each event, the effects it had on society or individuals.

Finally, two of the participants corroborated this focus on the impact of history on society in answers given during the post-study interview as well:

Stephanie: I guess like things that happened in the past that influence our lives today.

Elizabeth: I think that historical thinking is thinking about the importance of history and the impact that it has today.

Overall, qualitative data analysis indicates that the participants of the study believe that history and studying history has an impact on society. While the participants seemed to
hold this belief prior to the study, there are indications that this idea was strengthened over the course of the study as their explanations became more defined. Most notably, the participants used the impact on society as a cornerstone in their personal definitions of history and historical thinking. As a result, the evidence suggests that the participants utilized an analysis of the impact on society within their assessment of the relevance of the activities as a component of critical thinking during the study.

Engagement

There is also ample consensus that individuals studying history should do more than simply learn factual knowledge about historical events, people, and processes (Dickson, Gordon, & Lee, 2001). Rather, they should become actively involved in the learning process in a way that goes beyond lower-level understanding and recognizes the intricacies of contexts and influences through various historical lenses. Wineburg (2001) argues that the most direct means of reaching these higher cognitive levels of understanding is through engagement in the learning process. In this study, preservice teachers were given the opportunity to become engaged in four activities centered on the use of the National Archives DocsTeach program. Each of the activities was intentionally chosen because they represented historical events or contexts that facilitated the use of multiple perspectives, required students to reflect on their own experiences, and utilize the tools available to them with the digital archives. According to the qualitative data gathered through interviews and surveys, the participants’ overall engagement in the National Archives DocsTeach program emerged as a major theme throughout the study. More specifically, the participants discussed their ability to actively participate in
analysis of the documents. Secondly, the participants discussed how their perception of history, both positive and negative, impacted their engagement with the program.

Active participation. Research consistently argues that active participation within historical analysis is centered on an individual’s willingness and ability to interact with primary sources (Barnett, 2003; Bransford, Brown, & Cocking, 2000; Kearney & Perkins, 2003). Research suggests that if primary source documents are going to significantly enhance students’ understanding of content, students need to be both cognitively active and emotionally engaged when working with them (Seixas, 1998; Stearns, Seixas, & Wineburg, 2000). The two major ways that active participation presented itself within the qualitative data was persistence of students to stick with analysis throughout the activities and in use of the resources within the program to enhance their understanding.

Persistence. One of the key characteristics of active participation is persistence. Persistence, according to Lesgold and Welch-Ross (2012), is a component of self-efficacy and refers to a learners’ motivation to complete a given task or process. In this study, participants were able to demonstrate their persistence in each of the activities within each assignment. The participants referred to their persistence in the interviews. Stephanie and Amber discussed the importance of reading through everything in the activities:

Stephanie: The first activity that we did, I really just kind of looked over it, took it as it was, and finished it. But the one that we just did, I really read and thought about and thought about both sides and really, I don't know, like read everything that they said about the topic.
Amber: And then I liked the aspect of being able to click on the next thing and getting more information and then deciding what exactly you were looking at.

Elizabeth emphasized the importance of thinking through the details of the documents in comparison to a past disposition of struggling to consider all of the details:

Elizabeth: So, I’ve never really been able to pay attention to history…. But I think the activities helped me because they make you think through things in detail.

Jessica and Whitney discussed a similar concept of having to revisit the documents more than once in order to gain a better understanding.

Jessica: Like for example, the Martin Luther King Jr. activity. Um, we didn't know what like the full picture, so we had to really go back and think.

Whitney: I would probably say how they started off with just one small blurb of a picture and then taking a little amount of details and then having to put it all together at the end. And then after going back and reviewing the entire document, you get the whole picture of what it actually is.

Overall, the participants in the study noted that, during the activities, they demonstrated a sense of persistence. Rather than simply read through the documents one time, the participants refer back to the necessity to revisit them to read carefully and continuously think about their content. This persistence is indicative of active participation in the National Archives DocsTeach program and reflects the participants’ overall engagement in the program.

Utilizing key features. A second key component of active participation was the utilization of the key features within the National Archives DocsTeach program. A digital primary source is a primary source that has been scanned or photographed and preserved
in collections that can be accessed through the use of digital devices with access to the internet (National Archives and Records Administration, 2015). Bolick (2016) argues that the creation of digital archives has shifted the ability to conduct meaningful historical research as they allow for the utilization of digital tools that can help give more meaningful access to the sources. In the post-interview, the participants of the study provided a great deal of data related to the use of the features within the National Archives DocsTeach program and how these tools positively impacted their ability to interact with the documents. The overwhelming feature that was mentioned by the participants was the use of the zoom tool, which is a feature available for all of the digitized primary sources in the program’s archives:

Amber: I liked being able to zoom in and read the document firsthand.

Amber: And again, I liked the fact that you could zoom in and read more about the documents.

Teresa: I liked how with the Martin Luther King or activity, when you had to zoom in, like you zoomed in on the picture and then you had to try to figure out what it was and then the boat picture as well when you, you didn't know what it was.

The participants of the study also noted their use of the features in the surveys given at the end of the study. Again, when asked what feature of the program they believed was most helpful, the majority of the participants noted the use of the zoom tool as particularly beneficial in their analysis of the documents:

Stephanie: Zoom for sure. It allows you to see the documents up close.

Amber: Being able to zoom in on the document. I have trouble seeing details and this really helped.
Elizabeth: The most effective feature was being able to zoom in on the document.

Jessica: I really liked the zoom in feature for the Constitution and other documents.

Whitney: The feature that is most effective is the zoom in and out buttons. This allows you to see the whole document or important parts.

In addition to the focus on the use of the zoom tool as a means of document analysis, it is worth noting that all participants, when asked if the program was easy to use, answered yes. Specifically, Jessica and Whitney responded:

Jessica: Yes, I do believe the DocsTeach program is easy to use.

Whitney: I did feel as though the DocsTeach program was easy to use.

Overall, the qualitative data showed that the participants in the study engaged in document analysis through the use of close reading and the built-in digital features of the National Archives DocsTeach program. The overall use of document analysis by the participant directly supports the theme of engagement that emerged from the qualitative data.

**Perception of History.** Psychologists have maintained that the concept of perception is incredibly complex and, while debate exists among internalism and externalism about the source of perception, both schools of thought maintain that it is the process of acquiring and processing of information (Hochberg, 1956; Hatfield, 2009; Denmuth, 2013). In the context of history, perception in this study was defined as a blend of interest, appreciation, and overall attitude about the past or specific events of the past (Harris & Hayden, 2006; Ribbens, Westerhof, and Van Halen, 2006). Participants in this
study were given the opportunity to express their perceptions in a survey given prior to the study, surveys given at the end of the study, and within a post-study interview. When analyzing the qualitative data, there emerged a clear indication that the participants had a negative perception of history and historical analysis prior to participating in the National Archives DocsTeach program activities.

**Negative perception at the beginning of the study.** In the Perception of History Survey given at the beginning of the study, all of the participants provided some indications that they had an overall negative perception of history. When asked if they felt engaged or interested in history, Stephanie, Amber, Elizabeth, and Teresa all indicated clear negative perceptions:

- **Stephanie:** Not even a little. It’s boring and not taught in an engaging way.
- **Amber:** I did not like history in school when I had to remember specific names and dates.
- **Elizabeth:** No, because history was never made fun for me, so it never interested me.
- **Teresa:** I do not engage in history or politics.

Jessica and Whitney indicated they were a little more indifferent to the subject area:

- **Jessica:** I do and don’t feel engaged or interested in history. It really depends on what the topic is.
- **Whitney:** I sometimes feel engaged in history. It depends on the subject.

When asked if they enjoyed learning about history as compared to other subjects, Stephanie, Elizabeth, Teresa, and Whitney all gave clear indications that they did not enjoy the subject:
Stephanie: Not at all… I do not like to learn it.

Elizabeth: I do not really enjoy learning about history.

Teresa: History is my least favorite subject.

Whitney: I do not enjoy it as much as other subjects.

Again, Amber and Jessica gave some indication of enjoying history, but it was qualified by the teacher or topic:

Amber: I like learning about science more, but with the right teacher in school I enjoyed it.

Jessica: It depends on the topic of history if I enjoy learning about it compared to other subjects.

Finally, when asked if history was important, participants provided more evidence of a negative perception of history at the beginning of the study.

Stephanie: I know it’s important, but I do not like to learn it.

Amber: I think learning history is important, but not as important as other subjects.

Elizabeth: I feel that history is important but compared to other subjects falls to the bottom of the list.

Jessica: I do think learning history is just as important as learning other subjects.

Whitney: I think learning history is very important, just not as much as other subjects.

Additionally, the participants in the study noted a negative perception of history at the beginning of the study in their interviews.

Stephanie: I did not like [history]. Cause nobody taught it in a fun or engaging way for me to understand it. They wanted you to look at the textbook, answer the questions, memorize vocabulary and take the multiple-choice test. And that's boring. Yeah.
Amber: It's not my favorite subject, but I do think it's important. I think a lot of, I don't mind history if I can look at things I’m interested in and the other things I have questions about, but I wouldn't say it's my favorite class normally.

