UNIVERSITY OF OKLAHOMA

GRADUATE COLLEGE

TEACHING IN THE DIGITAL AGE: EXPLORING THE INTEGRATION OF
EDUCATIONAL TECHNOLOGY IN SOCIAL STUDIES CLASSROOMS

A THESIS

SUBMITTED TO THE GRADUATE FACULTY

In partial fulfillment of the requirements for the

Degree of MASTER OF EDUCATION

By

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Norman, Oklahoma
2024

TEACHING IN THE DIGITAL AGE: EXPLORING THE INTEGRATION OF
EDUCATIONAL TECHNOLOGY IN SOCIAL STUDIES CLASSROOMS

A THESIS APPROVED FOR THE
DEPARTMENT OF INSTRUCTIONAL LEADERSHIP
AND ACADEMIC CURRICULUM

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Acknowledgement

First, I would like to express my sincere gratitude to my academic advisor and chair member of the defense committee, Dr. Kristy Brugar, for the invaluable guidance and encouragement that she has provided to me throughout my academic career. I would not be the professional or scholar that I am today without her mentorship and counsel. I want to thank Dr. Aiyana Henry and Dr. Neil Houser, for generously agreeing to review my research and offer their knowledge as members of my defense committee. I am also grateful to the educators who agreed to participate in my study for the data contributions that they made during this research project.

Next, I would like to take a moment to acknowledge the instructors and classmates that I had the pleasure of meeting and collaborating with while studying in the Jeannine Rainbolt College of Education at the University of Oklahoma. Learning alongside these individuals was everything that I could have hoped for when I decided to become a teacher and pursue a degree in education. I will treasure the memories and experiences that we shared together for many years. You are all incredible people, and I wish each of you the best in your future endeavors.

Lastly, I could not have embarked on this academic journey without the unwavering support of my friends and family. To my parents, thank you for always having confidence in my decisions and abilities. You believed in me at times when I struggled to believe in myself. To Tyler, thank you for ensuring that I was included in your life. I truly appreciate everything you taught me as a child and as an adult. Being your brother has made me a better person. To Amanda, I am so thankful to have you as my partner. I look forward to spending the rest of my life as your husband and best friend. You are the love of my life, as well as my inspiration to continue learning. You make me want to be the best version of myself all the time, which is one of the many reasons why I love you. I am so excited for all our future adventures together!

Abstract

Teaching in the digital age presents many unique challenges that previous generations of educators did not have to consider during their careers as classrooms teachers. This research study was designed to aid social studies teachers in addressing those challenges through the utilization and integration of educational technology in the classroom. Educational technology consists of tools, devices, or applications that can help teachers create learning experiences which will foster the development of essential skills and instill valuable knowledge within students as they pursue their individual goals in life.

In this qualitative study, I conducted a series of focus group interviews with active social studies teachers to determine how schools can more effectively utilize and integrate educational technology into social studies classrooms. Participants were divided between three separate groups based on their years of teaching experience. This was done to identify if there were any notable patterns related to educational technology between social studies teachers at different stages of their career. The focus group interviews were facilitated using an interview protocol that included both open-ended and follow-up questions, which encouraged the participants to reflect on their experiences with educational technology.

After analyzing the data from these conversations, I identified five themes that are highly relevant to addressing the main inquiries of this research project. I will be referring to the first theme as "technological learning." In this context, technological learning refers to how teachers learn to use technological devices. Other prominent themes that revealed themselves during the interviews include digital literacy, affordances of technology, drawbacks of technology, and issues of accessibility. In conclusion, I discuss the findings of my research while also exploring the implications and future research opportunities that could emerge from this study.

Chapter 1: Introduction

Over the course of the last eight years, I have strived to create positive change within Oklahoma's public schools and communities by sharing my knowledge of social studies to better prepare students for life after high school. I believe that I have achieved that goal at some level already as an educator, but there is still much more work to be done and I know that I can contribute to the field of education in other ways. In this research study, I explore data from three groups of social studies teachers with the intent of determining how schools can more effectively facilitate the integration of educational technology into social studies classrooms. This knowledge, as well as my work in the field, aims to improve the quality of education taking place within social studies classes. I designed this research study with a focus on social studies teachers, but I hope that my work is beneficial to some extent for teachers and students outside of social studies classrooms as well.

I have spent my entire professional career either working as a social studies teacher or supporting social studies teachers through mentorship, instructional coaching, and content creation. These experiences have given me a unique appreciation and perspective on how educational technology is currently being used in these learning spaces. Sadly, I have found in my professional experience that technology is often being used as a tool of convenience rather than innovation within social studies classes. For instance, many teachers have now mostly shifted to online testing using multiple choice exams in order to speed up the grading process. I am not saying that any teacher should neglect these convenience features altogether, but I want to challenge teachers to expand how they choose to use educational technology with their students. Technology is created to make tasks easier or solve problems, and I think educational technology can make content more accessible and impactful for students when used

appropriately. I have witnessed technology transform the ways in which math and science are taught to students to better prepare them with the necessary skills that they will need for their future careers in the twenty-first century. I believe that a similar transformation of social studies instruction is possible and needed to help students grow into active and responsible citizens that can maneuver through the complexities of the modern world.

Teaching in this digital age presents many unique challenges that previous generations of educators did not have to consider when developing their curriculum and instructional practices for their classroom. My research inquiry was designed to aid social studies teachers in responding to those challenges through the utilization and integration of educational technology in the classroom. This research is important to me for many different reasons. I will explain those specific reasons in detail throughout the next few paragraphs, but I genuinely feel that it is my responsibility as an educator to continue building upon the foundation my predecessors established so that students have a wide range of options in life when they are preparing to graduate from high school.

I was a social studies teacher for six years before I moved to my current professional position, which involves me working more with other social studies teachers rather than students. Although I was tasked with teaching social studies to adolescents in my classroom, I made it my own personal mission to prepare my students for the challenges that awaited them in life after they left my classroom as well. I think that my ability to incorporate technology into the social studies curriculum was one of my stronger skills as a classroom teacher because it helped get more students engaged with the content and it allowed students to connect what they were learning in class with the modern world that they live in each day. Educational technology offers a set of tools that can help teachers create memorable and effective learning experiences that will

allow students to develop essential skills and discover valuable knowledge that will benefit them as they pursue their individual goals or aspirations moving forward.

Positionality Statement

From a very young age, I learned and understood the value of a high-quality education through conversations with my family members and observing the many ways in which people earn a living to make ends meet. I decided early on in my life that I wanted to choose my own career path when it was time for me to become a professional and I did not want to have my options limited simply because I did not make the most of my educational opportunities. Access to a free education is not something that should ever be taken for granted because there are children in the world now who would do almost anything to have a chance to go to school. In retrospect, I realize that I was extremely fortunate to grow up in a home that helped me foster positive study habits and showed me the influence that education can have on a person's life experiences.

As a high school student, I decided to become a classroom teacher because I thought that I could use my own talents and abilities to improve the quality of life within my local community. My personal interests in subjects such as history, government, economics, geography, and politics led me to focus on social studies content as my area of expertise. Additionally, I was able to be an effective teacher early in my career is because I was able to recognize the strengths and weaknesses of the teachers that I studied under during high school. The best teachers were educators who invested time into learning about their students and made students feel like they were an integral part of the classroom community. Additionally, these teachers also usually had the most creative and engaging lessons that I was able to participate in as a student.

Educational technology was a tool that many of those teachers used within their curriculum to make learning more fun and more memorable. The teachers I had that were less effective in the classroom generally tasked students with doing the same one or two things during each class period. This caused learning in these classes to become very boring and mundane over time. It was difficult to remain engaged in these types of classroom environments for me because I was typically placed in the role of a passive receiver of information while the teacher would lecture or show a video. Looking back, I think that these teachers could have used the technology resources and tools available to them to augment or enhance the quality of their instruction for students. I understood the value of education and was eager to learn more by this point in my life, so I felt as though I was being held back as a learner in some ways because I was not being challenged by the teacher or their content. When I became a teacher, I knew that I never wanted to have my students experience that feeling while they were in my classroom. Students needed to be present and involved throughout the entirety of the learning process to get the most out of their educational experiences. This realization would become a foundational aspect of my teaching philosophy when I started training to become an educator in 2014 at the University of Oklahoma.

As a college student at the University of Oklahoma, I was exposed to a variety of people, perspectives, and pedagogical approaches during my classes. My time spent studying and learning within the College of Education helped open my eyes to how I could integrate and utilize educational technology within my future classroom. I was an undergraduate student at a time when new learning platforms, applications, and educational software was being developed at a rapid pace. This was very exciting to me as a young and ambitious educator, but I knew that I would have to spend a significant amount of time and energy teaching myself how to use these

tools or have an expert teach me how to navigate them. Luckily, I was able to rely on my peers and instructors to guide me when I had questions or was struggling to understand how to operate a specific piece of educational technology. Moreover, our instructors encouraged us to attend professional learning events that would help us continue to grow as educators outside of class or our field placements at local schools.

The College of Education helped put me in a position to be successful when I was tasked with learning how to operate various forms of educational technology and eventually integrating that same technology into my social studies curriculum for students. I would like to see more school districts take the time to implement a similar approach so that the educational technology can be used more meaningfully and effectively in all classrooms. However, I have noticed that this need is especially evident within social studies classes because technology is usually used to watch videos, check grades, or take notes during a presentation. Students could be doing so much more with this technology to acquire new information or demonstrate their knowledge in my opinion. Hopefully, school leaders will recognize this fact as well and provide more opportunities for their teachers to experience the potential benefits educational technology offers to students and observe how it can be meaningfully integrated into the social studies curriculum.

There are many ways that technology can help social studies teachers establish an active and engaging learning environment. For example, certain forms of educational technology can speed up the process of acquiring literacy and language skills for students. This is becoming more important than ever before due to an increasingly diverse student population in schools. It is also becoming more difficult for school districts to find paraprofessionals and language interpreters that can support students in class. Using educational technology is an effective way

to fill in some of these gaps for teachers and school leaders. Technology also does an excellent job of connecting students with each other and allowing them to communicate more easily. Using educational technology as a tool, I want to facilitate a movement in social studies classes that will promote student engagement, student accessibility, and authentic learning in the classroom.

I believe that this research is relevant to social studies teachers because it can assist them in overcoming the obstacles that they are currently facing each day in the classroom and inspire teachers to consider new ideas about how they can improve their instructional practices. This study seeks to answer three primary questions related to the integration of technology in social studies classes. First, I want to know how schools can utilize and integrate educational technology more effectively within social studies classrooms. Second, I will explore how social studies teachers will be supported in integrating educational technology into their curriculum. Lastly, I examine to what extent social studies teachers' perceptions or feelings regarding educational technology are influenced by their years of teaching experience. I have interviewed many social studies teachers with varying levels of teaching experience to gain insight on their feelings and perceptions about using technology in their own classes with students. I conducted a literature review of scholarly work on this subject so that I could gain the requisite background knowledge to thoughtfully write about it in my own research. Next, I identified two key theoretical frameworks that I can use to formulate questions and analyze the data that emerged from the research interviews. These frameworks provided a unique lens that I could use to examine or consider the data in new ways. Finally, I will discuss the findings of my research study and the potential implications that my work could have on the field of education in the future.

Research Problem

Throughout the twentieth and twenty-first centuries, educational technology became an increasingly important tool for supporting the learning of students and the instructional methods used by teachers in schools. This pattern has remained consistent during the first two decades of the twenty-first century as well, especially following the recent global pandemic caused by the coronavirus. Schools around the world are investing more time and money into educational technology with each passing year. As a result, classroom environments and the experiences that occur within them are constantly changing. This puts more pressure on teachers to learn about educational technology in order to use it effectively with their students. Teachers are expected to engage in a variety of professional learning experiences offered by their respective school districts each year, but those sessions do not always prepare educators to approach new educational technology or pedagogical practices from the perspective of a learner. Too often the process of modeling new teaching methods or tech tools in education seems like more of a transactional business relationship, rather than an authentic community of practice working together to advance the profession and support the learning of all students in classrooms around the world.

However, learning about the new tools and technology that are being developed is only one way that this affects teachers. Teachers are also responsible for determining what types of educational technology will work best for certain purposes and with specific groups of students. This process is naturally going to be easier for some teachers than others based on a variety of factors. One of the most significant factors is an individual's age. Students entering the classroom now can all be considered as "digital natives," or people who have been raised in a society that has become increasingly reliant on the services that are provided by technology and

the internet (Prensky, 2001). Unfortunately for these students, the education system in the United States was not designed to meet their needs because it was created long ago with the purpose of preparing young people to enter the workforce. The people who made this antiquated system can be identified as "digital immigrants". According to Marc Prensky, a digital immigrant is someone who was not born into the modern digital world (Prensky, 2001). These individuals were born prior to 1980 and have had to adapt their lifestyle considerably due to the evolution and advancement of technology as they have become older over time.

Since today's students are digital natives, many school leaders have decided to spend a significant amount of time and money investing in educational technology to enhance the learning of students in their community. This is a commendable action to help students learn more effectively, but it has put extra strain on many of the teachers working with students each day in the classroom. Younger teachers have generally had a much easier time integrating educational technology into their classroom learning environments because they are accustomed to using technology in many aspects of their life since they are digital natives themselves (Tarman et al., 2019). On the other hand, the teachers that Prensky would call digital immigrants are having to substantially change their approach to teaching because the educational technology is foreign to them. Furthermore, classroom teachers are often expected by their employers to utilize educational technology frequently with their students so that the school leaders can see a return on their investment. This has caused many excellent veteran classroom teachers, who possess a vast wealth of experience and knowledge, to leave the profession entirely because they are not feeling valued or supported by their employers.

If school leaders choose to continue their push to integrate technology in schools, then it is imperative that they provide all classroom teachers with the resources and time that they need

to interact with and practice using the technology before having to implement it with their students. Additionally, it is vital that the specific needs of students and teachers are thoughtfully considered by the school administrators and board members within a school district. This will allow teachers and students to have a greater voice in determining what products or tools could have the greatest impact for their school community while also giving the educational technology the greatest chance to be effective and successful as a tool to improve the quality of education taking place within the classroom.

Chapter 2: Literature Review

Social studies teachers encounter many of the same threats to teaching and learning as educators who specialize in other content areas. However, social studies teachers also have the unique task of making social studies content relevant and engaging for today's students. This can be challenging for many teachers because students often struggle to make meaningful connections with the content they are asked to learn about in class. I believe that educational technology can be an effective tool for teachers to use to address student engagement concerns, as well as many other difficulties that social studies teachers are facing within their classrooms. In this chapter, I reviewed scholarly research that is closely connected to the research questions that my study was designed to address. This included subjects such as the age and experience level of educators, the use of educational technology in social studies classes, as well as the costs and benefits of using educational technology in the classroom. I also described the processes that I used to locate or access the literature that helped me answer the research question of this study or significantly contributed to my understanding of issues associated with educational technology.

Review Process

Before I delve into the literature that I used to investigate my research questions and acquire additional context or background information about this subject, I believe this is an appropriate place to describe the process I used to review established research developed by other scholars. I started by conducting basic searches on Google to learn more about the general advantages and disadvantages of using technology in the classroom. However, this initial search did not reveal any groundbreaking information that I had not already been exposed to in my own professional career as a social studies educator. At this point I knew I needed to dig deeper, so I

read more academic research associated with the integration of educational technology in schools. I revisited journal articles and book chapters about social studies instruction and educational technology that I had previously read while I was completing the requisite coursework for my graduate program at the University of Oklahoma. After speaking with my academic advisor, she was able to recommend a few other resources that tied into the subject of this qualitative study. I also discovered research from online publications such as *Contemporary Issues in Technology and Teacher Education* (CITE), as well as several other scholarly academic journals, related to educational technology and the research questions that this study was intended to answer.

The Relationship Between Human Age and Proficiency with Technology Among Teachers

At the beginning of the twenty-first century, Marc Prensky coined the terms "digital native" and "digital immigrant" (Prensky, 2001). A digital native is an individual who has been born into the digital age that we are still living in today. Meanwhile, a digital immigrant is someone that came into the world prior to the development of technology such as cell phones, video games, computers, or the Internet. These two terms are commonly used within the field of education to identify teachers that are proficient at using technology in their classrooms. Prensky argued that "digital natives" would always be a few steps ahead of "digital immigrants" when it comes to using technology. This is because "today's students are all native speakers of the digital language," (Prensky, 2001). At first glance this may seem like a reasonable assumption to make, but there are some issues with generalizing groups of people in such a manner.

Many teachers that could be classified as less veteran in terms of age or professional experience are exposed to more technology throughout their lives than their more seasoned peers. However, the frequency with which they interact with technology does not seem to have

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any significant correlation to their ability implement technology in their classrooms. Based on my research, a teacher's ability to utilize and integrate educational technology in social studies classrooms is more dependent on their previous professional or personal experiences rather than their age as individuals. For instance, the less veteran teachers among the participants of this study had received additional training and coaching related to educational technology that the seasoned teachers never had to go through when they started their journey to become an educator. This is just one example from my study, but I found other sources of literature related to this subject which confirms that previous life experiences are usually a more reliable indicator of a teacher's ability to learn and integrate educational technology into the classroom than a teacher's age (Harrell & Bynum, 2018). I used Prensky's description of people as "digital natives" or "digital immigrants" as a starting point for designing my research study and developing questions that I asked in the online survey that the participants completed prior to taking part in the focus group interviews.

Complications with Educational Technology in Social Studies Classrooms

Most of the literature I found related to the utilization and integration of educational technology described how teachers use technology to complete procedural tasks, such as taking attendance or inputting grades, or supporting student instruction to better meet their individual needs. These readings enhanced my understanding of what effective technology integration within a classroom looks like in practice, but I wanted to find something more specific to the disciplines of social studies curriculum for my research. Fortunately, I was able to locate an article published to the CITE journal in 2019, *Barriers to the Effective Use of Technology Integration in Social Studies Education,* that discusses the integration of technology in social studies content areas (Tarman et al., 2019). I used this journal article to discover what social

studies teachers had issues with while attempting to integrate technology into their classrooms. Later, I was able to compare the findings from this article to the data that I collected and analyzed during my own research investigation to look for major similarities or differences between focus groups.

The integration of educational technology in schools is hindered by a many different factors. Most of the complications related to educational technology that social studies teachers are facing is caused by external forces coming from outside of their classrooms (Tarman, et al., 2019). Examples of outside factors include slow internet connections, a limited number of computer labs, and a lack of technology support from administrators or school districts. These types of issues are difficult for classroom teachers and other school leaders to address because they do not have the economic means to address them directly. Solving economic problems in schools often requires additional funding from city or state governments. For this reason, I chose to focus my research on realistic action steps or approaches that schools and teachers can take to overcome the obstacles related to technology integration in social studies content areas that are caused by internal factors. I believe that my background knowledge as a professional social studies educator, as well as the research I did for this study, makes my suggestions for how to address the complications with educational technology in social studies classes more credible or valid.

The Costs and Benefits of Technology in Schools

Prior to conducting my own research interviews, I read several academic articles that were written by scholars from various regions of the world that described the advantages and disadvantages of educational technology. These scholars all agreed that the development of educational technology has been a positive change within the field of education. This is because

technology has the power to facilitate innovative teaching and learning practices that bring people together in new and exciting ways when it is used as intended in the classroom. However, implementing technology in the classroom is a challenging skill to acquire for many classroom teachers in some circumstances because it requires a great deal of practice much like any other learned skill or behavior. Recent studies have suggested that simply having the technology available in the classroom is not enough to make a substantial impact on student learning or student engagement.

The findings from *Effects of Technology on Student Learning* suggested that technology is a great asset to improve the quality of education in schools by increasing student engagement and motivation, but only if students and teachers know how to access and operate technology effectively (Carstens et al., 2021). The educational technology cannot serve its purpose in schools when the operator has no idea how to use the tool. The teachers who participated in this research felt like they could benefit from additional support and personal training over implementing technology in the classroom. Furthermore, these educators also felt that students need more training with technology to help them be more comfortable and promote independent learning. I noticed these two patterns within my own research as well when teachers described how they learned to use educational technology. Technology is here to stay in our schools, which means digital literacy will continue to be extremely important in the foreseeable future for both teachers and students. According to Mike Ribble, digital literacy is defined as "the process of teaching and learning about technology and the use of technology," (Ribble, 2015). The conclusions made in *Effects of Technology on Student Learning* reinforce the findings from my research study, and more specifically the need for digital literacy in schools. I was able to use

this article to gain a better understanding of the benefits and challenges that come with attempting to integrate technology into the classroom.

There are many potential benefits for students and teachers when they use technology to support learning in the classroom. For teachers, educational technology helps them access a greater variety of materials and resources that they can use when planning lessons for their students. Additionally, teachers and schools are using online software programs, such as Canvas or Google Classroom, that allow them to keep students' course materials and assignments in one digital location. Teaching with technology can also make learning more accessible for students that require specific accommodations to help them be successful in class. According to Rowena Sosas, educational technology is especially useful for students' language development whether they are learning a new language or just starting to acquire basic communication skills in their first language (Sosas, 2021). I used this article as evidence to support my own findings related to technology making learning more inclusive and accessible within social studies classrooms.

Educational Technology has its fair share of costs much like any other tool or resource. In 2013, a group of authors collaborated on an article for an academic journal, *Bridging the Gap: Technology Trends and Use of Technology in Schools*, that examined the economic factors and trends related to the use of technology in schools (Lim et al., 2013). This resource was very helpful to improve my understanding of the economic challenges that schools are facing, as well as how people outside of education view the use of technology in schools. This article played a key role in the development of my research question by presenting me with many different issues to consider related to the use of technology in schools. I wrote my research question and designed this study with the intent of offering possible solutions for schools that are facing the problems described in *Bridging the Gap: Technology Trends and Use of Technology in Schools*.

The primary barrier that prevents schools from successfully integrating educational technology in their classrooms is economic in nature. The use of modern technology in the classroom has increased the costs and pressure of running schools in several ways, such as the purchase of required software updates or dealing with the undesirable ways that educational technology could be used by students or teachers (Lim et al., 2013). Furthermore, the annual budgets of many school systems seem to be decreasing all the time, which makes it more difficult for students and teachers to reliably access the internet at school or to have technology devices in every classroom. Technology is always evolving, and it requires significant investments of time and money to stay informed on best practices related to teaching and learning with technology. Again, the economic barriers described in this article are very similar to some of the accessibility issues I identified when analyzing the qualitative data I acquired while facilitating focus group interviews with the social studies teachers who participated in my research.