Teresa: I never enjoyed history because no one ever made it fun.

Jessica: Um, I knew it was important, but I didn't really enjoy learning it because I had been in previous classes with like coaches that teach history. So, it wasn't that exciting for me.

Whitney: Honestly, I didn't really care much about it.

Overall, the participants of the study indicated that they had a negative perception of history prior to participating in the study. In line with research by Wanzek, Kent, & Stillman-Spisak, (2015), this negative perception directly impacted their understanding as they repeatedly noted that they did not feel it was important and were not engaged in studying it. When asked if they had been successful in history courses prior to the study, all but one of the participants responded that they did not feel like they had been successful.

**Positive perceptions at the end of the study.** When given the Perception of History Survey again at the end of the study, there were some indications that the participants had a more positive perception of the subject. When asked if they felt engaged or interested in history, most of the participants indicated that there were times when they did feel engaged or interested:

Stephanie: Somewhat in the aspect of seeing how things grow and progress.

Amber: History isn’t always my favorite, but I enjoy it when I am able to seek out answers to the questions that interest me.
Teresa: Yes and no. History is definitely important, but I do not always enjoy it.

Jessica: I do feel engaged in history when it is over something that interests me.

Whitney: I feel engaged or interested in history when it's something I can relate to or understand what exactly is going on.

Not all responses by the participants were positive. Elizabeth still indicated that she did not feel interested or engaged in history:

Elizabeth: History has never been interesting or fun for me to learn, so I do not feel engaged in history.

When they were again asked if they believed that learning history was important, all of the participants responded they did believe the content area was important to study:

Stephanie: I know it’s important to understand the past events that influenced today.

Amber: I think history is important to learn because we need to know where we came from.

Elizabeth: I feel that history is important but compared to other subjects.

Teresa: I think it is just as important as the other subjects.

Jessica: I do believe learning about our history compared to learning other subjects is very important.

Whitney: I think it is very important to learn history. Knowing important events and how they impacted society is good to know.

In addition to these survey responses, the participants also provided evidence of a more positive perception of history in the post-study interviews. Participants were asked if they believed their perception of history had changed due to the National Archives DocsTeach
program. All of the participants indicated that the program did have some impact on their perception:

Stephanie: Mm, I don't think I would hate it if it was taught the way that we learned it in that class. Like doing the hands-on things and really like, I don't know, I'm used to history being like you learn the facts, you know them, you memorize them, you take the test. But that way you actually have to think about things and have your own opinion about them.

Amber: I definitely think that I have considered more ways to include history at earlier ages instead of just social studies and how you can use those primary documents with the younger students.

Elizabeth: Yes…. Well, because I think that the activities we did will help me or have helped me because like I said before, it's just not giving you the answer. Like, you're not just reading it out of a book, you're having to think about it and use what you already know by just looking at a smaller portion of stuff and then answering.

Teresa: And being able to do the DocsTeach program, I think it helped me to realize that you can be able to express your own beliefs about things…. I thought history was more of like this is the way it is, but you're, you're actually able to, like I said, express your beliefs and you might not agree with what they did.

Jessica: I guess so, because I, I do know that history is very important, and we should learn about it. But yes, you've taught, like you've made us think more in-depth about it.

Whitney: Yeah, I would say yeah…. thinking about how I am going to teach it makes it more enjoyable.

All of the participants noted some increase in the positive perception of history by the end of the study. Though not all of the participants indicated that they enjoyed learning about history, many indicated that they experience more engagement when the topic is
one that they are interested in. Additionally, all of the participants emphasized that the content area was one that was important. Finally, all of the participants indicated that the experience of participating in the four National Archives DocsTeach program activities within the study impacted their perception of history positively.

**Summary**

For this mixed-methods study, quantitative data was collected through the use of a preassessment and postassessment. The assessments used were document-based questions, which are a research-based means of measuring historical thinking (Dutt-Doner, Rech-Rockwell, Cook-Cottone, & Allen, 2006). While different in content, these document-based questions have identical objectives. Qualitative data were collected through the use of observations, a Perception of History Survey given at the beginning and end of the study, a Perception of the National Archives DocsTeach Program Survey given at the end of the study, and a post-study interview. Data from these sources were coded using an inductive coding process that transitioned from In Vivo coding to pattern coding. In addition to this coding process, profiles of the participants were provided in order to provide a rich description of each individual that participated in the study and their experience with the National Archives DocsTeach program. At the conclusion of the qualitative analysis, *critical thinking* and *engagement* emerged as the two major themes along with a number of categories and subcategories.
CHAPTER 5

DISCUSSION, IMPLICATIONS, AND LIMITATIONS

This chapter positions the findings within the existing literature on the impact of digitized primary sources on historical thinking and perception of history. The purpose of this study was to evaluate the implementation of the National Archives DocsTeach program as a means of increasing historical thinking for preservice teachers at a regional southeastern university. Quantitative analysis was conducted through the use of preassessment and postassessment in the form of document-based questions. The change in scores between these assessments was indicated to be statistically significant through descriptive statistics. Qualitative data was also collected through the use of anecdotal observations, a Perception of History Survey administered at the beginning of the study and at the end of the study, a Perception of the National Archives DocsTeach Program Survey given at the end of the study, and a post-study interview. Profiles were provided for each participant within the qualitative analysis to describe their dispositions prior to the study and their specific experience with using the National Archives DocsTeach Program. Additionally, two major themes emerged, critical thinking and engagement from the inductive analysis of the qualitative instruments (see Figure 4.4). This chapter will present a discussion, implications, limitations, and provide closing thoughts for this research.
Discussion

It is important to situate the findings of this research within the larger context of research for utilizing digitized primary sources as a way of increasing historical thinking and perception of history. To specifically answer the research questions, the data were combined and considered through a lens of technological and pedagogical content knowledge and its impact on preservice teachers. The literature on the use of digitized primary sources will also help explain the changes that occurred among preservice teachers when participating in activities utilizing the National Archives DocsTeach Program. The discussion is organized by the three major research questions that guided this study.

Research Question 1: How will the use of the National Archives DocsTeach program impact preservice teachers’ historical thinking?

Historical thinking is described in existing research as a higher-order thinking skill that specifically requires students to apply critical thinking skills to documents of history (Collingwood, 1994; Dulberg, 2005; Wineburg, 2007). The definition used for historical thinking within this study was thinking that requires students to read primary sources critically, to inquire deeply and critique historical narratives, and form reasonable conclusions about the past based on these corroborating sources (Franquiz & Salinas, 2011). Research has also shown that historical thinking has become an increasing focus in K-12 classrooms (Atkin, 2016; Bickford III, 2013; McGlinn, 2007). More specifically, research supports the use of digitized primary sources, such as those contained in the National Archives DocsTeach program, as one of the most effective means of increasing historical thinking in the classroom (Tally & Goldenberg, 2005; Greene, Bolick, &
Robertson, 2010). In order for future teachers to successfully teach their students how to engage in historical thinking, the technological and pedagogical content knowledge theory asserts that preservice teachers must be able to adequately engage in the analysis of digitized primary sources to build historical thinking themselves (Harris, 2008; Hofer & Harris, 2010; Hilton, 2016). There is a lack in literature specifically aimed at researching the relationship between historical thinking and preservice teachers (Buchanan, 2015). There is, however, research that supports the argument that preservice teachers experience an increase in their historical thinking when they participate in training specifically geared towards modeling these complex thinking strategies (Murray, 2013, Buchanan, 2015, Salinas, Bellows, & Liaw, 2011).

In this study, the National Archives DocsTeach Program was utilized as a means of providing the opportunity for preservice teachers to build their technological, pedagogical, and content knowledge by using historical thinking to interact with digitized primary sources. Data collected during the study indicated that the preservice teachers that participated in the study did experience a positive impact on their historical thinking over the course of the research. This increase in historical thinking can be seen in their performance on document-based questions and use of critical thinking skills.

**Document-based questions.** In this study, the participants were given a document-based question at the beginning of the innovation as a preassessment and a second document-based question at the end as a postassessment (See Appendix A). The essays were assessed by two scorers who utilized a holistic rubric (See Appendix B). Descriptive statistics were used to show that the increase in scores between the preassessment and postassessment was significant. This corroborates the findings of
Tally and Goldenberg (2006) who concluded that digitized primary sources help to develop the specific skills related to historical thinking. These findings also support the conclusion of Green, Bolick, and Robertson (2010) that digitized primary sources, when utilized in a technology-rich environment, enhance historical thinking. Because the document-based question has been established as research-based method of measuring historical thinking, these findings support the argument that the participants experienced an increase in their historical thinking over the course of the study due to the use of the National Archives DocsTeach program. (Stovel, 2000; Dutt-Doner, Rech-Rockwell, Cook-Cottone, & Allen, 2006).