Chapter 3: Research Methodology

The purpose of this chapter is to describe the design and implementation of this research study. In order to investigate: *How can teachers more effectively utilize and integrate educational technology within social studies classrooms?* I decided that a qualitative study would be the best approach to use to discover potential solutions to the inquiries that I am investigating in this research. I started the design process by developing an essential question to research. I also thought about some secondary questions to ask about so that the research data could offer guidance on what schools can do to help their teachers address the research question of this study. Next, I identified two theoretical frameworks that were instrumental in the development of my interview protocol and data analysis processes respectively. I primarily conducted my research through focus group interviews, but participants also completed a brief survey prior to the interviews through a secure online platform that helped me assign participants to their group, while also providing additional context about the participants' previous experiences with educational technology. Following the interviews, I transcribed and thoroughly examined the research data that I had collected to look for patterns that were common across all groups or identify trends that were unique to one focus group. Finally, I will explain how I analyzed all the data and ensured that my findings are reliable at the conclusion of this chapter.

Research Questions

In this research study, I examine the following question: *How can teachers more effectively utilize and integrate educational technology within social studies classrooms?* I will also consider the needs of social studies teachers to find out what types of support can be most beneficial to them as they learn about educational technology. Furthermore, I examine what social studies teachers are currently doing with technology in their classroom to discover what

methods and resources have been most successful with students. Lastly, I explore how social studies teachers' perceptions or feelings regarding educational technology have been influenced by their years of teaching experience in the classroom. I integrated two foundational theoretical frameworks into my research design, which were extremely helpful to the development of my interview questions and analyzing the data that emerged from those conversations.

Theoretical Frameworks

This study is based largely around two theoretical frameworks. The first framework I implemented is commonly known as technological pedagogical content knowledge (TPACK), which was originally introduced by Mishra and Koehler (2006). The second foundational idea that I considered when developing my research study is related to what cognitive anthropologists Lave and Wenger refer to as communities of practice, (1991). Both concepts were instrumental to my research, but for different reasons. Learning about TPACK helped me think about the relationship between teacher pedagogy, content knowledge, and educational technology in new ways that I had not previously considered in my academic or professional careers prior to starting this research inquiry. On the other hand, communities of practice (CoP) is a concept that I have been familiar with for most of my life. Yet, reading the work of Dr. Lave and Dr. Wenger gave me a greater appreciation of all the things that CoPs can accomplish when implemented effectively within a school district or school site.

According to Mishra and Koehler, "the basis of our framework is the understanding that teaching is a highly complex activity that draws on many kinds of knowledge" (2006, p. 1020). Social Studies teachers, as well as any other professional educators, are required to possess a wide range of skills and knowledge related to many topics within a given content area. They must have a certain level of mastery over their content that they teach, or in the case of

elementary teachers being well-rounded in all content areas. They must have the pedagogical background or knowledge to know how students learn and what types of instructional approaches will work best for students in each school year. Those two things alone can be overwhelming for any teacher, but the task of being a professional educator can become even more daunting for some when educational technology is inserted into the equation. TPACK brings together content knowledge, pedagogical knowledge, and technology knowledge together rather than examining these three knowledge bases separately. Furthermore, TPACK also explores the relationship between each of these components in pairs as well to illustrate how each type of knowledge affects or influences the others. I applied this framework to the qualitative data that I collected during this research to understand how teachers at different stages of their career think about these three types of content knowledge when they are designing their curriculum or teaching a lesson for students. I was also curious to learn what types of content knowledge they valued most as social studies teachers today, and to see if there were any recognizable patterns between their values as teachers and the amount of time that individual has spent teaching social studies professionally.

Wenger describes communities of practice as, "groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly" (Wenger & Wenger-Trayner, 2015). This description could easily be applied to a faculty or a group of teachers within a specific content area at a given school site. According to Wenger, there are three key characteristics that are necessary to have a CoP. The first characteristic is referred to as the domain. The domain of a community of practice is essentially the shared interest or purpose of the group. The second trait of a CoP is called community. In this context, the term community is basically describing the methods that the group members use to pursue their interests such as

discussion or building relationships. The final essential quality of a CoP is the idea of practice. The practice is the primary focus or goal that the group was designed around initially. For instance, a CoP of social studies teachers would work together to figure out how they can be more effective teachers for their students, and they would apply the skills and knowledge shared within the CoP to achieve their goal. I utilized the CoP framework to discover how teachers learned to use educational technology most effectively, and to find out if a teacher's personal perceptions or feelings about technology could be influenced by other educators. I also used the concept of a CoP as a possible solution to help educators overcome the obstacles that they are facing with regards to integrating technology into social studies classrooms.

Research Design

There are many different research methods that can be used for a qualitative study, which is generally used to explore human or social problems (Creswell & Poth, 2017). I chose to conduct focus group interviews to collect most of the data for this study. The focus group interviews provided valuable information to help me learn more about the thoughts and experiences of social studies teachers related to educational technology in their profession. However, I also implemented a brief online survey to gather some additional information about the participants. The data from the online survey offered me useful demographic information, as well as a preliminary glimpse into their perceptions and experiences related to educational technology.

I used the teachers' demographic information to put them into three separate focus groups based on their years of teaching experience. I grouped the teachers together in this way for three reasons. First, I was curious to learn more about how educators at different stages of their respective careers were approaching technology integration in their classrooms. Secondly, I

wanted to identify any patterns pertaining to educational technology that were common across all three focus groups. Finally, I was interested to see if there were any trends occurring related to educational technology that were unique to one focus group. This grouping method was intended to provide some direction for schools on how to appropriately aid new or veteran teachers in acquiring the skills and knowledge needed to effectively utilize educational technology within their classrooms.

Context and Participants

The Participants in this study are all employed by public school districts from rural, suburban, or urban areas located in the Great Plains region of the United States. The participants were made aware of this project through the recruitment protocol emails that I sent out in 2023. I started by reaching out to educators that I knew personally who fit the criteria I was searching for within this study. The email included a brief introduction of myself, the research consent form, as well as a short description of what the study was about and why I was investigating this subject. The recruitment protocol also informed them that they would be asked to complete a short online survey and participate in a focus group interview that would last for approximately sixty to ninety minutes. I then contacted individuals who were recommended to me by others to see if they would be interested in assisting me with my research and repeated the same process until I had enough participants to conduct three focus group interviews.

There were twelve social studies teachers in all who agreed to contribute to this research project (see Table 1). The teachers all work with middle school or high school students in their classroom each day. Each participant was required to complete a written consent form prior to providing any data or information that could be used in this study. The participants were assigned to three separate groups based on their years of experience in the classroom. The age, as

well as the amount of professional experience, varied greatly between each group. The first group consisted of four social studies teachers who had less than five years of experience as a teacher. The second group was made up of four teachers who had between five and ten years of experience as a professional educator. The third and final group featured social studies teachers that had more than ten years of experience in the classroom. The youngest participant in this study is nearly finished with her first year as a professional educator. Meanwhile, the oldest participant started her career as a social studies teacher in 1991. As a result of this age discrepancy, the more experienced participants may have been affected by certain global events that have taken place in the world over the last four decades that the younger participants were never exposed to in their lives. Furthermore, the significant moments in world history that have happened more recently could impact the younger participants in different ways than their older counterparts due to their previous life experiences. I will expand more on the potential effects of powerful global events on educators in chapter five of this study when discussing opportunities for future research that could originate from this qualitative study.

Table 1

Participant Demographics

Name	Years of Service	Courses Taught
Allison Butler	1 Year	World History
Kurt Carter	4 Years	8th grade U.S. History
Nicole Hamilton	4 Years	AP U.S. History
Jason Miller	4 Years	8th grade U.S. History
Caleb Henderson	7 Years	7th grade Geography/Current Events
Madison Murray	8 Years	U.S. History

Julia Owens	8 Years	Government/AP Human Geography
Ethan Price	6 Years	7th grade Geography/8th grade U.S. History
Miles Bennett	14 Years	AP U.S. Government/AP U.S. History
Claire Cunningham	11 Years	AP World History
Diana Dawson	33 Years	U.S. Government/U.S. History
Susan Phillips	22 Years	AP World History

Data Collection and Sources

The primary source of data used in this research were the conversations that took place between participants during the focus group interviews. Participants were asked to respond to a series of questions from my interview protocol that were related to their previous experiences or feelings about the use of educational technology. I posed each question to the group rather than a specific individual, which established a more open and relaxed dialogue between the participants. I collected the data from these conversations through Zoom by using the audio recording feature within the platform. I saved the audio files from each interview to my computer so that I could access them throughout the research process.

"Focus groups work when participants feel comfortable, respected, and free to give their opinions without being judged. The intent of the focus group is to promote self-disclosure among participants. We want to know what people really think and feel," (Krueger & Casey, 2015). To obtain my qualitative data, I facilitated a series of discussions based on my interview protocol for each of the focus groups. I felt that focus group interviews would work well for this study because it puts educators in direct contact with other like-minded individuals who have had a similar career path as them. Additionally, I thought that educators with similar backgrounds would be able to have more insightful conversations because they could easily relate to the

experiences of their peers. These similarities allowed participants to feel at ease about sharing their stories and ideas during the interviews. I also communicated to the participants that their personal information and responses to my questions would remain anonymous, which may have helped them feel more comfortable sharing their thoughts and experiences associated with educational technology. The focus group interviews were conducted using an online video communication platform known as Zoom. This platform was used for the interviews so that I could easily record the audio from the conversations and have reliable access to that information during my analysis once the focus group interviews were complete. Together, each of these contributing factors helped to create a safe and comfortable space for productive discourse between the participants.

Next, I had to document the conversations from each group so that I could analyze the data more easily. I transcribed the data by using the dictation feature within Microsoft Word. I simply played the audio file from each interview through the speakers on my computer and activated the dictation feature at the same time. This helped me manage my time more efficiently and gave me the chance to work on other aspects of this research while the program was writing out the conversations into a document for me. Later, I listened to all three audio files again more closely so that I could go back and correct any errors or fill in any gaps that were made by the computer when it was listening to the conversations from the interviews during the initial transcription process. Once the interviews were accurately transcribed and formatted, I printed the transcripts on standard copy paper so that they would be ready for further analysis.

The other tool that I used to collect data was an online survey that was given through Qualtrics. Qualtrics is an experience management software company that is commonly used by businesses and scholars alike to collect and analyze data. I chose to use Qualtrics for my online

survey because it is a secure platform, and it is easy to use for academic research. The web link

to the survey was included within my recruitment protocol e-mail along with the participant

consent form. The survey was designed to give me a better idea of how these participants felt

about educational technology. It was also helpful because it gave me valuable demographic data

that I was able to use to assign participants to their respective focus groups. Qualtrics collected

and organized the data from the surveys in one place where I could examine the data holistically

or look at individual responses to specific questions.

Data Analysis

I started the data analysis process once I had received all participant consent forms along

with their individual responses to the online survey. I examined the data from the survey prior to

conducting focus group interviews. The data gave me some insights into the participants'

teaching career, as well as their previous experiences with educational technology. I used the

information to assign participants into their focus groups and to gain a better grasp of how they

have used technology in their social studies classrooms. Teachers shared examples of how

technology has supported student learning in their classrooms and identified barriers that they

had encountered when attempting to implement educational technology with students.