Use of critical thinking skills. The use of critical thinking skills such as analysis, interpretation, making inferences, and reflection when analyzing primary sources is indicative of engaging in historical thinking (Wineburg, 2001). The participants in this study had the opportunity to display the use of these skills over the course of the study as they participated in four activities within the National Archives DocsTeach Program. The participants demonstrated a willingness to engage in close reading of the documents, often utilizing the various tools within the program and revisiting the primary source more than once to gain a better understanding. For example, Jessica spoke about realizing the need to spend time analyzing the documents more than once, “Like, it really made us go into depth thinking about what, like for example, the Martin Luther King Jr. activity. Um, we didn't know what like the full picture, so we had to really go back to look again and think about what happened.” This is similar to the findings of Murray (2013) who determined that preservice teachers experience an increase in their own critical thinking skills when they participate in activities that are designed to model these skills.
Additionally, over the course of the study, the participants became more actively engaged in meaningful conversations that demonstrated in-depth analyses of the documents. For example, when reading through the Constitution of the United States, Whitney verbalized that this was the first time that she had actually read through the document and that it “actually has a lot of specific information about the way the United States should work.” This comment led to a discussion with other participants in which they reflected on their experiences, or lack thereof, with the formative documents of American government. Through this reflection, all of the participants came to a consensus about how important it was for their future students to have the opportunity to read through these original documents. This application of the critical thinking skills they have developed resembles the findings of Salinas, Bellows, and Liaw (2011) who posited that preservice teachers who participated in a specific methods course focused on historical thinking had a much stronger understanding of how to utilize these complex skills once they entered their own classroom. Finally, when asked in their post-study interviews if the National Archives DocsTeach program had any impact on their historical thinking, all of the participants indicated that participating in the activities had impacted their ability to analyze history. Cowgill and Waring (2017) found a lack of historical thinking among starting teachers and determined that teacher professional development programs should be improved to help early teachers gain competence in this area. Indicating that using the National Archives DocsTeach program impacted their ability to analyze history supports the argument of Cowgill and Waring (2017). It highlights a deficiency in historical thinking prior to the study and an increase in abilities after the study. This engagement in critical thinking through document analysis, participation in meaningful discussions, and
recognition of an increased ability to analyze history all indicate that the National Archives DocsTeach program had a positive impact on the historical thinking of the participants in this study.

**Conclusion.** Mertler (2016) identifies triangulation as the process of using multiple sources of data to verify the consistency of findings within research. Both quantitative (document-based questions) and qualitative (observations and interviews) data collection methods were used and analyzed in order to triangulate findings in relation to the first research question of this study. Quantitative data provided statistically significant evidence of growth in historical thinking. Similarly, inductive coding of qualitative data determined the use of critical thinking skills to be a major theme with categories of document analysis, considering perspectives, and assessing relevance (See Figure 4.6). Together, these two findings support the overall argument that the National Archives DocsTeach program had a positive impact on and increased the historical thinking of the preservice teachers in this study. These findings heavily support existing literature concerning the historical thinking and preservice teachers.

**Research Question 2: How will the use of the National Archives DocsTeach program impact preservice teachers’ perception of history?**

Based on existing literature, perception of history was defined as a blend of interest, appreciation, and overall thoughts and feelings about studying the past (Harris & Hadyn, 2006; Ribbens, Westerhof, & Van Halen, 2006). Some of the research-based methods of measuring perceptions of history include the use of perception inventories, attitudinal surveys, and interviews (Ribbens, Westeroff, & Van Halen, 2006; Hadyn & Harris, 2010; Altum, 2014; Halvorsen, Harris, Aponte-Martinez, and Frasier, 2016).
Overall, the idea of technological and pedagogical content knowledge infers that the perception of history among preservice teachers can have an impact on the success of K-12 students. A negative perception of history by teachers can lead to lower academic performance and, conversely, a positive perception of history among teachers can ultimately benefit the students that they teach. In order for future early childhood and elementary students to develop a positive perception of history that supports academic success in the area, it is important for teacher educators to strive to build a positive perception among preservice teachers in their social studies method courses (Cochran, 2012).

In this study, the National Archives DocsTeach program was implemented as an innovation with the possibility of helping create a positive perception of history among the participants. Data collected throughout the study indicated that participating in the program had some impact on the participants’ perception of history. Specifically, this impact can be seen in the participants’ thoughts and feelings about history as well as their engagement in the activities.

**Thoughts and feelings about history.** In this study, the participants were given an open-ended attitudinal survey (See Appendix E) at the beginning of the study and an identical survey at the end of the study. Based on the responses to the initial survey, all of the participants had a negative perception of history prior to beginning their work in the National Archives DocsTeach program. Specifically, the participants’ thoughts and feelings indicated that they were not interested in history and found studying the past to be boring. Examples of these negative thoughts and feelings include responses such as Amber stating, “I did not like history in school,” and Elizabeth saying, “I do not really
enjoy learning about history…. History falls to the bottom of the list” in terms of importance. These negative expressions directly align to research determining that there is a negative perception of history among preservice teachers who plan on entering the early childhood and elementary level (Ohn, 2013). Participants also expressed hesitancy in teaching social studies at the beginning of the study. This lack of confidence reflects the findings of Speicher (2017), who determined that preservice teachers felt inadequately prepared to teach social studies, particularly when it comes to the complex areas of social justice. The participants were also given the opportunity to express their initial perception of history in the post-study interview. Similar to the survey, when asked about their perception of history prior to completing the National Archives DocsTeach Program activities, the participants indicated very negative thoughts and feelings. Again, these negative thoughts and feelings support the existing literature, such as Wanzek, Kent, and Stillman-Spisak (2015), that report low interest and motivation in the content area of history.

In the post-study Perception of History Survey, the participants provided indications that their perception of history had improved. Five out of the six participants indicated that they did have an interest in history. Responses included, “I enjoy it when I am able to seek out answers to the questions that interest me,” “I feel engaged or interested in history when it’s something I can relate to or understand what exactly is going on,” and “I am somewhat [interested] in the aspect of seeing how things grow and progress” by Amber, Jessica, and Stephanie. This evidence supports the findings of Manfra and Coven (2011) who determined that the use of digitized primary sources across historical studies can help make concepts more relevant to individuals using them.
This emphasis on relevancy could be influenced by the researcher’s choice to use activities within the National Archives DocsTeach program that were centered on social history and justice. It is worth noting that one participant, Elizabeth, did not change in terms of her thoughts and feelings on the subject. She stated, “History has never been interesting or fun for me to learn, so I do not feel engaged in history.” Elizabeth’s experience mirrors the findings of Wanzek, Kent, and Stillman-Spisak (2015) as her experiences throughout her formative education created a negative perception of the content area that was not improved over the four-week innovation period.

When asked if they believed history was important, all six of the participants indicated that they did think the subject was important in the post-study interview. Responses included, “I think it is just as important as the other subjects,” “I think it is very important to learn history… knowing important events and how they impacted society is good to know,” and “I know it’s important to understand the past events that influenced today” by Teresa, Whitney, and Stephanie. In the post-study interview, the participants were explicitly asked if their thoughts and feelings about history had changed. All of the participants indicated an improvement. Responses included, “And being able to do the DocsTeach program, I think it helped me to realize that you can be able to express your own beliefs about things…. I thought history was more of like this is the way it is, but you're, you're actually able to, like I said, express your beliefs and you might not agree with what they did,” and “I guess so, because I, I do know that history is very important and we should learn about it. But yes, you've taught, like you've made us think more in-depth about it.” This acknowledgment of the importance of history after completing the study corroborates the findings of Lee and Molebash (2004) who
determined that individuals who engage in digitized primary sources develop reflective thinking that allows them to analyze the overarching impact of historical events.

Overall, the data collected over the course of the study indicated that the participants had negative thoughts and feelings about history prior to the study. These thoughts and feelings became much more positive after completing the four activities in the National Archives DocsTeach program.

**Engagement in the activities.** Research indicates that one of the key factors in an individual’s perception of history is how engaged they are with the content’s activities and materials (Diem, 2002). During the study, the participants demonstrated active engagement in the National Archives DocsTeach activities. For example, when discussing the Martin Luther King, Jr. activity, Whitney had an interaction with another participant in which she expressed the importance of learning about and teaching the Civil Rights Movement and said it would allow others to learn about people “like me.” Similarly, when completing an activity on the leaders of the Women’s Suffrage Movement, Amber indicated that she was interested in the topic and would like to spend more time learning about it in the future. This evidence of engagement through personal reflection supports the findings of Manfra and Coven (2011), who argue that using digitized primary sources helps individuals determine the relevancy of historical events.

The participants also discussed ways the activities allowed them to reflect on history’s impact on their lives in their post-study interviews and surveys. For example, Amber said, “it was interesting to see white people in the photograph because I had never really considered that they were there and a part of it too.” Jessica also spoke of trying to place herself in the contexts of historical events studied in the activities and stated, “We
had to really go back and think about what it was like during that time period.” All of the participants, with the exception of Elizabeth, also stated that they did believe that history played a role in their daily lives. Manfra and Coven (2011) found similar results when they determined that digitized primary sources could help eliminate misconceptions about the past. This reflection also supports the findings of Diem (2002) who determined that access to materials presented through digitized primary sources would provide individuals to engage in and reflect upon various experiences.

The National Archives DocsTeach program offers a number of digital tools that allow a user to explore documents in detail, and the participants of the study often took advantage of these tools. The most common tool used by all of the participants throughout the study, however, was clearly the zoom feature. Teresa spoke about her utilization of this feature in the program. She said, “I liked how with the Martin Luther King or activity, when you had to zoom in, like you zoomed in on the picture and then you had to try to figure out what it was. And then the boat picture as well when you, you didn't know what it was.” Stephanie added that the zoom feature “allowed you to see the documents up close.” Amber summarized the importance of the zoom feature as well when she stated, “Being able to zoom in on the documents, I have trouble being able to see the details and this really helped.” This engagement with the tools of the National Archives DocsTeach program corroborated the findings of Lazinger (2001) emphasizing the fact that electronically stored documents allow for greater access and interaction through the use of technology.

Finally, when directly asked if they felt engaged or interested in history, all of the participants indicated that they did not feel very engaged or interested in history prior to
the start of the study. This lack of engagement supports the findings of Ohn (2013) who found in his study that preservice teachers found history to be an uninteresting collection of facts. When asked again after completing the four National Archives DocsTeach Program, Whitney, Jessica, and Amber all stated that they did feel engaged in history. Whitney said, “I feel engaged or interested in history when it’s something I can relate to or understand what exactly is going on.” Jessica said, “I do feel engaged in history when it is over something that interests me.” Amber said, “enjoy it when I am able to seek out answers to the questions that interest me.” Stephanie and Teresa offered that they were somewhat interested in history. Stephanie that she was “Somewhat [interested] in the aspect of seeing how things grow and progress,” and Teresa said, “Yes and no. History is definitely important, but I do not always enjoy it.” This increase in engagement directly aligns with Lee and Molebash (2004) who determined that individuals who used digitized primary sources became more engaged in history.

Overall, the data indicate that the majority of the participants were engaged in the activities through reflective practices that allowed them to examine the impact of the historical events on their lives. The participants also utilized the features of the digitized primary source archive and, in particular, noted the use of the zoom tool to examine details of the documents. Finally, when asked if they were engaged or interested in history, almost all of the participants noted an increase in engagement or interest from the beginning of the study to the end.

**Conclusion.** According to Creswell (2014), the purpose of multiple sources of data is to have corroboration and converging evidence. Qualitative data was collected to answer this research question, but multiple data collection methods (observations,
interviews, and surveys) were analyzed. One of the primary themes that emerged from the inductive coding of this qualitative data was engagement with categories showing an overall negative perception of history at the beginning of the study, positive perceptions of history at the end of the study, and active participation in the activities throughout the study (See Figure 4.6). This convergence of qualitative data would suggest that the National Archives DocsTeach Program did have some positive impact on the perception of history of the participants in the study. Creswell (2014) identifies triangulation as the process of using multiple sources of data to verify the consistency of findings within research. Both quantitative (document-based questions) and qualitative (observations and interviews) data collection methods were used and analyzed in order to triangulate findings in relation to the first research question of this study. Further research in this area is needed to determine a definitive impact that the National Archives DocsTeach Program has on the perception of history among preservice teachers.

**Research Questions 3: What are preservice teachers’ perceptions about using the National Archives DocsTeach program as an instructional resource?**

One of the fundamental arguments of the TPACK theory proposed by Mishra and Koehler (2006) is that teachers must demonstrate an understanding of technological, content, and pedagogical knowledge in order to become an effective teacher. The International Society for Technology in Education (ISTE) has supported the impact of TPACK on student success by having standards that require teachers to use their knowledge of subject matter, teaching and learning, and technology to facilitate experiences that advance student learning (ISTE, 2017). Additionally, research shows that when educators focus on using technology as a tool for enhancing the instructional
processes within their classroom, students are more able to manage and construct their own learning processes (Oksuz, Ak, & Uca, 2009; Baydaş, Göktaş, & Tatar, 2013; Ottenbreit-Leftwich, Glazewski, Newby, & Ertmer, 2010). So, ultimately it is necessary for teacher preparation programs to implement technological application in social studies methods courses in order to model appropriate use of technology in the social studies classroom and facilitate opportunities for preservice teachers to practice using technology as an integral component of their own social studies lessons (Mason, Berson, Diem, Hicks, Lee, and Dralle, 2000).

With this foundation of research in mind, the researcher also chose to focus on the participants’ perception of the National Archives DocsTeach program as an instructional resource. Data collected during and after the study determined that the participants had an overall positive perception of the National Archives DocsTeach program. Specifically, the data showed that the participants were satisfied with the program and had specific plans on using the program in their future classroom.

**Positive interactions with the program.** Over the course of the study, the participants had many opportunities to demonstrate their positive interactions with the program. As they completed the four activities, many of the participants noted informal comments about the program. For example, Elizabeth said, “this is cool,” the first time that she utilized the zoom feature on the Rosa Parks document. Whitney stated, “I actually like being able to read these things,” when looking at the Constitution. Participants also had the opportunity to explicitly note their satisfaction with the program in the Perception of the National Archives DocsTeach Program Survey given at the end of the study. Amber stated, “I liked using the program. It was interesting to see the
documents” Jessica said, “I really liked using the National Archives DocsTeach program. It really made me have to think.” This satisfaction with the program aligns with the research of Chen (2015) who determined that the National Archives DocsTeach program is one of the richest examples of a national-level institution’s repository and is an invaluable resource to teachers.

In addition to their overall satisfaction with the National Archives DocsTeach program, all six of the participants stated that they believed the program was easy to use. “What I like the most is the easy navigation,” by Whitney. This emphasis on the ease of use of the program supports the research of Ward (2012) who highlights the tools featured by the program as an incredibly useful resource for teachers and students. All of the students noted the easy use of the zoom tool as beneficial to their experience. This focus on this particular tool was very likely because it was the first tool in which the participants actively used. Moreover, the zoom tool was the most consistently used tool within the activities used in this study.

Finally, all six of the participants said they had a positive perception of the program. For example, Elizabeth said, “I feel that the DocsTeach program overall is useful and helpful.” Jessica said, “I really enjoyed doing the National Archives DocsTeach program.” When asked, none of the participants indicated that they had anything negative to comment on the program. This positive perception of using a digitized primary source repository corroborates research by Fehn and Koeppen (2012) who found that having access and using digitized primary sources eliminates many of the negative feelings and constricting realities of studying history. Similarly, these positive perceptions support the findings of Monte-Sano and Budano (2013) who determined that
many teachers realize the importance of primary sources but only develop the positive confidence to do so when they have access and experience with them.

**Plans to use it in their future classroom.** Research supports the argument that the use of digitized primary sources is a key way of implementing TPACK in social studies preparation courses (Shriner, Clark, Nail, Schlee & Libler, 2010; Friedman, 2006; Lee & Molebash, 2004). The ultimate focus of TPACK, however, is on the application of the skills learned in the K-12 classroom setting.

Because of this focus, the participants in the study had the opportunity to express any future plans for using the National Archives DocsTeach program in their classrooms. When directly asked on the post-study Perception of the National Archives DocsTeach Program Survey, if they planned on using the program in their future classroom, all six of the participants noted that they were likely to do so. Whitney said, “I am very likely to use this in my future classroom!” Many of the participants did note that this use would be dependent on the grade level in which they taught. For example, Teresa stated, “I think I will use the DocsTeach program if I teach second or third grade.” Byker (2014) argued that integrating technology into social studies preparation courses would lead to more teachers utilizing the resources in their classrooms. Similarly, Mason, Bersen, Diem, Hicks, Lee and Dralle (2000) posit that modeling the use of technology and building authentic experiences for preservice teachers to engage in technology is an integral component of teacher preparation that will lead to a marked improvement in their own social studies lessons. The increased confidence and plan to use the DocsTeach program in their classroom directly supports existing literature and shows that the participants in
this study will likely exemplify this type of future application that previous studies have
deemed indicative of quality social studies teacher preparation.

In addition to stating that they would likely use the program in the future, all of
the participants also elaborated as to why they would want to use the program. The
participants indicated that they believed the program would be beneficial to their
students. For example, in the post-study interview, Elizabeth said, “I believe [the
program] can impact my future students’ historical thinking by teaching them how to
make predictions and grabbing their interests.” Amber said, “Yes, it would benefit
students because it gets them interested in history. You can use questions like ‘What are
we looking at?’ ‘What is happening?’ or ‘What is the mood?’” Overall, all of the
participants indicated future plans to use the DocsTeach program in their own classrooms
because they believed that it would have a positive impact on their future students’
historical thinking. This willingness to use the program because of its positive impact on
future students supports the findings of Friedman (2006) who determined that teachers
with access to technology are much more likely to use digitized primary sources in a
manner that incorporate historical thinking and leads to higher academic achievement.

Conclusion. Creswell (2014) argues that it is important to have multiple sources
of data in order to have converging evidence that is corroborated. Multiple qualitative
data collection methods, including observations, interviews, and surveys, were analyzed
to answer this final research question. During the inductive coding process of analyzing
the qualitative data, subcategories emerged that centered on the participants’ perception
of the program. These included expressing overall satisfaction with the DocsTeach
program and utilizing the program with future students. These subcategories fell within
the major theme of engagement. This convergence of qualitative data from multiple sources throughout the study supports the position that the participants had a positive perception of the National Archives DocsTeach program as an instructional resource in this study.