Furthermore, I included questions on the survey that helped me learn about any training or

professional learning that they had received regarding educational technology at their respective

school sites. The data was compiled together in one table through Qualtrics, which made it easier

for me to identify any notable trends within or across focus groups. Once the data analysis from

the survey was complete, then I was ready to move on to the focus group interviews.

My process for analyzing the data from the focus group interviews was quite different

than how I approached the survey data. After the conversations were fully transcribed, I was able

to print out the transcripts on copy paper for a more thorough examination. I kept the transcripts for each focus group separate from one another throughout my analysis. I did this so that I could more easily compare or contrast data points between participants from different groups. The next step in my process was to read through all the transcripts in search of common themes that were connected to my research questions or the theoretical frameworks that I applied to this study. Additionally, I also wanted to make note of any patterns or trends that were completely unique to one focus group within those themes to gain a better understanding of how these participants can most effectively learn and use educational technology with their students. I found many references to various aspects of the CoP framework while participants were responding to questions related to how they prefer to learn about educational technology or how they feel using technology in their own social studies classrooms. Similarly, I noticed the presence of the TPACK framework when participants discussed the ways that they use technology in their classroom, as well as how they classify the relationship between teacher pedagogy, content knowledge, and educational technology in social studies classrooms.

I identified five major themes that were commonly mentioned or described across all three focus groups. These themes included "technological learning," digital literacy, affordances, drawbacks, and accessibility. I identified these subjects as codes for further analysis because I believe they are key to addressing the research questions that I am investigating in this study. After I had created a code for qualitative data analysis, I started to read through the transcripts again looking for specific words or descriptions that aligned with the codes that I noticed during my initial examination of the data. I used five different highlighters to extract the most significant data from the transcripts more easily. Every highlighter was a different color, and each color corresponded to a certain code word or phrase. For instance, I would use the color

of orange to classify any information or examples from the transcripts related to digital literacy. It took me several days, but eventually I was able to code all the significant qualitative data in the transcripts. This process made writing about my findings much easier because it gave me clear visual indicators that I could use to locate information related to a certain topic. I concluded my analysis by reading through the transcripts one more time to make additional notes in the margins of the paper using an ink pen. These final notes were usually either a summarization of the text that I had coded or questions that I needed to follow up with participants about to make sure I had interpreted their comments accurately. The additional context provided by my margin notes was helpful to me when I was writing chapter four of this study, which is where my findings will be presented within this document.

Trustworthiness

I believe that the data collected in this study is reliable and trustworthy. The participants had no reason to mislead me because they were made aware that they would not receive any benefits or compensation for participating in this research. If I had any uncertainty about what they meant during their responses in the focus group interviews, then I asked them clarifying questions when they were finished to make sure that I had a clearer understanding of their comments. I also reached out to a few participants during my analysis to ensure that I was accurately quoting them and grasping what they meant before I included data from their responses into this document. I also have a detailed knowledge of what social studies teachers experience each day at their schools since I taught social studies for six years. My positionality and previous experiences gave me an appreciation for things they were describing because I went through similar experiences during my time as a classroom teacher.

Chapter 4: Research Findings

In this chapter, I will share my findings to my research question: *How can teachers more effectively utilize and integrate educational technology within social studies classrooms?* Based on three focus group interviews. Additionally, the data will show what kinds of professional support are most helpful to social studies teachers as they attempt to become more proficient at using educational technology. A total of twelve social studies teachers participated in the focus group interviews. Participants were grouped together based on their years of teaching experience in order to better understand how their time within the profession or certain global events may have influenced their thoughts and feelings about using educational technology in their classrooms. After analyzing the data from these conversations, I identified five themes that will be important to addressing the main inquiries of this research project. I will be referring to the first theme as "technological learning." In this context, technological learning refers to the ways in which teachers learn how to use technological devices. Other prominent themes that revealed themselves in the data include digital literacy, affordances of technology, drawbacks of technology, and issues of accessibility related to the use of educational technology.

The Processes of Technological Learning

An individual's proficiency with technology often depends on how frequently they choose to interact with various forms of technology. Consequently, younger generations of people can use technology in their everyday lives more easily because they have become fluent in the digital language due to having more opportunities to engage with technology from an early age (Prensky, 2001). However, the process by which students and teachers learn how to use educational technology can also have a substantial influence on how they will use these tools or resources in the future. Teachers who have had plenty of exposure and practice with educational

technology from the start of their teaching career seem to be much more comfortable using technology with their students. This allows these educators to focus more of their attention on how to integrate the technology thoughtfully into their curriculum instead of worrying about how to operate the device. The remainder of this section will discuss the ways in which the participants navigated the process of what I am calling "technological learning."

Many teaching preparation programs offer classes that provide college students with the chance to practice using and implementing educational technology before they even enter the profession. At least one participant from each of the three interview groups mentioned that the opportunity to learn about technology prior to taking over a classroom made them feel more prepared when it was time to use technology with students. This is because these classes exposed participants to new forms of educational technology, allowed participants valuable time to interact with the devices, and gave them a base level of knowledge to build upon when they attended professional learning sessions outside of class that were related to educational technology. Although, one of the teachers from the least experienced group reported that she was more confident as a teacher when using traditional instructional approaches with her classes because she had very little exposure to technology when she was a student. According to Nicole Hamilton, "I tried to avoid it (technology) solely because I don't feel like I have enough practice with it. I wasn't super exposed to it when I was in school, and so I think that's rubbed off on me." I feel that this point is noteworthy considering that Mrs. Hamilton has only been a professional educator for four years. This tells me that while a teacher's age can be viewed by some as a predictive indicator of proficiency with technology, it is not the most important thing to consider. An educator's ability to effectively use and integrate technology into their classroom

seems to be more dependent on their previous experiences with educational technology as a student or a teacher.

How do students and teachers collect or obtain meaningful experience with educational technology? Students are typically first introduced to general technology at home with their family and friends. The first technology that they interact with is usually something that stimulates a child's senses such as music playing on the radio or watching a video on a tablet. This initial interaction will often pique the child's interest causing them to seek out more experiences with technology going forward. Technology in the home is designed to entertain, stimulate, and enhance the lives of residents. However, most of a child's exposure to educational technology will come from their time spent inside teachers' classrooms at school. Depending on the students' age, educational technology can look vastly different between classrooms. Younger students tend to use devices that help them learn foundational skills or knowledge that will allow them to access other forms of content in the future. For example, a student in kindergarten may play a game on an electronic device that teaches them the letters of the alphabet or how to count correctly. Meanwhile, adolescent students are more likely to use tech to support them in completing a specific task such as researching information, creating a presentation, or writing a paper. Students are going to be expected to use technology at school by administrators and parents. It is important that teachers are proficient with educational technology so that they can create fun and memorable learning experiences for students, but also to encourage students to develop a positive relationship with technology since it is so influential in the modern world.

Teachers can receive access to educational technology in a multitude of different ways. The most common way for teachers to learn more about technology in the classroom is through professional learning sessions hosted at the district and school site levels respectively. These

sessions are typically held biannually or quarterly throughout the school year. Based on my experience as an educator, as well as reports from the participants, classroom teachers are not receiving the training that they need from the limited number of professional learning that they attend each year at work. As a result, many teachers have started intentionally seeking out additional learning opportunities and resources for the benefit of themselves and their students. Participants in each focus group reported the need for additional tech support during the interviews. This is happening more frequently now than in the past due to several reasons. One notable cause is that professional learning sessions hosted by school districts or site leaders are typically trying to stuff a large amount of information into a small time period, which can make teachers feel overwhelmed or frustrated because they are expected to process all the information and have limited time for questions or actual practice using the technology. "I think the district has provided some tools. I remember for MasteryConnect there was two one-hour sessions that provided somebody for us to listen to, but sometimes that can feel like trying to drink water from a fire hose," says Kurt Carter. Teachers like Mr. Carter have had to seek out alternative methods to keep up with the educational technology that seems to always be evolving and they have not been satisfied with the quality of professional development that they are receiving from biannual or quarterly workshops created by their district and site leaders.

Another reason why more teachers are taking their professional learning into their own hands is because many of them have grown accustomed to teaching themselves how to do things. I found this to be especially true among the participants with less than ten years of teaching experience in my research data. Is this simply a result of the digital age that they were born into, or are their other factors that could possibly be causing educators to adopt a self-taught approach to learning about educational technology? Sixth-year teacher Ethan Price feels that professional

development was not very accessible or engaging in his experience when he initially entered the teaching profession, so he ended up teaching himself many basic skills and educational programs as a result. "I just had to sit and mess with the app or website for the longest time to really figure out how is this useful for the students that I have and now it's just something that I navigate easily," said Mr. Price. Similar sentiments were echoed among the younger participants in this study. These participants claimed that teaching themselves how to use educational technology allowed them to learn at their own pace and on their own terms as individuals, which is not always the case in a professional learning session or in an educational technology class within a teacher certification program. After analyzing my data thoroughly, I believe this argument could also be influenced by the era in which these younger teachers started working in schools, particularly those with less than five years of teaching experience.

During the coronavirus pandemic, teachers were disconnected from their schools and communities in many ways. This forced teachers to become more reliant on themselves and educational technology to be successful as educators because they were unable to come together in person due to the health and safety precautions that were present during the pandemic. Teachers' decision to utilize a self-taught approach to educational technology appears to be influenced by their age and years of teaching experience, but there are also other forces at play that have pushed teachers in this direction over recent years. If this pattern continues, then it should serve as an indicator for school districts and site leaders to consider adjusting the methods that they are using to develop and support the professional growth of teachers in their community.

Many school districts have already taken direct action to change the approaches that they are using to develop teachers and the ways that they are training them to use educational

technology. During the interview process, several of the participants in this study described how beneficial it was to have instructional coaches or technology specialists working in sites within their school district. Claire Cunningham, who is a social studies educator with eleven years of teaching experience, mentioned how helpful instructional coaches and media specialists have been for teachers at her school site. "In my building, we have a wonderful instructional leadership coach who is really great with technology and her job in the school site is to partner with teachers to do lesson plans and tech integration," said Mrs. Cunningham. Mrs. Cunningham also mentioned how librarians and media specialists at her school have worked with teachers to build unit plans that feature educational technology. These professionals can be extremely useful when it comes to introducing and training teachers to use educational technology in meaningful ways with students. Instructional coaches can also help facilitate lessons alongside teachers while they are still getting comfortable using a device or program, which can help give the teacher some extra confidence when they begin the process of technology integration into their curriculum and classroom respectively. Technology specialists have the capacity to perform the same task as well, but their role within a school is typically more focused on just working with teachers. Technology specialists will often facilitate professional learning sessions regarding educational technology for the faculty at a staff meeting or on days dedicated to professional development for educators. They can also meet with individuals to answer questions, share resources, and model how to use educational technology in a more focused setting to offer additional support for teachers throughout the school year. This independent tutoring is beneficial for teachers because it gives them additional time with an expert to ask questions that they have regarding the use of a given device or program, but it also grants them more time to

figure some things out and learn at their own pace before they begin the implementation process with their students.