**Implications**

This research has implications for myself, practitioners in the area of teacher education, and scholarly researchers. In this section, three types of implications are considered: (a) personal implications, (b) implications for instructing early childhood and elementary preservice teachers in Social Studies methods, and (c) implications for future research.

**Personal Implications**

As a result of this study, I have learned several personal lessons that I will use as an educator preparing preservice teachers to enter the field of education. These lessons include (a) strengthening quantitative and qualitative analysis, (b) the implementation of research-based strategies with preservice teachers, and (c) sharing findings.

**Strengthening quantitative and qualitative analysis.** In this study, I utilized a mixed-methods design that included the use of quantitative data and qualitative data to triangulate findings (Mertler, 2014; Creswell, 2014). In collecting both quantitative and qualitative data, I had the opportunity to conduct a variety of analyses that applied to both types of data. This included analyzing descriptive statistics for the quantitative data and inductive coding analysis for the qualitative data. Coming from a K-12 background prior to this study, I was most comfortable with the traditional methods of evaluating student progress within public education. In the courses I taught prior to this study, I relied on
test scores for traditional assessments and rubric scores for performance-based assessments to gauge the understanding of my students. By centering this study on three research questions that really evaluated the impact of an innovation on understanding and perception, I was able to broaden my understanding of data analysis. Conducting quantitative tests that determined whether or not there was a statistical growth in student performance was eye-opening. This quantitative analysis added a new layer of understanding of best use of quality preassessments and postassessments in my courses. Most impactful, however, was having the opportunity to work through the inductive coding process. While I have often conducted observations, informal interviews, and had students complete post-course surveys, I have never truly analyzed that data in such a meaningful way. Taking a large amount of time to process, categorize, recategorize, and really stew on the codes that emerged from the qualitative data was one of the most enlightening experiences of this research. Overall, quantitative and qualitative data analysis will become a more active part of my approach to my future students and having the opportunity to hone those skills will prove invaluable as I move forward in conducting additional research.

**Implementation of research-based strategies with preservice teachers.** Prior to beginning this study, I was serving as an elementary school teacher in a public school. As I began working with preservice teachers in methods courses within our teacher education program, I found myself relying very heavily on my personal experiences in the classroom. I was using these personal experiences as the primary driving force behind designing the curriculum for the courses. Over the years of completing this research; however, I learned very quickly that the rapidly changing world of education often
rendered those personal experiences meaningless. Preservice teachers entering the field faced new challenges that I had not encountered. In thinking about the theoretical foundation for this study, I became very familiar with the PCK theory developed by Shulman (1986) and TPACK theory developed by Mishra and Koehler (2006). Using these theories, as well as the other copious amounts of research that supported the use of digitized primary sources, I realized how important it is for teacher education courses to be focused on research-based strategies. Providing preservice teachers with the opportunity to engage in research-based activities is the most effective means of giving them the pedagogical, content, and technological knowledge to succeed as future teachers. While these research-based strategies in themselves may not be timeless, the notion of centering preservice teachers’ learning within sound research should never change. Having the opportunity to see data corroborate this idea over the course of this study as preservice teachers engaged with the National Archives DocsTeach program solidified this understanding in my mind. This study will forever impact the way I choose materials for my methods courses in the future.

**Sharing findings.** One of the most important aspects of conducting research is sharing findings. According to Baumfield, Hall, and Wall (2008), sharing research findings in educational research is important because it allows others to learn from your research, helps match the dissemination of your findings with your intentions and your audience, creates links with existing research, provides opportunities for professional development and school improvement, and helps one engage in debate with the wider professional and academic community. In concluding the data analysis of this research, I had the opportunity to share the findings with both the participants of the study and my
colleagues in the School of Education. All of the participants were very eager to see the findings of the study. One of the biggest topics of discussion for the participants was their improved performance on the document-based questions. They seemed to be pleased that they showed growth between the preassessment and postassessment. Additionally, the participants were surprised to see how much analysis occurred between the observations, interviews, and surveys. One of the participants, Elizabeth, noted, “You seriously used every single word that we said, didn’t you?” All of the participants also agreed that the findings of the research aligned with their overall experiences in the study. Having the opportunity to share the findings with the participants was a rewarding experience as I was able to revisit the memories of conducting the study but also gather an additional layer of confirmation of my findings.

In addition to sharing findings with the participants, I have had the opportunity to share my findings with my colleagues. This experience has provided an additional layer of peer debriefing as my peers asked meaningful questions about the research. These questions have given me the opportunity to revisit and refine the work over time. Additionally, sharing research with my peers has allowed me to build relationships for future research and presentations as we identify layers where research interests overlap. For example, I am currently working with a colleague to develop an article centered on the integration of technology within social studies as a tool for students with learning disabilities.

These experiences with the participants and colleagues have shown me that actually sharing the findings is one of the most rewarding aspects of conducting research.
By sharing my findings, I have been able to strengthen my study, corroborate findings, and identify specific areas for future research.

**Implications for Instructing Early Childhood and Elementary Preservice Teachers in Social Studies Methods**

This study suggests two major implications for educators instructing early childhood and elementary preservice teachers in Social Studies methods. These implications are: (a) the importance of building historical thinking and (b) the importance of managing perceptions of history.

**The importance of building historical thinking.** Research shows the importance of building historical thinking among K-12 students (Atkin, 2016; Bickford III, 2013; McGlinn, 2007). Research also supports the argument that the use of digitized primary resources for document analysis is an effective means of building historical thinking (Bolick, 2016, Greene, Bolick, & Robertson, 2010; Lee & Molebash, 2004). The TPACK theory also asserts that, in order for teachers to build the historical thinking of their students, they must also have developed historical thinking skills themselves (Mishra & Koehler, 2006; Oksuz, Ak, & Uca, 2009; Baydaş, Göktaş, & Tatar, 2013; Ottenbreit-Leftwich, Glazewski, Newby, & Ertmer, 2010). With the foundational theory of TPACK in mind, it is understood that in order for preservice teachers to instruct their students on how to use digitized primary sources for document analysis, they must be confident in their own abilities to do so. At the very least, this study supports an argument that those who instruct preservice teachers in social studies methods courses must go beyond providing future teachers with instructional strategies and a general overview of the content they may teach. They must emphasize the use of historical thinking and give
specific opportunities for preservice teachers to grow in their own historical thinking. The findings of this research show that the use of the National Archives DocsTeach program is a viable means of providing preservice teachers with the opportunity to build their historical thinking. Preservice teachers who experience the National Archives DocsTeach program would then be more confident and successful in teaching their students how to utilize the critical thinking skills associated with historical thinking. Ultimately, The National Archives DocsTeach Program is an effective program that provides preservice teachers the chance to grow their own historical thinking while also adding potential instructional strategies to their toolbox for history.

The importance of managing perceptions of history. Research shows that the perception of history among future early childhood and elementary teachers is negative (Ohn, 2013). As described by the TPACK theory, these negative thoughts and feelings translate to a feeling of inadequacy to teach social studies. This, in turn, results in K-12 students developing a similar disinterest in history (Ohn, 2013; Speicher, 2017). While the participants in this study did not show a substantially significant increase in positive perceptions of history, there was definitely some increase in positive perceptions by the end of the study.

The participants also offered insight that the National Archives DocsTeach program helped improve their excitement for teaching social studies in the future. For example, Whitney said, “I was excited to do [the program] because I knew we were going to be learning how to teach it to kids.” Amber said, “I definitely think that I have considered more ways to include history at earlier ages instead of just social studies and how you can use those primary documents with the younger students.”
This combination of increased positivity with excitement for teaching the content area aligns with the TPACK theory argument that these individuals will have a much higher capacity for effectively teaching history in their early childhood and elementary classrooms. This ultimately means that those who are charged with instructing early childhood and elementary preservice teachers in social studies methods must combat the regular negative perception of history and make the intentional effort to improve those individuals’ perception of history. Rather than simply providing instructional strategies, instructors must help preservice teachers develop interests in the content and processes of historical studies. Building this positive perception within social studies methods courses will directly have an impact on the success of preservice teachers and their future students.

Implications for Future Research

The findings of this study also offer implications for other scholarly practitioners looking to carry out a systematic evaluation within their own context and researchers who may be looking at the impact of utilizing digitized primary sources with preservice teachers overall. Recommendations for further research include:

- Expanding this study to include early childhood and elementary preservice teachers in teacher education programs at different colleges and universities. By including preservice teachers at other institutions, one would be able to compare results across these various locations as well as look at the overall findings of a much larger and more representative sample (Peers, 1996).
- Expanding this study to include preservice teachers in additional areas of study within the teacher education program. For example, this same study could be
carried out with preservice teachers who are majoring in middle-level education and secondary education with an emphasis in the content area of social studies. Doing so would allow the researcher to develop a wider analysis of the impact of using digitized primary sources with all levels of preservice teachers while maintaining the ability to frame findings within various sub-samples (Mason, 2010). Specifically, this expansion would also allow the researcher to compare the perceptions of history among preservice teachers at different levels and situate those findings within the research of Doppen (2008) and Akbaba (2013).

- Replicating this study over a longer time period to include multiple semesters of data with different students enrolled in this social studies method course. This replication of the research to include multiple cycles with different sample populations would be the most readily available means of conducting further research for myself as I will continue to teach the course for upcoming semesters. Conducting this research in future semesters would, again, allow the researcher to analyze findings with a much larger and more representative sample size. It would also allow the researcher to evaluate any changes that may occur in findings over a longer period of time (Nese, Lai, & Anderson, 2013). Being able to identify positive results in terms of historical thinking and perceptions of history over multiple semesters would also solidify the regular inclusion of the National Archives DocsTeach program in the course curriculum.

- Continuing this study with the current participants to evaluate their use of the National Archives DocsTeach program as they enter into their initial years as professional teachers. This continuation of the study over time would allow the
researcher to determine the lasting impact of the tool on participants and provide a more comprehensive look at its impact on their instructional decision making. This would also strengthen the evaluation of the National Archives DocsTeach program within the theory of TPACK as it would provide the researcher additional data of the participants utilizing the resource as professionals with students in the natural setting of their own classrooms (Cochran, 2010). This evaluation of beginning teachers could also lead to the development of professional development that could be utilized by the local school district.

Overall, this study did situate findings within existing literature. There is, however, very little research that exists examining historical thinking and perception of history among preservice teachers specifically (Buchanan, 2015; Dinc & Uztemur, 2017). While this study seeks to add to this literature, it is important to note that expanding and furthering this study in the ways suggested are important ways to help fill in this existing research gap.

**Limitations**

As with any research study, there are a number of limitations that should be noted. These limitations include: (a) limited number of participants, (b) reliability of instrumentation, and (c) novelty effect of technology integration.

**Limited Number of Participants**

One of the most significant limitations of this study was the small sample size of participants. The population of individuals who had the opportunity to participate in this study was limited to the number of people who registered for EDEC 446: 436: Science and Social Studies Methods for Early Childhood Education. Furthermore, this class is
only offered to preservice teachers who are majoring in early childhood and/or elementary education, which resulted in a maximum participation of six preservice teachers for the semester that this study was conducted.

As the case with all action research, this study does not try to generalize findings beyond my own context (Mertler, 2014). The findings of this study are simply indicative of the experiences of the six participants and any efforts to apply them to other contexts are made through the reader’s own interpretations. Within the specific context of this study, it is preservice teachers who take this social studies methods course in future semesters that could potentially benefit from any decisions based on the implications of this study for the researcher.

**Reliability of Instrumentation**

Another limitation of the study is the reliability of instrumentation. Quantitative data was collected through the use of document-based questions. While there is research that supports document-based questions as a reliable measure of historical thinking, there are no specific inferential statistics, such as a reliability coefficient, that further corroborate this argument for the use of document-based questions and the corresponding rubric (Dutt-Doner, Rech-Rockwell, Cook-Cottone, & Allen, 2006; The New York State Education Department, 2009; The DBQ Project, 2018). Additionally, four tools were used to gather qualitative data. These included the anecdotal observation protocol, Perception of History Surveys, Perception of the National Archives DocsTeach Program Survey, and a post-study interview. While these tools were based on similar research-based models and tools, the final designs used in this study were created by the researcher (Mertler, 2017; Hadyn & Harris, 2010; Rehmat & Bailey, 2014; Creswell, 2014).
Novelty Effect of Technology Integration

A final limitation of this study is the novelty effect of technology integration. The novelty effect of technology integration is a theory centered on the argument that new technology often results in a positive and immediate impact, but that the technology becomes less effective as it becomes a more regular and commonplace component of the participants’ lives (Goodyear, Kerner & Quennerstedt, 2017; Martinnen, Daum, Frederick, Santiago, & Silverman, 2019; Montrieux, Vanderlinde, Schellens, & De Marez, 2015). Because the National Archives DocsTeach program was brand new to the participants and was only used over the course of a four-week innovation, the novelty effect of technology integration could explain some of the positive findings related to the participants’ historical thinking, perception of history, and perception of the National Archives DocsTeach program. This limitation supports the notion that future research evaluating the impact of the innovation over a longer period of time is necessary for determining its potential impact.

Closing Thoughts

The most prominent shift that has occurred in social studies education has been moving from a basic understanding of facts surrounding historical events to the utilization of critical thinking skills known as historical thinking (Weinstock, Tseng, Humphrey, Gillespie, & Yee, 2011; Atkin, 2016; Bickford III, 2013; McGlinn, 2007). Alongside this shift, data has shown that K-12 students are struggling to master these skills and are simultaneously developing a negative perception of history (Westhoff & Polman, 2008, Wanzek, Kent, & Stillman-Spisak, 2015). Individuals with a lack of historical thinking and negative perception of history are then entering teacher
preparation programs with the goal of becoming a future teacher and those who enter early childhood and elementary programs are charged with the task of teaching social studies.

The TPACK theory posits that the problem of poor historical thinking is then perpetuated as preservice teachers lack the content, pedagogical, and technological skills to effectively teach this form of critical thinking (Mishra & Koehler, 2006, Cochran, 2010; Cowgill & Waring, 2017). This lack of effective instruction only results in more disinterested and unengaged students who maintain a negative perception of history (Ohn, 2013; Speicher, 2017).

In order to break this cycle, research has shown that one of the most effective means of increasing historical thinking is through the use of digitized primary resources (Lee, 2002; Bolick, 2016; Lee & Molebash, 2004; Talley & Goldenberg, 2005). This integration of technology also has the means of engaging individuals and fostering a positive perception of history (Diem, 2002; Manfra & Coven, 2011).

One of the most prominent collections of digitized primary sources is maintained by the United States National Archives (Chen, 2015; Ward, 2012). Moreover, the National Archives have developed the DocsTeach program as an instructional resource that can be used by teachers in their classrooms.

This study sought to determine if the use of the National Archives DocsTeach program would have an impact on preservice teacher’s historical thinking and perception of history. Again, with the TPACK theory as a foundation, the belief is that if the National Archives DocsTeach program did positively impact preservice teachers’ historical thinking and perception of history, it would build their pedagogical, content,
and technological capacity to become more effective teachers of Social Studies (Salinas, Bellows, & Liaw, 2011; Fehn & Koeppen, 2012; Monte-Sano and Budano, 2013).

The findings of this study indicate that the National Archives DocsTeach program did have a positive impact on preservice teachers’ historical thinking and perception of history. The participants also viewed the program as a valuable instructional resource. As a result, implementing the use of the program into Social Studies methods courses within the teacher preparation program can help create more effective future teachers that will positively impact all of the future students in their charge.
REFERENCES


Birt, L., Scott, S., Cavers, D., Campbell, C., & Walter, F. (2016). Member checking: A tool to enhance trustworthiness or merely a nod to validation?. *Qualitative Health Research 23*(13), 1802-1811. doi:https://doi.org/10.1177/1049732316654870


http://doi.org/10.1016/j.compedu.2009.08.006


McNicholl, J., Childs, A., & Burn, K. School subject departments as sites for science teachers learning pedagogical content knowledge. *Teacher Development, 17*(2), 155-175.


APPENDIX A

SAMPLE DOCUMENT-BASED QUESTION

What Caused the Dust Bowl?

Overview: In the 1930s America was hit by very bad times. These were the years of the Great Depression. In cities and in small towns across the land, banks were failing, businesses were closing, and workers were being fired. But in some ways farmers were hit hardest of all, and few farmers were hit harder than those in the Southern Great Plains. This region has come to be known as the Dust Bowl. The question for this Mini-Q is what caused the Dust Bowl tragedy.

The Documents:
- Document A: Dusters
- Document B: Grass
- Document C: Fred Folker's and his tractor (with photograph)
- Document D: Acreage Under Plow (chart)
- Document E: Rainfall on the Plains in the 1930s

A Mini Document Based Question (Mini-Q)
What Caused the Dust Bowl?

On Thursday, April 18, 1935, a huge, black, billowing cloud piled up on the western horizon. For Stratford, Texas, and thousands of farms and small towns, it was the arrival of another dust storm, one of more than 300 that would make an unwelcome visit to the Southern Great Plains during the 1930s.

For thousands of years the Southern Plains were covered by shortgrass prairie and home to vast herds of twenty or thirty million buffalo. In more recent times, people arrived. First came the Apache, the Comanche, and the Kiowa. Shortly after the Civil War, there came a few thousand cowboys and several million cattie. Then came the farmer.

The first farmers arrived in the 1880s. Word had gotten out back East that the Southern Great Plains was good for wheat. Yes, rainfall was a bit spotty, but the land was cheaper than farmland in Arkansas or Illinois. Besides, it was said that rain would follow the plow. Grow crops and clouds would form.

With few trees for lumber, many of these early farmers lived in soddies, houses made of earth and grass. Soddies were soon replaced by wood frame houses. A severe drought in the 1890s caused some farmers to move away, but then the federal government sweetened the pot. A new Enlarged Homestead Act passed in 1909 offered 320 acres of land to anyone who could hang on for three years. Thousands of new farm families took up the offer. In addition, the giant XIT ranch on the Texas panhandle sold off much of its three million acre spread to wanna-be farmers. Wheat would replace cattle as the new king of the Southern Plains.