Technology specialists and instructional coaches can often earn more money by working at a university or by taking a job unrelated to education within the business sector of the modern global economy. The process of funding public schools in the United States has become outdated and often creates inequalities between school districts within states and across the nation. Furthermore, many school districts have invested significant portions of their annual budget into purchasing educational technology for students and teachers following the pandemic. Together, these facts are contributing factors that have caused district leaders and site administrators to eliminate some extracurricular programs or relieve staff members of their duties because they no longer have the requisite funds to keep supporting everything and everyone within the school community. As a result, many school districts are unable to pay the salary and benefits required to hire a qualified instructional coach or technology specialist that can support teachers at each school site as they attempt to implement technology in their classrooms.

Some school districts hire a single person to be responsible for an entire school district, which is a step in the right direction, but it can put too much strain on that one person to be responsible for teaching every educator in the district about a variety of technology platforms and programs. A first-year teacher participating in this study has been experiencing this situation in her district. According to Allison Butler, "We have a TLS (Technology Learning Specialist) that is over curriculum and technology, but he bounces around between schools. I feel like I have leaned more on other teachers than him because I just don't see him that often," said Ms. Butler. Based on my conversations with participants, social studies teachers feel more supported and prepared to implement technology when their site has hired an instructional coach or dedicated

technology specialist to assist teachers with the use of educational technology in their classrooms. Unfortunately, many schools cannot afford to hire these skilled professionals due to the financial constraints that school districts and local governments are having to deal with in the United States today. This is especially true for urban and rural districts because they have a harder time generating funding than their suburban counterparts, due to the outdated system that is used to fund public schools in the United States. Consequently, many teachers have started to learn more about educational technology by working alongside their fellow educators and sharing knowledge in what are commonly referred to as communities of practice (CoP) (Wenger & Wenger-Treyner, 2015).

My research found that nearly every social studies teacher that participated in this study was able to utilize educational technology most effectively by collaborating with their peers within the setting of a CoP. This type of learning environment is heavily reliant on the processes of collaboration and communication between educators. A CoP allows teachers to come together to work toward a common goal by exchanging ideas, demonstrating best practices, and having meaningful conversations. These communities have been beneficial to every teacher that participated in this study to some extent regardless of their age or amount of professional experience. Diana Dawson, a social studies educator with thirty-three years of experience as a classroom teacher, discussed how her CoP positively affected her relationship and perceptions of educational technology. "Being an old school person, technology was something I definitely had to learn because in my day it wasn't around. So, I had lots of help from fellow teachers and friends who helped me better understand and grasp technology," said Ms. Dawson. Teachers with more than ten years of experience that participated in this study have depended on their CoP to aid them in learning how to use and integrate educational technology into their social studies

curriculum. This pattern was common across all three focus groups that participated in the interview process, but learning from the collective knowledge of a CoP was the primary means of learning about educational technology for the teachers who had more than ten years of teaching experience.

Educators that have been in the field for a long time and are used to doing things a certain way are generally not as receptive as their younger counterparts to fast or sweeping changes to their work environment. Furthermore, tech-integration strategies or the operation of technological devices are not always easily accessible for older teachers since they were not born into the modern digital age. Instead, they have been forced to adapt to changes as they come and the main way these more experienced teachers have been able to do this is by speaking with their teacher colleagues within a CoP. A CoP can put older teachers in contact with teachers that are new to the profession and both groups can benefit from each other in different ways. The older, more experienced individuals can learn more about connecting with today's students from their younger colleagues, as well as how to use educational technology in the classroom. Meanwhile, the younger teachers can take advice from their more experienced peers regarding other essential skills of teaching, such as communicating with parents, planning lessons, or managing a classroom environment. Usually, a CoP exists within a specific school site or school district, but a CoP can become much larger through the power of social media and the internet. Several participants in this study mentioned that they have joined teacher communities online through social media platforms including Facebook, Instagram, YouTube, and TikTok. This has allowed these teachers to share and exchange resources with teachers from all over the world, but it has been especially beneficial to Mrs. Susan Phillips. Mrs. Phillips is a social studies teacher from a rural school district who has been in the classroom for the last twenty-two years. "I was the only

eighth grade American history teacher for years. Now I am the only teacher for AP U.S. history and AP European history, but collaborating with teachers and discovering things through these online communities has been wonderful," said Mrs. Phillips. Technology has allowed her to connect with other educators outside of her local network to help her grow professionally, while also providing her with valuable resources and information to support student learning in her social studies classes. This is just one of many examples I could give related to how communities of practice have helped the participants in this study grow professionally as teachers, while also improving their digital literacy skills

The Need for Digital Literacy

Digital literacy is a skill that has grown increasingly important over the course of the twenty-first century as technology has become a more integral part of everyday life for many people in the modern world. Being able to navigate, operate, and communicate using technology is an essential skill for any student that is looking to enter a post-secondary education program or the job market today. This pattern also holds true within my research data that I collected during the focus group interviews. Teachers with less than five years of classroom experience referenced the need for digital literacy in schools and demonstrated their personal digital literacy skills much more frequently than the other two focus groups. I believe that this pattern could be attributed to several different factors. The first thing to consider is the age and years of teaching experience that these individuals possess. Not only have these teachers grown up with technology in their lives as children, but they also started their career as a teacher during a time when educational technology was more prevalent than it had ever been previously. They have been exposed to many more resources or tech tools during their lives and teaching careers than the other participants in this study. Furthermore, the coronavirus pandemic forced teachers and

administrators into placing a greater emphasis on educational technology to keep schools in session. The teachers with less than five years of experience started their work in the field during that period, so they were able to acquire valuable digital literacy skills during their formative years as an educator. These educators also seem to prioritize including digital literacy skills into their teaching philosophies and potentially the social studies curriculum they choose to implement with students. Jason Miller, a fourth-year social studies teacher, describes the need for teachers to practice and develop digital literacy skills before trying to instill those skills or qualities into the students in the following statement:

> A lot of research shows that one of the reasons we as teachers are struggling with teaching these digital literacy skills is that we don't feel prepared. We do not feel like we can teach that, and so it has taken me several years to figure out what specifically I need to be teaching to make them (students) digitally literate. I think that's a big struggle that we as teachers don't really talk about in our undergrad programs and all these things is how to make them not just know how to use a computer, but how to actually use it effectively. And so, a lot of that has to do with just the lack of confidence as a teacher. I mean I know that I've felt that. I'm sure we all felt that. We know that this is a big problem, now what do we do about it?

The point Mr. Miller is making here connects directly to my research question. It also illustrates one of the main reasons why I wanted to investigate the ways in which educational technology is being utilized within social studies classrooms. I have seen classroom technology be used to accomplish the same tasks that a notebook or binder could do, and I would like to support social studies teachers in learning how to use tech at a higher level so that they can more effectively meet the needs of their students. Also, school districts have invested a significant amount of

resources into acquiring this technology to support student learning, but how beneficial can these devices be for schools if teachers are not equipped with the necessary digital literacy skills to effectively use them?

In fact, my research shows that a lack of digital literacy can potentially have negative consequences for both teachers and students. A seventh-year social studies teacher named Caleb Henderson described a recent interaction with some of his students that will exhibit how this can happen in classrooms. Mr. Henderson was trying to communicate with one of his students in class by using Google Translate. The student is classified as an English Language Learner (ELL) student. Mr. Henderson has a few students that speak Spanish as their primary language in this class period, and he often uses technology to communicate more easily with them since he does not know how to speak in Spanish. In this example, Mr. Henderson tried the same approach, but had to be corrected by one of his other ELL students that was more proficient in terms of speaking English. This was because the translation program he was using made an error and communicated inaccurate information to the students. "Mr. Henderson, that's not what you meant to say," said the student. Mr. Henderson replied, "what do you mean?" The student responded, "well, this is what it actually said and this what you meant to say." This turned out to be a great learning experience for Mr. Henderson, but this situation could have turned out much worse. Teachers must use technology responsibly with students and not assume that the technology will always be one-hundred percent accurate all the time. Moreover, it is also crucial that teachers are not encouraging negative behaviors such as cheating or plagiarism in their classes. Mr. Henderson articulated this point well after telling this story about his own classroom experience. "Sometimes not understanding how technology works or even not being proficient ourselves and assuming that technology is doing the work for us can be dangerous," said Mr.

Henderson. Mr. Henderson would have never known that this mistake even had his student not corrected him. Imagine how many times something like this happens every day in schools due to a teacher's lack of digital literacy skills.

An additional factor that seems to play a role in acquiring digital literacy skills at school is a teacher's perceptions or feelings about educational technology. If teachers do not feel that digital literacy is very important, then they simply will not take the time to teach these skills in class because they have other content to cover within their subject area. Time is a precious resource in schools, and this is especially true for teachers. Every minute of their day at work is scheduled out for them at the beginning of the school year, so it is often challenging for teachers to sacrifice time in their class to teach something that has never previously been a part of their curriculum. Most of the participants with more than ten years of teaching experience expressed additional concerns about the recent push to integrate technology into the classroom.

I have already mentioned concerns about rapid system changes, responsible use of technology, as well as the time constraints facing teachers. These individuals have been in the profession for a long time and most of my participants argued that the movement to use more technology in schools is the latest and greatest trend within education. They believe that technology is a useful tool or conduit to transmit knowledge and support a teacher's instruction, but do not feel that it can replace effective teacher pedagogy. Miles Bennett, a social studies educator with fourteen years of experience working in schools, believes technology can be a great tool to enhance content and pedagogy for teachers. However, Mr. Bennett says that it needs to be used authentically and meaningfully with students to be effective. "One of the challenges with tech that I found was that it was like chasing trends. You get the initial tingle of the beginning, and then everybody's doing it and the trend has passed," said Mr. Bennett. Teachers

with more than ten years of experience have also seen many people and philosophies come and go over the course of their careers, so I think they are more hesitant than younger teachers to invest time and energy into becoming digitally literate.

Similarly to my findings related to technological learning, which is how people acquire the skills and knowledge necessary to utilize technology for school or work, I do not think it is appropriate to use age as the single determining factor to decide if an individual is digitally literate. It is important to also consider the context of the situation that the teacher or student finds themselves in within the classroom. The context that the teacher is working in combined with their past experiences can either positively or negatively affect their perceptions surrounding educational technology.

Digital literacy is an important subject that students and teachers need to learn now more than ever so that they can use technology more responsibly, especially with the emergence of artificial intelligence programs such as ChatGPT or Grammarly which have become extremely popular in recent years among the general population. Teachers with less than five years of experience seem to be more purposeful or intentional with regards to integrating digital literacy into their classrooms with students. Age may make digital literacy more approachable for a new learner if they are young, but ultimately it comes down to a person's experiences and what they have learned themselves or from others.

Affordances of Educational Technology

Educational technology has afforded social studies teachers the ability to transform their instructional practices and classroom environments in a variety of ways. This section of my research findings will explain how technology has benefited teachers from each of the focus groups.