Wheat fever was in the air. The railroad sent out branch lines to small towns, and more wheat could get to market. World War I, which brought so much pain to Europe, was good for Plains farmers. A hungry Europe bought Kansas wheat. Wheat that sold for 93 cents a bushel in 1914 was close to $2.50 in 1919. More families moved in. Small towns popped up like spring flowers. Boise City out near the end of the Oklahoma panhandle sported a theater, a newspaper, a furniture store, a bank, and several cafes.

But then trouble came. The Great Depression of the 1930s was the first blow. Unemployment back East made it harder to sell wheat. Sadly, the Depression did not come alone. What made life on the Southern Plains almost unbearable were the dust storms. In the middle thirties these wind-driven dusters darkened the midday sky and carried off millions of tons of precious topsoil as far as Washington DC and New York City. During the 1930s more than three million plains settlers left their farms - some for town, some for a neighboring state, some for California. Many more, however, stayed put, covering their windows with a water-soaked sheet, eating jackrabbit stew at a kitchen table where an "eating" cloth covered all the plates and drinking cups. Children died from breathing in dust. They called it "dust pneumonia." Writer Timothy Egan has titled his book on Dust Bowl history as *The Worst Hard Time*.

But exactly what happened to cause this worst hard time? Examine the documents that follow and do your best to answer the question before us: What caused the Dust Bowl?
The story of the southern plains in the 1930s is essentially about dust storms, when the earth ran amok. And not once or twice, but over and over for the better part of a decade: day after day, year after year, of sand rattling against the window, of fine powder caking one's lips, of springtime turned to despair.

In the memory of older plains residents, the blackest year was 1935. On 15 March, Denver reported that a serious dust storm was speeding eastward. Kansans ignored the radio warnings, went about their business as usual, and later wondered what had hit them. Small-town printer Nate White was at the picture show when the dust reached Smith Center: as he walked out the exit, it was as if someone had put a blindfold over his eyes; he bumped into telephone poles, skinned his shins on boxes and cans in the alleyway, fell to his hands and knees, and crawled along the curbing to a dim hoselight. Livestock and wildlife did not have even crude defenses. "In a rising sand storm," wrote Margaret Bourke-White, "cattle quickly become blinded. They run around in circles until they fall and breathe so much dust that they die. Autopsies show their lungs caked with dust and mud."...

Avis Carlson told what it was like at night: "A trip to water to rinse the grit from our lips. And then back to bed with washcloths over our noses. We try to lie still, because every turn stirs the dust on the blankets. After a while, if we are good sleepers, we forget."
Document B


"Grass is what counts. It's what saves us all - far as we get saved. Grass is what holds the earth together."

The most common short grass in the Dust Bowl region was buffalo grass. It only grew about four inches high and produced a tough grassy mat that looked like a well-grazed meadow.
Document C


With a horse-drawn plow, Fred Folkers produced nearly enough to stay afloat. What changed everything for him, and other dryland farmers, was the tractor. A tractor did the work of ten horses. With his new combine, Folkers could cut and thresh the grain in one swoop, using just a fraction of the labor. Folkers plowed nearly his entire square mile, and then paid to rent nearby property and ripped up that grass as well. By the late 1920s, his harvest was up to ten thousand bushels of wheat—a small mountain of grain. What's more, there was now an easy way to get the wheat of Fred Folkers ... to the rest of the world. In 1925, a train finally arrived in Boise City....

Wheat king Simon Fahnman (in coat and tie) and his employees working the land. Greeley County, Kansas, 1925.
ACREAGE OF HARVESTED CROPS
IN 8 GREAT PLAINS STATES

EACH DIVISION REPRESENTS 10 MILLION ACRES
**Document E**

Source: High Plains Regional Climate Center, University of Nebraska, Lincoln, Nebraska.

**Normal Annual Precipitation for Five Dust Bowl Towns**

<table>
<thead>
<tr>
<th>Town</th>
<th>Normal Precipitation (inches)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clovis, New Mexico</td>
<td>17.64</td>
</tr>
<tr>
<td>Boise City, Oklahoma (panhandle)</td>
<td>17.00</td>
</tr>
<tr>
<td>Dalhart, Texas (panhandle)</td>
<td>17.87</td>
</tr>
<tr>
<td>Burlington, Colorado</td>
<td>16.38</td>
</tr>
<tr>
<td>Goodland, Kansas</td>
<td>18.02</td>
</tr>
</tbody>
</table>

Note: John Wesley Powell, the great Western explorer, determined that 20 inches of rain annually was the minimum for successful farming on the plains. But, he said, "... at 20 inches agriculture will not be uniformly successful from season to season."

Source: From Randy Francis, *The Texas Dust Bowl in Historical Perspective*, Baylor University, Waco, Texas, 1998.

**Actual Precipitation for Dallam County, Texas**

<table>
<thead>
<tr>
<th>Year</th>
<th>Precipitation (inches)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1923</td>
<td>33.40</td>
</tr>
<tr>
<td>1924</td>
<td>15.32</td>
</tr>
<tr>
<td>1931</td>
<td>14.66</td>
</tr>
<tr>
<td>1932</td>
<td>20.09</td>
</tr>
<tr>
<td>1933</td>
<td>10.14</td>
</tr>
<tr>
<td>1934</td>
<td>9.78</td>
</tr>
<tr>
<td>1935</td>
<td>13.31</td>
</tr>
<tr>
<td>1936</td>
<td>9.93</td>
</tr>
<tr>
<td>1937</td>
<td>14.48</td>
</tr>
<tr>
<td>1938</td>
<td>14.08</td>
</tr>
<tr>
<td>1939</td>
<td>14.75</td>
</tr>
<tr>
<td>1940</td>
<td>12.74</td>
</tr>
</tbody>
</table>
APPENDIX B

DOCUMENT-BASED QUESTION SCORING RUBRIC

The 4 essay:

- features an introductory paragraph that includes a restatement of the question, a definition of terms (where appropriate), a thesis, and a road map that introduces the analytical categories to be developed
- is clearly organized with body paragraphs arranged in the order of the roadmap
- contains a clear thesis for each body paragraph
- uses a reasonable number of the documents and includes document citation
- provides evidence from the documents that supports the claim of the baby thesis
- demonstrates analytical skills such as seeing close detail, synthesis, finding inconsistencies, questioning author bias, and making judgments
- provides an argument or warrant in each body paragraph that addresses the baby thesis
- concludes with a paragraph that clinches argument with a succinct summary and/or fresh wrinkle
- is well-written with few or no errors in sentence structure, spelling, punctuation, and capitalization

The 3 essay:

- features an introductory paragraph that includes a restatement of the question, a definition of terms (where appropriate), a thesis, and a road map that introduces the analytical categories to be developed
- is clearly organized with body paragraphs arranged in the order of the roadmap
- contains clear sentences for each body paragraph
- incorporates a reasonable number of the documents but may not always include citation
- accurately interprets most but not all documents cited
- in most body paragraphs includes an argument that ties the evidence to the baby thesis
- concludes with a paragraph that restates thesis and may summarize argument
- is quite well-written but includes some errors in grammar and spelling
The 2 essay:

- addresses the question but lacks some focus
- has a functional introductory paragraph containing a stated or recognizable thesis and a roadmap
- has a recognizable organization with main ideas divided into paragraphs; body paragraphs may not be in the same order as the roadmap
- contains reference to several documents but there could easily be more
- contains some effort at document analysis
- often lacks a warrant; does not clearly explain how evidence answers the question
- has some sort of concluding paragraph. May be unnecessarily repetitive
- is generally written with complete sentences, but contains too many errors in verb tense, agreement, punctuation, spelling, and capitalization

The 1 essay:

- is inadequate in addressing or identifying the question
- is often lacking a clear thesis, stated or implied
- has unclear organization. This may include no road map, or body paragraphs that do not follow in an order suggested by the roadmap
- makes reference to few documents. Citations are missing. Documents are often misunderstood.
- the warrant in each body paragraph is missing
- contains serious errors in sentence structure and mechanics

APPENDIX C

SCREENSHOTS OF NATIONAL ARCHIVES DOCSTEEACH ACTIVITIES

A Famous Person and Event are Revealed
Focusing on Details: White Out/Black Out

In this activity, you will examine a document. It’s part of a famous story. Find all the facts. Then, try to put them all together to figure out what this document is and whom the story is about.

Discussion
Look carefully at this document. It’s part of a famous story, but an important clue has been blacked out. Use every bit of information contained here to describe what you see. Then, apply your knowledge of history to figure out what this document is and whom the story is about.
Suffragist Susan B. Anthony

Focusing on Details: Spotlight

Closely examine the document on the screen. After carefully analyzing the document, respond to the questions below. Click the magnifying glass to take a closer look at the document as you respond to the questions.

Discussion

Use the highlighted portions of this document to answer the following questions:

Who wrote this document?

To whom is the document addressed?
What is Happening in this Photograph?

Focusing on Details: Zoom/Crop

Closely examine this photo. What do you see?

Pay attention to the person's face and body language.

Who is this person?

What do you think he's doing? What do you see that makes you say that?
The Constitution at Work: Elementary Edition

Seeing the Big Picture

The U.S. Constitution consists of four pages of parchment written over 230 years ago. However, the Constitution is still relevant to our everyday lives. The Constitution serves as the basis for all of our government's actions — including acts of Congress, presidential nominations, Supreme Court decisions, the admission of new states to the Union, amendments to the Constitution, and even the swearing in of government officials.

Each document in the grid shows the Constitution in action. Closely examine each and match it to the part of the Constitution that it brings to life.

Click on one box then another to make a match. On mobile devices, tap each box twice.

Click ☐ to view details

When You’re Done ▶
APPENDIX D

ANECDOТAL OBSERVATION PROTOCOL

Student: __________________________ Date: ______________ Time: ______

DocsTeach Activity: ____________________________________________

Cognitive Engagement Indicator:

<table>
<thead>
<tr>
<th>The student is demonstrating higher order thinking</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Applying facts, theories, or methods</td>
<td></td>
</tr>
<tr>
<td>Analyzing an idea by examining parts</td>
<td></td>
</tr>
<tr>
<td>Evaluating information</td>
<td></td>
</tr>
<tr>
<td>Forming new ideas</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>The student is demonstrating reflective and integrative learning.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incorporating ideas from other sources</td>
</tr>
<tr>
<td>Connecting ideas to different contexts</td>
</tr>
<tr>
<td>Considering diverse perspectives</td>
</tr>
<tr>
<td>Demonstrating new understanding</td>
</tr>
</tbody>
</table>

Behavioral Engagement Indicator:

<table>
<thead>
<tr>
<th>The student in demonstrating collaborative learning.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asking peers about content</td>
</tr>
<tr>
<td>Explaining content to peers</td>
</tr>
<tr>
<td>Working with other students on content</td>
</tr>
</tbody>
</table>
### The student is interacting with the instructor.

<table>
<thead>
<tr>
<th>Activity</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Discussing content and activities with instructor</td>
<td></td>
</tr>
<tr>
<td>Asking instructor questions to understand content more deeply</td>
<td></td>
</tr>
<tr>
<td>Evaluating additional applications</td>
<td></td>
</tr>
</tbody>
</table>

### Affective Engagement Indicator:

### The student is interested in the content.

<table>
<thead>
<tr>
<th>Activity</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Giving full attention to the activity and content</td>
<td></td>
</tr>
<tr>
<td>Maintaining focus on the activity and content</td>
<td></td>
</tr>
</tbody>
</table>

### The student demonstrates appropriate effort for the task.

<table>
<thead>
<tr>
<th>Activity</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Completing each component of an activity</td>
<td></td>
</tr>
<tr>
<td>Spending adequate amounts of time on components</td>
<td></td>
</tr>
<tr>
<td>Ignoring outside distractions</td>
<td></td>
</tr>
</tbody>
</table>

### Additional Observations:

APPENDIX E

PERCEPTION OF HISTORY SURVEY

Thank you for your participation in this voluntary survey. You may withdraw from the survey at any time. If you have any questions regarding the research, please contact Jeremy Rinder, the principal investigator.

ID # ___________

Demographic Information:

Age: _____ Gender: _____ Male _____ Female

Ethnicity: _____ Black/African American

_____ Hispanic/Latino

_____ White/Caucasian

_____ Other: ____________________________

Survey Questions:

1. How do you define history?

2. What effect, if any, do you believe history plays in society?

3. What effect, if any, do you believe history plays in your everyday life?

4. Do you feel engaged and interested in history? Why or why not?

5. How much do you enjoy learning about history as compared to other subjects?

6. How important do you think learning history is as compared to learning other subjects?

APPENDIX F

PERCEPTION OF NATIONAL ARCHIVES DOCSTEACH PROGRAM
SURVEY

Thank you for your participation in this voluntary survey. You may withdraw from the
survey at any time and, if you have any questions regarding the research, please contact
Jeremy Rinder, the principal investigator, at any time.

ID # __________

Survey Questions:

1. What are your thoughts regarding the National Archives DocsTeach program
   overall?

2. Did you feel as though the DocsTeach program was easy to use?

3. What did you like most about the DocsTeach program?

4. What did you like least about the DocsTeach program?

5. Which feature within the DocsTeach program do you believe is the most
   effective? Why?

6. Do you believe the DocsTeach program can impact your future students’
   historical thinking? Why or why not?

7. How likely are you to use the DocsTeach program in your future classroom?

8. Do you have any additional comments about the DocsTeach program?

9. Do you have any recommendations for improving the use of the DocsTeach
   program in this course?

Adapted from Rehmat, A. P. & Bailey, J.M. (2014). Technology integration in the
classroom: Preservice teachers’ perceptions. Journal of Science Educational Technology
23, 744-755. doi: 10.1007/s10956-014-95
APPENDIX G

POST-STUDY INTERVIEW PROTOCOL

Thank you so much for your active participation in the National Archives DocsTeach program over the past four weeks of our course. At this time, I would like to ask you a few questions about your participation in the program in order to gain a better understanding of its impact on you as both a student and a future educator.

1. Are you willing to answer these questions? Yes or No?

Thank you!

2. Are you willing to allow this interview to be recorded for the purpose of transcribing your responses? Yes or No?

Thank you! You will be given a copy of your transcription at the end of the study.

3. Are you aware that your participation in this study is voluntary and that you may withdraw at any time without any negative consequences?

Again, thank you! As you know, the National Archives DocsTeach Program is a federally funded online database of primary sources and accompanying activities that are designed to help build historical thinking.

4. In your own words, how would you define historical thinking? (Research Question #1)

Now that you have developed a definition of historical thinking,

5. Describe your experience with National Archives DocsTeach program and how those experiences impacted how you think about and analyze history? (Research Question #1)

   Potential probes:       a. Which specific activities were most helpful?
                           b. Which specific activities were least helpful?

Thinking about the document-based questions you completed at the beginning and end of the study,
6. Do you believe that your experiences with the National Archives DocsTeach program had any impact on your ability to answer the “Should the United States Drill for Oil in Alaska’s Wilderness” document-based question? (Research Question #1)

Potential probes: a. Why or why not?
   b. Are there any specific activities that you believe helped you? In what ways did these activities help? How did you use them?

Thank you so much for your answers. Now, I want you to think about your perception of history overall.

7. How did you feel about history prior to taking this course? (Research Question #2)

Potential probes: a. Which experiences caused you to feel this way?
   b. Were you successful in previous history courses? Why or why not?
   c. Would you consider yourself engaged or interested in history?

Great. Now that you have thought about your perception of history prior to taking this course.

8. Have your thoughts and feelings about history changed? (Research Question #2)

Potential probes: a. If yes, can you give me examples of specific experiences that have caused this change? Why did they cause this change?
   b. If no, why do you think that your perception of history has not changed?

Now that you have thought about whether or not your perception of history has changed,

9. Do you think your work with the National Archives DocsTeach Program has had any specific impact on your perception of history? (Research Question #2)

Potential probes: a. Why or why not?
   b. How is this connected to your historical thinking?
   c. How is this connected to your role as a future teacher?

Finally, I would like for you to think about your role as a future educator.
10. Do you think that you would incorporate the National Archives DocsTeach program into your classroom? (Research Question #3)

Potential probes:
   a. Why or why not?
   b. What would this implementation potentially look like?
   c. What benefits do you see to using the program?
   d. What problems or potential barriers do you think may occur?

Before we end the interview,

11. Do you have any additional comments you would like to make about your historical thinking, your perception of history, or the National Archives DocsTeach program?

Again, thank you so much for your participation in this interview. All of your responses will be kept confidential. The overall findings of the study will be presented to you for review once all of the data has been compiled and analyzed. Have a great day.

APPENDIX H

INSTITUTIONAL REVIEW BOARD PROTOCOL

INSTITUTIONAL REVIEW BOARD FOR HUMAN RESEARCH
DECLARATION of NOT RESEARCH

Jeremy Rinder
Re: Pro00083921

Dear Mr. Jeremy Rinder:

This is to certify that research study entitled Helping Future Teachers Do History: The Effectiveness of the National Archives DocsTeach Program on the Historical Thinking and Perception of History of Preservice Teachers was received on 11/5/2018 by the Office of Research Compliance, which is an administrative office that supports the University of South Carolina Institutional Review Board (USC IRB). The Office of Research Compliance, on behalf of the Institutional Review Board, has determined that the referenced research study is not subject to the Protection of Human Subject Regulations in accordance with the Code of Federal Regulations 45 CFR 46 et. seq.

No further oversight by the USC IRB is required. However, the investigator should inform the Office of Research Compliance prior to making any substantive changes in the research methods, as this may alter the status of the project and require another review.

If you have questions, contact Lisa M. Johnson at lisaj@mailbox.sc.edu or (803) 777-6670.

Sincerely,

Lisa M. Johnson
ORC Assistant Director and IRB Manager

University of South Carolina • 1600 Hampton Street, Suite 414 • Columbia, South Carolina 29208 • 803-777-7095
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