Time

The first thing that every group talked about when asked what technology has afforded them as teachers was time. Time is a precious resource for any classroom teacher. They have a limited amount of time to work with students during class, eat lunch, and fulfill the rest of their obligations that come with being an educator. Educational technology has given teachers back more time in their day by reducing the amount of time it takes them to perform clerical tasks such as taking attendance, entering grades, or contacting parents of their students. I believe Mrs. Claire Cunningham articulated this point well in the following quote:

> It (educational technology) gave me time. Time for grading and giving feedback to my students. The first time I ever was able to keep up with grades and not fall behind was when Canvas was adopted by my district. This was true across the board for a lot of my colleagues too. They found themselves able to have time to do some of that clerical work. You can be a teacher, you can answer emails, you can grade papers, but you cannot do it all at the same time.

Hopefully, teachers will be able to create more effective and engaging learning experiences for their students if they are no longer spending a few hours each day grading papers or replying to emails. Educational technology also streamlines the operation of tracking student progress and collecting data by putting everything in one central location that the teacher can return to when making future lesson plans. Furthermore, educational technology speeds up the research process if a teacher needs to review content prior to starting a unit or a student needs to locate information quickly to find out about an upcoming event. Time is something that should never be taken for granted in this life because it can be taken away at any moment. This is why this affordance was so important to the participants of this study. They are all social studies teachers,

but they are also people who want to live their lives to the fullest both in and outside of their classrooms and extra time helps them do that on their own terms.

Flexibility

The second affordance that was described by each group was flexibility for both teachers and students. There are so many kinds of educational technology that exist in the world today. This allows teachers and students to have more choice over how or what they are learning. Students can now access information from thousands of different sources via the internet to help them learn more about the world. They can also use various forms of digital media to demonstrate what they have learned about a given subject or express their knowledge in a creative way. These are great benefits for students, but educational technology can really help teachers be much more flexible and adaptable for their students.

It is human nature for both students and teachers to grow weary of the learning environment if the same thing is happening every single day within a classroom. Teachers can use technology to create lessons or activities that will allow for students to collaborate and share information with each other more easily. Educational technology can also help simplify the process of differentiating instruction to accommodate student needs. Julia Owens, a social studies teacher with eight years of experience, has large class sizes and a diverse student population at her school. Some of these students have very specific accommodations that must be met for them to be successful in class. However, Ms. Owens' school has also told her that the staff needs to cut down on the amount of paper that they are using due to financial reasons. Educational technology has allowed Ms. Owens to address both concerns simultaneously. "I have class sizes ranging from twenty-five to thirty-five on any given day. I can put something on Canvas and send it out to the masses without worrying about waiting on the copy machine or

using paper," said Ms. Owens. She went on to describe how programs like Canvas allow her to post assignments for all her students, but it also gives her the ability to send different versions of the classwork directly to students. This helps those students who have special needs to receive the accommodations they need in a discrete manner without feeling singled out or embarrassed by their teacher when they are handed a paper that looks different from most of the other students in class. The flexibility or adaptability of educational technology has the potential to create a more personalized and inclusive learning experience for all students when it is used effectively by educators. I hope that this opportunity will inspire teachers to reflect on their current classroom environment and think about how technology could make their class more inclusive and approachable for everyone.

Teacher Growth

The emergence of educational technology in recent years seems to have motivated participants into challenging themselves as teachers. Participants in each focus group mentioned how using technology in the classroom has helped them grow as educators by pushing them to learn new knowledge and develop new skills. I am interpreting this development as an affordance because personal and professional growth often requires an individual to endure some kind of struggle or hardship to improve their abilities. Teachers that are willing to branch out and try new instructional methods or tech tools are gaining experience with new educational resources that they can use going forward. I believe this is beneficial for teachers because it gives them more resources that they can use to adapt to the needs of their students as they establish a greater understanding of how students learn and what supports they will require to be successful in class. Madison Murray, a social studies teacher with eight years of experience, explained how technology has encouraged her to try new things with her students in the following statement:

It (educational technology) has challenged me to kind of break away from lecturing. I like lecture and discussion, but I think it gets too stagnant at times. So, it has challenged me to seek out research and find some other tools that my kids would enjoy, while also being entertained.

Mrs. Murray is a great example of a teacher who is willing to put aside her personal preferences as an educator to create a more engaging learning environment for her students. Several other participants reflected on the pandemic and how it almost forced them to become more comfortable with technology. Some of the teachers experienced frustration at the time as they were learning, but they all believed that the period of struggles they endured at the beginning put them in a position to be a better teacher in the long run.

Educational technology has provided teachers with many benefits or affordances throughout the twenty-first century. Social studies teachers have used devices to help students examine history from the perspective of historical figures, tour significant landmarks around the world, and create original content that demonstrates what they have learned about a given topic. Educational technology has also streamlined many aspects of teaching for all educators, such as taking attendance or looking up information about a student, to help make the job a little easier and more time efficient. Integrating technology effectively into a school culture takes time, but I believe that the long-term rewards can justify that initial investment of time and money into educational technology. I think it is a necessary investment since teachers are being tasked with preparing students for jobs that do not even exist yet that will be created by future developments in technology. It is essential that students have a basic understanding of how to operate or manage technology because they will be expected to use it frequently over the course of their lives both inside and outside of the classroom.

Potential Drawbacks of Using Educational Technology

Educational technology has the capacity to open many pathways for students and teachers to explore the world. In the previous section, I explained some of the affordances that technology can offer to students and teachers respectively. Now, I would like to discuss some of the potential drawbacks that could come with using educational technology in the classroom based on the responses of the teachers that participated in this study. It should be noted that I interviewed social studies teachers working in public schools, so their responses are in reference to students that would be classified as adolescents or teenagers attending middle schools and high schools. Elementary school teachers would likely respond or feel differently than their secondary colleagues because they have had their own unique set of teaching experiences. Each focus group had their own set of concerns that they had about using technology in their classrooms, but I will be focusing on the things that were commonly considered as a potential drawback or negative consequence across all groups. These drawbacks can be applicable for both teachers and students depending on the circumstances that exist within a given learning environment.

Student Distraction

Students are more connected to the world outside of their school or community more now than they have ever been previously. This is a result of how influential the internet and social media have become for today's youth in recent years. I believe that the effective use and integration of educational technology has many positive effects on student learning outcomes, but the participants of this study pointed out that it can have drawbacks for students as well. The social studies teachers that I spoke with during this study were mostly worried about keeping their students on task during lessons that featured educational technology. This was a concern

due to the many forces outside of the classroom that are constantly competing for the students'

attention. Examples of these forces include social media platforms, YouTube, and online video

games. Using almost any electronic device with internet capabilities opens the door for the

possibility of outside distractions to enter the learning environment. Caleb Henderson described

this how he feels about this issue during the interview in the following statement:

> Keeping kids on track and on pace with technology is difficult. There's way too much
>
> opportunity to self-explore or self-gratify with games, chatting with friends via social
>
> media, and things like that. So, sometimes those virtual environments or technology
>
> environments invite opportunities for distraction much more than non-technological
>
> environments invite.

In recent years, software companies have designed programs to help teachers monitor student

activity remotely and keep students on task, but these also come with additional effects to the

classroom. The use of programs such as Blocksi or GoGuardian are great for checking student

activity or forcing students to focus on a single window, but teachers must be actively looking at

their own devices to use them. This takes away the teacher's ability to move freely about the

classroom, which can hinder a teacher's ability to manage the classroom effectively.

Furthermore, students may feel that their teacher does not trust them if they are resorting to using

software that actively surveils students. This could have a negative impact on the relationship

between students and teachers, which is obviously not a desirable effect of using educational

technology within the classroom.

Ethical Issues

The other concern that many of the social studies teachers had with students using

educational technology more frequently was related to ethical issues such as plagiarism or

cheating off another student's work. I believe that this issue has always been present due to the digital age that we live in today, but teachers are having to deal with this more often today because of the emergence of generative artificial intelligence programs such as ChatGPT. Students can access millions of different resources through the internet, so it is not difficult for them to simply copy and paste information from a website to their classroom assignment. Moreover, programs like ChatGPT are making it more difficult for teachers to detect acts of plagiarism and cheating committed by students. These realities of teaching in the digital age arguably makes digital literacy among teachers needed now more than ever. It has become an essential skill for teachers so that they can ensure that their students are learning with academic integrity.

Digital Fatigue

The final drawback that was discussed frequently in each focus group was the idea of digital fatigue, which simply means that individuals can become exhausted or worn out from using technology too frequently. This feeling can easily apply to both students and teachers working in the classroom today. Teachers tend to experience digital fatigue over a long period of time. This is a result of educational technology constantly evolving, which requires teachers to unlearn knowledge or processes about older technological devices and programs so that they can learn how to use the new technology. This can be frustrating for teachers who have spent years using and integrating a program or application into their classroom. Miles Bennett shared an example of this happening to him during the interview process. "We were using an online assessment tool called Edusoft, and then my district moved to MasteryConnect. I had already spent two years learning and really trying to get good at this program and then it switched on me." Mr. Bennett was then immediately expected to change how he implements online testing

with students and learn this new program. Participants believe situations like the one Mr. Bennett described are major contributors to digital fatigue among teachers because they feel like they are being forced to use specific kinds of educational technology. Additionally, most teachers are not given a voice to express what devices or programs that they specifically need before districts decide to buy these tech tools. The combination of all these things together can and has resulted in digital fatigue among many social studies teachers.

Students can and often will develop and experience digital fatigue throughout the school year. Much like teachers or any other adults, students do not like to do the same exact thing every day. As a result, students can quickly become bored and disengaged when all their teachers are having them log on to their computers to read a document so that they can answer questions for an assignment. To avoid this, it is important that teachers develop a diverse collection of resources, activities, assignments, and assessments so that students can engage with a variety of learning experiences at school. According to Julia Owens, students spending their entire school day in front of a computer screen can also have negative consequences on a student's overall health. "There has been pressure from administrators to use devices regularly. We see studies indicating that students are already spending too much time online, and it isn't good for students' health to be looking at a screen all day," said Ms. Owens. She went on to explain that excessive screen time for students can negatively affect their human development due to the decrease in physical movement and verbal communication taking place within the classroom.

All in all, educational technology is a tool that exists to support teachers and students in the classroom. It is not inherently good or bad. Like any other tool or resource, educational technology can fail or be ineffective at times. Is this a reflection of the quality of the tool, or the person's ability to operate the tool? I believe it is the latter, which is why it is essential for

students and teachers to become more proficient in terms of using educational technology. If students and teachers can embrace digital literacy and develop their abilities as tech users, then they will be better equipped to avoid the potential drawbacks of technology that I have outlined in this section. Furthermore, a teacher's pedagogy can create additional benefits or affordances for themselves and their students by integrating educational technology thoughtfully into their curriculum.

Issues of Accessibility in Schools and Communities

The final theme that kept reappearing in the research data during my analysis was issues related to accessibility for students. Educational technology can be used as a tool to help make learning more inclusive and accessible for all students. Technology can do this in many ways such as providing additional context about a subject, translating languages, or connecting people through the internet. However, this requires both students and teachers to be proficient with the technology so that it can be utilized to its potential. Additionally, schools and cities need to invest resources in their communities to improve their online networks and update the technology devices that they currently possess. Social studies teachers have been able to use technology to enhance their content by using online applications, videos, and search engines. The participants also discussed how the pandemic made them more aware of existing accessibility issues in their respective communities. The remainder of this section will highlight specific examples of existing accessibility issues and methods that teachers are using to make their classes more accessible for students.

How does a social studies teacher make their content area more accessible and engaging for students? Social Studies has traditionally been taught to students by directly transmitting information to them about a topic via lecture or reading. These practices are still useful today for

teachers, but they can have diminishing returns in regard to student learning outcomes if those are the only learning methods being used within the classroom. Participants in this study described examples of how educational technology has helped them break away from traditional practices and focus more on helping students connect or relate to the content through new instructional methods. Several of the participants talked about using applications such as Google Earth, Nearpod, Minecraft, or watching videos on YouTube as effective ways to immerse students into a particular topic. Ethan Price described an interactive lesson featuring Google Earth that he used with his eighth grade U.S. history classes in the following statement:

> I like to do this activity where we look at famous images throughout U.S. history and while looking at the images together, I task them with explaining what they notice in each image. After that, I then instruct them to get on Google Earth and search the locations of the events where the images from earlier actually took place. So, they can actually see connecting the history with what is in that place today. We don't have the means to drive kids to the Alamo or anything, so it is just a really good tool for them to connect social studies content with their world today.

This is a perfect example of how educational technology can enhance learning experiences and make content more accessible or relatable for students when it is effectively integrated into the classroom environment. These kinds of learning experiences are often more meaningful for today's students, which will increase their levels of engagement and increase the likelihood of them retaining the knowledge gained from the activity.

The next step to creating more interactive and engaging classroom activities that feature technology is making sure that everyone can access the network. Participants in this study work in districts from rural, suburban, and urban areas. Several teachers reported that their students

could not utilize their personal devices at home due to poor or non-existent internet connections. This concern was primarily from teachers working in less affluent districts within rural and urban communities. Barriers to learning caused by the socioeconomic status of families or where families live should not deter students from being able to learn at public schools.

Many of the rural and urban educators participating in this study would like to see a more substantial investment to expand the bandwidth of wi-fi networks at school and around the community to help students connect to the internet more reliably. This situation also puts more pressure on teachers in these areas to make the most of their experiences with technology during class if there are students who will be unable to access it again when they go home at the end of the school day. Educational Technology is designed to help students learn by making content more accessible, engaging, and inclusive for students. In order to utilize the technology to its maximum potential, school and city leaders across the nation must closely examine these issues in order to eliminate these economic barriers and by doing so create a more equitable education experience for all students. Technology has already streamlined many processes in the field of education, which has provided much needed flexibility and time to students and teachers alike. It has also challenged teachers to continue to learn new things and grow professionally as educators.

Chapter 5: Discussion

This research project started when I asked the following question: *How can teachers more effectively utilize and integrate educational technology within social studies classrooms?* Effectiveness is a measure that will always be relative to the current situation of a given school or classroom. Within the context of my research, effectiveness refers to the teachers' ability to use educational technology to its fullest capacity in the classroom to increase student engagement and enhance student learning experiences. In my final chapter, I will identify recommendations to my research questions by discussing the significant patterns that emerged from the data across all three focus groups during the research process. Furthermore, I will reflect on the possible implications of this research on the field of education, and more specifically how it might influence the approaches of schools or teachers attempting to meaningfully integrate educational technology into social studies content areas. I am also considering how this academic research could possibly create research opportunities in the future related to the accessibility of educational technology, the professional learning of social studies teachers, or how global events can transform the landscape of education for teachers and students. I will conclude this chapter by describing my final thoughts related to the integration of educational technology in social studies classrooms after completing this qualitative study.

Summary of the Results

Educational technology is a tool designed for the purpose of enhancing classroom learning experiences for students and teachers. Like any other tool, educational technology will have its fair share of benefits and limitations depending on the situation in which it is being utilized. It is the responsibility of educators to thoughtfully integrate these tools and devices into the classroom to maximize the affordances of technology for students and teachers while also

minimizing the potential drawbacks that can occur when technology is not used appropriately. Teachers can use educational technology to transform the ways that they teach and how students learn when they have the necessary skills and knowledge to do so. On the other hand, technology can be a detriment to the learning environment and viewed as a wasted investment by many when it is not used correctly in the classroom. If these devices are going to be in the classroom, then educators have an obligation to use them effectively to improve the quality of instruction taking place in schools and better prepare students to be successful in this digital era.

This research study has led me to believe that any educator can utilize and integrate educational technology into their classrooms. However, educators must be more intentional about how and when they choose to include technology into a lesson or activity. Teachers cannot expect the technology to deliver a lesson for them because it was not designed as a replacement for content knowledge or teacher pedagogy. Educational technology is intended to support students and teachers during their learning experiences within a given content area (Boholano et al., 2021). I think it is important that educators reconsider their planning process for lessons that include technology, and they find a clear purpose for that technology within the lessons before implementing it with students. For instance, technology is a great way for students to gain additional context or background knowledge about a given topic to help them prepare for an assessment. Educational technology can also offer a wide range of methods for students to demonstrate what they have learned during a lesson or unit. It can also help scaffold learning activities for students who are struggling, as well as for students who are trying to overcome language barriers or learning disabilities. Due to the financial and time investment into technology, educators cannot afford to simply use it with students on a whim. I believe that if teachers can restructure their planning processes and understand how their students learn most

effectively, then they can create learning environments that promote student engagement and learning through the integration of educational technology in classrooms.

The process of integrating educational technology in social studies classrooms, as well as other content areas, is going to take shape differently within schools depending on the circumstances that exist within a given learning community. There is not a one-size fits all approach to help teachers learn how to utilize and implement educational technology effectively within social studies classrooms. Younger educators may be able to become proficient with educational technology more quickly because of their status as "digital natives," but every teacher has the capacity to use technology effectively in their classrooms regardless of their age or years of teaching experience. Furthermore, most educators that are relatively new to the profession are often required to go through a college course that is focused on educational technology during their teacher certification programs. This often allows them to become acclimated with technology earlier in their career than older and more experienced teachers. However, my research shows that educators at all experience levels can benefit from learning about educational technology through communities of practice.

Learning Educational Technology as a Community of Practice

I believe that creating effective communities of practice (CoP) within content areas could be a common approach that most schools could realistically adopt as a part of their school culture, but it will require both administrators and teachers to be more intentional with their time during professional collaborative periods in the school day (Lave & Wenger, 1991). For example, a good CoP needs to have a consistent set of norms and expectations to make all group members feel welcome, respected, and included. It would be helpful for teachers to observe or witness a preexisting CoP that works well together so that they could implement a similar

structure with their own professional groups. A CoP can be a great space to try new things and experiment because it is a more informal setting for teachers, which means they will likely be more comfortable asking questions and making mistakes. Teachers can feel nervous when they are asked to do something new in front of a large group of people or in a setting that is less relaxed because they are used to being the expert in the room. Introducing new educational technology to teachers within a CoP could allow group members to build up their knowledge and skills with the device collectively before attempting to use it in class with students. As the teachers' proficiency with technology increases, members can then exchange information with their group and even share what they have learned in their own CoP with other content areas around the school. Additionally, effective CoPs can often lead to improved relationships between staff members, which can create a healthier work environment for both students and staff. Ultimately, school leaders will need to listen to their staff to determine what supports classroom teachers need to integrate educational technology more effectively in social studies classes. Purposeful engagement in CoPs within a school site or school district could potentially be the best way to help many teachers develop the necessary skills and knowledge required to operate modern educational technology.

Digital Literacy

The need for digital literacy is more important now than ever before due to how reliant people have become on the internet and other forms of technology in their daily lives. Both teachers and students are coming to this realization every day in their learning communities. The development of digital literacy skills among teachers or students can be difficult and time consuming, but these are necessary struggles for schools to endure in order to avoid the alternative of not being digitally literate. A lack of digital literacy skills can be detrimental to a

school community because it can lead to miscommunications, the inability to utilize educational technology, or potentially the release of sensitive information about students to individuals operating outside of the school. Meanwhile, students and teachers that possess digital literacy skills can more safely navigate through and function within the digital age that we are all living in today. Teachers can also use digital literacy to create more innovative experiences for their students in schools, which can foster more engaging and effective learning environments within the classroom.

Based on my research, it seems that less veteran social studies teachers are currently more purposeful about how they incorporate digital literacy into their curriculum. I believe this trend is primarily a side effect of these individuals growing up in a world that is more dependent on the assistance of technology to accomplish common tasks. There are several potential ways to emphasize or place a greater value on digital literacy within schools for teachers and students. First, I think it makes sense for teachers and students to focus on learning essential digital literacy skills that will frequently be used in class during the first week of school while they are establishing their other classroom norms and procedures. Most teachers are probably not going to start delivering new content to their classes during that time anyways due to schedule changes and the enrollment of new students that typically occur throughout the first week of classes. Establishing classroom norms, student expectations, and relationships are important things to accomplish early in the school year, but I feel like this is a space where we could also include instruction about digital literacy. This would allow students to gain the basic skills and knowledge that are required to operate the devices that they will use on a regular basis during class. Similarly, I think it would be wise for schools to create time and space in their schedule that is dedicated to digital literacy for teachers when they return to work at the beginning of each

school year and then offer opportunities for teachers to revisit digital literacy training periodically throughout the school year.

An alternative option that could help to support these skills for students would be to create a class that is dedicated to digital literacy that students could enroll in as an elective or required course. This option may be more difficult for some schools to implement than others because they may not have the budget to hire a teacher with that skill set or purchase the supplies that would accompany that type of course. Furthermore, it would require schools and state governments to adjust their current graduation requirements for high school students. Due to the various time and system constraints that teachers and students are forced to work within at school, I think the best approach to supporting the development of digital literacy will require educators to look for more opportunities in their current curriculum to include demonstrations of how to use educational technology correctly or reserve class time to give their students a chance to practice using certain applications, devices, or programs.

Accessibility

Accessing educational technology is more difficult than it probably should be for the students, teachers, and parents living in this modern society. This is especially true for families living in rural and urban communities. Unfortunately, many households in these areas either have an unreliable internet connection or no online network at all. In order to utilize the technology to its capacity, community leaders across the nation must come together to remove the barriers and obstacles within cities or towns that limit access to the tools and knowledge needed to be successful in the twenty-first century. This will lead to the creation of more equitable education experiences for all students regardless of their socioeconomic status or place of residence.

Accessibility to technology in remote or impoverished communities can only be addressed on a major scale by local and state governments because they have control over the budget in these areas. Still, I believe there are some actions that schools and teachers can take that would allow students to access technology and education more easily. Schools could invest more resources into strengthening their wireless networks so that students can reliably access the internet at school from their computer, tablet, or mobile devices. Schools with large student populations or too few internet routers can often experience connectivity issues in the classroom. Teachers should also thoughtfully consider the programs or applications that they use with students to ensure that anything they use in class can function properly on computers and mobile devices. This is because many households do not have computers at home and families are forced to rely on cell phones or electronic tablets for internet access. Schools should place a greater value on acquiring technology that supports specific needs of their students and teachers so that the technology is being used purposefully. Educational technology is intended to make learning more equitable and inclusive, and it has led to the development of many applications that are designed to help students overcome a wide range of disabilities, conditions, or challenges. I believe it is important to invest in these resources to provide equitable opportunities for students who require these specific accommodations in the classroom to be successful.

Implications

My research into the integration of educational technology in social studies classrooms could potentially have implications on other aspects of education as well. There are three areas that immediately came to mind after reflecting on my findings. First, the use of educational technology in classrooms can have many effects on individual teachers and their students. Second, the acquisition of educational technology could have significant effects on schools and

their nearby communities. Finally, I think my research could affect the way that school districts or college programs approach the process of teacher education.

One of my goals of this research process was to identify ways that I could offer guidance for teachers that are struggling to learn or implement educational technology. The data that I collected during this research process shows that teachers can acquire the skills and knowledge required to utilize educational technology most effectively by collaborating with their peers in communities of practice. Additionally, the data also highlights the affordances and drawbacks of using educational technology with students. This is helpful for educators so that they can adapt their learning environment and teaching practices to maximize the benefits of educational technology while also simultaneously limiting the potential shortcomings that technology can introduce to a classroom when used inappropriately. This discussion of my findings also provided some initial action steps that I believe schools and teachers could take to facilitate the process of integrating educational technology into classrooms.

Technology is constantly evolving within our society. Schools must continue to grow alongside technology so that students are prepared for the post-secondary academic and professional opportunities that await them in life. Two of my primary findings from this research study include the need for digital literacy and issues of accessibility related to educational technology. Digital literacy is a necessary set of skills for all students in the twenty-first century because technology will continue to have a constant presence in their life as they grow older. Being proficient with technology can only benefit students, families, and teachers, so I believe it is something that schools and communities must place a greater emphasis on moving forward in the digital era. Furthermore, local government officials and other community leaders can contribute to this cause by working alongside school districts and internet service providers to

make access to broadband internet more affordable and reliable for families living in remote areas of a city or state.

Lastly, the final implication of my research that I would like to mention in this chapter is the process of teacher education. The data from the focus group interviews shows that the participants have learned about educational technology in several different ways over the course of their academic and professional careers. Teacher certification programs today often include an educational technology course that is required for pre-service teachers to complete prior to graduation. This research could give college instructors something new to consider when deciding what kinds of educational technology they are introducing to their students. I think there should also be a greater emphasis placed on implementation so that pre-service educators are better prepared to integrate technology into their lesson plans each week when they start teaching their own students. My research findings could also influence how school districts or school sites approach teacher education among their own faculty. Much like pre-service teachers, certified educator could also benefit from observing someone who is proficient with technology implement these tools with students to gain a better understanding of how to integrate technology. Certified teachers that participated in this study also feel that they were able to learn and implement technology more effectively while learning alongside their peers in communities of practice. Within this type of setting, teachers can learn about educational technology at their own pace. They are also able to ask questions, receive feedback, and practice using the technology with colleagues before implementing a device or application into their curriculum.

Future Research Opportunities

The focus of this research was to learn more about what schools, or more specifically social studies teachers, can do to effectively utilize and integrate educational technology with

students. I was able to identify some methods that school districts and site leaders should consider when offering professional learning opportunities to their faculty. Furthermore, I was able to collect valuable data from active classroom teachers to find out what kinds of technology or what tech integration strategies work well with students today in social studies classes. It is my hope that the findings of this study will help schools and teachers support student learning and engagement within their communities. Still, I believe what I have discovered during this investigation could potentially open the door to several new opportunities for research in the future. I believe my research could lead to a closer examination of topics in education such as educational policy changes related to technology, the influence of major historical events on education and classroom teachers, such as the coronavirus pandemic or the terrorist attacks that took place in the United States on September 11th, 2001, or even an exploration of how educational technology has made learning more inclusive and accessible for students in all content areas.

The data that I gathered during this study was collected directly from social studies teachers working in public schools. They can speak directly to the challenges they are facing in the workplace and describe how technology has supported teaching and learning in their classroom. However, middle school and high school social studies teachers typically do not have much influence on the creation and enactment of educational policy. Educational Policy is generally handled by site administrators and school district leaders, but state governments also play a major role in shaping the policies that govern schools in the United States. A separate study designed to explore how educational policy related to technology has changed in recent years, or how technology has affected the enforcement of other educational policies within schools is something that I believe is worth investigating in the future.

Another possible option would be to research how teachers and students are affected at school by major historical events. In my lifetime alone, there have been several significant events that have taken place around the world that have altered the course of history. The most recent example of this is the coronavirus pandemic, which changed the ways that major institutions within modern society function. Education is one of the institutions that was most affected by the coronavirus pandemic. Schools were closed for an extended period in many areas and the processes of teaching and learning looked completely different for educators, as well as their students, when they returned to class. A case study into the experiences of educators and students that investigates the differences between going to school prior to the pandemic and attending school after the pandemic could provide some interesting data related to how technology has changed the landscape of education or how major global events influence behavior or perceptions about education.

Finally, I believe that the research I have completed in this study could be expanded upon to determine how educational technology has made learning more accessible and inclusive for students within all content areas. I am a social studies educator myself, so I conducted this research with the intent of supporting my colleagues within this content area while also continuing my own development as a professional by developing a deeper understanding of how teachers learn to utilize and integrate educational technology in their classrooms. I believe that this principles from this study could be used to look at how educational technology is being used in elementary schools and post-secondary institutions. Furthermore, it would be interesting to compare the data from this research to similar studies that were more focused on classroom teachers who specialize in other content areas. Educators could also investigate how educational technology is affecting learning outcomes for students from specific demographic groups to

determine what kinds of scaffolding or supports are most suitable to meet their unique set of needs in the classroom.

Conclusion

I have been a social studies educator for nearly eight years at this point. I believe I have had a positive influence on the students, communities, and colleagues that I have been fortunate enough to work with since 2016. I am proud of the work that I have done during my career thus far, but there is still much more to be done to educate students and prepare them for life in the future. Although I designed this qualitative study with social studies teachers in mind, I believe that this research endeavor can be beneficial for teachers and students across all content areas and age groups. This research may not fully address the systemic challenges facing the field of education today, but I think it will provide some guidance and direction for teachers and school leaders that want to improve their ability to effectively utilize and integrate educational technology in their classrooms with students.

My research aims to improve the quality of education taking place within social studies classrooms, notably to the use of technology. My professional background has allowed me to see firsthand how educational technology is commonly being used in social studies classrooms. I have found that technology is often being used inappropriately and it is not typically being used in ways that are creative or innovating within social studies classes. Technology is created to make tasks easier or solve problems, and I think educational technology has the capacity to make learning more accessible, engaging, and impactful for students when it is used appropriately. This is not an effort to remove traditional methods of teaching and learning entirely. These ideas can still be effective under the appropriate circumstances and should not be forgotten by educators. The world is changing though, and technology will continue to evolve alongside it as

time progresses. I believe that a shift in social studies instruction is necessary to aid students in becoming active and responsible citizens that can navigate through the intricacies or difficulties that the modern world presents to people every day at home, at school, or within the workplace. I believe educational technology can serve as a bridge to help advance social studies instruction forward in the digital age.

Teaching in the digital age has introduced many new challenges to the profession that previous generations of educators did not have to worry about when they started their careers as classroom teachers. Like any other resource or tool, educational technology cannot fix every issue that exists within public education today alone. Educational technology is designed with specific purposes in mind, and it requires teachers and students to invest resources into learning how that technology operates to use the device or application for its intended function. When used appropriately, technology can provide many benefits or affordances for teachers, students, and even local communities. It also can make learning more accessible and inclusive, which will hopefully lead to more equitable educational experiences for students. Upon completing this research project, I am more optimistic about the outlook of social studies education after reading the work of other scholars and hearing some incredible stories about the great things that are happening with educational technology in social studies classrooms from the teachers that participated in this study. I will continue to look for opportunities to contribute to the profession in meaningful ways as a scholar and an educator within my community.

References

Boholano, H. B., Cajes, R. C., & Boholano, G. S. (2021). Technology based teaching and learning in junior high school. *Research in Pedagogy*, *11*(1), 98–107.

Carstens, K. J., Mallon, J. M., Bataineh, M., & Al-Bataineh, A. (2021). Effects of technology on student learning. *Turkish Online Journal of Educational Technology - TOJET*, *20*(1), 105–113.

Creswell, J. W., & Poth, C. N. (2017). *Qualitative inquiry & research design: Choosing among five approaches* (4th ed.). SAGE Publications.

Erstad, O., Miño, R., & Rivera-Vargas, P. (2021). Educational practices to transform and connect schools and communities. *Comunicar: Media Education Research Journal*, *29*(66), 9–19.

Ge, J., Smyth, R. E., Searle, M., Kirkpatrick, L., Evans, R., Elder, A., & Brown, H. (2021). Perspectives from students: How to tame the chaos and harness the power of technology for learning. *Brock Education: A Journal of Educational Research and Practice*, *30*(1), 74–94.

Harrell, S., & Bynum, Y. (2018). Factors affecting technology integration in the classroom. *Alabama Journal of Educational Leadership*, *5*, 12–18.

Higgins, K., & BuShell, S. (2018). The effects on the student-teacher relationship in a one-to-one technology classroom. *Education and Information Technologies*, *23*(3), 1069–1089.

Johnson, A. M., Jacovina, M. E., Russell, D. G., & Soto, C. M. (2016). Challenges and solutions when using technologies in the classroom. In *Grantee Submission*.

Krueger, R. A., & Casey, M. A. (2015). *Focus groups: A practical guide for applied research*. Sage Publications, Inc.

Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge University Press.

Lim, C. P., Zhao, Y., & Tondeur, J. (2013). Bridging the gap: Technology trends and use of technology in schools. *Educational Technology & Society*, *16*(2), 59–68.

Mishra, P., & Koehler, M. J. (2006). Technological pedagogical content knowledge: A framework for teacher knowledge. Teachers College Record, 108(6), 1017-1054.

Prensky, M. (2001). Digital natives, digital immigrants part 1. *On the Horizon*, *9*(5), 1–6.

Ribble, M. (2015). *Digital citizenship in schools: Nine elements all students should know*. International Society for Technology in Education.

Sosas, R. V. (2021). Technology in teaching speaking and its effects to students learning English. *Journal of Language and Linguistic Studies*, *17*(2), 958–970.

Tarman, B., Kilinc, E., & Aydin, H. (2019). Barriers to the effective use of technology integration in social studies education. *Contemporary Issues in Technology and Teacher Education, 19*(4).

Wenger, E., & Wenger-Trayner, B. (2015). *Introduction to communities of practice: A brief overview of the concept and its uses*. Wenger-Trayner.

Appendix A: Interview Protocol

Interview Study/potential interview questions (focus group)

- What are your thoughts in regards to using technology in the classroom?
- Do you use technology in your classroom? If so, then in what ways? If not, then could you please explain your reasoning?
- Describe an instance when you learned to use technology for use in your classroom?
  - Follow up- What supports or professional learning opportunities did you have in place that allowed you to utilize the technology?
- What has technology afforded you as a teacher? In what ways has technology challenged you as a teacher?
- Describe a lesson in which you/your students are engaged in a technological experience in your content area.
- Share an instance in which you adapted a lesson with technology.
- When you are designing a lesson or unit, at what point do you consider implementing technology?
- What challenges or resistance do you see from students with regards to technology?
- How has the use of technology in your classroom benefited your students and/or your teaching practices?
- Describe the process you use to acquire content knowledge prior to delivering a lesson or unit?
  - In other words, how do/have you learned about the content you teach?
  - Follow-up- How do you determine what and how you are going to prepare your students to learn?
- How would you describe the relationship between pedagogy, content, and technology within your classroom? Please use specific examples.